# THE EFFECTS OF CULTURE ON THE PRODUCTION OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) IN FRANCE AND GERMANY

An empirical study of how conservative cultures in France and Germany have impeded the emergence of business environments that support ICT companies

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**Abstract**

This thesis is concerned with understanding why France and Germany, despite the size and importance of their national economies, have lagged behind other industrialised nations in terms of the production of information and communication technologies (ICTs). In response to knowledge gaps identified in existing accounts of the backwardness of France and Germany in the ICT arena, the thesis draws intellectual inspiration from the growing body of theoretical volumes that have identified a relationship between culture and economics to focus its attention on identifying cultural barriers to the production of ICTs in France and Germany.

With the aid of a theoretical framework that combines insights from both interest-group theory and cultural explanations of industrial innovation, the thesis argues that the continued comparative backwardness of France and Germany in the production of ICTs can be explained by the existence in each country of conservative-minded cultures. Data gathered within the parameters of an empirical investigation, covering the period from the mid-1990s to early 2006, are used to explore the extent to which such conservative cultural forces, by attempting to maintain and preserve France and Germany's historically-entrenched economic and social institutions, have impeded the emergence of new business framework conditions that are supportive of ICT production.

In this way, the research builds on the existing literature that argues that the general business environments of France and Germany do not provide optimum support the production and innovation regimes typically associated with ICTs to highlight factors that are potentially constraining the ability of the French and German governments to

create business environments that are more favourable to the development and production of ICTs.

Keywords:

France, Germany, information and communication technologies, technological innovation, institutional change, culture, interest groups, public policy

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**List of abbreviations**

| | |
|---|---|
| AFB | Association française des banques |
| AFEP | Association Française des Entreprises Privées |
| AGREF | Association des Grandes Entreprises Françaises |
| AII | Agence de l'innovation industrielle |
| AMF | Autorité des Marchés Financiers |
| APCE | Agence pour la création d'entreprise |
| APRR | Autoroutes Paris-Rhin-Rhône |
| ASF | Autoroutes du Sud de la France |
| BDA | Bundesvereinigung der Deutschen Arbeitgeberverbände |
| BDB | Bundesverband deutscher Banken |
| BDI | Bundesverband der Deutschen Industrie |
| BDPME | Banque de Développement des Petites et Moyennes Entreprises |
| BITKOM | Bundesverband Informationswirtschaft, Telekommunikation und neue Medien |
| BLK | Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung |
| BMBF | Bundesministerium für Bildung und Forschung |
| BSCPE | Bons de souscriptions de parts de créateurs d'entreprise |
| BTU | Beteiligungskapital für kleine Technologieunternehmen |
| CAC | Cotation Assistée en Continu |
| CCIP | Chambre de Commerce et d'Industrie de Paris |
| CDGF | Conseil de Discipline de la Gestion Financière |
| CDU | Christlich Demokratische Union |
| CES | Conseil économique et social |

| | |
|---|---|
| CFDT | Confédération française démocratique du travail |
| CFTC | Confédération française des travailleurs chrétiens |
| CGPME | Confédération générale des petites et moyennes entreprises |
| CGT | Confédération générale du Travail |
| CGT-FO | Confédération Générale du Travail-Force Ouvrière |
| CHE | Centrum für Hochschulentwicklung |
| CIGREF | Club informatique des grandes entreprises |
| CIP | Computer-Investitionsprogramm |
| CJD | Centre des Jeunes Dirigeants d'Entreprise |
| CMF | Conseil des Marchés Financiers |
| CNE | Contrat nouvelle embauche |
| CNPF | Conseil national du patronat français |
| CNRS | Centre national de la recherche scientifique |
| COB | Commission des Opérations de Bourse |
| CPE | Contrat première embauche |
| DARES | Direction de l'animation de la recherche, des études et des statistiques |
| DAX | Deutscher Aktienindex |
| DGB | Deutscher Gewerkschaftsbund |
| DHV | Deutscher Hochschulverband |
| DIHK | Deutscher Industrie- und Handelskammertag |
| DSW | Deutsches Studentenwerk |
| EDF | Electricité de France |
| EHEA | European Higher Education Area |
| EPO | European Patent Office |
| EU | European Union |

| | |
|---|---|
| FDP | Freie Demokratische Partei |
| FFB | Fédération française du bâtiment |
| FTEI | Fakultätentag für Elektrotechnik und Informationstechnik |
| GAAP | Generally Accepted Accounting Principles |
| GDF | Gaz de France |
| GDV | Gesamtverband der Deutschen Versicherungswirtschaft |
| GITEP | Groupement des télécommunications et d'électronique professionnelle |
| HCEE | Haut Conseil d'évaluation de l'école |
| HGB | Handelsgesetzbuch |
| HSP | Hochschulsonderprogramm |
| HWP | Hochschul- und Wissenschaftsprogramm |
| IAAI | Institut des applications avancées de l'Internet |
| ICT | Information and communication technologies |
| IG BCE | Industriegewerkschaft Bergbau, Chemie, Energie |
| INRIA | Institut national de la recherche en informatique et en automatique |
| INSEE | Institut National de la Statistique et des Études Économiques |
| IPO | Initial public offering |
| IT | Information technology |
| KRK | Hochschulrektorenkonferenz |
| MEDEF | Mouvement des Entreprise de France |
| MUNCI | Mouvement pour une union nationale des consultants en informatique |
| OECD | Organisation for Economic Co-operation and Development |
| PAGSI | Plan d'Action Gouvernemental pour la Société de l'Information |
| PEIR | Plan d’épargne individuel pour la retraite |
| PSA | Personal-Service-Agentur |

| | |
|---|---|
| SANEF | Société des autoroutes du Nord et de l'Est de la France |
| SAP | Software, Anwendungen und Produkte in der Datenverarbeitung |
| SEMCA | Sociétés d'économie mixte autoroutières |
| SFIB | Syndicat des technologies de l'information |
| SNCF | Société nationale des chemins de fer français |
| SNFS | Syndicat national des fabricants de sucre – SNFS |
| SNM | Société du Nouveau marché |
| SPD | Sozialdemokratische Partei Deutschlands |
| TOU | Förderung technologieorientierter Unternehmensgründungen |
| TzBfG | Teilzeit- und Befristungsgesetz |
| UCV | Union des commerces de centre ville |
| UIMM | Union des industries métallurgiques et minières |
| UIT | Union des industries textiles |
| UMIH | Union des métiers et des industries de l'hôtellerie |
| UNEF | Union nationale des étudiants de France |
| UNL | Union nationale des lycéens |
| UPA | Union professionnelle artisanale |
| VDA | Verband der Automobilindustrie |
| VDE | Verband der Elektrotechnik, Elektronik und Informationstechnik |
| VDI | Verein Deutscher Ingenieure |
| VSI | Verband der deutschen Softwareindustrie |
| WFG | Deutsche Wagnisfinanzierungsgesellschaft |
| WPK | Wirtschaftsprüferkammer |
| WTO | World Trade Organization |
| ZVEI | Zentralverband Elektrotechnik- und Elektronikindustrie |

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## SECTION I – INTRODUCTION AND SUMMARY OF RESEARCH

This introductory chapter presents the background to the study; it specifies the basic problem addressed by the research, describes the motivations for and purpose of this study and presents an overview of the methodology deployed. It then defines some specific terms used, and concludes by setting out the subsequent structure of the thesis.

# 1 Introduction

This thesis presents an empirical investigation that was carried out to examine the effects of culture on the production of information and communication technologies (ICT) in France and Germany. The investigation deals specifically with exploring whether, in France and Germany, policy stakeholders with conservative cultures have impeded the emergence of business environments that support ICT companies. This introductory chapter presents the background to the study; it specifies the basic problem addressed by the research, describes the motivations for and purpose of this study and presents an overview of the methodology deployed. It then defines some specific terms used, and concludes by setting out the subsequent structure of the thesis.

## *1.1 Background to the study – the importance of ICTs*

Since the early 1990s, industrialised nations have witnessed a particularly vigorous era of social and economic change. Although there are likely to be many underlying causes and contributory conditions to these transformations, the emergence and widespread usage of ICTs undoubtedly constitutes one of their principal catalysts. Indeed, alongside economic globalisation, no other phenomenon seems over recent years to have attracted as much media or scholarly attention as ICTs. Observers in both media and academic circles have likened the development of new ICTs since the mid-1990s to an industrial revolution. Comparable to mechanisation processes introduced in the eighteenth century and vertical-integration procedures pioneered in the nineteenth century, this third industrial revolution has the potential to change the economic and social foundations on which modern, industrialised countries are founded.

In this context, ICTs are frequently perceived as one of the key prerequisites for future economic prosperity. From the perspective of the United Nations, information

technologies are an enabler of economic growth, highly skilled employment opportunities and industrial competitiveness (United Nations Organization, 2003 and 2004). Economists at the Organisation for Economic Co-operation and Development (OECD) have singled out ICTs as the key technology of the past decade and have argued that strong ICT-producing sectors contribute significantly to increasing economic growth and improving productivity (OECD, 2001a, 2004a: Pilat *et al*, 2002: Wölfl, 2003: Pilat and Wölfl, 2004). For the European Union (EU), ICTs are changing the world we live in, and the challenge for Europe is to embrace the digital age and become a truly knowledge-based economy: only by doing this will Europeans be able to maintain existing levels of quality of life, working conditions and the overall competitiveness of their industries and services (European Commission, 2002a). Mindful of the long-term benefits of ICTs, the EU placed their development and diffusion at the core of its Lisbon Strategy, an initiative launched in 2000 and revised in 2005 to make Europe 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'[1] by 2010.

The importance of strong ICT-manufacturing sectors has also been recognised by political leaders in France and Germany. In Germany, for example, the former Federal Chancellor Gerhard Schröder, himself a regular visitor to the annual CeBit information-technology trade-fair in Hanover, called for modernising reforms to Germany's economic and social structures to support ICT companies.[2] For its part, the Federal

[1] 'The Lisbon Strategy - Working together for Europe's future', available from http://europa.eu.int/growthandjobs/index_en.htm [Accessed 10 May 2005]

[2] 'Schröder tritt für neue Technologien ein' in *Die Welt*, 22 May 1997, available from http://www.welt.de/data/1997/05/22/677015.html [Accessed 15 June 2004]; 'Schröder eröffnet Computermesse CeBit' in *Die Welt*, 3 November 2003, available from http://www.welt.de/data/2003/03/11/51342.html [Accessed 14 April 2004]

Economics Ministry, a long-standing partner of German industry (Paterson and Southern, 1992), has recognised the importance of a strong ICT-manufacturing sector for generating economic growth, improving productivity and creating new jobs (BMWi, 2003). For her part, Angela Merkel, the current Federal Chancellor, has called for a 'high-tech strategy' for Germany to increase investments in research-intensive industries and improve the performance of domestic ICT-manufacturing companies.[3]

In the case of France, the French President, Jacques Chirac, has stressed the need to change France's institutions to provide better support to ICT-producing sectors (Jacob, 2000: Bacque, 2000: Kahn, 2002). In a widely-publicised speech to the Hourtin Summer University in 1997, the former Prime Minister Lionel Jospin stated that France's entry into the information society represented a decisive issue for the future of the country and declared himself committed to making Europe a key player in ICT innovation (Vulser, 1997). Conscious of the need to promote the French ICT-manufacturing sector, Jospin's Finance Minister, Dominique Strauss-Kahn, travelled repeatedly to Silicon Valley and met with the managing directors of American ICT companies, including Steve Johns (Apple), Bill Gates (Microsoft) and John Chambers (Cisco), whenever they visited France (Trumbull, 2004). The former Prime Minister, Jean-Pierre Raffarin, called on the French to 'rediscover their taste for the future' to support the emergence of the digital economy (Raffarin, 2002). The current pretenders to the presidential throne, Nicolas Sarkozy and Ségolène Royal, have both stressed the importance of ICTs for future French prosperity. In the words of Mr Sarkozy, France must improve its standing in ICT production in order to 'stand shoulder to shoulder with

[3] 'Rede von Bundeskanzlerin Angela Merkel beim Arbeitgebertag 2006 der Bundesvereinigung der deutschen Arbeitgeberverbände', available from http://www.bundeskanzlerin.de/Webs/BK/DE/Aktuelles/Reden/reden.html [Accessed 25 November 2006]

the winners of globalisation' (Jakubyszyn, 2006). For her part, Ms. Royal has suggested introducing tax breaks specifically for ICT companies (John, 2006).

### *1.2 Problem statement – why are France and Germany ICT laggards?*

In light of the large number of major French and German companies in the world, and given the size and importance of the French and German national economies in general, one might expect these two countries to possess ICT firms that are well-positioned and highly competitive on world markets. Reality, however, paints a rather different picture. Indeed, a recurrent theme in the literature addressing the development of the French and German ICT sectors is the peripheral position occupied by each of these two country's ICT companies on these markets. Although it is generally accepted that the French and the Germans historically played a pioneering role in the invention and initial development of computer technologies, it is widely agreed that it was the Americans and above all the Japanese who most successfully commercialised earlier generations of ICTs (Moreau, 1984a: Breton, 1987: Taurisson, 1991: Birrien, 1992: Mowery, 1996: Malerba and Torriso, 1996). With the advent and proliferation of the Internet and its associated technological spin-offs since the mid-1990s, cross-national studies have shown that, compared to other industrialised nations, France and Germany are relative laggards in terms of the development and production of ICTs. For example, benchmarking studies conducted by the OECD (OECD, 1997a, 2000a, 2001a, 2001b, 2002a, 2004b) have repeatedly shown that France and Germany have consistently been some way behind the United States and smaller European countries, such as Ireland, Sweden and Finland, in terms of the development of ICTs. For their part, competitiveness studies carried out by the European Commission (European Commission, 1999, 2000, 2001, 2002b, 2003a, 2004a) point to the existence of a technology gap in the sphere of ICTs between France and Germany and the USA.

Against this background, the research presented here is driven by a fundamental question: why have France and Germany lagged behind other industrial nations in terms of the production of ICTs? There are a number of potential answers as to this question. Existing research suggests that the comparative backwardness of France and Germany in the ICT arena can be explained by the general business environments of France and Germany, including their financial systems, their labour-market institutions, their systems of higher education and their general demand conditions for ICTs. However, drawing on its author's professional experiences in both ICT companies (SAP AG, Kaidara S.A.) and traditional companies (Turboméca, ZF Friedrichshafen AG, MTU München GmbH) in France and Germany (Barron and Trouille, 2001: Barron, 2001a and 2001b), this thesis questions whether the explanations proposed by this corpus of existing research are exhaustive. Concerned in particular that research to date has tended to focus on the visible, hard factors determining the production of ICTs in the French and German contexts, this study proposes an explanation of the relatively weak performance of the French and German ICT sectors that is based on *culture*. In response to the existing research, it is argued that the roles played by culture and history in shaping innovative capacity, although less visible to researchers, can complement existing understandings of why France and Germany continue to lag behind their international rivals in terms of ICT production.

In this respect, the thesis builds on insights drawn from the broad body of academic literature that recognises the influence of cultural issues on economic activity (see, for example, McClelland, 1960: Zucker, 1977: Ouchi, 1981: Pascale and Athos, 1982: Deal and Kennedy, 1982: Peters and Waterman, 1982: Granovetter, 1985: Peabody, 1985: March and Olsen, 1989: North, 1990: Jepperson, 1991: Dobbin, 1994a: Lynn and

Martin, 1995: Scott, 2001: Hofstede and McCrae, 2004: Allik, 2005). Concerned, however, by the theoretical deficiencies that imbue much of this body of academic work, the thesis also draws its inspiration from other academic disciplines, and most notably from accounts of the systems of interest-group policies that exist in France (Wilson, 1987: Wright and Knapp, 1989: Guiliani, 1991: Hall, 1993: Lamarque, 1994: Bunel, 1995: Cole, 1998: Safran, 1998: Elgie and Griggs, 2000: Stevens, 2003) and in Germany (Weber, 1977: Schneider, 1979: Paterson and Southern, 1992: Edinger, 1993: Triesch and Ockenfels, 1995: Rudzio, 1996: Sebaldt, 1997: Sontheimer and Bleek, 1997: Von Beyme, 1999: Conradt, 2001: Pilz and Ortwein, 2000: Roberts, 2000: Von Alemann, 2000: Schmidt, 2003). The resulting theoretical framework trains its attention on investigating the ways in which culture has impeded the emergence in France and Germany of business environments that support the successful development and production of ICTs. Specifically, it focuses on understanding the extent to which policy stakeholders with conservative cultures have hampered the introduction in France and Germany of legislation that directly or indirectly supports the development and production of ICTs.

### *1.3 Significance of the study*

Investigating the extent to which conservative policy stakeholders have impeded the emergence of business environments deemed supportive of ICT companies is worthy of study for a number of reasons. At the empirical level, the investigation, by according culture a central role in its analysis, fills a noticeable gap in the existing research that addresses the production of ICTs in the French and German contexts. The investigation also extends the existing body of scholarly knowledge about resistance to social and economic change in France and Germany by providing extensive data on how opposition to change has affected the development of a specific industrial sector, chiefly

the ICT sector. Moreover, by examining the policy preferences of a wide range of policy stakeholders, the investigation challenges received wisdom to reveal that it is not only trade-union organisations in each country that have sought to preserve and maintain the advantages they have acquired under existing business environments. As shall be shown, the thesis provides evidence to suggest that other, less likely policy stakeholders have similarly attempted to preserve France and Germany's traditional institutional configurations.

From a practical perspective, the general problem addressed by this investigation is of intrinsic importance to political leaders in the European Union who, within the parameters of the Lisbon Strategy, have been seeking to improve European competitiveness in knowledge-based industrial sectors. At a time when the success of the United States in developing and marketing ICTs has created the expectation that liberal market economies provide the most supportive environment in which these new technologies can prosper, European countries are finding themselves under pressure to adopt the liberal institutions commonly associated with the American economic system. It is hoped that the investigation reported here will highlight possible problems associated with emulating international 'best practices' and draw attention to area of conflicts, which have the potential to impede or even prevent the wholesale importation of policies or business practices that have proved successful in other national contexts. By focusing attention on the cases of France and Germany, it is hoped that the findings of the investigation will be useful to political decision-makers, especially in countries whose economic systems differ from the Anglo-American model, as they seek to make technological dynamism compatible with existing social commitments.

### *1.4 Overview of the research methods*

In exploring whether conservative stakeholders in France and Germany have hampered the emergence of ICT-friendly business environments, an investigation was designed to ascertain the extent to which government policy shaping the French and German business environments responds specifically to their demands. Attention was focused on the broad spheres of financial policy, labour-market policy and policy addressing skills provision, on the grounds that these areas of policy are widely recognised as being central to the rich patchwork of complementary and interlinked policy frameworks that support the successful production of ICTs. The investigation also focused exclusively on policy developments since the mid-1990s, chiefly because, over this particular period, it has increasingly been deemed necessary to introduce new policies in order to confront the challenges of the ICT revolution.

Data on the policy preferences and concerns of policy stakeholders were collected from secondary sources, such as the websites of business associations and interviews in the French and German media. These sources provided a rich resource of information on the preferences espoused by policy stakeholders, not least since policy stakeholders in France and Germany are increasingly using the media and the Internet to articulate their interests and shape public opinion so that it is sympathetic with their causes. To ascertain whether policy stakeholders possessed a conservative culture, their policy preferences were analysed using a classification system based on insights drawn from the anthropological works of Kluckhohn and Strodtbeck (1961), Scollen and Wong Scollen (1995), Hofstede (1980), Trompenaars and Hampden-Turner (2002) and Merk (2003). To determine whether government policy responded to the preferences of stakeholders, inspiration was drawn from an analytical approach advocated amongst

others by Weber (1977), Ball and Millard (1986) and Selck and Kaeding (2004) and Kaeding and Selck (2005). Essentially, the responsiveness of government policy to the demands of different stakeholders was gauged by comparing the original policy preferences of these stakeholders with the outcomes of the policy-formulation process.

Chapter 4 provides further information on the issues surrounding the design of the empirical investigation, including discussions on the rationale behind delimiting the investigation and the reasons behind the choice of methods for collecting and analysing data

## *1.5 Definition of the key terms*

This thesis makes reference to terms and concepts that tend to be used ambiguously in academic research. To avoid any misunderstandings, it is imperative from the outset to give each of these terms some precision and explain how they are used in this particular programme of research.

### 1.5.1 Information and communication technologies

Delimiting the scope of information and communication technologies is an arduous task, not least since national statistic offices such as the French National Institute for Statistics and Economic Studies (*Institut National de la Statistique et des Études Économiques – INSEE*), the German Federal Statistics Office (*Statistisches Bundesamt*) and the UK Office for National Statistics, have all developed different classification systems for demarcating their boundaries. Consequently, the definition adopted for the purposes of this study draws on reports published by the OECD (OECD, 2002b, 2005a), and on the definitional work of business associations, most notably the German Association for Information Technology, Telecommunications and New Media

(*Bundesverband Informationswirtschaft, Telekommunikation und neue Medien – BITKOM*) (BITKOM, 2006a) and *Syntec-Informatique* (Syntec-Informatique, 2005). Accordingly, the term ICT, as it is used in this thesis, refers to a group of four distinct yet interrelated technologies: telecommunications technology, hardware, software and IT-related services.

Telecommunications technology refers to the devices – computer networks, public telephone networks, radio networks and television networks – that aid the long-distance transmission of signals for the purpose of communication. Examples of telecommunications companies include France Télécom and Deutsche Telekom (communication services), Vodafone (mobile-phone services), Skype (Internet telephony) and AOL (Internet service provider). Hardware is understood in terms of physical computer-related equipment. It relates not only to computers and their individual components (its digital circuitry) but also to the external components of a computer system, including the keyboard, mouse, printer and monitor and network infrastructures. Examples of hardware companies would include Dell (computers), Cisco Systems (network infrastructures), STMicroelectronics (semiconductors) and Canon (printers).

Software is understood as the set of programmes and procedures that enable computers to perform specific tasks. Software is typically divided into three major classes, including system software (such as operating systems needed to run computer hardware), programming software (the tools that assist programmers in writing computer programmes) and application software (the tools such as word processors and business software that enable users to accomplish specific tasks). Examples of software

companies include Microsoft (operating systems, office applications), SAP (business software), Oracle (business software, database-management software) and Sun Microsystems (programming software). IT-related services are understood as the technical functions performed by independent contractors or consultants on behalf of their customers. IT services commonly encompass three broad areas, including technology services (the advising of customers on which technologies to use), implementation services (the assisting of customers in installing new technologies) and maintenance services (the supporting of customers in the running and upgrading of technologies). Examples of IT service providers include Cap Gemini (consulting, outsourcing and technology services), EDS (technology services) and the IT-consulting arms of management consulting companies such as Accenture or PriceWaterhouseCoopers.

### 1.5.2 Innovation

Another key concept underpinning this thesis is that of *innovation*. As this concept has been studied in numerous contexts (including in relation to technology, commerce, economic development and policy construction), there is naturally a great range of approaches to conceptualising it in scholarly literature. The definition of innovation, as it is used here, draws on Joseph Schumpeter's invention-innovation-diffusion trilogy, as expounded in his Theory of Economic Development (Schumpeter, 1980). Figure 1 illustrates this trilogy in schematic form:


***Figure 1: Schumpeter's invention-innovation-diffusion trilogy (Schumpeter, 1980)***

In accordance with this trilogy, invention relates to the generation of ideas, and refers specifically to basic scientific research. Innovation relates to the application and commercialisation of these ideas: essentially, it refers to the development of marketable products, processes or services from the ideas of basic scientific research. Diffusion relates to the spread of these marketable products and processes across potential markets. Crucially, it refers to the uptake and usage of products and processes developed during the innovation stage.

As much as the concepts of invention and diffusion may be important for understanding France and Germany's competitive position in the arena of ICTs, this thesis trains its attention exclusively on what Schumpeter referred to as innovation. Crucially, the focus is placed on the development in France and Germany of marketable ICT products, processes or services from the ideas of basic scientific research. For this reason, the terms *innovation, production of ICTs*, *delivering of ICT services* and *development of ICTs* are often used interchangeably.

Central to the definition of innovation, as conceptualised in this thesis, is the understanding that different types of technology possess their own specific innovation regime. Drawing on the classical dichotomy of incremental versus radical innovation (Abernathy and Utterback, 1978: Anderson and Tushman, 1991: Arrow, 1962: Bower and Christensen, 1995: Dosi, 1982: Fagerberg *et al*, 2004: McDermott and O'Connor, 2002: Solow, 1997: Stoneman, 1995: Von Hippel, 1988), this thesis acknowledges that the production of ICTs differs considerably from the production of other types of technology. In sharp contrast to, for example, the development of pharmaceuticals or the manufacture of car engines where innovation is based on incremental and

evolutionary changes over time without making extensive changes to existing product lines, the successful production of ICTs depends on continual, radical innovation, which entails the on-going introduction of new products and services based on substantially superior technology than the dominant one used by products or services currently on the market. Thus, in order to be successful, ICT companies require specific business conditions. There are elucidated in subsequent chapters of this thesis.

### 1.5.3 Culture

When researchers think about the possible meanings that could be attached to the word *culture*, they invariably 'walk into a maze of interpretations and associations' (Smith, 1998: 262). Indeed, as early as 1952, the American anthropologists Alfred Kroeber and Clyde Kluckhohn compiled a list of over 200 separate definitions of culture (Kroeber and Kluckhohn, 1952). For the American anthropologist Edward T. Hall (Hall, 1990), culture refers to the way of life of people, to the sum of their learned patterns of behaviour and attitudes. From the perspective of Geert Hofstede, an influential Dutch expert on the interactions between national cultures and organisational cultures, culture represents the 'collective mental programming' of a particular society or group (Hofstede, 1980:43). For the prominent international-business academic Monir Tayeb (Tayeb, 2000: 311), culture is comparable to air in the sense that 'it is everywhere, we cannot see it but we know it is there, we breathe it and we cannot live without it.' Although far from exhaustive, this list illustrates the problems associated with demarcating the boundaries of culture.

Attempting to devise a commonly accepted definition of culture is clearly beyond the scope of this thesis. Therefore, the definition of culture used in this investigation is drawn from the work of Trompenaars and Hampden-Turner (Trompenaars and

Hampden-Turner, 2002: Hampden-Turner and Trompenaars, 1994), whose understanding of culture is widely used, easy to comprehend and practical. According to these authors, culture can be seen as an onion, consisting of three specific layers. At the heart of every cultural system exists a set of basic assumptions, which the members of the culture take for granted. These assumptions refer to the many routines and methods that the members of a culture use to solve the problems that they regularly face. These assumptions shape the norms and values of a cultural system, which occupy the middle layer of the onion. Norms refer to a culture's shared sense of 'right' and 'wrong'; for their part, values determine the culture's definition of 'good' and 'bad' and are closely related to the ideals shared by a cultural group. The outer layer of the onion constitutes the explicit manifestations of culture. This relates to the observable reality of the language, food, buildings, monuments, fashions and arts of a cultural system. These explicit manifestations of a culture are symbols of its deeper layers. The onion-like model of culture is represented schematically in Figure 2 below:

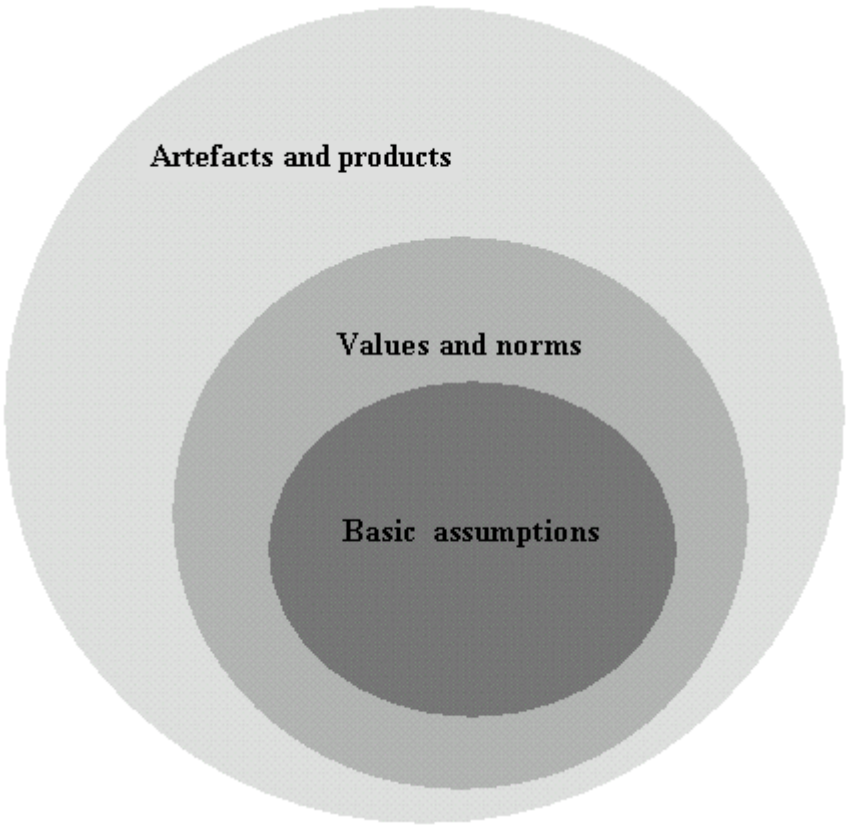


***Figure 2: An onion-like model of culture (Source: Trompenaars and Hampden-Turner, 2002)***

At this stage, it seems appropriate to mention three key components of our definition of culture. First, central to our definition and understanding of culture is the emphasis placed on *values* – that is to say the shared ideals, principles and standards considered worthwhile or desirable by the members of a cultural system. As shall be developed later in this thesis, policy stakeholders' conceptions of the ideal business environment constitute the key factor in differentiating between conservative and progressive cultural systems.

Second, this understanding of culture places a considerable emphasis on language as an explicit manifestation of culture. As is elaborated in the methodology chapter of this thesis, language represents a medium through which the members of that culture

articulate their values. Thus, studying the language of policy stakeholders enables researchers to make inferences about the values, norms and assumptions that underpin their cultural system.

Third, our definition of culture distinguishes between homogeneous and heterogeneous understandings of culture. In reaction to much of the research in the field of management studies that focuses on manifestations of national cultures and considers countries to be culturally homogenous, this thesis emphasises the concept of cultural heterogeneity. Crucially, it eschews monolithic views of national culture by insisting that France and Germany be considered as culturally heterogeneous, each comprising a diverse mix of actors with their own sets of shared beliefs, attitudes and values.

### 1.5.4 Policy stakeholders

For the purposes of this study, *policy stakeholder* is a term used to denote an individual, company or group that contributes to debates surrounding a particular area of policy. Wherever possible, the terms *lobby groups* or *interest groups* are avoided. This is chiefly because, as Olsen (1968) noted in his seminal work on the mobilisation of political interests, people with shared interests do not necessarily form or join an interest group, even if they have an interest in doing so. Evidence of this phenomenon is available in both France and Germany. In France, a number of high-profile companies, such as Thomson, France Télécom, Dassault, SNCF and EDF are known to employ powerful lobbyists who intervene at the government level to defend their policies directly (Wilson, 1987: Guiliani, 1991). In Germany, an increasing number of companies, including the majority of those listed on the DAX (*Deutscher Aktienindex)* stock-market index, have since the German capital city moved from Bonn to Berlin

conducted political lobbying themselves and no longer rely exclusively on interest groups to represent their political interests in Berlin[4].

### 1.5.5 Responsiveness of policy

Another term that is central to this thesis in that of *policy responsiveness*. For the purposes of this research, this particular terms is understood as the extent to which the contents of public policy address the policy demands espoused by policy stakeholders. In this regard, policy responsiveness is a basic element of democratic political systems. Indeed, in the words of Dahl (1971:1), 'a key characteristic of democracy is the continued responsiveness of the government to the preferences of the people.' In accordance with this view of the workings of government, referred to by Pitkin (1967) as the delegate model of representation, elected representatives act responsively to the needs of their citizens. In essence, they follow instructions from the electorate as opposed to make decisions based up their own judgements. In this way, the relationship between policy stakeholders and political decision-makers in France and Germany is considered to be two-way process. On the one hand, policy stakeholders issue demands that seek to shape the outcome of political decisions to their advantage; on the other hand, political decision makers may or may not be responsive to these demands. France and Germany are not dictatorships; the national governments of each country cannot rule by absolute law, unrestricted by social and political factors. Rather, political leaders in each country are confronted with competing demands from a variety of policy stakeholders. As they formulate official policy, governments moderate amongst the conflicting demands presented to them by these various policy stakeholders.

[4] See, for example, 'Die Stadt der 3.000 Lobbyisten' in *Stern*, 7 February 2003, available from http://www.stern.de/wirtschaft/unternehmen/503602.html [Accessed 24 June 2004]

### *1.6 Structure of this thesis*

Subsequent to this initial section, which has introduced and established the context of the research, the thesis presented here is composed of the following five sections:

*Section II – Literature review and theoretical tools*

Section II presents the knowledge base upon which the current study is built. Chapter 2 reviews the existing empirical research that has addressed the production of ICTs in France and Germany. It provides an overview of how much academic work has been devoted to this area of interest, illustrates the direction that this work has taken and identifies gaps in the existing research. In response to the knowledge gaps identified in the literature review, Chapter 3 develops a theoretical framework that focuses specifically on investigating how *culture* might impact on the production of ICTs in the French and German contexts. The chapter begins by questioning whether commonly used, culturally inspired theoretical frameworks are suitable for such an investigation. In response to the concerns raised, the chapter then proposes a novel framework that focuses on identifying whether conservative cultural forces in France and Germany, by seeking to preserve the historically-grounded institutional arrangements in which they operate, have impeded the emergence of business environments that are conducive to the production of ICTs.

*Section III – Research methods*

Section III of this thesis describes the empirical investigation that was designed to ascertain whether conservative cultures in France and Germany do indeed impede the emergence of ICT-friendly business environments. In essence, an investigation was devised to ascertain whether government policy shaping the French and German

business environments responds more to the policy preferences of conservative forces than to the policy preferences of progressive forces. Chapter 4 establishes the specific focus of the investigation, provides details on the type of data that had to be collected, explains which methods were used to gather this data, and finally describes the methods used to interrogate and analyse the collected data.

*Section IV – Presentation of results*

Section IV reports and presents, in a descriptive manner, the results that were obtained from the investigation designed in Section III. The section is organised into three specific sub-chapters. Chapter 5 focuses on policy debates and policy developments in the sphere of financial institutions; chapter 6 concentrates on political developments in the field of French and German labour-market policy. In Chapter 7, attention is trained on political debates and discussions surrounding the issues of skills provision in France and Germany.

*Section V – Analysis of results*

Section V of the thesis moves from purely describing to discussing and interpreting the results. This particular section is composed of three specific chapters. Chapter 8 focuses on French and German policy debates and developments in the sphere of financial institutions, chapter 9 on labour-market policy and Chapter 10 on skills and training policies in France and Germany. Each chapter scrutinises the data collected within the parameters of the empirical investigation to ascertain whether each of the stakeholders that have contributed to debates and discussions in the area of financial policy, labour-market policy or skills and training policy possess a predominantly progressive or conservative culture. They also compare the original policy demands of conservative

and progressive policy stakeholders with the contents of the policy initiatives introduced, so as to ascertain whether policy has been responsive to concerns of conservative stakeholders or responsive to the preferences advocated by those stakeholders identified as possessing progressive cultures.

*Section VI – Conclusions and recommendations for further research*

The final section of the thesis summarises, discusses and interprets the meaning and implications of the results of the empirical investigation. Mindful that researchers have a duty to reflect upon and acknowledge both the strengths and weaknesses of their research, this final section discusses the empirical and theoretical contributions of the research as well as its potential limitations. Recommendations for future avenues of enquiry are also suggested.

## SECTION II – LITERATURE REVIEW AND THEORETICAL TOOLS

This section of the thesis presents the knowledge base upon which the current study is built. Chapter 2 reviews the existing empirical research that has addressed the production of ICTs in France and Germany. It provides an overview of how much academic work has been devoted to this area of interest, illustrates the direction that this work has taken and identifies knowledge gaps in the existing research. In response to these gaps, Chapter 3 develops a theoretical framework that focuses specifically on exploring how *culture* might impact on the production of ICTs in the French and German contexts.

## 2 Existing research into the production of ICTs in France and Germany

This chapter reviews the existing empirical research that has addressed the development and production of information and communication technologies (ICTs) in France and Germany. It is structured into three main sections. In its first section, it briefly describes the scope of the literature review and provides information on the procedures used for locating and identifying the literature that it covers. The second section presents in detail the findings of the literature review; in essence, this section categorises and discusses the distinctive streams of literature that have addressed the broad topic of the production of ICTs in France and Germany. The third and final section of this chapter provides a detailed, critical summary of the literature review; the objective here is essentially to set the scene for the research agenda to be addressed in the subsequent chapters of this thesis.

### *2.1 Scope of the literature review*

In undertaking a review of the existent research into the broad topic of the production of ICTs in the French and German contexts, attention was focused on locating articles published since the mid-1990s in mainstream and specialist academic journals. The search for articles dealing specifically with this issue was widened to include on-line searches for volumes held in the specialist libraries of the *Deutsch-Französisches Institut* in Ludwigsburg, the Hamburg Institute for International Economics (Hamburgisches Welt-Wirtschafts-Archiv – HMMA), the *Centre d'information et de recherche sur l'Allemagne contemporaine* (CIRAC) at the University of Cergy and the library of the *Documentation française* in Paris.

### *2.2 Overview of the existing research*

The empirical research dealing specifically with the development and production of ICTs in France and Germany can be broadly sub-divided into two distinctive bodies of literature. A first broad stream of literature consists of volumes that are predominantly *descriptive* in character. Distinguishing features of these works are first their focus on identifying and classifying the distinctive characteristics of the French and German ICT industries and second the attention they pay to charting the historical development and evolution of these industrial sectors. A second broad corpus of literature is composed of volumes whose objectives are largely *explanatory*. In essence, these particular works seek to locate and identify the different factors that might explain why the French and German ICT sectors have developed in the way they have. The existing explanatory research has essentially taken one of four trajectories: in explaining the development of the French and German ICT sectors, one group of researchers has focused on largely financial factors; other researchers explain it in terms of labour-market-related factors; others still explain the evolution of France and Germany's ICT industries from the perspective of demand conditions; a fourth, and smaller, body of research has broadly addressed the effects of culture on the production of ICTs in the French and German contexts. The figure overleaf presents in schematic form an overview of the existing research into the development of ICTs in the French and German contexts:

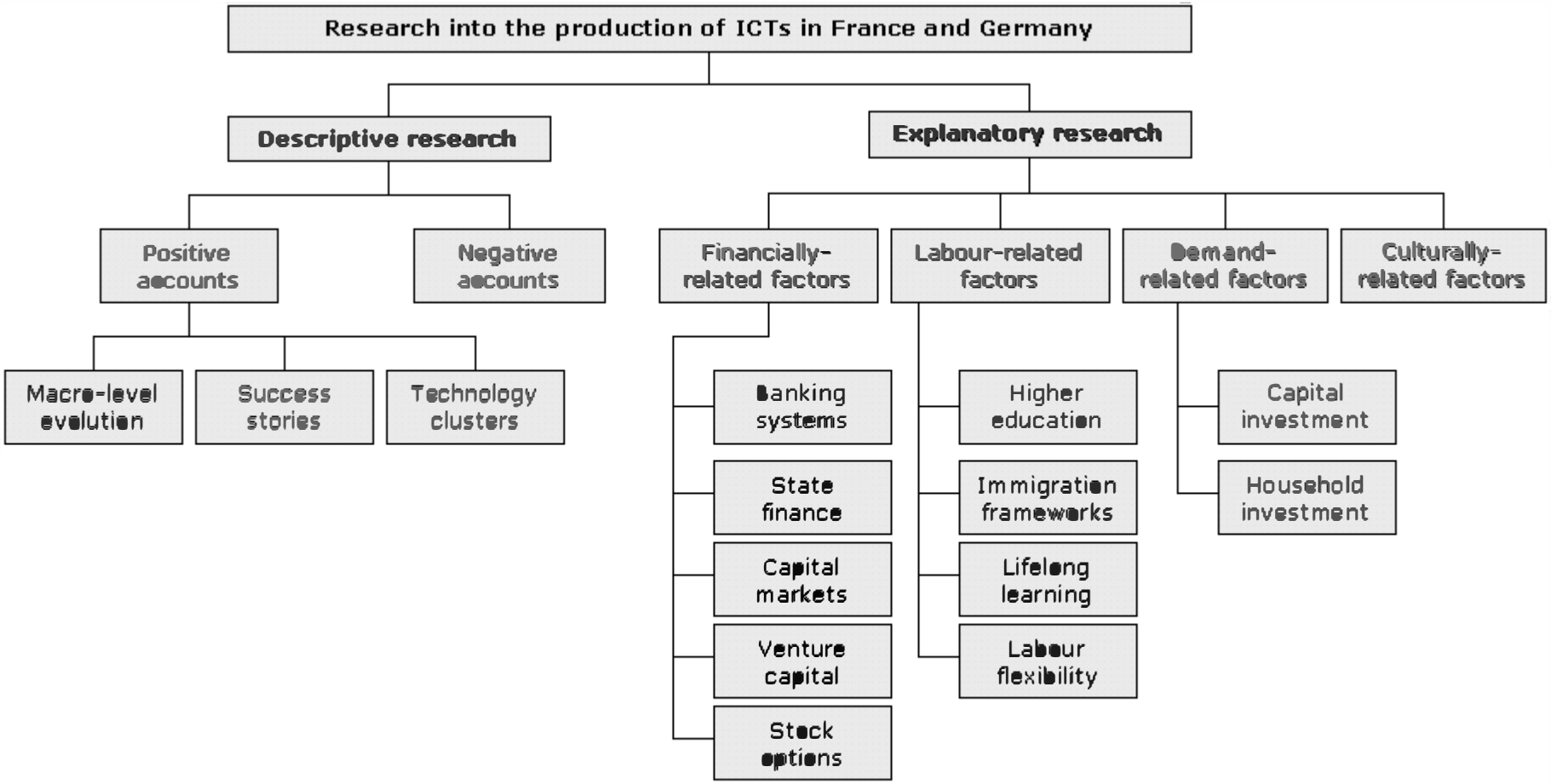


**Figure: An overview of existing research into the production of ICTs in France and Germany (compiled by author)**

### 2.2.1 Descriptive accounts of ICT production in France and Germany

As was noted above, a first stream of literature addressing the production of ICTs in France and Germany is largely descriptive in character. The volumes that comprise this body of work focus on identifying the distinctive characteristics and charting the evolution of the French and German ICT sectors. The existing descriptive research has been driven by one fundamental question: how successful are France and Germany in terms of the production of ICTs? This question has generated two broadly opposing responses. First, there exists a small number of descriptive accounts that are largely positive in their conclusions. The second – and largest – body of literature views the production of ICTs in France and Germany from a more critical perspective. Each of these bodies of work is reviewed below.

#### 2.2.1.1 Research describing the production of ICTs in a *positive* light

On the one hand, there exists a small number of descriptive accounts which reach positive conclusions regarding the production of ICTs in France and Germany. These predominantly positive descriptions of the capacity of the French and German economies to support the production of ICTs can be sub-divided into three specific bodies of research. A first body of research has focused attention on developments at the macro-economic level and has argued that the production of ICTs is now occupying an increasingly large place in the French and German national economies (see, for example, SESSI, 2001, 2002, 2003a, 2003b, 2005: Idate and Rexecode, 2004: MBF/BMWi, 1999: BMWi 2002, 2003, 2006: TNS Infratest/Institute for Information Economics, 2005).

A second group of authors has documented the successful development of individual French and German ICT companies. In the case of France, the focus of these volumes

has been trained, for example, on the IT service provider Cap Gemini (Gaston-Breton, 2000), the smart-card manufacturer Gemplus (Shelfer and Procaccino, 2001), the business-software manufacturer Business Objects (Cusumano, 2004), the price-comparison website Kelkoo (De Lasteyrie and Condorniou, 2005) and the industrial-software manufacturer Dassault Systèmes (Berger *et al*, 2006). In Germany, writers have investigated the software manufacturer SAP (Meissner, 1997: Barron, 2001a: Nakagawa, 2001), the semiconductor manufacturer Infineon Technologies (Schumacher, 2002), and detailed the extent to which traditional companies, such as Bertelsmann (Lehning, 2004) and Siemens (Feldenkirchen 2003 and 2005) have successfully re-positioned themselves on high-tech markets. Wurzer (1999) and Röhrs *et al* (2004) have shown how German ICT start-up companies such as Baxxun, Living Systems, Brokat, Pixelpark, Mobilcom, Ricardo, Arlando, Jamba, OnVista, Paybox and Mercteo have been successful in their respective markets.

A third group of writers has claimed that the emergence in France and Germany of regional technology clusters provides evidence to suggest that each country is supportive of high-tech, ICT industries. In the case of France, such authors have focused on the dedicated high-tech districts of Republic Alley and Silicon Sentier in Paris and the Sophia Antipolis business park close to Nice (Longhi, 1999: Azoulay *et al*, 2000: Bernasconi and Monsted, 2000: Hurel, 2000: Suire and Vicente, 2001: Trumbull, 2001: Waser and Savignac, 2003). In Germany, writers have focused on 'Silicon Saxony', the chip-manufacturing technology cluster around Dresden, and on the 'Isar Valley', the high-tech business park to the north of Munich (Sternberg, 1996: Weber, 2003: Gillo, 2005: Hospers, 2006).

#### 2.2.1.2 Research describing the production of ICTs in a *negative* light

In opposition to the aforementioned positive research, a second – and larger – body of descriptive literature has adopted a more critical stance towards the production of ICTs in France and Germany. This corpus of work first consists of single-country studies, which show that France and Germany trail other industrialised nations with respect to the development of ICTs. In the case of France, this particular of body of literature (including, for example, OECD, 1999a, 2000b, 2001c, 2003a, 2005b: Cohen and Lorenzi, 2000: Cohen and Debonneuil, 2000: Didier and Martinez 2000: Cette *et al*, 2001: Deneuve, 2001: Nohara and Verdier, 2001: Martinez, 2001: Rougier, 2002: Zmiro, 2004) demonstrates that the national ICT sector has grown rapidly since the middle of the 1990s, particularly as a result of the Internet and its spin-off technologies. However, this body of research also shows that, during the same period, the technological gap between France and its international rivals has widened. In essence, the ICT sector of France has grown less quickly than the ICT sectors of other industrialised nations, most specifically the USA.

The literature focusing on Germany (see, for example, Casper *et al*, 1999: Mason and Wagner, 2000: Seufert, 2000: Lehrer, 2000: Siebert and Stolpe, 2001: Annesley, 2004: Fuentes *et al*, 2004: OECD, 1998a, 1999b, 2001d, 2002c, 2004c: Frank and Maurseth, 2005) points to a similar situation. Indeed, the German ICT sector experienced a vigorous growth boom in the late 1990s, driven by the concurrent effects of the increasing popularity of the Internet, the launch of the euro and the 'millennium bug' problem, which motivated companies to invest heavily in IT equipment. Nonetheless, the same body of literature demonstrates that the share of ICT goods in manufacturing production remains small; in addition, there is no evidence to suggest, despite the rapid

growth during the late 1990s, that Germany is catching up with its international rivals in the field of ICTs.

In addition to these country-specific volumes, the research describing the development of ICTs in a negative light also consists of comparative benchmarking studies conducted by the OECD (OECD, 1997a, 2000a, 2001a, 2001b, 2002a, 2004b) and the European Commission (European Commission, 1994, 1999, 2000, 2001, 2002b, 2003a, 2004a, 2004b). These reports have repeatedly shown that France and Germany have responded more slowly to the challenges of the ICT revolution than the United States and smaller European countries, such as Ireland, Sweden and Finland; they have also continually pointed to the existence of a technology gap in the sphere of ICTs between France and Germany and the USA. At the superficial level at least, these studies acknowledge some promising developments with respect to ICT production in both the French and German contexts. However, by adopting a wide comparative perspective to include other industrialised nations, this critical body of literature illustrates that France and Germany are relative laggards in terms of the development and production of ICTs. By way of example, the data presented in Figures 3 to 7 below, taken from the latest version of the OECD's Information Technology Outlook (OECD, 2004b), provide broad-brush statistics to demonstrate the common impression that, notwithstanding some noticeable improvements since the early 1990s, both France and Germany continue to lag behind their international rivals in terms of the production of ICTs.

Figure 3 presents information on the leading fifty ICT companies in the world in 2003. It shows that, for the most part, the world's leading ICT companies are either American or Japanese. Indeed, 36% of the world's leading ICT companies in 2003 were based in

the United States, and 26% of them had their headquarters in Japan. By contrast, only 4% of the leading ICT companies were based in France, and a similar 4% share are based in Germany:

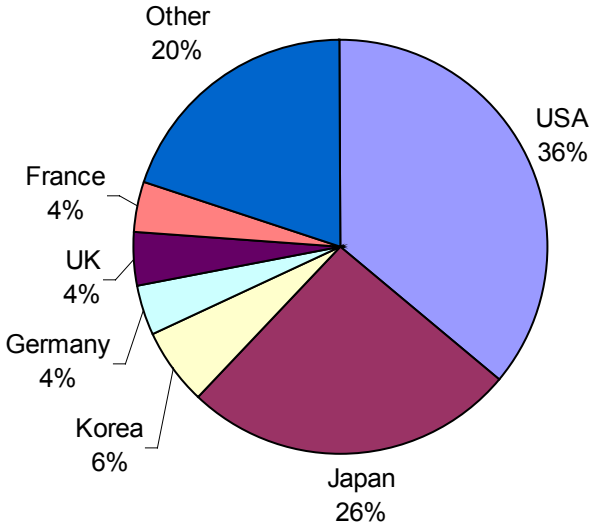


**Figure 3: The world's leading ICT firms in 2003, measured in terms of revenues (Source: OECD, 2004b)**

Figure 4 shows the number of ICT patents as a proportion of the total number of patents registered by French and German companies at the European Patent Office (EPO) in Munich. On first glance, the data seemingly point to the successful development of the French and German ICT sectors, insofar as they appear to be becoming increasingly innovative. Specifically, the data show that ICT patents as a proportion of total patents rose between 1991 and 2000 by 6% in France and by over 8% in Germany.

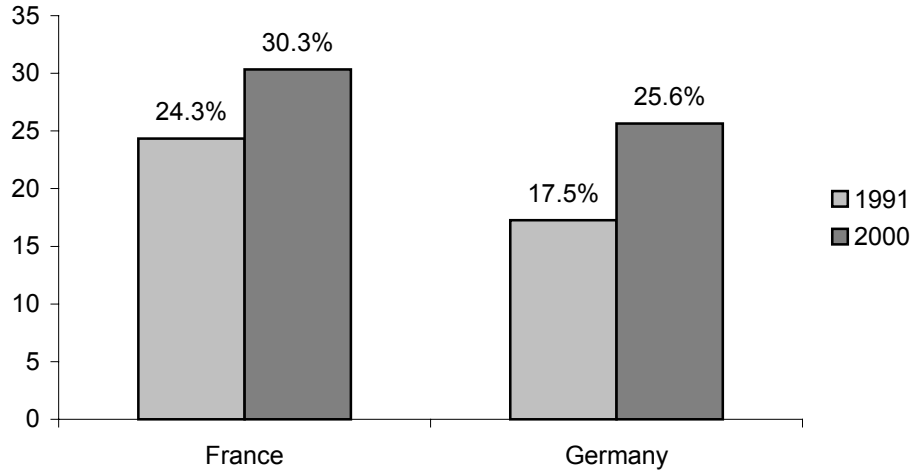


***Figure 4: ICT patents as a percentage of the national total of patents registered with the European Patent Office in 1991 and 2000 (Source: OECD, 2004b)***

However, there emerges a somewhat different picture of French and German patenting activity in the field of ICTs if these statistics are compared with similar data from other industrialised nations. Such a wider comparative context is reported in Table 1:

| | **1991** | **2000** | **% change 1991-2000** |
|---|---|---|---|
| Finland | 31.68 | 56.65 | 24.97 |
| Sweden | 18.31 | 37.46 | 19.15 |
| Ireland | 26.82 | 42.32 | 15.50 |
| Denmark | 9.64 | 24.51 | 14.87 |
| UK | 23.30 | 37.13 | 13.83 |
| EU | 19.71 | 29.47 | 9.76 |
| Germany | 17.25 | 25.64 | 8.39 |
| US | 31.39 | 38.66 | 7.27 |
| France | 24.33 | 30.34 | 6.01 |

***Table 1: ICT patents as a percentage of the national total of patents registered with the European Patent Office in 1991 and 2000 (Source: OECD, 2004b)***

This table reveals two interesting observations. First, it shows that, comparatively speaking, the proportion of ICT patents registered by French and German companies is

smaller than the number of ICT patents registered by companies in other industrialised countries. In particular, the ICT patenting activity of France and Germany is overshadowed by that of smaller European countries, such as Finland, Sweden, Ireland and Denmark. Second, data the reported in Table 1 show that ICT patenting activity has grown particularly quickly in these smaller European countries whilst it has remained relatively sluggish in France and Germany. Whereas ICT patenting activity grew by 25%, 19% and 15% in Finland, Sweden and Ireland respectively, it grew by only 8% in Germany and 6% in France.

Figure 5 displays information on ICT-related employment as a proportion of total employment in France and Germany:

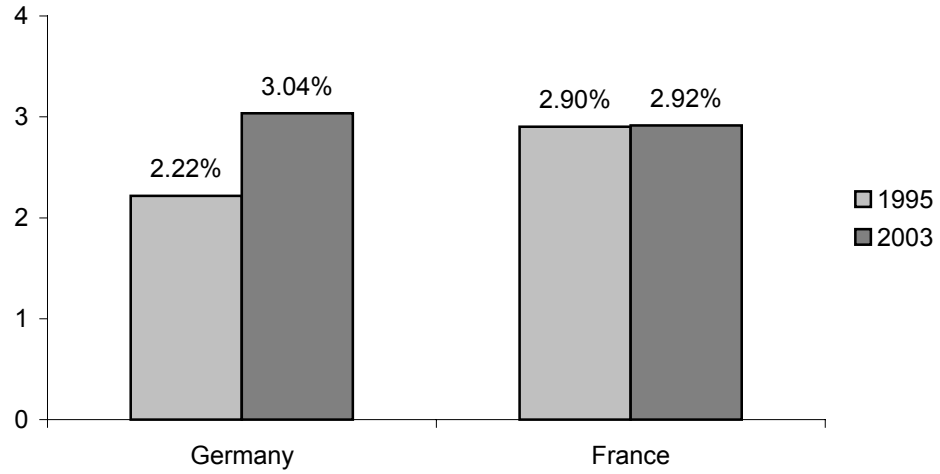


***Figure 5: ICT-related employment as a share of total employment in France and Germany in 1995 and 2005 (Source: OECD, 2004b)***

The data suggest that, particularly in Germany, the number of people working in ICT-related professions has increased since the middle of the 1990s. Indeed, the data in

Figure 5 illustrate that ICT-related occupations as a proportion of total occupations rose between 1995 and 2003 by 0.82% in Germany; in France, a much more modest rise of 0.02% was registered. However, the data presented above must be considered with caution. Indeed, a wider comparative perspective, as illustrated in Figure 6 below, reveals that ICT-related employment forms a larger share of total employment in other industrialised nations than in France and Germany.

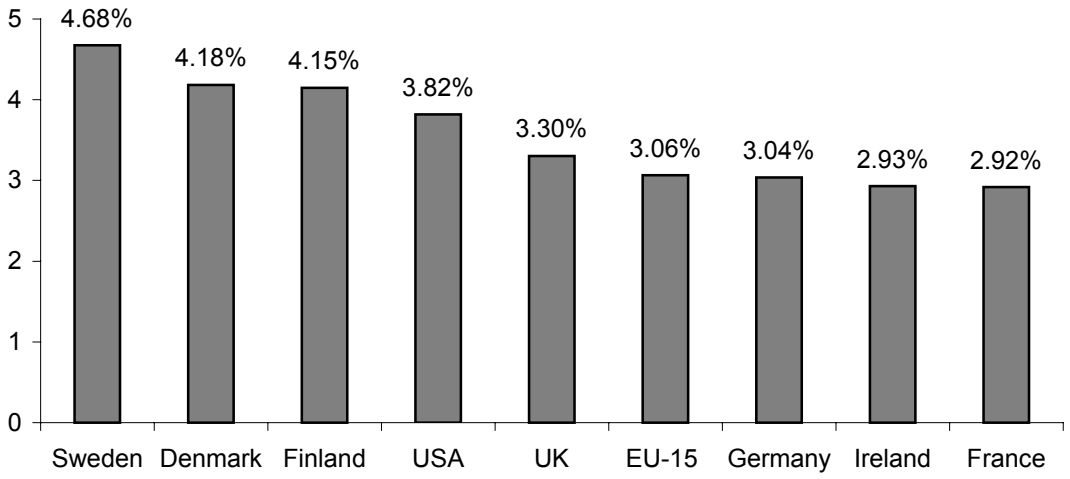


***Figure 6: ICT-related employment as a proportion of total employment in selected countries in 2003 (Source: OECD, 2004b)***

Indeed, Figure 6 shows that, in 2003, ICT-related employment as a proportion of total occupations in France and Germany was below the European Union average and considerably lower than small Scandinavian countries, in particular Sweden, Denmark and Finland, where ICT-related jobs accounted for 4.68%, 4.18% and 4.15% of the workforce respectively.

Figure 7 presents data on ICT value added as a proportion of the total business-sector value added:

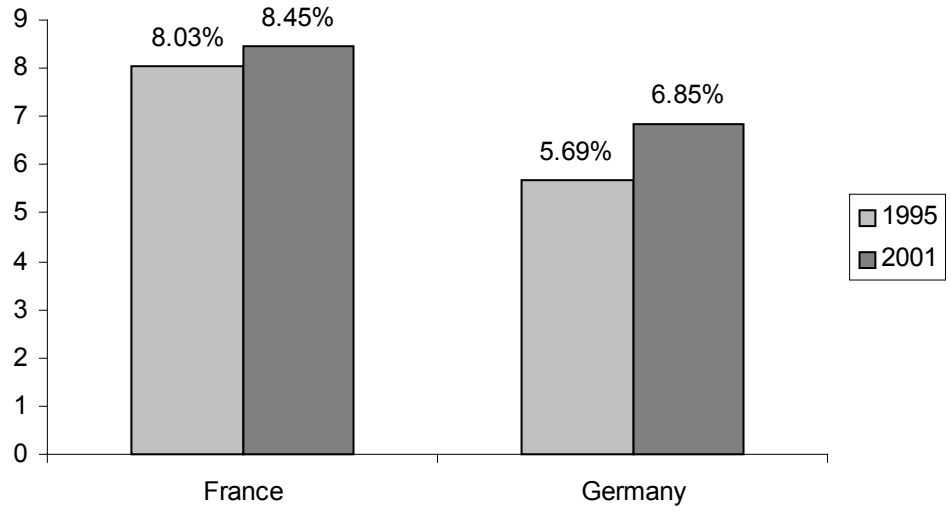


***Figure 7: Share of ICT value added in the business-sector value added in France and Germany between 1995 and 2001[5]***

These data point to a growing importance of the ICT sector within the French and German economies. Indeed, they show that ICT value added as a proportion of total business-sector value added rose between 1995 and 2001 from 8.03% to 8.45% in France and from 5.69% to 6.85% in Germany.

However, here again, the data must be considered with caution. Indeed, a wider comparative analysis, as reported in Table 2, reveals that ICT value added as a share of total business-sector value added was considerably lower in France and Germany in 2001 than in other industrialised nations, and in particular Finland and Ireland:

[5] Based on national sources; STAN and National Accounts databases, March 2004, available from http://www.oecd.org/dataoecd/20/6/34083289.xls [Accessed 8 June 2006]

| | 1995 | 2001 | % change 1995-2001 |
|---|---|---|---|
| Finland | 8.43 | 16.40 | 7.97 |
| Ireland | … | 13.11 | ... |
| USA | 10.64 | 11.40 | 0.76 |
| UK | 9.61 | 11.18 | 1.57 |
| Sweden | 8.30 | 9.25 | 0.95 |
| Denmark | 8.22 | 8.73 | 0.51 |
| France | 8.03 | 8.45 | 0.42 |
| EU | 7.11 | 8.64 | 1.53 |
| Germany | 5.69 | 6.85 | 1.16 |

***Table 2: Share of ICT value added in the business-sector value added in selected industrial nations between 1995 and 2001 (Source : OECD, 2004b)[6]***

Crucially, in 2001, ICT value added represented 16.4%, 13.1%, 11.4% and 11.2% of the total business-sector value added in Finland, Ireland, the USA and UK respectively, compared to only 6.9% in Germany and 8.5% in France. In addition, adopting a wider comparative perspective shows that ICT value added as a share of total business-sector value added grew more strongly in Finland (by 7.8%) than in France (0.42%) and Germany (1.16%) between 1995 and 2001.

### 2.2.2 Explanatory accounts of ICT production in France and Germany

In addition to the body of largely descriptive research identified and discussed above, there also exists a second main corpus of literature whose objectives are predominantly explanatory. The existing explanatory research is driven by one fundamental question: why are France and Germany less successful than their international competitors in terms of ICT production? This body of work consists largely of works seeking to uncover the reasons why the ICT sectors of France and Germany possess their distinctive characteristics and why they have evolved in the way they have. A detailed survey of these explanatory accounts reveals that four broad groups of factors have been

[6] Estimates, based on national sources; STAN and National Accounts databases, available from http://www.oecd.org/dataoecd/20/6/34083289.xls [Accessed 8 June 2006]

used to elucidate why France and German lag behind their international rivals with respect to the production of ICTs. These groups essentially cover financially-related factors, labour-related factors, demand-related factors and culturally-related factors. Each of these trajectories of research is discussed in greater detail below.

#### 2.2.2.1 Literature focusing on financially-related factors

In accordance with one body of literature, the comparative backwardness of France and Germany in ICT-producing industries can be explained by broad financially-related factors. These particular accounts can be seen to draw on theoretical insights from writers active in the field of comparative political economy, such as the works of Dosi and Orsenigo (1988), Dosi (1990), Aoki and Dosi (1992), Christensen (1999) and Dubocage and Rivaud-Danset (2002), which claim that the characteristic features of a country's financial system have a bearing on its industrial specialisation. Crucially, such works are based on the thesis that the development and production of ICTs are optimally supported by market-orientated financial systems, that is to say by financial systems in which capital markets play a dominant role in economic governance. A number of key assumptions underpin this thesis.

First, the highly developed stock markets that characterise market-orientated financial systems are considered to increase the availability of venture capital, upon which in particular start-up ICT companies are largely dependent, especially given their absence of other sources of financing. Specifically, it is argued that well-functioning and easily-accessible financial markets provide venture-capital investors with exit mechanisms so that they can be compensated for their investment efforts (Black and Gilson, 1998: Jeng and Wells, 2000: OECD, 2001: Stolpe, 2002, Dubocage and Rivaud-Danset, 2002).

Second, highly developed financial markets are said to exert pressures on companies to innovate. In this regard, the 'varieties of capitalism' thesis pioneered by Hall and Soskice (2001) suggests that market-orientated financial systems offer a particularly supportive environment for the radical product and process innovations commonly associated with high-tech industries (Soskice, 1994: Hall, 1997: Hall and Soskice, 2001: Vitols, 2001a: Hall and Gingerich, 2004). Crucially, companies embedded in market-based financial systems find themselves under continual pressure from their shareholders (seeking high investment returns) to specialise in high-profitability, high-risk business areas (Vitols, 2001a). The production of ICTs, characterised by a hit-and-miss pattern of market success and involving high levels of risk, speed and focus represents one such area (Casper *et al* , 1999).

Third, the highly developed capital markets typically associated with market-based financial systems are considered to be a key prerequisite for stock-option programmes. In this respect, Pendleton *et al* (2002) provide a useful summary of the theoretical benefits of stock-option programmes for ICT companies. According to these authors, stock options provide ICT companies with an important tool for attracting and retaining staff. This function is particularly useful for small and medium-sized ICT companies, which are typically unable to offer their employees career opportunities or levels of job security comparable to larger companies. In addition, stock-option schemes are especially attractive for *start-up* ICT companies; they enable such companies to pay their employees without having to drain their liquid assets. These liquidity considerations are particularly beneficial in times of financial shortages when companies cannot immediately afford to recruit the expertise on which their survival depends.

Against this theoretical background, a review of the empirical research into the production of ICTs in France and Germany points to a broad group of researchers who have attributed the backwardness of French and German ICT sectors to the absence in both France and Germany of highly developed market-orientated financial systems.

#### *2.2.2.1.1 Unresponsiveness of banking systems*

One group of observers has demonstrated that, for want of well-functioning capital markets, ICT companies in France and Germany are reliant on banks, which have traditionally been reluctant to invest in ICT companies. Notwithstanding initiatives such as the creation of an industrial development bank for small firms (*Banque de développement des petites et moyennes entreprises – BDPME*) to increase the capacity of the banking sector to finance the innovation projects of French industry (Cieply, 2001), the French banking system is reticent to provide finance to in particular small, start-up ICT companies. In this regard, Amable *et al* (1997), Coville (2001) and Jacquin (2003) demonstrate that start-up companies in the French ICT sector find it practically impossible to secure bank loans. Survey work conducted by the business start-up agency (*Agence pour la création d'entreprise* – APCE) and the Organisation for Economic Co-operation and Development (OECD) reveals that the inability to secure bank loans represents one of the main factors behind the failure of ICT start-up companies in France (IFOP, 2004: OECD, 2002). For Planès *et al* (2002), the reluctance of French banks to provide finance for ICT companies stems largely from their lack of understanding of new technologies. In the opinion of Lhomme (2001), banks see their loans as complements to existing sources of finance, and frequently refuse to finance the innovation activities of ICT companies without the guarantee of additional funding from other providers.

A comparable situation exists in Germany, where banks are reluctant to provide investment capital to in particular start-up ICT companies that have neither a financial track record nor physical assets to offer as security (Gompers and Lerner, 1999: Pfirrmann *et al,* 1997: Vitols, 2004). Within this context, Funk (2000: 27) maintains that the German banking system has long had a 'bias toward providing debt capital to established companies in mature branches and not providing enough risk capital for start-ups and companies with rapid growth potential in new industries.' Banking institutions in Germany are also said to lack technical and industrial expertise in the ICT sector. In particular, the 'insider' system of corporate governance still dominant in Germany, whereby so-called 'house banks' (*Hausbanken*) enjoy powerful oversight roles via proxy votes and seats on company boards, may have fostered an excellent knowledge of individual firms in traditional industrial sectors, but provides banks with much less detailed knowledge of emerging industries, such as the ICT sector (Glotz and Thomas, 1994: Casper *et al*, 1999).

#### *2.2.2.1.2 Problems associated with the state-funding of ICT companies*

Other academic volumes have illustrated the negative consequences of government attempts to financially support French and German ICT companies within the parameters of vertical industrial policies. This has particularly been the case in France, where it is generally argued that the national tradition of state activism ('*volontarisme*') and state-administered finance, coupled with the associated state-funding of large national projects ('*grands projets*') and national champions, are ill-suited for fostering the development and production of ICTs (Jublin and Quatrepoint, 1976: Hall, 1988: Brulé, 1993 and 1998: Mounier-Kuhn, 1995a and 1995b: Broder, 2000: Nohara and Verdier, 2001: Mustar and Larédo, 2002: Trumbull 2004). This particular corpus of work focuses on the '*Plan Calcul*', a government initiative launched by Charles De

Gaulle in 1966 to ensure the technological independence of France in computer technologies, on the lacklustre performance of the Groupe Bull, the former state-owned computer manufacturer, and on the *Plan pour la Filière Electronique*, an electronics-sector action plan introduced in the early 1980s to consolidate the French computing industry. A common theme running through these works is the way in which high levels of state interference have hindered the day-to-day running of state-owned companies and undermined their competitiveness in the international marketplace.

Compared to France, Germany has much less of a history of selective sectoral interventions to protect strategic domains and create national champions. However, federal governments in the past have pursued a smaller-scale vertical industry policy to promote the country's national ICT industry. There exists a general consensus in the academic literature that the series of specific government-financed programmes to improve the industrial competitiveness of German IT companies introduced during the 1960s and 1970s (*Erstes DV-Programm 1967, Zweites DV-Programm 1971, Drittes DV-Programm 1979*) all failed to impact significantly on the development of the German ICT sector. Crucially, it is claimed that such federal programmes failed to meet their stated objectives as they were over-ambitious and under-funded, and lacked the required levels of policy co-ordination between government departments (Mayntz and Scharpf, 1975: Hansen, 1979: Sommerlatte *et al*, 1982: Grande and Häusler, 1994: Grande, 2000: Lehrer, 2000: Hau and Kiesewetter, 2002: Schindler, 2004).

#### *2.2.2.1.3 Underdeveloped capital markets*

Other volumes have trained their focus on the constraints imposed by French and German capital markets on domestic ICT companies. In common with analysts of the wider political economies of France and Germany (including, amongst others, Beyer

and Höpner, 2003: Boyer, 1996: Clift, 2003a, 2003b, 2004a and 2004b: Coleman, 1997: Goyer, 2001 and 2003: Hancké, 2003: Höpner, 2001: Jürgens *et al*, 2000 and 2002: Lütz, 2005: Maclean, 1999, 2001 and 2002: Morin, 2000: O'Sullivan, 2001 and 2003: Schmidt, 1996, 1999 and 2003: Vitols, 2001a: Streeck, 2001), this body of research acknowledges that both France and Germany have recently witnessed market-inspired changes to their financial systems. Most notably, researchers focusing on the effects of underdeveloped stock markets of French and German ICT companies have focused their attention on the emergence and rapid development in France of Germany of the *nouveau marché* and *Neuer Markt*, the new stock market segments modelled on the American NASDAQ market and designed specifically for financing high-risk, high-growth companies. Notwithstanding these recent developments, the literature essentially demonstrates that, in France and Germany, financial markets and shareholder value in general remain underdeveloped in comparison with capital markets in the United States and United Kingdom; consequently, capital markets in the two countries continue to provide sub-optimum levels of financial support for ICT companies (Vitols, 2001a and 2004: Jackson and Vitols, 2001: Deutsches Aktieninstitut, 2003: Jürgens *et al*, 2000: Pfirrmann *et al*, 1997: Flockton, 2001: Amable and Hancké, 2001: Bancel, 1997: Bain and Company, 2002: Jacquin, 2003: Maarek, 2001: Hamon, 2002).

#### *2.2.2.1.4 Underdeveloped venture-capital industries*

A further group of researchers have focused their attention on how the venture-capital industries of France and Germany have impeded the production of ICTs in the two countries. For Mayer (2000), the German venture capital industry can, from a historical perspective, be seen as a succession of abortive attempts to respond to the country's perceived equity gaps. In this regard, Becker and Hellmann (1999), Keummeule (2001) and Mayer (2001) demonstrate how the performance of the *Deutsche*

*Wagnisfinanzierungsgesellschaft* (WFG), a state-sponsored venture-capital fund established in 1975, was nothing short of disastrous. As these authors point out, the fund was recording annual losses close to DM 30 million by the early 1980s, forcing it to change course and pursue less risky projects. For their part, the managers of the *Förderung technologieorientierter Unternehmensgründungen* (TOU), a further state-supported venture-capital programme established in 1984 to promote technological start-up companies, lacked expertise in the mechanics of venture-capital funds and had difficulties in identifying potentially successful entrepreneurs (Riesenhuber, 1984: Kuemmerle, 2001). The general consensus since the mid-1990s is that, despite the development of venture funding in Germany in recent years, the country's venture-capital industry is, both in terms of size and structure, considerably less developed than its counterparts in other countries, particularly America (Becker and Hellmann, 2002: Engelhardt, L. 2004: Kulicke and Wupperfeld, 1996: Mayer, 2002 : Mayer *et al*, 2005: Pfirrmann *et al*, 1997: Schefczyk, 2001: Schween, 1996: Zemke, 1995).

French experiences with venture capital have been similarly disappointing. Following a series of attempts to develop venture capital funds at the regional level during the 1950s (Touati, 1999), the French venture-capital industry began to organise itself nationally during the 1970s, aided by measures taken at the state level (Lachmann, 1992). However, these initial attempts at developing a venture-capital industry similar to that of the USA were not as successful as anticipated. Indeed, as Messerlin (2002) argues, the mechanisms put in place between the 1970s and mid-1990s for the provision of venture capital funding proved to be insignificant. As in Germany, developments since the middle of the 1990s point to more promising developments in the French venture capital industry, with commentators suggesting the shortages of venture capital are less

serious than in the past (Guillaume, 1998: Papazian, 1999: Redman, 2001: Cieply, 2001). However, notwithstanding these positive developments, these commentators and others hold that the absence of venture capital continues to apply a financial brake to the innovative activities of French ICT companies. Indeed, the levels of venture capital invested in the ICT sector is still relatively small compared to other nations, and only a small and declining level of investment is targeted at the very early, risky stages of innovation ventures of ICT companies (Jacquin, 2003: Messerlin, 2002).

#### *2.2.2.1.5 Underdeveloped stock option programmes*

Particularly in the case of Germany, other writers have attributed the relatively poor performance of the country's ICT sector to the underdeveloped nature of stock-option schemes. In this respect, academic volumes illustrating the negative impact of underdeveloped stock-option programmes on the development of French and German ICT companies include Carstensen *et al* (1995), Harrer (2000), Von Rosen and Leven (2000), Winter (2000), Cheffins (2001), Deutsches Aktieninstitut (2001), Liebig (2001) and Jürgens *et al* (2002). According to these writers, the employees of ICT companies in Germany want and expect their employers to offer them stock options as part of their remuneration packages. However, owing to the absence of legislation and the unfavourable fiscal conditions governing equity-based remuneration packages, the managers of ICT companies have been unwilling to offer stock options to their employees. Consequently, the use of this type of remuneration tool has, with the exception of a few large companies and a handful of high tech companies, not been particularly widespread in Germany and has commonly been perceived as a largely foreign concept. Moreover, those companies that do offer stock options as part of remuneration packages do so almost exclusively to top management employees as a supplement to normal salaries.

#### 2.2.2.2 Literature focusing on labour-related factors

A second broad body of the explanatory literature singles out labour-related factors as the main reason why France and Germany lag behind their international rivals in terms of the production of ICTs. These particular accounts bring a wide range of interrelated subject areas into their analyses. As addressed in greater detail below, these distinctive topic areas include the French and German systems of higher education, French and German regulations governing the migration of skilled labour, legislation on lifelong learning and education in France and Germany, and the general flexibility of French and German labour-market institutions.

##### *2.2.2.2.1 Systems of higher education*

One stream of literature points to the French and German systems of higher education as a reason why France and Germany lie behind their rivals with respect to the production of ICTs. This body of work is built on the assumption that ICT production is essentially an interdisciplinary activity which prospers in countries where institutions for skills provision supply companies with employees equipped with a combination of highly specialised competencies and transferable 'soft skills' (Lopez-Bassols, 2002: OECD, 2001a: European Commission, 1996, 2002b, 2002d, 2004b, 2004c: ACST, 2000: Alliance for Information Systems Skills / IT National Training Organisation, 1999: Department for Education and Employment, 2000a and 2000b: Hendry, 1999: ISC, 2000a and 2000b: ITAA, 2000: Lopez-Bassols, 2002: National Research Council, 2001). In accordance with this argument, successful ICT companies rely not only on technical staff capable of performing highly specialised coding and programming functions; their success is equally contingent on personnel who can identify customer requirements and explore new market opportunities. As such, jobs in ICT companies are increasingly characterised by the cross-professional convergence of purely technical IT

skills and non-technical competencies, such as management skills, consulting skills, analysis skills, co-ordination skills and interpersonal skills (Dench, 1998: Culpepper and Finegold, 2001).

However, there appears to exist a common agreement that the higher education systems of both France and Germany do not fulfil the requirements of the successful production of ICTs and have therefore impacted negatively on the development of ICT companies. In the case of Germany, authors have provided evidence of a mismatch between the skills of university graduates and the qualifications demanded by companies in the country's ICT sector (Berger, 1996: Bruniaux *et al*, 2000: Lutz *et al*, 2000: Munz and Ochel, 2001: Winkelmann, 2001: Lütkie-Entrup *et al*, 2003: Steedman *et al*, 2003: Annesley, 2004). Specifically, they point out that the quantity and quality of students graduating from German universities in IT-related disciplines is low, and have exasperated the labour shortages experienced by German ICT companies. Common themes running through these accounts are the high drop-out rates amongst students attending computer-science-related courses, which impact negatively on the total number of ICT professionals in Germany, and the relatively long periods of study at German universities, which affect the speed with which computer science graduates from German universities become available to ICT companies on the job market.

Compared to the German system of higher education, the French university system has performed better in providing sufficient numbers of ICT professionals, as witnessed by the much less acute shortages of ICT skilled workers in France (Bruniaux, 2000: Nohara and Verdier, 2001: Steedman *et al*, 2003). Indeed, from a purely quantitative perspective, the annual capacity of the French higher education system to produce

computer scientists increased fivefold over the fifteen-year period to 2001 (Nohara and Verdier, 2001). It is, however, the skills profiles of IT students graduating from the French system of higher education that have commonly been cited as a barrier to the development of the French ICT sector.

In this regard, it is claimed that the French system of higher education does not provide optimum levels of support for ICT companies insomuch as it has historically attached importance to highly theoretical teaching and devoted little attention to vocationally-orientated education (D'Iribarne and D'Iribarne, 1999). Indeed, higher education in general in France had tended to emphasise abstract rather than practical knowledge (Broustail and Fréry, 1997: Zielger, 1999), and past attempts to promote practically-orientated education, such as the development of university institutes of technology (*Instituts Universitaires de Technologie – IUT*) during the 1980s, have done little to improve the poor image of technical education in France (Ardagh, 1999).

Notwithstanding the introduction in the early 1970s of vocationally-orientated degree courses such as the renowned masters degree in management informatics (*maîtrise de méthodes informatiques appliquées à la gestion - MIAGE*), the contents of computer-science degree courses offered by French universities and *grandes écoles* have traditionally been abstract and mono-discipline in character (OECD, 2003a). Indeed, the majority of French computer scientists are graduates of *grandes écoles* (Nohara and Verdier, 2001) where student teaching has traditionally focused on theoretical notions of mathematics and physics rather than on the kind of creative thinking and multi-disciplinary teaching required for well-rounded ICT professionals (Ardagh, 1999).

#### *2.2.2.2.2 Immigration frameworks*

The corpus of literature dealing with labour-related issues also covers the French and German legislative frameworks governing the migration of highly skilled IT professionals from countries outside the European Union. This particular body of work is based on the theoretical assumption that ICT companies are most likely to prosper in countries that are endowed with liberal frameworks for the immigration of skilled labour (OECD, 2001e: OECD, 2004d). Indeed, it is argued that countries that welcome migrant workers tap the reserves of flexible labour which can compensate for the low geographical and occupational mobility of native-born populations (OECD, 2000c: Meyers, 2000: Biffl, 2000). Essentially, immigrant workers can speed up adjustments to changing economic conditions and thereby help to soften the cost of structural change (Coppel *et al*, 2001). Against this background, it has been illustrated that ICT companies have tended to flourish in countries such as the USA and Ireland which have adapted their immigration frameworks to attract highly-qualified IT professions from overseas (McLaughlan and Salt, 2002: Doudeijns and Dumont, 2003: OECD, 2004d: IOM, 2005).

However, it is generally considered that the regulatory frameworks governing economic immigration in France and Germany are comparatively restrictive, with the consequence that ICT companies in each country have, compared to their counterparts in other industrialised nations, experienced greater difficulties in attracting migrant workers who are highly qualified in IT-related disciplines. Since the oil crises of the 1970s, French immigration policy has become increasingly restrictive, with the emphasis placed on controlling and restricting rather than welcoming inflows of migrant workers (Kretzschmar, 2005). Against this particular backdrop, the migration of skilled ICT

professionals to French ICT companies has been consistently and considerably lower in France than in other industrialised nations. The issuing of policy communiqués by the French government since 1998 to alleviate labour-force shortages in the ICT sector would suggest that France has moved from a period of zero immigration to a period of controlled immigration with relation to its economic needs (Bilon *et al*, 2003). Notwithstanding these developments, however, there remains a general agreement that looser immigration regulations constitute only a short-term solution to ICT labour shortages and that immigration is not a matter of national interest (Carvantes and Guellec, 2002 Niessen *et al*, 2003: Dorin and Pracht, 2004: Kretzschmar, 2005).

In common with France, Germany's regulations governing the migration of skilled labour have also been restrictive since the 1970s (Martin, 1998: Niessen and Schibel, 2003: Hiscott, 2005) and the country has frequently describes itself as 'not being a country of immigration' (Kruse *et al*, 2003). As in France, efforts to increase the number of non-European computer scientists working in Germany, such as the introduction in 2002 of the IT Specialists Temporary Relief Programme (the so-called Green Card scheme) designed to open up employment opportunities in German ICT companies for highly skilled computer experts from non-European countries, have had only a marginal impact on labour shortages in Germany (Welsch, 2001: Kolb, 2003: Kolb and Hunger, 2003: Kolb, 2005). Indeed, the literature reveals that fewer non-European IT professionals than originally hoped ultimately applied for visas to work in Germany.

#### *2.2.2.2.3 Lifelong learning*

A third body of literature addressing labour-related factors relates to the French and German provisions for lifelong education and training. These volumes are built on the assumption that the constant evolution of new technologies and the associated rapid

changes in skills profiles have made on-going education a particularly important challenge for ICT companies (Freeman and Aspray, 1999: Pichault *et al*, 2002: OECD, 2004d). Indeed, over the past forty years, ICTs have witnessed major phases of evolution, from mainframe technology in the 1960s, personal computing and micro-computing in the 1970s, networking and Internet technologies in the 1990s and the emergence of ubiquitous computing, open-source software, wireless and peer-to-peer technologies since 2000 (Pastré, 1983: Pichault, 1990: Greenbaum, 1995: Pichault *et al*, 2002: OECD, 2004e). Each of these technological paradigms has demanded a continual upgrading of IT skills.

Against this background of on-going technological change, institutions for skills provision are said to best meet the requirements of ICT companies when they provide staff with a solid basis for continuing training and learning throughout their working life, and furnish them with in-house training opportunities to equip them with new skills and competencies required to keep pace with rapid technological change (Eurydice/CEDEFOP, 2001: Griffin, 2001: European Commission, 1996: Tight, 2002).

Although the Delors Law of 1971 established France as a pioneer in the European Union with regard to on-going training of employees (Gehin and Méhaut, 1993: Vincent, 1998: Gauron, 2000: Commissariat général du Plan / Deutsch-Französisches Institut, 2001), the French still attach greater importance to initial education than to on-going education. Indeed, initial education ultimately determines the position that French people subsequently occupy in French society (D'Iribarne and D'Iribarne, 1999). In such an environment, the French working population believe that 'second chance diplomas' offered by lifelong learning programmes are largely illusory and that skills and

competencies acquired within such programmes suffer from an inferior status (Germe and Potier, 1996). Consequently, the uptake of continuing training initiatives has traditionally been low amongst French workers (Aventur *et al*, 1999) and individual investment in continuing education measures has historically been very small in scale (Béret and Dupray, 1998).

In the case of Germany, it has been argued that the absence of a national legislative framework for lifelong learning and the reluctance of politicians to acknowledge the benefits of lifelong learning have had negative impacts on the production of ICTs (Duhman, 1996: Jutte, 1997: Alesi and Kehm, 2000: Arbeit und Leben *et al*, 2000: Jarvis, 2002). That many Germans hold that the knowledge and skills that they acquired during their initial education are adequate for the entirety of their working lives and question the need to participate in ongoing training measures is also considered to have negative consequences for the production of ICTs (Niejahr, 2006).

#### *2.2.2.2.4 Flexibility of labour-market institutions*

A further body of literature that deals with labour-related issues relates specifically to the flexibility of the French and German labour-market institutions. This corpus of work draws inspiration from institutional writers in the field of comparative political economy who have demonstrated that different countries have different labour-market institutions, which in turn provide support for different types of production and innovation regimes (Regini, 1997: Regini, 2000: Hall and Soskice, 2001).

In accordance with these writers, ICT companies are considered to thrive in countries where employers can easily recruit and dismiss employees. Essentially, flexible hiring and firing mechanisms provide employers with incentives to develop entirely new

product lines. Indeed, the ability to easily recruit employees with the requisite expertise and subsequently replace them with new employees when their expertise becomes obsolete enables ICT companies to move quickly in and out of rapidly developing markets. ICT companies are equally considered to thrive in countries where labour-market institutions provide high levels of working-time flexibility. This is because firms can easily increase daily, weekly or annual working time arrangements to match the dynamic demand-conditions on the ICT market. By contrast, in countries where working-time regulations and hiring-and-firing procedures are governed by strict legislation, companies are constrained in their ability to move quickly into new technological fields or keep pace with technological development in dynamic technological fields (Dixit and Pindyck ; 1994 : Siebert and Stolpe, 2001). They can, however, acquire comparative competitive advantages in industrial sectors where innovation is incremental rather than radical in character (*ibid*).

In the case of France, the literature that addresses issues of labour-market flexibility focuses its attention in particular on the difficulties experienced by French ICT companies in varying the number of hours that their employees work. Crucially, the literature investigates the negative impact of working-time regulations on the production of ICTs against the backdrop of the introduction of the 35-hour working week in 1998. In this regard, the literature has focused on illustrating the negative consequences of reducing working hours on the organisation of work in small and medium-sized companies including ICT start-ups (Durand and Pichon, 2001: Vincent and Brizard, 2001: Bunel, 2002: Dupré and Lallemet, 2003: Hien, 2003: Novelli, 2004: Jorand and Tonneau, 2004).

In the case of Germany, the literature focuses on the extent to which the regulation of employment contracts and the strictness of employment-protection legislation have impeded the ability of German ICT companies to respond quickly to the dynamic conditions of the ICT market (Johnson and Turner, 1999: Auer and Cazes, 2000: Schönig and L'Hoest, 2001: Bassanini and Ernst, 2002: Delmas, 2002: Dostal *et al*, 2002: Bosch, 2003: Haltiwanger *et al*, 2003: Welfens, 2003: Grossmann, 2004: Städler *et al,* 2004: Wirtz and Vogt, 2005). Other volumes have shown how the German tradition of co-determination (*Mitbestimmung*), which affords employees considerable participation rights in decision-making processes at the company level, impact negatively on the ability of the managers of German ICT companies to quickly recruit and dismiss employees to match changing demand conditions (Heidenreich and Töpsch, 1998: Kamp, 1999: Potthoff and Kipker, 2000: Dowe *et al*, 2001: Eggers and Schumann, 2001: Kluge, 2001: Schmierl, 2001: Ittermann and Abel, 2002: Pries *et al,* 2002).

#### 2.2.2.3 Literature focusing on demand-related factors

Alongside the literature that explains the competitive position of the French and German ICT sectors in terms of financially-related and labour-related factors, there exists a third corpus of literature that attributes the backwardness of the French and German ICT sectors to unfavourable demand conditions in France and Germany for information technologies. Such accounts are underpinned by theoretical literature addressing the determinants of innovation which identify a relationship between the composition of a country's domestic demand and its comparative competitive advantages (Schmookler, 1966: Rosenberg, 1974 : Scherer, 1982: Mowery and Rosenberg, 1979: Kleinknecht and Verspagen, 1990: Porter, 1990). According to these authors, countries acquire comparative competitive advantages in specific industrial

sectors if there exists sophisticated customers for the products of that industry. Indeed, such customers are said to pressurise local companies into continually undertaking innovative activities, and this national advantage in a given industry can subsequently be reinforced by a large demand for its products and services.

On the one hand, the literature that attributes the backwardness of the French and German ICT sectors to unfavourable demand conditions acknowledges that spending on ICT products and services by French and German households and companies has increased significantly since the 1970s; it also shows that the demand for services offered by French and German IT service providers has increased as more French and above all German companies tend to outsource their IT activities to third-party service providers (Ovum, 2002: PAC, 2003: Lünendonk and TechConsult, 2004: Grimshaw *et al*, 2004). On the other hand, however, the literature has shown that the demand for ICTs has been less intensive in France and Germany than in other industrialised nations.

In the case of France, this literature has focused in particular on how the attachment of the French to previous generations of technology, and especially to the Minitel, a public telematic system introduced by France Télécom in 1984, has impacted negatively on the demand for Internet-based technologies. In essence, the existing literature shows that the initial adoption by French individuals and companies of the Internet was delayed by this legacy system (Ardagh, 2000: Brousseau, 2001, 2003; Brousseau and Kraemer, 2002: Benghozi and Licoppe, 2003: Yolin *et al*, 2004). In the words of De Carmoy (1999), the case of the Minitel reflects an incapacity on the part of the French to embrace quickly new technologies; it shows that the French have erected 'mental

Maginot lines' (*ibid*, 224) around themselves, preventing them from absorbing innovations developed outside France.

In the case of Germany, research has focused on the demand for ICTs within the business community, and the diffusion of ICTs amongst the general public. In this regard, there is a commonly held assumption that Germany belongs to the group of industrialised nations that have invested relatively little in ICTs (see, for example, Albach *et al*, 1991: Müller and Kornmeier, 2000: Lehrer, 2000: PAC, 2001, 2004, 2005: Beise *et al*, 2002). Indeed, the country invests less than 2% of GDP in ICTs, compared to over 4% in the United States (OECD, 2005). Other researchers, such as Jaufmann *et al* (1989), Jaufmann and Kistler (1991), Hüsig *et al* (2002) and Baring (1997) have explored the technology acceptance amongst the general public in Germany and have shown how this have negatively impacted the demand for ICTs.

#### 2.2.2.4 Literature focusing on culturally-related factors

A review of the existing literature also reveals a small body of research that deals specifically with culture and ICTs in France and Germany. For the most part, these volumes focus on the effects that ICTs have on French and German culture, not on the effects of French and German culture on the effects of ICT production. Some commentators (see, for example, Minc, 2000: Viginier, 2002: Trumbull, 2001 and 2004: Curien and Muet, 2004) have noted that certain elements of the public administration initially perceived the Internet as a potential challenge to France's political and social heritages. A particular French singularity in this context is the extent to which the Internet has been perceived in France as a threat to the national language, music and cinema (Bajon and Michaud, 2001: Gordon and Meunier, 2001: Bomsel *et al*, 2004: Bordes and Crawford, 2004: Krim, 2005). In the case of Germany, research has focused

on the extent to which ICTs have challenged the country's economic and political cultures (Annesley, 2004: Berger, 1996: Harding and Paterson, 2000: Harding and Soskice 2000: Hörisch and Raulet, 1992: Bourgeois, 2000: Oberender, 2003: Bourgeois, 2005).

Much less attention has been devoted to the effects of culture on the production of ICTs in France and Germany. In the case of France, Duhamel (1993) has suggested that the French exhibit a deep-seated apprehensiveness, which acts as a barrier to innovation in new technologies. For his part, Evans (1998) holds that the emergence of the information society in France have been impeded by the formal and centralised characteristics of French culture, which are at odds with the cultural traits embodied by the information society. Carayannis *et al* (2003) claim that the French lack the necessary cultural characteristics – chiefly a propensity to take risk, an acceptance of failure, motivation and trust – that are required by entrepreneurs in ICT-related business areas. In the case of Germany, Müller (1991) has argued that there exists a strong tendency towards convergent thinking, characterised by the conviction that a problem can have only one possible solution, which hinders the creativity and problem-solving skills required for innovation in ICTs. Henzler and Späth (1995) contend that the Germans are inherently risk-aversive and reluctant to experiment; instead of focusing on the development of new technologies, they seek to protect their technical achievements dating from the nineteenth century. Böhm and Scholz (2000) maintain that the German characteristics of correctness and perfection encourage an intolerance of mistakes which, in turn, has had damaging effects on creativity in dynamic industrial sectors. For their part, Müller and Kornmeier (2000) contend that Germans have an emotional need

for rules and regulations, which run counter to the intuition or creativity required for innovation in new technologies.

### *2.3 Summary and conclusions*

What understanding of the development and production of ICTs in France and Germany can be gleaned from the volumes considered as part of this literature review? On the basis of the empirical work reviewed here, it is fair to say that France and Germany face a common problem: essentially, they can both be seen to be comparative laggards in terms of the production of ICTs. Despite periods of rapid growth in the late 1990s and early 2000s, the ICT sectors of each country have not caught up with their international rivals. This problem is illuminated not only by the lion's share of the existing descriptive literature, which portrays the production of ICTs in France and Germany in a largely negative light, but also by the explanatory research, which focuses in particular on understanding why France and Germany lag behind their main international rivals in the sphere of ICTs.

Although there exist academic volumes that have painted a rosy picture of the development of the French and German ICT sectors, there are a number of reasons for considering the empirical findings of these works with caution. First of all, the positive accounts of the production of ICTs in France and Germany are for the most part *single-country* studies whose foci are trained exclusively on charting the historical evolution of the French or German ICT sectors. Although these country-specific volumes rightly point to some promising developments since the late 1990s, they do not consider the performance of the French and German ICT sectors in a wider comparative perspective. Adopting such a cross-national perspective and contrasting the development of the French and German ICT sectors with evolution of ICT sectors in other industrialised

countries reveals that both France and Germany continue to lag behind the USA and the UK, and in particular Scandinavian countries, in terms of the production of ICTs.

In addition, the body of literature specifically claiming that the French and German ICT sectors occupy an increasingly large position in the national economies of France and Germany should be scrutinised with a healthy scepticism. Indeed, these particular reports raise issues of research bias, not least since they have for the most part been published or commissioned by the French and German governments or their associated agencies. In the case of France, for example, much of the positive research has been published by the statistical department of the French Ministry of Economics, Finance and Industry. In Germany, research portraying the development of ICTs in a positive light has been published by the Federal Ministry of Economics and Technology.

A further reason for handling with caution the positive accounts of ICT production in France and Germany relates to the issue of generalisability. Recall that many of the positive accounts addressing the capacity of France and German to support the production of ICTs are underpinned by investigations into individual companies, such as SAP, Business Objects, Siemens and Cap Gemini, or studies into technology clusters such as Sophia Antipolis and 'Silicon Saxony'. It is extremely dubious, however, whether the findings of these investigations can be generally applied to each and every ICT company operating in the French and German economies. Indeed, the companies and regions addressed by this particular stream of literature are investigated precisely because of their uniqueness as French and German 'success stories'. Extrapolating the findings of these investigations to the entire French and German ICT sector would constitute an example of committing the individualistic fallacy (Frankfort-Nachmias

and Nachmias, 1996), whereby researchers erroneously draw inferences about national ICT sectors on the basis of data gathered from individual companies.

For its part, the large body of existing explanatory research is helpful in establishing the extent to which the production of ICTs in France and Germany has been hampered by the two countries' general business environments. Indeed, it clearly shows that, despite efforts undertaken to improve the general business conditions of France and Germany to the benefit of ICT companies, the financial systems, labour-market institutions and demand-related conditions of each country continue to provide sub-optimal levels of support for ICT-producing companies. With respect to the financial systems of France and Germany, for example, the existing research shows that, notwithstanding market-inspired changes to national financial systems, including for example efforts to create stock-market segments specifically for high-risk, high-growth companies, the capital markets of France and Germany continue to provide insufficient support for ICT companies. In addition, the venture-capital industries of France and Germany are, despite their expansions since the late 1990s, still less developed in terms of size and structure than their counterparts in other countries.

As regards labour-related factors, the literature reviewed here demonstrates that the number of students graduating in computer-science-related courses from in particular Germany and, to a lesser extent, French universities is comparatively low. In the case of Germany, long study times have slowed down the speed with which IT graduates become available on the job market. In the case of France, IT graduates lack the ability to apply their theoretical knowledge to practically-orientated, customer-focused situations. In both France and Germany, the often half-hearted attempts at attracting IT

professionals from outside the European Union have had only marginal impacts on ICT labour shortages. In addition, the uptake of continuing training initiatives has been low, in France largely due to the inferior status of 'second chance diplomas' offered by lifelong learning programmes, and in Germany because workers believe that knowledge and skills acquired during their initial education is adequate for the entire working lives. In the case of France, short working hours have had negative consequences on the organisation of work within in particular small and medium-sized ICT companies. In Germany, the regulation of employment contracts and the strictness of employment-protection legislation have impeded the ability of German ICT companies to respond quickly to the dynamic conditions of the ICT market.

However, the existing explanatory research is less helpful in determining the ways in which culture has affected the production of ICTs in France and Germany. As the literature review has illustrated, only a minimum of research has broached culturally-related explanations for the comparative ICT backwardness of the two countries. In many of these accounts, culture is considered to be peripheral issue. In addition, the existing culturally-inspired research appears to lack the methodological rigour typically associated with academic research. In essence, it is based on shaky, anecdotal evidence and appears largely speculative in its conclusions. In the absence of any real firm foundations of evidence, the research into the effects of culture on the development of ICTs in France and Germany appears limited to broad and generalised impressions that are difficult to substantiate empirically.

It could possibly be argued, of course, that the literature explaining the production of ICTs in the French and German contexts in terms of financially-related factors, labour-

related factors and demand-related factors already partly considers the impact of culture. Indeed, these particular accounts understand the production of ICTs as a process that takes place within culturally-grounded business environments. As such, the existing explanatory research clearly takes into account the cross-country uniqueness of business framework conditions. However, these particular accounts do little to engage with the cultural values of the French and the Germans and do not consider the effects that these might possibly have on the production of ICTs.

That the existing explanations do not engage more comprehensively with these cultural issues is surprising, especially given the renewed and growing acknowledgement within wider academic circles that economic activity is influenced by culture. Indeed, as early as the 1930s, the German economist and sociologist Max Weber argued that values such as honesty, effort, renunciation of pleasure, willingness to save and the spirit of enterprise were instrumental in explaining why economic developments typically started in Protestant countries (Weber, 1934). Neglected for a generation, often because social scientists considered the findings of culturally-bound research to be inconclusive, investigations into the relationship between culture and economics have since the beginning of the 1980s experienced somewhat of a revival (Jones, 2003).

No longer treated as a peripheral issue, the influence of cultural values is increasingly being considered in – and in some cases placed directly at the core of – analytical debates in economics and the social sciences (Ray and Sayer, 2000). In the words of Todaro (1994: 13), economic development is ‘as much a function of values, incentives, attitudes and beliefs [as] the direct outcome of the manipulation of strategic variables such as savings, investment, product and factor prices and foreign exchange rates’.

Examples of this ‘cultural turn’ (Ray and Sayer, 2000) can be seen in the growing body of theoretical volumes that focus attention on culturally-related factors in their attempts to understand why some countries enjoy economic success in certain areas whilst languish in others (Ruttan, 1988: DiMaggio, 1993: Dorner and Klump, 1996: Landes, 1999: Harrison and Huntington, 2001: Landes, 2001: Frederking, 2002).

It is in direct response to this absence of rigorous research specifically addressing the effects of cultural values on the production of ICTs in the France and Germany and in recognition of the growing body of literature addressing the relationship between culture and economics that the following chapter – Chapter 3 – elaborates a theoretical framework for investigating how culture impacts on the production of ICTs in France and Germany.

## 3 The effects of culture on ICT production: towards a theoretical framework

The review of the existing empirical literature, as reported in Chapter 2, concluded that, aside from a handful of largely speculative works based on shaky empirical evidence, very little research of significant value has been conducted to understand the influence of culture on the production of information and communication technologies (ICTs) in the French and German contexts. The literature review also noted that the absence of accounts dealing specifically with the effects of culture was surprising, especially given the renewed interest and growing acknowledgement within the wider academic community that economic activity is influenced by culture. Against this background, the objective of this particular chapter is to elaborate a theoretical framework for exploring how culture impacts on the production of ICTs in these two particular countries.

An investigation dealing with the impact of culture on the production of ICTs in France and Germany could have a number of theoretical starting points. In the growing body of literature addressing the relationship between culture and economic activity, it is possible to identify three commonly-used broad theoretical approaches which could potentially be used for the current programme of research. A first possible approach focuses on how the aggregate personality traits of a country's citizens impact on innovation; a second approach looks at the influence of organisational cultures on the innovative capacity of companies; a third framework trains its attention on the extent to which the economic, social and political institutions of a country impose cultural constraints on the innovation strategies available to companies.

Much as these three approaches have their own explanatory strengths, they also exhibit inherent weaknesses. These weaknesses raise concerns as to whether each approach is, on its own, suitable for investigating the effects of culture on the production of ICTs in

France and Germany. In the face of these concerns, a specific framework is developed to avoid the pitfalls specifically associated with each of the three approaches. However, the framework elaborated here does not dismiss out of hand the theoretical approaches identified above. Rather, it acknowledges that insights gleaned in particular from the organisational and institutional approaches to understanding culture can be combined in a complementary way. In this regard, the theoretical framework selectively incorporates theoretical assumptions from these two particular approaches, and combines them with theoretical insights gleaned from other academic disciplines, most notably from interest-group theory.

The focus of the resulting theoretical framework is trained on the ways in which cultural factors have impeded in France and Germany the emergence of the institutional framework conditions typically associated with the successful development of ICTs, and how the absence of institutional change continues to impact negatively on the production of ICTs in France and Germany. Crucially, it focuses its attention on identifying the extent to which conservative interest groups seeking to preserve and maintain the institutional status quo have hampered attempts in France and Germany to establish new institutional arrangements that are more conducive to ICT production.

The following chapter comprises four main sections. The first section draws on existing literature to identify and describe three research approaches that could potentially be used to investigate the effects of culture on the production of ICTs in France and Germany. In particular, this section details the theoretical assumptions underpinning each approach and provides examples of empirical research that has adopted each approach. The second section critically appraises each of these approaches, the

objective being to gauge their suitability and appropriateness for investigating the effects of culture on the production of ICTs in France and Germany. In its third section, this chapter argues the case for combining certain elements of these approaches, and complementing their respective insights with theoretical assumptions drawn from studies into interest-group politics. The final section relates the elaborated theoretical framework to the current programme of research and formulates a number of specific predictions regarding the effects of culture on the production of ICTs in the French and German contexts. These predictions will serve as the basis of the empirical investigation detailed in subsequent chapters.

## *3.1 Approaches to exploring the effects of culture on ICT production*

This study is concerned with the production of ICTs in France and Germany, and in particular with the ways in which it is affected by cultural factors. Given this underlying research focus, and drawing inspiration from the growing body of literature that acknowledges the influence of culture on economic activity, there are three main theoretical starting points that could potentially be used to explore these effects. The following section describes each of these three frameworks in turn. The emphasis is placed on outlining the theoretical assumptions that underpin each framework, and on providing examples of empirical research that has employed each theoretical framework.

### 3.1.1 Aggregate personality-traits framework

A first potential approach to investigating how culture affects the production of ICTs in France and Germany involves focusing on the aggregate personality traits of the French and Germans, and understanding how these impact on the innovation capacity of France and Germany.

In accordance with this particular approach, the psychological make-up of individuals in society, and their values, attitudes and personalities, shape the aggregate socio-economic behaviour that drives innovation. Essentially, the approach contends that national rates of innovation are directly influenced by the aggregate personality traits of individuals in a given country. It is framed by two linked propositions. First, it is assumed that specific cultural values are conducive to innovative activity. Second, it is postulated that a greater supply of these particular cultural values leads to greater levels of economic performance and innovative activity.

This particular approach draws its theoretical inspiration from the work of personality psychologists who attempt to characterize national cultures in terms of the average personality traits of their citizens (see, for example, McClelland, 1961: Peabody, 1985: Lynn and Martin, 1995: Hofstede and McCrae, 2004: Allik, 2005). In accordance with this perspective, aggregate personality traits are essentially an average view of society, and a national culture is represented by the mean of its parts, in the same way that the wealth of a nation's citizens is reflected by per-capita income (McCrae and Terracciano, 2005).

Researchers who have focused on the effects of aggregate personality traits on innovation include Barnett (1953), Peterson (1980), Hofstede (2001), Herbig and Miller (1992), Herbig and Jacobs (1998), Shane (1992 and 1993) and Tiessen (1997); a common theme in the work of these particular researchers is the identification of a positive correlation between the capacity for innovation and the personality characteristic of individualism. In accordance with these accounts, the personality traits of independence, achievement, and non-conformity, considered to be widespread in

individualistic societies, are seen to promote and foster innovation. Other researchers have acknowledged a relationship between the willingness of individuals to take risks and innovative capacity (Brockhaus, 1980: Rothwell and Wissema, 1986: Hofstede, 1980: Mokyr, 1991). In essence, these researchers contend that the propensity of individuals within a given country to face up to uncertainties and take risks impacts positively on the innovation potential of that country.

### 3.1.2 Organisational-culture framework

A second theoretical framework that could be used to explain the impact of culture on ICT production in France and Germany involves focusing on organisational cultures, defined as the values, attitudes and beliefs shared by the employees of a single company. In accordance with this approach, there is a positive correlation between the innovative capacity of a company and its organisational culture. Essentially, it is argued that, in order to innovate and adapt to technical progress, firms must meet certain requirements in terms of their internal behaviours. These requirements vary significantly across industrial sectors, and companies vary in their ability to meet them.

This particular approach is informed predominantly by the writings of American business researchers, including Ouchi (1981), Pascale and Athos (1982), Deal and Kennedy (1982) and Peters and Waterman (1982), who during the early 1980s suggested that corporate cultures are a central component of organisational performance and can be controlled, managed and influenced as an internal variable to improve a company's competitive advantage. These works, in turn, draw their theoretical inspiration from earlier anthropological and sociological work on culture associated with groups and societies (see Mead, 1934: Weber, 1947, 1958: Durkheim, 1964: Geertz, 1973).

Since the 1980s, there has emerged a raft of academic and business volumes that has applied this theoretical framework to investigate how organisational culture can be employed as a management tool for fostering innovation. Some authors (including amongst others Amabile 1996 and 1997: Denison, 1990: Denison and Mishra, 1995: Deshpande *et al*, 1993: Dougherty, 1996: Kotter and Heskett, 1992: Martins and Terblanche, 2004: O'Reilly, 1989: Pervaiz, 1998: Schein, 1995 and 1996: Schneider *et al*, 1994 and 1996: Wilkins and Ouchi 1983) has focused on identifying strong and weak organisational cultures and demonstrating how strong cultures are more supportive of innovation than weak ones. Other researchers (including, for example, Ahmed, 1998: Filipczak, 1997: Judge *et al.*, 1997: Nÿstrom, 1990: O'Reilly, 1989: Pinchot and Pinchot, 1996: Tesluk *et al.*, 1997) have worked on identifying which specific values, norms and assumptions of organisational cultures promote creativity and innovation. There is a wide range of opinion regarding which types of organisational cultures best support innovation, but commonly cited characteristics of innovation-supporting organisational cultures include the tolerance of mistakes (Brodtrick, 1997: Ryan, 1996: Tushman and O'Reilly, 1997), the encouragement of new ideas (Filipczak, 1997: Amabile, 1995), risk-taking (Judge *et al*, 1997: Filipczak, 1997), competitiveness (Nÿstrom, 1990: Read, 1996) and the tolerance of conflict (Mumford *et al*, 1997: Robbins, 1997: Judge *et al*, 1997).

### 3.1.3 Institutional-culture framework

A third approach which could possibly be used to explore the effects of culture on the production of ICTs in the French and German contexts involves studying the extent to which the economic, social and political institutions of a country promote cultural values and encourage behaviour patterns that constrain the innovation strategies available to companies. In accordance with this approach, the institutional framework of

a country imposes informal cultural constraints on companies operating within that country, thereby restricting the specific innovation strategies available to them. It follows that the persistence of diverse patterns of technological development and sectoral specialisation across contemporary advanced economies can be explained by their distinct institutional frameworks and institutional cultures.

The institution-based approach understands culture in terms of an external variable which exogenously influences the behaviour of economic, social and political actors. Here, the approach is inspired by the work on institutions and economic performance undertaken amongst others by Zucker (1977), Granovetter (1985), March and Olsen (1989), North (1990), Jepperson (1991), Dobbin (1994b) and Scott (2001).

One particular institutional perspective which has grown in prominence since the late-1990s is Hall and Soskice's 'varieties of capitalism' approach to understanding the political economy (Hall and Soskice, 2001) According to this particular perspective, the social, political and economic actors in a given country learn to follow a set of informal rules by virtue of experience with a familiar set of institutional actors. The shared understandings that accumulate resemble a common cultural system. This 'varieties of capitalism' approach has spawned a growing literature of academic work, driven for example by Amable (2004 and 2005), Amable and Hancké (2001), Hancké (2001 and 2002), Nooteboom (2000), Vitols, (2002 and 2004) and Whitely (1999, 2000 and 2002) focusing on the ways in which national institutions structure and shape the innovation strategies of indigenous firms.

### 3.1.4 Summary of possible approaches

As discussed above, there are a number of theoretical starting points, each with its own distinctive focus, for studying the impact of culture on the production of ICTs in the French and German contexts. Essentially, it has been shown that it is possible to examine the ways in which economic activity is affected by (1) the aggregate personality traits of individuals in society, (2) the organisational cultures of companies or (3) the cultural systems espoused by a country's social, political and economic institutions. The following table briefly summarises the key arguments and theoretical underpinning of each of these theoretical approaches:

| | Personality-traits framework | Organisation-culture framework | Institution-culture framework |
|---|---|---|---|
| **Overview** | Psychological make-up of individuals is driving force behind innovation<br><br>Certain cultural values and personality traits are more conducive than others to innovative activity<br><br>Greater supply of these particular cultural values leads to greater levels of innovative activity | Employees of a company share common beliefs and attitudes<br><br>This organisational culture is a central component of innovative capacity<br><br>It can be influenced by company managers as an internal variable to improve a company's competitive advantage | Institutions of a country promote cultural values and encourage behaviour patterns that restrain innovation strategies available to firms<br><br>Culture is understood in terms of an external variable which exogenously influences the behaviour of companies |
| **Theoretical underpinnings** | Personality psychologists who attempt to characterize national cultures in terms of the average personality trait levels of their citizens, such as McClelland (1961), Peabody (1985), Lynn and Martin (1995), Hofstede and McCrae (2004) and Allik (2005). | Early anthropological and sociological work on culture associated with groups and societies (for example, Mead, 1934: Weber, 1947, 1958: Durkheim, 1964: Geertz, 1973).<br><br>Early American volumes on corporate culture (including Ouchi, 1981: Pascale and Athos, 1982: Deal and Kennedy, 1982: Peters and Waterman, 1982) | Theoretical work on institutions and economic performance undertaken amongst others by Zucker (1977), Granovetter (1985), March and Olsen (1989), North (1990), Jepperson (1991), Dobbin (1994) and Scott (2001) |

**Table 3: Key arguments and theoretical underpinnings of possible frameworks for explaining the effects of culture on ICT production in France and Germany (compiled by author).**

### *3.2 Critical appraisal of approaches*

Having surveyed the growing body of literature addressing the link between culture and economic activity and having identified three broad theoretical approaches for exploring this relationship, it remains unclear whether their respective foci are useful and appropriate for exploring the effects of culture on the production of ICTs in the French and German contexts. The aim of the following section, therefore, is to ascertain the respective strengths and weaknesses of applying each of the three theoretical approaches to the current research agenda.

#### 3.2.1 Critical appraisal of aggregate personality-traits approach

An in-depth consideration of the aggregate personality-traits approach would suggest that it provides only limited insights for exploring the effects of culture on the production of ICTs in France and Germany. Crucially, by assuming that citizens with a given country possess if not identical than at least closely similar personality traits, it promotes simplistic, reductive and highly generalised descriptions of national cultures. In other words, focusing on the aggregate personality-traits of the French and the Germans would espouse a monolithic view of national culture, whose use would involve considering France and Germany to be culturally cohesive entities, each based on their own single, unique sets of cultural values which are homogeneously and unanimously shared by all of their citizens.

If such a monolithic understanding of culture were adopted for the current programme of research, its attempts at understanding the effects of culture on the production of ICTs in France and Germany would fail to acknowledge the richness and diversity of the French and German national cultures and, to use the words of Brewster (2000: 466), would involve ‘an uncomfortable of generalisation about very complex, different

countries, each of which has their own internal complexities and differentiation.' Whether in particular actors in the French and German ICT sectors can be said to share the same cultural profiles as other economic, social or political actors in their respective countries is a moot point. Indeed, anecdotal evidence seems to suggest that the cultural systems of actors in the French and German ICT sectors differ considerably from those of other economic, social and political actors in France and Germany and calls into question the cultural homogeneity of France and Germany.

In the case of France, for example, Trumbull (2001) points to the appearance of a new generation of ICT entrepreneurs and to a plethora of technology incubators that have emerged to support their projects. In the opinion of Trumbull, these entrepreneurs and incubators are more willing to take risks than traditional economic actors in France. Bernasconi and Monsted (2000) contend that ICT companies in France share more commonalities with their American counterparts than with traditional companies in France, particularly as regards their attitudes towards uncertainty and risk. Waser and Savignac (2003) suggest that the managers of French ICT companies attach greater importance to individualism than their counterparts in traditional French companies. De Lasteyrie and Codorniou (2005) argue that the managers and staff of Kelkoo, a successful French start-up company, are more aggressive than employees of traditional French companies. The distinctive management styles identified by Azoulay *et al* (2000) in French ICT start-up companies and in traditional French companies also cast doubt on the appropriateness of using a research approach based on a monolithic understanding of nation cultures. In the case of Germany, there is also superficial evidence to suggest that the country's ICT sector exhibits cultural characteristics that differ from those of actors in the wider society. For example, Kluge *et al* (2000) and

Rupp (2001) draw attention to a new generation of ICT professionals who are attempting to close Germany's traditional entrepreneurship gap with other countries, in particular the United States. In their accounts of their experiences working for German 'new economy' companies in the early 2000s, Trouille and Barron (2001), Barron (2001a, 2001b), Lindenberg (2001), Engelen (2003) and Gillies (2003) emphasise the differences between themselves and employees working in traditional German companies.

### 3.2.2 Critical appraisal of organisational culture approach

The organisational-culture framework also appears, on its own, unsuitable for investigating the effects of culture on the development of ICTs in the French and German contexts. Although a critical appraisal of the approach from the perspective of the current programme of research reveals possible theoretical strengths, the approach also involves explanatory weaknesses. These points are discussed in greater detail below.

On the one hand, the organisation-culture perspective overcomes the weaknesses associated with the aggregate-personality perspective by correctly insisting on the multiplicity and heterogeneity of culture. In essence, the theoretical insights gleaned from organisational-culture approach would encourage researchers to consider ICT companies in France and Germany as possessing cultural systems that differ from the cultural systems of other economic, social or political actors in their respective national economies.

This eschewing of cultural homogeneity in favour of cultural heterogeneity reflects developments in social-science theory which, over the past two decades, has

progressively acknowledged the complex and multiple nature of culture *within* national economic systems. Examples of researchers who have adopted such multiple-culture approaches to investigating national culture include Hofstede (1991) who, in his more recent works at least, contends that national cultures consist of layers of culture, whereby a country can comprise multiple culture-based groupings based on regional, ethnic, religious, linguistic or social-class differences. Similarly, Sackmann (1992) has argued that the actors within national economies are not necessarily culturally similar, but can exhibit their own sub-cultures, based on a number of differences. Indeed, Sackmann's review of the academic literature addressing manifestations of business culture identifies different cultures within professions, geographical regions, industrial sectors and religions that occupy the same country (*ibid*).

Notwithstanding its insistence on the multiplicity and heterogeneity of national cultures, it is questionable as to whether the organisational culture approach would, if used on its own, faithfully capture the effect of culture on the production of ICTs in France and Germany. Specifically, by assuming that company managers have the power within themselves to create and nurture company-specific cultural systems that support innovation, the organisational culture approach would potentially overemphasise the importance of human agency, attach too much importance to the ability of managers to impose their worldviews on their companies and overlook the extent to which ICT companies in France and Germany are affected by external cultural influences. In essence, it would encourage researchers to think of ICT companies as closed systems and understand culture in terms of one internal variable within that closed system.

Against this background, writers for example in the field of critical management studies (CMS) have cast doubt over the ability of managers to establish in their companies a unique cultural system (Meek, 1982: Lucas, 1987: Parker, 2000: Alvesson and Willmott, 1992 and 2003). In accordance with these critical theses, it is perfectly reasonable to suggest that organisations are influenced by the socio-cultural contexts in which they operate. In essence, it is questionable as to whether culture is an internal variable that managers can manipulate so as to improve the innovative capacities of their companies; rather, culture also acts as an external variable over which they may have little control, but which nonetheless exerts an influence over the innovative capacity of their companies.

### 3.2.3 Critical appraisal of the institutional culture approach

Finally, a critical appraisal of the institutional culture approach also uncovers both strengths and weaknesses for exploring the effects of culture on the production of ICTs in France and Germany. A particular strength of the institutional approach is its critical attitude towards the ability of company managers to create and nurture company-specific cultures that are conducive to innovation. Specifically, it correctly acknowledges that companies are imbedded in and influenced by wider socio-cultural contexts. As such, the approach brings into its analytical focus the unexpected, external forces and interferences that can impact on individual companies, and emphasises the ways in which these external cultural forces can shape and mould the strategies of companies.

With specific reference to the current enquiry, the institutional approach is particularly useful because it recognises that ICT companies in France and Germany are potentially constrained in their choice of innovation strategies by the institutional configurations in

which they operate. This point has already been partially broached in the literature review of this thesis. It was shown, for example, that the financial institutions of France and Germany impose constraints on French and German ICT companies. In accordance with institutional writers, ICT companies are most likely to thrive in countries endowed with market-based financial systems. Indeed, market-based financial institutions are particularly supportive of high-risk companies such as start-ups because they promote cultural systems that attach importance to flexibility, speed of response and an acceptance of risks (Soskice, 1990: Hall and Soskice, 2001: Vitols, 2001a: Hall and Gingerich, 2004). In essence, shareholders seeking high investment returns exert external pressure on companies to specialise in high-profitability, high-risk business areas.

However, neither France nor Germany has traditionally possessed the predominantly market-based financial institutions deemed most supportive of ICT development. Germany is commonly seen as a textbook case of a bank-based financial system, in which banks have been the dominant actors and where bank deposits and bank credit have traditionally represented the major types of financial assets and liabilities (Zysman, 1983: Vitols, 2001: Vitols, 2004: Lütz, 2005). In France, it is the state that has historically been central to economic governance (Cieply, 2001: Culpepper 2005 and 2006: Schmidt, 2003). In accordance with institutional writers, these non-market financial systems are more supportive of medium-tech industries such as automobiles or mechanical engineering in which companies require high levels of patient capital for incremental innovation (Albert, 1991: Jacobs 1991; Porter, 1992: Kester 1993; Hutton, 1996: Höpner, 2001: Cohen, 1992: Hancké, 2002 and 2003).

However, the institutional-culture approach appears to be based on excessively holistic presuppositions. In other words, the approach is based on the assumption that institutional cultures directly imprint and shape the behaviour of social actors. The validity of this underlining assumption is clearly questionable, not least since, as Fay (1996:69) states, social actors do not necessarily passively accept the cultures in which they operate 'as if they were mindless cogs in an elaborate machine.' Indeed, by focusing attention solely on the ways in which institutional cultures impact on the strategies and choices of social actors, the institution-based approach ignores the possible ways in which social actors may challenge and attempt to change these cultures. Against the background of these criticisms, anecdotal evidence from France and Germany appears to cast doubt over whether French and German ICT companies accept their institutional frameworks and associated institutional cultures in an unquestioning and uncontested manner.

For example, in interviews in the financial and economic press, the managers of French and German ICT companies have frequently aired their discontent and frustration with respect to the institutional configurations of their respective countries[7]. In addition, there has over recent years been a tendency amongst French and German ICT companies to join forces as part of industry-specific business associations in an effort to change the established institutional configurations within which they operate. For instance, Germany has since the mid-1990s witnessed a blossoming and consolidation of industry associations within the ICT sector (Martell, 1999: Reutter, 2000: EIRO, 2001: Boes and Baukrowitz, 2002: Burgmer, 2002: Menez, 2004). As a result, the German Association for Information Technology, Telecommunications and New Media

[7] The French magazines *01 Informatique*, *Le Monde Informatique* and *Le Journal du Net* and the German magazines *Computerwoche*, *Computer Zeitung* and *ZDNet* frequently publish interviews with the managers of ICT companies who are overwhelmingly critical of their respective business environments.

(BITKOM - *Bundesverband Informationswirtschaft, Telekommunikation und neue Medien*), an umbrella organisation representing the political interests of employers in the German ICT sector, now represents the largest national ICT lobby group in Europe, with a membership comprising 1,300 companies including over 500 small and medium sized (SME) companies (BITKOM, 2006).

French companies operating in the ICT sector have similarly joined forces. As illustrated by Trumbull (2004), France has witnessed since the late 1990s the arrival on its political lobbying scene of the *Croissance Plus*, *Objectif 2010* and the *France Libre d'Entreprendre* associations; these lobbying groups have pressed successive French governments for improved institutional framework conditions that support ICT companies (*ibid*). In a bid to reinforce their lobbying activities, the *Syndicat de l'industrie des technologies de l'information* (SFIB – the French Association of the Information Technologies Industry) and the *Groupement des Industries des Technologies de l'Information et de la Communication* (GITEP TICS – the French Association of Information and Communication Technology Industries) merged in April 2004 to create *Alliance TICS* (Arnal, 2004).

The emergence of such associations would therefore suggest that actors in the French and German ICT sectors do not passively accept the dominant institutional cultures in which they operate. Rather, their political representatives can be considered to be actively seeking to change their institutional frameworks, either directly through lobbying of political decision-makers at the national level or indirectly through public-relations work, so that they provide better support for the institutional requirements associated with the production of ICTs.

### 3.2.4 Summary of critical appraisals

As summarised in the following table, the critical appraisal of the three broad theoretical frameworks commonly used to investigate the effects of culture on economic activity has revealed both explanatory strengths and weaknesses for exploring the effects of culture on the production of ICTs in the French and German contexts:

| | Personality-traits framework | Organisation-culture framework | Institution-culture framework |
|---|---|---|---|
| **Strengths** | n/a | Recognises cultural diversity of France and Germany<br><br>Acknowledges that ICT companies in France and Germany may possess cultures that differ from the cultures of other social actors | Acknowledges that companies are imbedded in and influenced by wider socio-cultural contexts<br><br>Recognises that culture impacts on companies as an external force |
| **Weaknesses** | Draws on highly generalised, stereotypical descriptions of national cultures<br><br>Overlooks the cultural diversity of France and Germany<br><br>Neglects evidence suggesting that French and German ICT sectors have distinctive cultural systems | Assumes that company managers have the power within themselves to create and nurture company-specific cultures<br><br>Underplays the extent to which organisational cultures are potentially affected by external cultural influences | Assumes that social actors are passive and that their behaviour is automatically determined by institutional cultures<br><br>Fails to consider the ways in which social actors may attempt to change the institutional frameworks within which they are embedded<br><br>Overlooks the extent to which ICT companies question and challenge their institutional frameworks and associated institutional cultures |

**Table 4: Strengths and weaknesses of possible frameworks for explaining the effects of culture on ICT production in France and Germany (compiled by author).**

The key message to emerge from this critical analysis is that, if considered separately, each of the three theoretical frameworks provides only partial insights for exploring how the production of ICTs in the French and German contexts is affected by culture.

First, the aggregate-personality traits framework promotes simplistic, highly generalised and stereotypical accounts of national cultures. It would be misguided to use this particular framework to investigate the effects of culture on the production of ICTs in the French and German contexts as its focus would encourage researchers to overlook the cultural richness and diversity of France and Germany, and fail to consider the possibility that the French and German ICT sectors have their own distinctive cultural systems. Second, the organisational-culture framework is underpinned by the essentially atomistic assumption that company managers have the capacity to create and nurture corporate cultures. As such, this particular framework over-emphasises the importance of human agency; it also fails to consider the wider socio-cultural contexts in which French and German ICT companies are located, and ignores the extent to which these contexts exert exogenous influences on ICT companies. For its part, the institutional-culture framework encourages researchers to consider the citizens of a country in terms of passive social actors who accept in an uncontested and unquestioning manner the institutional frameworks and cultures in which they are embedded. Such a theoretical framework appears inappropriate for examining the influence of culture on ICT production in France and Germany because it neglects to consider the extent to which the political representatives of the French and German ICT sectors actively question, challenge and ultimately attempt to change the institutional frameworks within which they are embedded.

### *3.3 Towards a new theoretical framework*

Since none of the three frameworks appear suitable, on their own, for exploring the effects of culture on ICT production in France and Germany, it would appear that a specific theoretical framework needs to be elaborated. In developing this specific framework, however, the theoretical approaches outlined above are not dismissed

completely out of hand; rather, it is acknowledged that in particular the organisational culture and the institutional culture approaches have their own specific explanatory strengths which can be used to the advantage of the current programme of research. As such, the objective here is to combine certain theoretical underpinnings of these two particular approaches and complement them with insights drawn from other academic disciplines so as to take account of the specificities of the French and German contexts.

Central to the theoretical framework developed here is the presupposition, borrowed from the institutional culture approach detailed above, that social actors are exogenously affected by the institutional cultures within which they operate. In common with the institutional culture approach, the framework elaborated here is also based on the assumption that the production of different types of technology thrives under different institutional configurations. However, the theoretical framework underpinning this programme of research differs significantly from the institutional culture approach in one key aspect. Essentially, the framework rejects the assumption held by institutionalist writers that social actors automatically accept in an uncontested and unquestioning manner the institutional cultures within which they operate. In this respect, the framework draws on one of the theoretical assumptions underpinning the organisational culture approach: crucially, the framework insists on the importance of agency and shares with the organisational culture approach the assumption that social actors have within themselves the power to influence their cultural milieus.

Concerned with the assumption of the organisational culture approach that the managers of individual companies are able to influence company-specific cultures, the framework developed here adopts a wider perspective to recognise the extent to which company

managers attempt to influence the institutional environments, and therefore institutional cultures, within which they are embedded. Here, the theoretical framework draws on theoretical insights gleaned from the broad literature on interest group theory to acknowledge that social actors attempt through direct political lobbying, membership of government committees or public-relations activities to influence the outcomes of public policies that indirectly or directly shape the institutional configurations – and thus the institutional cultures – of their countries.

In particular, the framework in inspired by *pluralist* conceptions of systems of interest-group politics. According to these understandings on interest-group politics, a large number of policy stakeholders compete in the policy-making process to influence policy outcomes to the advantage of their members; each policy stakeholder mobilises and presents its specific demands and preferences to political decision-makers who largely respond to the competing demands of the different policy stakeholders within society. Essentially, 'policy outputs mirror the balance of societal forces as registered by the state' (Elgie and Griggs, 2000:152). In the words of Wilson (1987:18), the pluralist model of interest-group politics

> "describes power as widely distributed among numerous, autonomous groups representing social and political forces in the society. These groups confront government and each other in constant by shifting patterns of competition and cooperation that determine public policy. The state moderates among the conflicting demands presented by the interest groups as it determines official policy"

In identifying the competing policy stakeholders that participate in the policy-making process, the theoretical framework again draws inspiration from the organisational cultural approach insomuch as it shares the underlying assumption that national cultures are *heterogeneous* as opposed to *homogeneous* cultural entities. However, whereas the organisational culture approach contends that national cultures have as many sub-cultures as there are individual companies, the framework elaborated here rests on the supposition that countries can essentially be considered to consist of predominantly *conservative* and predominantly *progressive* sub-cultures.

In accordance with the theoretical framework developed here, what differentiates conservative from progressive cultures is the value that their respective members attach to the institutional framework conditions in which they operate. Crucially, a culture is considered to be conservative if its members exhibit an attachment to their country's historically-developed institutions. In this regard, members of conservative cultures actively seek to preserve the traditional features of their institutional heritages, which they perceive to have served them well in the past. Members of conservative cultures are wary of institutional change since it may undermine any privileges and entitlements that they enjoy under existing institutional configurations. By contrast, a culture is considered to be progressive if its members are critical of their country's historically-grounded institutions and call for new institutional framework conditions based on novel configurations; the members of progressive cultures actively seek to change the traditional features of their traditional institutions which are perceived as being unfavourable for their future development. In this respect, the members of progressive culture consider change to be necessary in order to establish the new institutional configurations that will support their future success.

Intellectually, this dichotomous classification system and its differentiation between conservative and progressive cultures draws its inspiration from the theory-based works of anthropologists who consider the way in which people think about the past, the present and the future to be one of the key features that differentiates one cultural system from another. The pioneers of this area of research were Kluckhohn and Strodtbeck (1961), who identified in their anthropological study of different communities in America three types of cultures: present-orientated cultures, past-orientated cultures and future-orientated cultures. In accordance with this typology, present-orientated cultures are relatively timeless, traditionless and ignore the future. Past-orientated cultures are mainly concerned with the maintenance or restoration of traditions in the present. Future-orientated cultures envisage a more desirable future and set out to achieve it.

Other researchers using similar taxonomies to classify cultural systems include, for example, Trompenaars and Hampden-Turner (2002), who state that different cultures may be more or less attracted to past, present or future orientations. Past-orientated cultures 'seek the return of a golden age [and] live in a nostalgic past' (*ibid*, 123). Present-orientated cultures live entirely in the present and contend that 'inquiry into things past is best forgotten' (*ibid*, 122). Future-orientated cultures 'dream of a world that never was and seek to create it from their own imaginings and yearnings' (*ibid*, 122-123). Hofstede (2001) uses a comparable classification system, differentiating between long-term-orientated and short-term-orientated cultures, which are characterised by the different levels of importance they attach to the past, present and future. Short-term-orientated cultures value the present and respect past traditions whilst long-term-orientated cultures are focused more on the future. For their part, Scollen and

Wong Scollen (1995: 147) differentiate between ‘golden age’ and ‘utopian’ cultures; in accordance with this typology, golden age cultures attach a considerable amount of importance to the past, when society was considered to be more reasonably ordered, and when justice and benevolence prevailed. Utopian cultures, by contrast, believe in progress and contend that their greatest accomplishments will be achieved in the future. Merk (2003) also considers the orientation to past, present and future to be a key feature that distinguishes one cultural system from another. Crucially, past-orientated cultures are characterised by a respect for ancestors and collective historical experiences. In present-orientated cultures, peoples’ lives tend to be directed by day-to-day experiences. In future-orientated cultures, human activities are directed towards future prospects and the past is not considered to be of vital significance.

### 3.3.1 Summary of theoretical framework

As has been discussed above, the theoretical framework developed here selectively incorporates theoretical assumptions from organisational and institutional approaches to investigating the effects of culture on innovation, and combines these with theoretical insights gleaned from other academic disciplines, most notably from interest-group theory. Bringing together these theoretical components avoids the weaknesses associated with each of the three approaches.

By integrating multiple-culture insights from the organisational culture approach, the framework acknowledges the heterogeneous and multiple character of national culture and overcomes the weaknesses identified with the aggregate-personality traits perspective of investigating culture. By including theoretical premises from the institutional approach, the framework recognises that companies operate within a wider socio-economic context and accepts that socio-economic contexts impact on companies

as an external variable. In this way, the framework avoids the atomistic excesses of the organisational culture perspective which states that company managers have the power within themselves to create and nurture company-specific cultures that are supportive of innovation. By incorporating elements of interest-group theory, the theoretical framework does not overstate the influence of this wider socio-economic context. Indeed, the framework suggests that social actors are not only influenced by but also actively seek to influence the institutional configurations within which they operate. In this way, it avoids the holistic excesses associated with the institutional culture approach to investigating the effects of culture on innovation.

Combining the insights gleaned from each of these theoretical literatures, the theoretical framework underpinning this research can be represented schematically as shown in the following, simplified model:

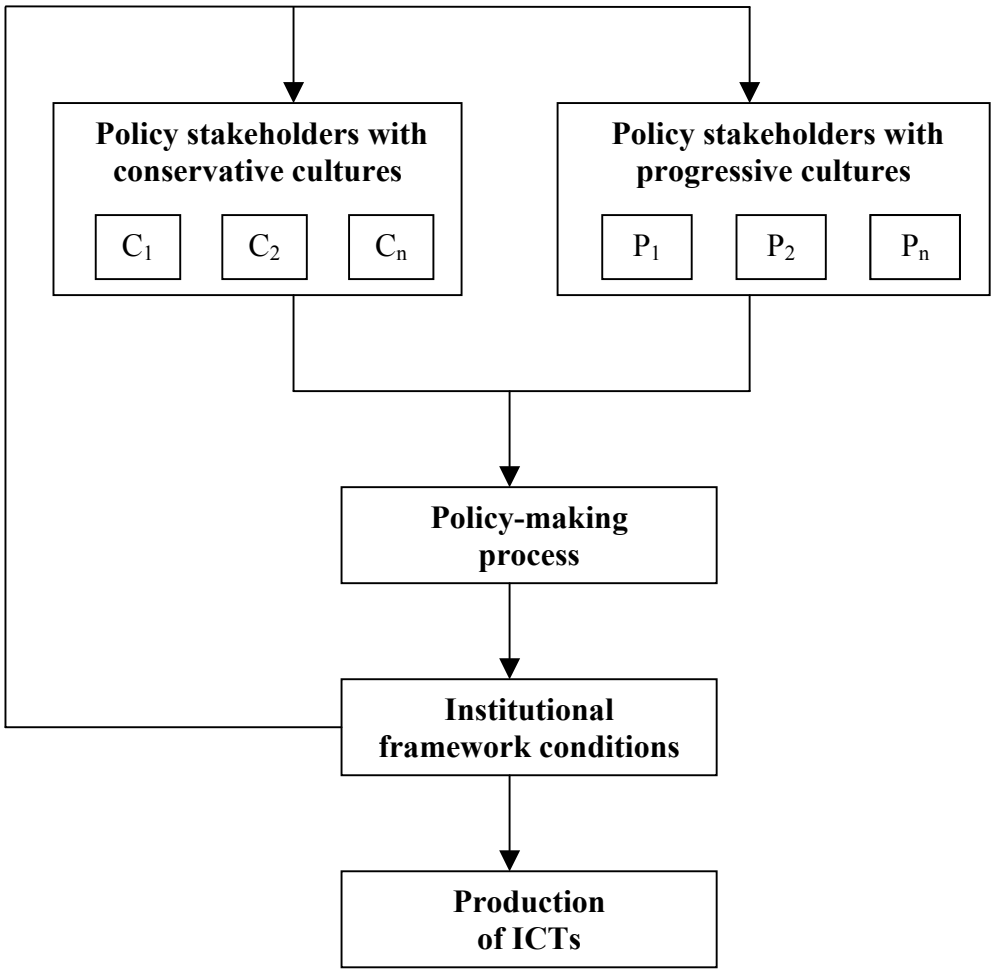


**Figure 8: Simplified theoretical framework for investigating the effects of culture on the production of ICTs in France and Germany (compiled by the author)**

By incorporating theoretical insights from organisational and institutional cultural approaches and combining these with theoretical components of interest group politics, the focus of the theoretical framework, as shown in Figure 8, is trained on the ways in which cultural factors impede the emergence of the institutional framework conditions associated with the successful development of ICTs, and how the absence of institutional change continues to impact negatively on the production of ICTs in France and Germany. Crucially, it focuses on identifying the extent to which French and German policy stakeholders with largely conservative agendas exert a negative

influence on the formulation of policies, which directly or indirectly affect the production of ICTs.

As Figure 8 shows, a large number of policy stakeholders participate in the policy-making process. These groups can essentially be classified as either conservative or progressive. Progressive policy stakeholders are critical of their country's institutional heritages; they challenge their country's traditional institutions and seek to establish novel 'rules of the game' by calling for policy measures that fundamentally change existing institutional configurations along a new trajectory of development. By contrast, conservative interest groups support their country's institutional heritages; either they lobby for policy initiatives that reinforce the historically-grounded development trajectory of their national institutions, or they support policy measures that promote a more moderate and cautious approach towards institutional change.

During the process of policy formulation, conservative and progressive policy stakeholders compete with each other as they mobilise and present their specific demands and preferences to political decision-makers. As political mediators that take account of the various viewpoints that imbue society, political decision-makers respond to the demands espoused by both the conservative and the progressive policy stakeholders. Consequently, policy outcomes reflect a balance of conservative and progressive forces as registered by the state. Viewed from this perspective, changes to public policy – and subsequently to institutional frameworks – are essentially a negotiated blend of conservative and progressive interests. Thus, any attempts at radically transforming institutional frameworks are potentially constrained by the

existence of conservative interest groups that adopt a more cautious attitude towards institutional change.

### *3.4 Predictions*

With specific reference to the current programme of research, the theoretical framework forms the basis of key predictions regarding the effects of culture on the production of ICTs in the French and German contexts. It is first predicted that stakeholders in the ICT sector will possess the most predominantly progressive cultural systems; they will be highly critical of the institutional frameworks within which their members operate, and will lobby political decision-makers in their respective countries for a radical overhaul of these institutions. Alongside the anecdotal evidence cited above to suggest that the political representatives of the French and German ICT sectors are actively seeking to change the institutional frameworks conditions within which they operate, this contention is based for the most part on the wide ranging professional experience gained by the author whilst working in both ICT companies (SAP AG, Kaidara S.A.) and traditional engineering companies (Turboméca, ZF Friedrichshafen AG, MTU München GmbH) in France and Germany. As has been reported elsewhere, evidence has been uncovered to suggest that the cultural systems of the French and German ICT sectors do not exhibit the characteristics associated with conventional accounts of French and German business culture (Barron and Trouille, 2001: Barron, 2001a and 2001b). Specifically, there is evidence to suggest that ICT companies in France and Germany seek to emulate the best practices of their counterparts in America.

Second, it is posited that, in both the French and German contexts, trade-union associations will possess the most conservative of cultures. Crucially, it is predicted that trade unions will be the stakeholders most opposed to changes in France and Germany's

institutional frameworks and will actively lobby political decision-makers in their respective countries for these institutions to be preserved. The prediction that trade unions in each country will possess the most conservative of cultures is drawn from the broad body of empirically-based work demonstrating that the vested interests of labour leaders in France and Germany have hindered the political innovations needed for radical reform.

That trade unions in France are attached to the existing institutional configurations and have attempted to delay reform is already well documented, particularly in the sphere of welfare policy (see, for example, Andolfatto, 2004: Andolfatto and Labbé, 2006: Albertin, 2004: Barroux, 2005: Bonnazza, 2005: Bonoli 1997 and 2000: Bourbon *et al*, 2005: Darnault, 1999: Henley, 2005: Houssen, 2005: Landier and Labbé, 2004: Mandin, and Palier, 2002: Prasad, 2005: Smith, 2004).[8] The literature on comparative industrial relations commonly rightly points out that German trade unions are less conflictual and more open to compromise than their French counterparts (Commissariat général du Plan/Deutsch-Französisches Institut, 2001: Dufour and Hege, 2002: Ebbinghaus and Visser, 2000: Ferner and Hyman, 1998: Martin and Ross, 1999: Maurice, 1999: Niedenhoff, 2005: Rigby *et al*, 1999: Schroeder and Weβels, 2003). Since the late 1970s, however, the combination of higher levels of unemployment, reduced rates of economic growth, the weaker position of German products in some of export markets and the move towards greater automation has gradually undermined traditional trade-union pragmatism (Conradt, 2001). In recent years, there has been evidence, particularly in the sphere of welfare policy, to suggest that German labour leaders have increasingly questioned the need for change and hampered the introduction of reform packages

[8] See also 'Power without responsibility - French trade unions' in *The Economist*, 29 April 2006, 379, 8475, p42; 'The strength in Juppe's inability to yield' in *The Economist*, 9 December 1995, 337, 7944, p49

introduced by the government (see, for example, Schmid and Steffen, 2003: Streeck and Trampusch, 2005: Wiesenthal, 2002)[9].

The postulation that trade unions in each country will possess the most conservative of cultures is based also on insights drawn from empirical evidence suggesting that union leaders in France viewed the emergence of the 'new economy' in the late 1990s and early 2000s with suspicion. Indeed, media reports published in both France (see, for example, Bernaert, 2001a and 2001b: Girard, 2001: Rollot, 2000 and 2001) and Germany (see, for example, Mattauch, 2002: Schmergal, 2001: Schnabel, 1999: Van het Kaar and Grünell, 2001)[10] suggested that trade unions were concerned that the business models employed in particular by start-up companies in the ICT sector and below average union membership in such companies had the potential to undermine the traditional position of unions as the representatives of employees in the French and German economies.

Third, the theoretical framework guiding this programme of research predicts that government policy affecting the composition of France and Germany's institutions will respond to the policy demands of policy stakeholders with both conservative and progressive cultures, such that the contents of government policies will reflect a balance

[9] See also 'Is consensus under threat?' in *The Economist*, 3 June 2000, 355, 8173, p50-51; 'A long, hard climb: German and French economic reforms' in *The Economist*, 18 October 2003, 369, 8346, p40; 'German trade unions – there's life in the old dinosaurs yet' in *The Economist*, 18 February 2006, 378, 8465, p41

[10] See also 'IT-Branche kennt keinen Feierabend - In vielen Unternehmen wird länger als die von DGB-Chef Schulte genannnten 50 Stunden pro Woche gearbeitet' in *Handelsblatt*, 23 May 2000, 099/2000, p8; 'Gewerkschaften – Wasser bis zum Hals' in *WirtschaftsWoche*, 1 June 2000, 23/2000, p26; 'Riesige Herausforderung' in *WirtschaftsWoche*, 1 June 2000, 23/2000, p26; 'Die Probleme der Gewerkschaft mit der New Economy' in *manager magazin*, 1 September 2000, available from http://www.manager-magazin.de/ [accessed 23 March 2003]; 'Die Gewerkschaften stecken in der Klemme' in *Die Welt*, 13 November 2000, available from http://www.welt.de/data/2000/11/13/594859.html [accessed 23 March 2003] 'New Economy: Sehnsucht nach dem Festgehalt' in *Der Spiegel*, 18 December 2000, 51/2000, p86; 'Zerstörte Träume – DAG -Vorstand Roland Issen fordert mehr Einfluss von Gewerkschaften bei Unternehmen der New Economy' in *Handelsblatt*, 2 January 2001, 001/2001, p9

of interests of conservative and progressive stakeholders, as moderated by the state. This essentially negotiated characteristic of policy formulation means that the business framework conditions that are deemed to provide optimum levels of support for the production of ICTs will, in France and Germany, have not fully emerged or will be emerging only slowly. This particular prediction rests chiefly on pluralist accounts of the French and German systems of interest-group politics, and in particular on the contention that political decision-makers, when formulating public policy, moderate the competing demands of the different policy stakeholders in society.

In the French context, this particular understanding of interest-group politics has been expounded amongst other by Lavau (1958), Meynaud (1962), Wilson (1982, 1983, 1987) and Hall (1993) and Safran (1998). In accordance with these accounts, political decision-makers in France adopt the role of broker between particular interests in constant and inevitable conflict to ensure that all interests are represented in policy outcomes. That political decision-makers in France are obliged to mediate between conflicting interests and search for social consensus can be traced back to the seminal and lasting importance attached by the French to Rousseau's notion of the state as custodian of the 'general interest' (Rousseau, 2004). Indeed, there remains the perceptions amongst many French people that political decision-makers are duty-bound to act on behalf of all individuals in society (Waters, 1998) and stand aloof 'from the narrow, sectarian interests to implement the general will' (Wilson, 1987: 183).

Long known for its tripartite negotiations between political decision-makers and the national representatives of employers and employees (Berg-Schlosser and Rytlewski, 1993: Conradt, 2001: Paterson and Southern, 1992), Germany has since the mid-1990s

experienced a waning of the corporatist arrangements underpinning this system of consensus politics (Triesch and Ockenfels, 1995: Weber, 1997: Harding and Sorge, 2000: Streeck, 2003). Specifically, it has been argued that the landscape of interest-group politics in Germany has become 'much more pluralist and dynamic than any textbook description of corporatism' (Sebaldt, 2002: 202). For example, business associations at the sectoral level and large firms are articulating their individual interests on an ever increasingly scale (Paterson and Southern, 1992: Martell, 1999: Von Alemann, 2000). This development, it has been argued, has been exacerbated by the increased heterogeneity of the German business community (Streeck, 2003) and the increased desire of sectoral business associations to single-handedly represent their sectoral interests (Sebaldt, 2002). In this changing environment, national governments are having to consider a greater scope of interests as they attempt to reach consensus in the policy-formulation process.

The following section – Section III – presents an empirical investigation designed specifically to ascertain the extent to which these predictions are borne out in the cases of France and Germany.

## SECTION III – RESEARCH METHODS

Section III of this thesis describes the empirical investigation conducted to explore whether conservative cultures in France and Germany impede the emergence of ICT-friendly business environments. It establishes the specific focus of the investigation, provides details on the type of data collected and explains which methods were used to interrogate and analyse this data.

## 4 Exploring the effect of culture on ICT production in France and Germany

Chapter 3 formulated some specific predications regarding the effects of culture on the production of ICTs in the French and German contexts. It was first predicted that stakeholders in the ICT sector will possess the most predominantly progressive cultural systems; they will be highly critical of the institutional frameworks within which their members operate, and will lobby political decision-makers in their respective countries for new institutions that better support ICT production. Second, it is posited that, in both the French and German contexts, trade-union associations will possess the most conservative of cultures. Crucially, it is predicted that trade unions would be the stakeholders most opposed to changes in France and Germany's institutional frameworks and will actively lobby political decision-makers for these institutions to be preserved. Third, it was predicted that government policy affecting the composition of France and Germany's institutions will respond to the policy demands of policy stakeholders with both conservative and progressive cultures, such that the contents of government policies will reflect a balance of interests of conservative and progressive stakeholders, as moderated by the state. Consequently, it was predicted the this essentially negotiated character of policy formulation would hamper the emergence in France and Germany of the business framework conditions that are deemed to provide optimum levels of support for the production of ICTs.

To ascertain the validity of these predictions, an empirical investigation was designed to explore the extent to which government policy shaping these framework conditions is responsive to the demands of conservative policy stakeholders. Essentially, it was decided to examine specific policy debates in France and Germany, identify in these debates progressive and conservative policy stakeholders, and assess the extent to which

the policy preferences of each type of stakeholder prevail in the policy initiatives ultimately introduced by national governments.

This chapter addresses the design of this empirical investigation, and is structured as follows. The first section defines the specific focus on the empirical investigation and explains why the programme of empirical research was bounded in terms of a specific number of policy measures and in terms of a particular timeframe. The second section of this chapter provides specific information on the research subjects covered by the investigation. Crucially, it details which policy stakeholders were included in the investigation, and explains why the investigation focused on these particular stakeholders. In its third section, the chapter discusses the type of data that had to be collected, describes which methods were used to gather this data, and explains the methodological reasoning behind the choice of methods. The fourth section of the chapter addresses the methods used to analyse the collected data. It explains how the data were interrogated to assess the validity of the predictions generated by the theoretical framework, and provides a rationale justifying the choice of analysis methods. The methods and procedures underpinning the empirical investigation are summarised in the final section of this chapter.

### *4.1 Defining the research context*

Exploring whether conservative stakeholders in France and Germany have impeded the emergence of the institutional framework-conditions required for the successful production of ICTs could feasibly cover a great many policy initiatives introduced over an extended timeframe. For practical reasons, however, the decision was taken to delimit the research in terms of a specific timeframe and in terms of the policy areas that it covered.

### 4.1.1 Determining the timeframe of the investigation

The empirical work undertaken first focused on a specific timeframe. As the literature on the history of computing clearly highlights, computers and ICT technologies are not new phenomena (Aspray, 1990: Campbell-Kelly and Aspray, 2004: Ceruzzi, 2000: Metropolis *et al*, 1980: Moreau, 1984a and 1984b: Randell, 1982: Rojas and Hashagen, 2000: Williams 1997). Indeed, devices such as the abacus have been used as an aid to computation for millennia, and the first programmable computer systems date from the late nineteenth century. Against this backdrop, successive governments in both France and Germany have in the past launched policy initiatives designed to promote computing and ICTs. Indeed, as was illustrated in the literature review of this thesis, past French, and to a lesser extent German, governments have since the 1960s initiated a number of policy measures to promote their national ICT industries. French endeavours to strengthen the national computing industry have included the *Plan Calcul* announced in 1967, the on-going efforts throughout the 1970s and 1980s to promote Bull as a national IT champion and the *Plan pour la Filière Electronique* of the early 1980s. In Germany, the first, second and third IT programmes (*Erstes DV-Programm 1967, Zweites DV-Programm 1971, Drittes DV-Programm 1979*) focused on stimulating the development of software competence and on the sharing of competence with commercial users.

Notwithstanding these programmes, the focus of this research is trained largely on policy developments in France and Germany since the middle of the 1990s up to early 2006. This particular period of time was singled out for investigation because it covers a number of significant developments in the ICT arena. Indeed, it was during this specific timeframe that the extensive proliferation of networking and Internet technologies gave

rise to the 'new economy', a term coined to describe the evolution of advanced economies from manufacturing-based economies to high technology-based economies arising primarily from new developments in the technology sector (Atkinson and Court, 1998: Cohen and Debonneuil, 2000: OECD, 2000d and 2001a: Visco, 2000: Barron and Trouille, 2001: Barron, 2001a and 2000b). In addition, there emerged during this period a perception that ICTs were becoming increasingly pervasive and having far-ranging economic impacts; they were seen as a significant contributory factor to high growth in industrialised countries, as a catalyst of changes in business, as a driver of innovation and as an enabler of closer networks between producers and consumers (OECD, 2001a). Furthermore, it was during this specific period that the development of competitive ICT sectors was regarded, especially amongst politicians in Europe, as a remedy for high levels of unemployment. Indeed, it was against this particular background that the European Union (EU) placed the development of new ICT technologies at the core of its Lisbon Strategy to make Europe 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'[11] by 2010. So, although relatively short in duration, the period commencing in the mid-1990s was one during which there was a growing recognition that it was necessary to introduce new policies in order to confront the challenges of the ICT revolution.

### 4.1.2 Determining the policy areas to be analysed

The empirical investigation underpinning this programme of research was also bounded in terms of the policy areas to be analysed. It is generally recognised that ICT companies thrive in countries possessing specific framework conditions that cover all

[11] 'The Lisbon Strategy - Working together for Europe's future', available from http://europa.eu.int/growthandjobs/index_en.htm [Accessed 10 May 2005]

traditional policy areas (European Commission, 1999, 2001, 2002b, 2003a, 2004a, 2004b: OECD, 1997a, 2000a, 2001a, 2001b, 2002a, 2004b). However, acknowledging that the success or failure of ICT companies is contingent on such a rich patchwork of complementary and interlinked policy measures necessarily brings into focus a wide range of policy areas, including innovation policy, education and training policies, macro-economic policies and policies fostering firm creation and entrepreneurship. From a practical perspective, however, it was doubtful whether each and every one of these policy areas could be exhaustively examined with the parameters of this programme of research. It was therefore considered necessary to limit the number of policy areas to be analysed.

One possible strategy for delimiting the number of policy areas analysed could have involved focusing on policy programmes specifically initiated to promote the information society. In this regard, the analytical focus could, in the case of France, have been trained on the Governmental Action Programme for the Information Society (*Programme d'action gouvernementale pour l'entrée de la France dans la société de l'information - PAGSI*), and in Germany on the Innovation and Jobs for the Information Society of the 21st Century (*Innovation und Arbeitsplätze in der Informationsgesellschaft des 21. Jahrhunderts*) initiative. However, focusing exclusively on these particular policy initiatives appeared inappropriate for the current programme of research, especially since these two programmes by and large introduced measures designed to promote the *usage* and *proliferation* of ICTs rather than their direct *production*.

Against this background, it was therefore decided to focus attention on three specific policy areas. First, the decision was taken to consider policies broadly affecting the French and German financial systems. Here, attention was trained in particular on laws regulating company financing and on rules governing relationships between companies and their external providers of finance. Second, it was decided to focus on labour-market policy, understood as the set of rules and regulations that govern employment-protection legislation and employee working-time arrangements. Of particular concern were policies affecting the ease with which employers can recruit and dismiss employees, and vary the number of hours that their employees work per day, week or year. Finally, it was decided to focus attention on policies broadly aimed at promoting the provision of technical and specialist ICT skills. Mindful that ICT companies commonly make use of numerous channels to satisfy their demand for employee skills (OECD, 2004d), policies for skills provision were understood in a broad sense to cover not only education policy but also immigration policy and policies addressing lifelong learning.

The decision to focus attention on these specific policy areas was informed by two key considerations. First of all, each represents a highly visible and highly politicised area of policy in both France and Germany. Crucially, issues pertaining to financial systems, labour-markets regulations and institutions for skills provision have since the mid-1990s occupied central positions in French and German debates on the transformation from industrial societies to knowledge-based, information economies (Annesley, 2004: Breyer *et al*, 2004: Bricq, 2001: De Montbrial, 2003: Keese, 2004: Lancelot: 2002: Nolte, 2004: Palier, 2002: Queme, 2002: Sinn 2003 and 2004: Steingart, 2004: Strüven *et al*, 2003: Walter and Deutsch, 2004: Zimmermann, 2004). Although it was

acknowledged that focusing specifically on high-profile political issues ran the risk of overlooking other less visible but nonetheless important policy areas, it was hoped that the highly visible nature of these policy areas would facilitate the collection of the data required for exploring the themes of this research.

The second, and major, reason for focusing on these three policy areas was the clear mismatch between the institutional traditions of France and Germany in each of these three policy fields and the institutional requirements of ICT companies. As has been demonstrated in the literature review of this thesis, there is a commonly held perception that the France and Germany's financial systems, labour-market regulations and institutions for the skills provision have developed along historical trajectories that appear to be at odds with the framework conditions deemed supportive of ICT companies. Indeed, the French system of state-led capitalism and the French bank-based financial system differ quite considerably from the market-based financial systems that provide venture-capital investors in ICT companies with appropriate exit channels, that constitute a key precondition for the well-functioning stock-option programmes needed by ICT companies to attract and retain staff, and that provide companies with incentives to specialise in radical innovations that characterise high-tech industries. The French and German traditions of employment protection, the attachment to permanent, open-ended employment contracts and the long traditions of reducing overall working time sit uncomfortably next to the flexible labour-market regulations that enable ICT companies to easily recruit and dismiss new staff and flexibly adjust working-time arrangements so as to develop entirely new product lines relatively quickly or modify working-time arrangements to match the dynamic demand-conditions on the ICT market. French and German institutions for skills provision also run counter to the requirements of ICT

companies. The importance that French universities have traditionally attached to theoretical teaching and the concept of academic freedom historically promoted by German universities has called into question the ability of each country's system of higher education to deliver graduates that possess both the specialised technical competencies and the generic transferable soft skills that underpin successful ICT production. The relatively restrictive immigration regimes established in France and Germany since the early 1970s contrast sharply with the liberal immigration policies that enable ICT companies to recruit skilled migrant workers and compensate for the low geographical and occupational mobility of native-born populations. The comparatively poor reputation and uptake of continued workplace education in both France and Germany does not provide employees of ICT companies to attend lifelong-learning programmes so that they can keep pace with the latest technological developments.

### *4.2 Identifying the research subjects*

Having determined the policy areas and the timeframe to be covered by the study, the next phase involved determining on which research subjects to concentrate. Since it was predicted that policy stakeholders in the French and German ICT sectors would possess the most progressive of cultural systems and would lobby political decision-makers in their respective countries for a radical overhaul of these institutions, a first step involved identifying the main business associations in each country's ICT sector. A second step involved identifying the other major stakeholders, including trade-union organisations and business associations in the wider business communities of France and Germany, that have actively contributed to debates surrounding each of the individual policy areas covered by the study. How these specific groups of research subjects were identified is discussed in detail below.

### 4.2.1 Identifying ICT business associations in France and Germany

Since the late 1990s, the number of business associations representing the political interests of employers in the French and German ICT sectors has dramatically increased. In the case of Germany, there have emerged new lobby groups seeking to shape the political agenda so that it matches the requirements of ICT companies (EIRO, 2001: Menz, 2004). In the case of France, a non-exhaustive database maintained by the French IT magazine *Journal du Net* identifies 196 professional associations and lobby groups within the French ICT alone[12]. Notwithstanding this recent rise in the number of ICT lobby groups, the decision was taken to focus attention on the most prominent ICT business associations in France and Germany. These specific business associations were included in the investigation for reasons of data collection. Crucially, it was hoped that the data required for the empirical investigation could be easily gleaned from the many policy documents and position papers regularly published by such high-profile associations.

Therefore, in the case of France, attention was focused on the *Syntec-Informatique, Croissance Plus* and the *Centre des jeunes dirigeants d'entreprise* (CJD) associations. Established in 1970, the *Syntec-Informatique* association of French software and computing service companies today lobbies for the professional, social and economic interests of nearly 500 French software companies, employing 168,000 people and generating over 85% of the French ICT sector's sales.[13] The *Croissance Plus* business association was created by Denis Payre in 1997 to represent the interests of French managers in charge of high-growth companies. Although the association has recently

[12] 'Les associations et lobbies du Web français' in *Journal du Net*, available from http://www.journaldunet.com/dossiers/associations/index.shtml [Accessed 7 August 2006]

[13] 'Mission de Syntec-Informatique', available from http://www.syntec-informatique.fr/DesktopDefault.aspx?TabID=211 [Accessed 4 May 2006]

attracted new members from the biotechnology sector, the majority of its founding members operate in the French ICT sector.[14] It was also decided to focus attention on the *Centre des jeunes dirigeants d'entreprise* (CJD) because, during the timeframe considered as part of this research, the association was headed by Sylvain Breuzard, the director of a French ICT company Norsys, and was increasingly aligning itself with associations representing companies operating in the French ICT sector.

In Germany, attention was focused primarily on the German Association for Information Technology, Telecommunications and New Media (*Bundesverband Informationswirtschaft, Telekommunikation und neue Medien – BITKOM*), the country's largest lobby group representing the interests of the German ICT sector. The association cites political lobbying as one of its major objectives, and has centred its political activities on issues as broad and diverse as general economic policy, financial policy and taxation, telecommunications and media policy, education and labour market policy, intellectual property and copyright issues and aimed at the promotion of small and medium-sized businesses in Germany (BITKOM, 2006). Depending on the policy issue under investigation, the policy preferences of other ICT business associations were also considered. Thus, the *Initiative D21* association appeared to contribute actively to debates on higher-education reform, and so its policy positions on education reform were considered. By the same token, the Association of the German Software Industry (*Verband der deutschen Softwareindustrie – VSI*) issued a number of policy statements addressing specifically the issue of labour-market reform.

[14] 'Historique de Croissance Plus', available from http://www.croissanceplus.com/presentation.php?id_present=3 [Accessed 24 March 2006]

### 4.2.2 Identifying other policy stakeholders

The next step involved identifying in France and Germany the stakeholders who, alongside associations in the ICT sector, made an active contribution to debates in each of the policy areas included in the programme of research. This was done by following policy developments and debates in academic volumes and in the French and German media, and by consulting the policy-monitoring instruments provided by international organisations. In this respect, the International Reform Monitor[15] was used as a general source of data. Stakeholders with an interest in French and German labour-market policy were identified by means of the European Industrial Relations Observatory (EIRO)[16]. Stakeholders with an interest in reforms to France and Germany's institutions for skills provision were identified using information published by EURYDICE[17]. A complete list of the main policy stakeholders identified in each specific policy area appears in the appendix of this thesis.

## *4.3 Choosing the methods of data collection*

Recall that the objective of the empirical investigation was to explore whether conservative stakeholders in France and Germany have hampered the emergence of the institutional framework-conditions considered necessary for successful ICT companies. Specifically, the investigation aimed to examine French and German policy debates in the areas of financial-system, labour-market and skills-provision reform and ascertain the extent to policies in these specific areas are responsive to the demands espoused by

[15] Maintained by the Bertelsmann Foundation, the International Reform Monitor (http://www.reformmonitor.org) is a database of articles on social, labour market and broad industrial relations issues written by renowned international research institutes and advisory boards.

[16] The European Industrial Relations Observatory (EIRO) (http://www.eiro.eurofound.eu.int.) is a research database compiled by the European Foundation for the Improvement of Living and Working Conditions to disseminate information on key developments in industrial relations in Europe.

[17] EURYDICE (http://www.eurydice.org/)is a database managed by the DG Education and Culture of the European Commission. It provides access to information on education system and policies in member states and candidate countries of the European Union.

conservative and progressive policy stakeholders. In each of these policy areas, the objective was to identify conservative and progressive stakeholders and assess the extent to which their respective policy preferences prevailed in the political measures and initiatives ultimately introduced by the national governments of France and Germany.

To determine the extent to which policy in France and Germany has responded to the policy preferences espoused by conservative and progressive stakeholders, two specific types of data were collected. First, data was collected on the policy preferences of the different stakeholders that have contributed to debates and discussions regarding each of the three policy areas under investigation. Second, data was collected on the actual contents of the measures and initiatives introduced in each of the policy areas examined. The following section provides additional details on how each of these specific types of data was collected.

### 4.3.1 Collecting data on the policy preferences of policy stakeholders

In an initial step, data was collected on the policy demands, preferences and positions advocated by each of the policy stakeholders in debates regarding their national system of finance, labour-market regulations and institutions for skills provision. This data was gathered from two key sources. First, the websites of each policy stakeholder were consulted for press releases, publications or policy statements (*prises de position*, *Stellungnahmen*) relating specifically to the three policy areas covered by the programme of research. In some cases, the websites of policy stakeholders did not provide a great deal of information on their policy positions. In addition, the data gathered often provided only a brief snapshot of their political lobbying activities, and did not contain information dating back to the late 1990s. Consequently, the website

data were complemented by a second source of data, namely information on policy preferences gleaned from interviews conducted since the late 1990s by the French and German press with the different policy stakeholders.

### 4.3.2 Collecting data on the contents of policy measures

In a second step, information was gathered on the contents of the individual policy measures introduced since the late 1990s with the potential to affect France and Germany's financial systems, labour-market regulations and institutions for skills provisions. This information was needed in order to ascertain the extent to which the policy measures were responsive to the concerns of each of the policy stakeholders. A number of secondary sources of data were used first to identify the individual policy measures and second to collect detailed information on their contents.

Much of the information on changes to France and Germany's financial systems was gleaned from academic volumes and journal articles. As analysts of the French and German political economies have since the 1980s increasingly debated whether France and Germany have been converging towards the Anglo-Saxon model of capitalism, a rich body of literature has emerged providing a valuable source of information on recent changes to France and Germany's financial systems (see for example Albert, 1991: Amable, 2005: Amable and Petit, 2002: Berger and Dore, 1996: Clift, 2003a, 2003b, 2004a, 2004b: Cox, 1986: Crouch and Streeck, 1997: Goyer, 2003: Hall, and Soskice, 2001: Höpner, 2001: Jürgens *et al*, 2002: Lütz, 2005: Maclean, 2001 and 2002: Morin, 2000: O'Sullivan 2001 and 2003: Schmidt, 2003: Vitols, 2001a, 2001b and 2004). Given their topicality, much less up-to-date academic literature was available on French and German labour-market policy and on reforms of institutions for skills provision. Therefore, details on the specific policies introduced in these two areas were gleaned

primarily from other data sources, including the International Reform Monitor, the European Industrial Relations Observatory, EURYDICE and from the websites of French and German government ministries. This information was supplemented by data sourced from the French and German financial press and from the monitoring work undertaken by international organisations. In this regard, the annual economic surveys of France and Germany conducted by the Organisation for Economic Co-operation and Development provided particularly valuable sources of data (OECD, 1998, 1999a, 1999b, 2000b, 2001c, 2001d, 2002c, 2003a, 2004c, 2005b).

### *4.4 Choosing the methods of data analysis*

Having discussed the issues surrounding data collection, attention now turns to data analysis. Essentially, the following section explains how the data were interrogated so as to assess the validity of the predictions generated by the theoretical framework. Recall that the empirical investigation sought to explore whether policy stakeholders with conservative cultures have hampered the emergence of the institutional framework-conditions considered necessary for the successful production of ICTs. A first step, therefore, involved interrogating the collected data in order to ascertain which policy stakeholders in France and Germany possessed conservative cultures. A second step focused on ascertaining whether government policy shaping the financial, labour-market and skills-provision institutions of France and Germany had responded to the preferences espoused by these conservative stakeholders. The methods of analysis employed to carry out each of these two distinctive steps are discussed in greater detail below.

### 4.4.1 Identifying the cultural systems of policy stakeholders

As has been stated above, a first analytical step involved interrogating the data to ascertain whether there exist in France and Germany policy stakeholders that possess conservative cultures. This was done by applying a culture-based classification system to the policy preferences of the policy stakeholders with an interest in the outcomes of the policy debates under investigation.

#### 4.4.1.1 Using a language-orientated, qualitative method of data analysis

In accordance with Tesch's taxonomy of methods of qualitative analysis (Tesch, 1990), the policy preferences of the different policy stakeholders were analysed from a language-orientated, qualitative perspective. Crucially, the contents of policy statements issued by policy stakeholders and the responses of interest-group representatives to interview questions were analysed not to glean hard facts about the configurations of French and German financial systems, labour-market regulations and institutions for skills provision; rather, they were interrogated so as to identify the attitudes of interest-group representatives to these institutional constellations and thus make inferences about their underlying cultural values.

In this regard, the method of data analysis used in this study draws on the work of Trompenaars and Hampden-Turner (Trompenaars and Hampden-Turner, 2002: Hampden-Turner and Trompenaars, 1994) insomuch as it understands culture in terms of an onion. As illustrated in Figure 9 overleaf, language is, according to this analogy, located on the outer layer of the cultural onion and represents one of the observable realities of a cultural system:

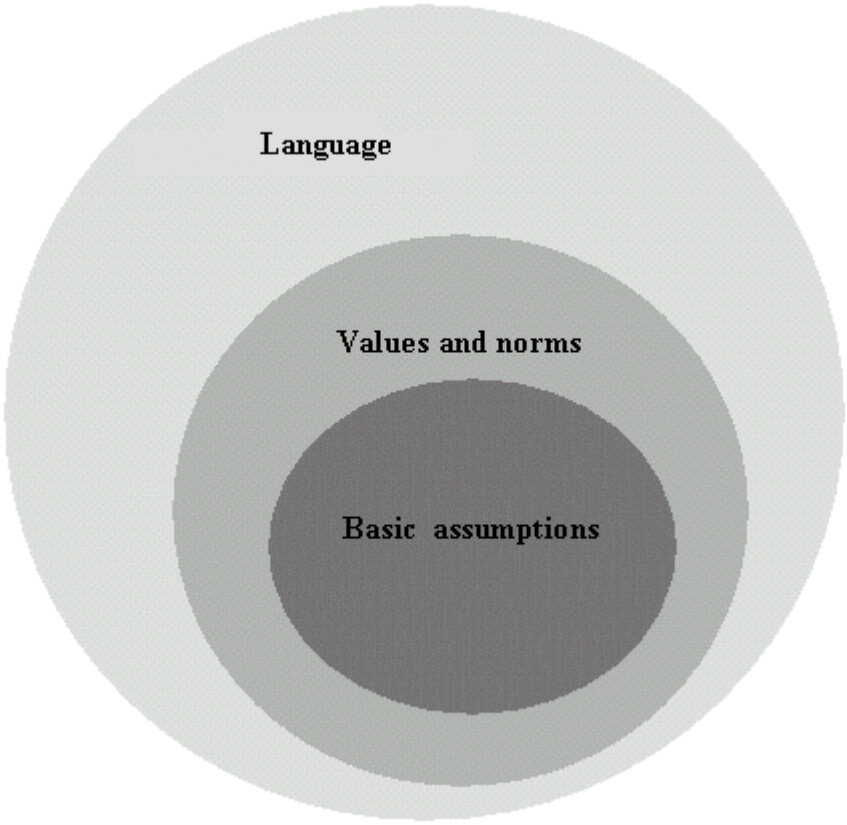


***Figure 9: Language is located on the outer layer of the cultural onion and represents an observable reality of a cultural system (adapted by author from Trompenaars and Hampden-Turner, 2002)***

Since language constitutes an explicit manifestation of culture, it can be analysed to uncover the deeper, implicit levels of that culture. Using such a language-based method of data analysis to uncover the implicit expressions of culture has been advocated chiefly by researchers adopting hermeneutic and critical approaches to social enquiry (May, 2001). Cicourel (1964), for example, contends that spoken and written language contains unstated meaning structures, which reflect underlying social patterns and values. Robson (1993) states that text contains not only *manifest* content but also *latent* content whose discovery depends on interpretations on the part of the researcher. For their part, Frankfort-Nachmias and Nachmias (1996: 324-329) claim that written and spoken text contains hidden messages sent by authors which can be used by researchers

to make inferences about the values of their authors. This approach to data analysis essentially echoes the position defended by Silverman (1993) who advises researchers against treating the point of view of their research subjects as an explanation to the phenomena they are investigating. Instead, text or interview responses should be considered to be only a perception of reality, and never assumed to be true.

#### 4.4.1.2 Distinguishing between conservative and progressive cultures

The design of the classification system used to identify conservative cultures was guided by the theoretical propositions upon which the programme of research is founded. Recall that the theoretical framework underpinning this programme of research incorporated a dichotomous classification system that differentiates between conservative and progressive cultures; this classification mechanism drew its inspiration from the theory-based works of anthropologists such as Kluckhohn and Strodtbeck (1961), Scollen and Wong Scollen (1995), Hofstede (2001), Trompenaars and Hampden-Turner (2002) and Merk (2003) who consider the way in which people think about the past, the present and the future as one of the key features that differentiates one cultural system from another.

Against this background, policy stakeholders were identified as possessing a conservative culture or a progressive culture in accordance with their attitudes towards the historically-entrenched institutional configurations of their respective countries. At this juncture, it appears useful to refer back briefly to what were considered as the historically-grounded institutional arrangements of France and Germany.

As regards financial institutions, it was established in the literature review of this thesis that the French system of finance can, from a historical perspective, be classified as a

system of state-led capitalism in which the state has historically played a central role in financial matters. For its part, Germany has traditionally been considered to be a textbook case of a bank-based financial system, in which banks have been the dominant financial actors in the system of economic management. In the sphere of labour-market institutions, both France and Germany have rich traditions of high levels of employment protection. Both countries boast a history of strict employment protection legislation; employment law in each country has traditionally placed a strong emphasis on permanent, open-ended contracts of employment as the standard, almost mandatory form of employment relationship; and each country has, since the Second World War, witnessed a trend towards a general reduction in working time.

With respect to institutions for skills provision, it was shown that the French system of higher education has historically attached importance to abstract, theoretical teaching; furthermore, successive French governments have traditionally sought to establish increasingly restrictive immigration regimes, even for highly-skilled workers; moreover, the individual uptake of and investment in continuing education measures has historically been low. In the case of Germany, the concept of academic freedom (*Lernfreiheit*) entrenched in the Humboldtian university tradition has encouraged students to devote long periods of time to their university studies; the immigration of skilled labour has not traditionally been considered a matter of national interest and politicians have undertaken efforts to restrict rather than promote immigration; finally, German politicians have been slow to recognise the economic benefits of lifelong learning and national education policy has historically remained unaffected by international efforts to promote lifelong learning.

So, against this background, policy stakeholders were considered to have a progressive culture if their policy preferences exhibited a predominantly critical attitude towards their country's historically-grounded institutional arrangements. By contrast, policy stakeholders were considered to possess conservative cultures if their policy preferences reflected an attachment to their country's entrenched institutional constellations. More detailed information on the identification of cultural systems is set out below.

#### 4.4.1.3 Identifying conservative cultures

Policy stakeholders were identified as possessing a conservative culture if they exhibited an attachment to the traditional institutional arrangements of their respective countries. As detailed in the following table, policy stakeholders in France and Germany were identified as having conservative cultures if they campaigned against institutional change along new trajectories of development, or if they adopted a moderate and cautious attitude towards institutional change:

| Policy area | Characteristic features of conservative cultures | |
|---|---|---|
| | **France** | **Germany** |
| **Financial reform** | Calls for preservation of state-controlled system of finance<br><br>Challenges emergence of market-based financial system | Calls for preservation of bank-based system of finance<br><br>Challenges emergence of market-based financial system |
| **Labour-market reform** | Calls for preservation of high levels of redundancy protection<br><br>Defends open-ended, permanent employment contract as the standard employment relationship<br><br>Seeks to preserve low working hours | Calls for preservation of high levels of redundancy protection<br><br>Defends open-ended, permanent employment contract as the standard employment relationship<br><br>Seeks to preserve low working hours |
| **Skills provision** | Seeks to preserve theory-based university courses<br><br>Calls for maintenance of restrictive migration regulations<br><br>Resists calls to increase employee access to lifelong learning programmes | Seeks to preserve long periods of university study<br><br>Calls for maintenance of restrictive migration regulations<br><br>Opposes creation of institutional framework at Federal level governing access to lifelong learning programmes |

**Table 5: Factors used to identify conservative cultures in policy debates in France and Germany (compiled by the author)**

Essentially, this table demonstrates that, in the case of France, policy stakeholders were considered to possess a conservative culture if, in debates about financial systems, they called for the preservation of the country's state-administered financial system or if their policy preferences criticised the development of market-orientated financial systems. In the area of labour-market policy, stakeholders were considered to possess a conservative

culture if they attempted to maintain the historically high levels of employee protection against redundancy, if they lobbied for the preservation of open-ended, permanent employment contracts, and if they sought to reduce working hours or resisted attempts to increase working hours. In policy debates about institutions for skills provision, policy stakeholders in France were considered to have a conservative culture if they sought to preserve theory-based university courses and challenged calls for more vocationally-orientated instruction; if they attempted to keep in place a restrictive policy towards economic migration and questioned the creation of mechanisms for managing economic migration; and if they resisted calls to increase employee access to lifelong learning programmes.

In the same way, the table shows that, in the case of Germany, policy stakeholders were considered to possess a conservative culture if, in debates about financial reform, they called for the preservation of the country's bank-based financial system and if their policy preferences obstructed the emergence of the component features of market-orientated financial systems. With respect to labour-market policy, stakeholders were considered to possess a conservative culture if they attempted to maintain the historically high levels of employee protection against redundancy, if they lobbied for the preservation of open-ended, permanent employment contracts, and if they sought to reduce working hours or resisted attempts to increase working hours. In debates on institutions for skills provision, policy stakeholders were identified as possessing a conservative culture if they sought to preserve the tradition of academic freedom and resisted calls for the introduction of shorter degree courses; if they attempted to maintain restrictive regulations governing economic migration; and if they lobbied

against the creation of an institutional framework at the Federal level to govern employee access to lifelong learning.

#### 4.4.1.4 Identifying progressive cultures

Policy stakeholders were considered to possess progressive cultures if their policy preferences were critical of their country's historically-grounded institutional arrangements. As detailed in the following table, policy stakeholders in France and Germany were identified as possessing progressive cultures if they lobbied for rapid and often radical changes to these traditional institutional configurations along new trajectories of development:

| Policy area | Characteristic features of progressive cultures | |
|---|---|---|
| | **France** | **Germany** |
| **Financial reform** | Challenges state-controlled system of finance<br><br>Calls for emergence of market-orientated financial system | Challenges bank-based system of finance<br><br>Calls for emergence of market-orientated financial system |
| **Labour-market reform** | Challenges preservation of high levels of redundancy protection<br><br>Attempts to establish fixed-term employment contract as the standard employment relationship<br><br>Seeks to increase working hours | Challenges preservation of high levels of redundancy protection<br><br>Attempts to establish fixed-term employment contract as the standard employment relationship<br><br>Seeks to increase working hours |
| **Skills provision** | Challenges the value of theory-based degree courses<br><br>Challenges restrictive migration regulations<br><br>Calls for increased employee access to lifelong learning programmes | Challenges the value of long periods of university study<br><br>Challenges restrictive migration regulations<br><br>Calls for creation of institutional framework at Federal level governing access to lifelong learning programmes |

**Table 6: Factors used to identify progressive cultures in policy debates in France and Germany (compiled by the author)**

Essentially, this table shows that, in the case of France, policy stakeholders were considered to possess a progressive culture if, in debates about financial reform, they challenged the French tradition of state-administered finance and lobbied for the polices that promoted the development of market-orientated financial systems. In the arena of labour-market policy, stakeholders were considered to possess a progressive culture if they challenged France's historically high levels of redundancy protection and if they

challenged the tradition of permanent contracts and lobbied for legislation making it easy to conclude fixed-term employment contracts between employers and employees. Stakeholders were also considered to posses a progressive culture in they sought to increase the number of hours worked by French employees. In policy debates about institutions for skills provision, policy stakeholders in France were considered to have a progressive culture if they questioned the value of theory-based degree courses and called for more vocationally-orientated instruction in higher education. They were also considered to have progressive cultures if they lobbied for less restrictive immigration regulations and if they campaigned for legislation that increased employee access to lifelong learning programmes.

In the case of Germany, the table illustrates that policy stakeholders were considered to have progressive cultures if, in debates about financial reform, they challenged the country's traditional bank-based financial system and called for policies that ushered in features of market-orientated financial systems. In the area of labour-market policy, stakeholders were considered to possess a progressive culture if they were critical of Germany's historically-grounded legislation on employment protection and if they lobbied for labour laws facilitating the signing between employers and their staff of fixed-term employment contracts. Stakeholders were also considered to posses a progressive culture in they sought to increase the number of hours worked by German employees. In German policy debates on the institutions for skills provision, stakeholders were identified as possessing a progressive culture if they criticised the German traditions of academic freedom and called for the introduction of shorter periods of study at German universities. Stakeholders were also identified as having a progressive culture if they challenged Germany's historically restrictive immigration

regulations and called for a more open migration policy, particularly with respect to scare, high-skilled workers. Stakeholders calling for the creation of an institutional framework at the Federal level for governing access to lifelong learning programmes were also classified as having a progressive culture.

### 4.4.2 Determining the responsiveness of policy measures

Building on these attempts to identify conservative and progressive policy stakeholders, a second step of the data analysis focused on exploring the extent to which government policy shaping the financial, labour-market and skills-provision institutions of France and Germany was responsive to the concerns raised by conservative stakeholders and to the preferences advocated by progressive stakeholders. Here, the procedures used for analysing data drew a large part of their inspiration from an analytical approach advocated by Weber (1977) in his seminal work on interest-group politics and subsequently adopted by other researchers, including amongst others Ball and Millard (1986), Selck and Kaeding (2004) and Kaeding and Selck (2005). In accordance with this particular approach, it is possible to determine the responsiveness of government policy to the demands of specific policy stakeholders by comparing the original policy preferences of these stakeholders with the outcomes of the policy-formulation process. Policies were considered to be responsive to the concerns of a stakeholder if they incorporated the demands of that stakeholder. The greater the number of demands incorporated in a policy measure, the more responsive was considered the policy to the preferences of the stakeholder. Figure 10 provides a simplified example to illustrate this approach:

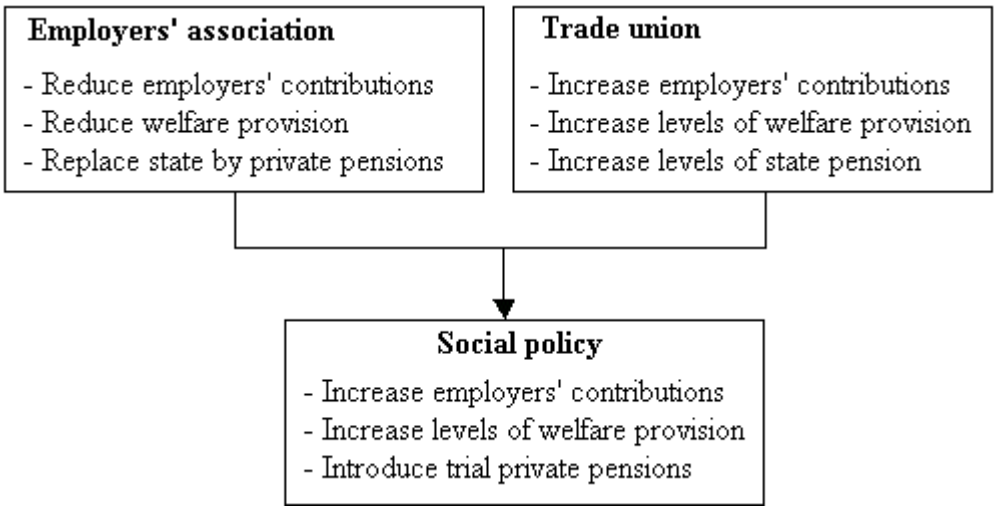


**Figure 10 : Example illustrating how to determine the responsiveness of policy to the demands of specific policy stakeholders (compiled by author using information from Weber, 1977 : Ball and Millard, 1986 : Selck and Kaeding, 2004 and Kaeding and Selck, 2005)**

In this simplified example, two stakeholders – an employers' association and a trade union – participate in the formulation of social policy. Each stakeholder has its own set of specific policy demands. The employers' associations seeks to reduce the financial contribution of employers to the social-welfare system, generally reduce levels of welfare provision and replace the state pension with a system of private-pension provision. For its part, the trade union aims to increase the contributions that employers make to the financing of the social-welfare system, increase general levels of social welfare and consolidate the system of state pensions. In this particular example, the resulting social policy can be considered to be most responsive to the demands espoused by the trade union; indeed, the union's policy demands prevail most frequently in the final version of the social policy: although the policy is responsive to employers' concerns by incorporating provisions for the introduction of private pensions, it responds largely to trade union concerns by increasing employers' contributions *and* increasing the level of the state pension.

With specific reference to the current study, the original policy preferences of conservative and progressive policy stakeholders were compared with the contents of the policy initiatives introduced in the broad spheres of financial policy, labour-market policy and skills-provision policy. In doing so, the objective, was to gauge whether policy developments in each of these policy areas were more responsive to the policy demands espoused by progressive cultural groups, including representatives of the French and German ICT sectors, or whether they were more responsive to the policy preferences defended by conservative cultures.

### *4.5 Summary*

This chapter has addressed the issues surrounding the design of the empirical investigation undertaken to explore whether conservative sub-cultures in France and Germany have hampered the emergence of the institutional framework-conditions considered necessary for the successful production of ICTs.

The first section defined the context of the empirical study. Essentially, it was shown that the investigation focuses its attention specifically on policy measures introduced in the broad spheres of financial policy, labour-market policy and policy for skills provision since the mid-1990s. Although short in duration, this particular period was chosen since it represents something of a crucible for French and German political leaders and business people; a period during which it was increasingly deemed necessary to introduce new policies in order to confront the challenges of the ICT revolution. The decision to concentrate specifically on these three specific policy areas was informed by two key considerations. Firstly, each area is recognised as being central to the rich patchwork of complementary and interlinked policy measures that

support the successful production of ICTs. Secondly, it was hoped that the highly politicised character of each of these policy areas facilitate data collection.

The second section discussed the procedure used to identify the research subjects to be included in the empirical investigation. Given the large number of different policy stakeholders that actively contribute to debates surrounding each of the policy areas under investigation, it was necessary to focus attention on a manageable sub-set of stakeholders. First of all, it was decided to focus on the most prominent ICT business associations in France and Germany. This decision was driven largely by data-collection considerations. Crucially, it was hoped that the data required for the empirical investigation could be easily gleaned from the many policy documents and position papers regularly published by such high-profile associations. The other major stakeholders with an interest in the policy areas under investigation were identified by following policy developments in the French and German media debates and by consulting the policy-monitoring instruments provided by international organisations, such as the European Industrial Relations Observatory, EURYDICE and the International Reform Monitor.

In the third section, the chapter discussed methods of data collection. Essentially, it showed how sources of secondary sources were used to gather data on the policy preferences of policy stakeholders and on the contents of individual policy measures. Notwithstanding the potential drawbacks associated with this particular data-collection method, two key reasons appeared to justify its use. First of all, the media and websites represent rich sources of information on the preferences espoused by policy stakeholders, not least since lobby groups in France and Germany are increasingly using

the media and their websites to articulate their interests and form public opinion so that is sympathetic with their causes. Second, the recourse to secondary data became a necessity as the programme of research developed, especially given the problems experienced in attempting to persuade potential respondents within individual interest groups to participate in the research.

The fourth section of the chapter discussed the methods of data analysis. A classification system was designed to determine whether policy stakeholders in France and Germany possessed either a conservative or a progressive culture. In accordance with this classification system, conservative and progressive stakeholders differ from each other with respect to their attitudes towards the historically-entrenched institutions. A second analytical step focused on ascertaining the extent to which government policy shaping the financial, labour-market and skills-provision institutions of France and Germany responded to the preferences of conservative and progressive stakeholders. Here, inspiration was drawn from an analytical approach advocated amongst others by Weber (1977), Ball and Millard (1986), Selck and Kaeding (2004) and Kaeding and Selck (2005). Essentially, the responsiveness of government policy to the demands of different stakeholders was gauged by comparing the original policy preferences of these stakeholders with the outcomes of the policy-formulation process. The greater the number of demands incorporated in a policy measure, the more responsive is considered the policy to the preferences of the stakeholder.

## SECTION IV – PRESENTATION OF RESULTS

As stated in Chapter 3, the research reported here sought to explore the extent to which conservative stakeholders in France and Germany have hampered the emergence of institutional framework conditions that support the production of information and communication technologies (ICTs). Chapter 4 presented an empirical investigation designed for this specific purpose. Recall that, in essence, this investigation set out to discover the extent to which government policy shaping the French and German business environments responds to the policy preferences of conservative stakeholders and the policy preferences of progressive stakeholders.

The objective of the following section is to report and present the results that were obtained from this investigation. It is organised into three specific sub-chapters. Chapter 5 focuses on policy debates and developments in France and Germany in the sphere of financial institutions; chapter 6 concentrates on political developments in the field of French and German labour-market policy; in Chapter 7, attention is trained on political debates and discussions surrounding the issues of skills provision in France and Germany.

Each of these three sub-chapters is composed of two key sections. The first section identifies the key stakeholders in the policy area, and provides further information on the policy positions that they have advocated. The second section of each sub-chapter identifies the most prominent policy measures and initiatives in each of the policy areas under investigation and then proceeds to describe the provisions of each of these measures in greater detail.

The results presented here are intentionally descriptive. The objective is to present the results, not to discuss or interpret them. Indeed, the analysis of the results will be presented in detail in Section V, which directly follows this current section.

# 5 Policy debates surrounding national systems of finance

In recent years, both France and Germany have witnessed on-going debates broaching the wide subject of financial reform. Indeed, there has been a large number of political discussions on both sides of the Rhine with the potential to affect each country's financial system. Against this background, the following chapter performs two functions. Using the data gathered within the parameters of the empirical investigation that was described in Chapter 4, it first presents the policy positions that each stakeholder has advocated. Second, it identifies the most prominent policy measures and initiatives introduced by the national governments of France and Germany in the sphere of financial reform and then proceeds to describe in greater detail the provisions of each of these measures.

## *5.1 Identifying policy stakeholders*

The investigation revealed that, in both France and Germany, a number of a number of different stakeholders have contributed to debates broaching the broad issue of financial reforms.

### 5.1.1 Policy stakeholders in France

In the case of France, the policy stakeholders that contributed to debates surrounding the country's financial systems included, alongside business associations in the ICT sector and trade union organisations, policy stakeholders representing the interests of the wider French business community. Below is presented detailed information on the specific policy positions defended by each of these stakeholders.

#### 5.1.1.1 Policy stakeholders in the French ICT sector

Within the French ICT sector, the *Croissance Plus* association of ICT companies has argued that a state-administered financial system and high levels of government

intervention have hampered the development of 'take-off capital' (*capital de décollage*) required by small companies to accelerate their development in new markets, particularly abroad (Croissance Plus, 2004).

Surveys of ICT companies reveal high levels of dissatisfaction with respect to the government financing of industry. For example, surveys of French ICT companies undertaken by Zølner (2002), Savignac and Waser (2003) and Moreau (2003) highlight the criticisms of ICT companies towards the opacity of government decision-making processes, the bureaucratic nature of application procedures, the time taken by government officials to study applications for state aid and the seemingly arbitrary criteria used to allocate state funds. In her survey of financial markets in France, O'Sullivan (2003a) illustrates how French ICT companies have criticised France's traditionally system of finance and called for the development of capital markets to finance their acquisition and expansion strategies and lay the foundations for novel staff remuneration schemes, such as stock options.

Interestingly, it would also appear that, in the French ICT sector, some of the most vocal critics of the French tradition of state-controlled finance have worked in state-owned ICT companies. Jean-Pierre Brulé, the one-time managing director of the former state-owned hardware manufacturer, *Groupe Bull*, provides a case in point. Indeed, his memoirs paint a particularly damming picture of state financial intervention in the French IT sector (Brulé, 1993 and 1998), and he has criticised in particular the 'sluggishness, illusionism and irresponsibility' of state financiers (Brulé, 1993: 306). Amongst former state-owned ICT companies, criticisms of the French system of state-administered finance are equally discernable in the reactions of *France Télécom*

managers to the forced resignation of the company's managing director, Michel Bon, in 2002. Jean-Louis Vincigeurra, the financial director of *France Télécom* during Michel Bon's directorship, argued that the French system of state-administered finance contributed to the financial problems of the company during the period 1999-2002 (Vincigeurra, 2002). That French law prohibited state ownership of French Télécom from falling below 51% of total shares made it difficult for the company, unlike its foreign rivals, to use equity capital to finance its strategy of mergers and acquisitions (*ibid*).

#### 5.1.1.2 Policy stakeholders in the wider French business community

The policy positions espoused by stakeholders in the wider French business community reveal a wide range of attitudes towards financial reform. On the one hand, there appears to have emerged in France a generation of new business leaders who have been strong, vocal supporters of market-based financial systems (Hancké, 2002; Batsch, 2002; Goyer, 2003; Plihon, 2004). Jean-Marie Messier, for example, used financial markets in the late 1990s and early 2000s to transform *Compagnie Générale des Eaux*, a French water utility company, into *Vivendi Universal*, an international media group active on both sides of the Atlantic (Johnson and Orange, 2003). Ernest-Antoine Seillière, until July 2005 the president of the Confederation of French Industry (*Mouvement des Entreprises de France - Medef*), is another industrialist typically cited as favouring market-based financial practices over French state-administered traditions (Renard and de Cleyre, 2001: Bothorel and Sassier, 2002: Garrigues, 2002).

Alongside actively adopting decidedly non-French financial practices, high-profile business leaders has also lobbied successive governments to promote the development of financial markets in France. In this respect, the perceived superiority of financial

markets has been propagated in France by industrialists such as Michel Drancourt, Yvon Gattaz, and Claude Bébéar (Wright and Knapp, 2001). The latter, the former president of the *AXA* insurance group, has been particularly active in this regard. Alongside publishing a series of books on the need for financial reform in France (Manière and Bébéar, 2003: Bébéar, 2002), Bébéar was instrumental in the setting up and running of the *Institut Montaigne*, a French think-tank active in influencing public debate and helping the government to define the contents of its economic and financial policies.

On the other hand, however, more sceptical attitudes towards financial reform are discernable within the French business community, especially with respect to the issues of openness and transparency that underpin well-functioning market-orientated financial systems. In 1995, for example, a group of leading industrialists, together with the National Council of French Employers (*Conseil National du Patronat Français – CNPF*) and French Association of Private Enterprises (*Association Française des Entreprises Privées* – AFEP), co-published a report on corporate governance issues under the aegis of a high representative of the *Banque de France*, Marc Viénot. In this report (AFEP and CNPF, 1995), the managing directors of large French companies, including *Schlumberger, Saint-Gobain, Moulinex, Lafarge, SAGEM, BNP Paribas, Renault* and *Alcatel,* advocated the preservation of France's closed system of cross-shareholdings, describing them as a necessary evil to help French businesses secure a stable shareholder community and prevent them from being taken over by their foreign rivals.

Other reports published by business leaders similarly suggest a resistance towards greater openness and market transparency. For example, the Bouton report (Bouton, 2002) on French corporate governance mechanisms published by the Medef, the French Association of Private Enterprises (*Association Française des Entreprises Privées* – AFEP) and the Association of Large French Enterprises (*Association des Grandes Entreprises Françaises* - AGREF) questioned the need for greater transparency. Published in the wake of high-profile corporate scandals in the United States, the report saw the Enron and WorldCom cases as a vindication of the French model of corporate governance (Goyer, 2003). Specifically, the business leaders who compiled this report claimed that France was already equipped with a 'very extensive set of rules of corporate governance, promoting both efficiency and transparency' (Bouton, 2002: 2). In terms of management and accounting practices, the report contended that French companies were, compared to their American counterparts, in many respects 'better protected against the risk of excessive or misguided practices' (Bouton, 2002:2). Furthermore, the report argued that France had, in the *Commission des Opérations de Bourse* (COB) and the *Conseil des Marchés Financiers* (CMF) 'respected, competent and independent market authorities' that 'protect the market from the excesses that have occurred in the United States' (Bouton, 2002: 3).

The scepticism of French business leaders towards more open and transparent systems of corporate governance is equally discernable in a report published in 2003 by the Institut Montaigne, the think-tank established by Claude Bébéar, the former president of the AXA insurance group, to influence public debate and assist governments in designing economic and financial policies (Institut Montaigne, 2003). Specifically, the report questioned the need for independent executive directors ('*administrateurs*

*indépendants*') on management boards. It advised French political decision makers to 'resist the temptation of making independent executive directors the essential element of good corporate governance' (Institut Montaigne, 2003: 61). From the perspective of the Institut Montaigne, the existing emphasis of the French system on competent and personally engaged executive directors provides for a more superior form of corporate governance.

#### 5.1.1.3 Policy stakeholders within the French trade union movement

French trade unions were identified as further policy stakeholders that have contributed to debates surrounding financial reform. As an initial, general comment, it should be noted that there exists a strong hostility amongst French trade unions to the influence of capital markets. As Smith (2004) states, financial markets are, from the perspective of French unions, commonly tainted by association with Thatcherism and the American New Right. Against this background, French trade unions have actively participated in policy discussions regarding the broad sphere of financial reform, including debates on privatisations, on the introduction of employee share-ownership schemes and on pension reforms.

Concerned by potential redundancies, the erosion of pension rights and the loss of state employees' civil-servant status, French trade unions has adopted a hostile attitude towards privatisation. In 1993, for example, they organised a series of well-supported strikes against the planned *France Télécom* sell off, with over three quarters of the company's employees participating (Degeorge *et al*, 2004). More recently, trade unions have similarly opposed the planned privatisations of the state-owned electricity and gas utilities, EDF (*Electricité de France*) and GDF (*Gaz de France*) respectively. Crucially, the trade unions representing the interests of EDF and GDF employees organised a

60,000-strong demonstration in October 2002 (Raveyre, 2002). Similar demonstrations were held during the spring and summer of 2004 as the French parliament began debating a bill detailing the privatisation of EDF and GDF[18].

Fearful that financial-participation programmes have the potential to subordinate the role of trade unions to representing 'employee capitalists' and thus undermine France's system of industrial relations, French trade unions have been traditionally sceptical towards the introduction of stock options (Pendleton and Poutsma, 2004). This scepticism hardened in the wake of the so-called Jaffré controversy in 2000 (Ponssard, 2001: Pendelton and Poutsma, 2004). Despite being dismissed as managing director of *Elf* following a series of management failures during the *Elf-Total* take-over, Philippe Jaffré received a generous compensation package composed largely of stock options. This triggered hostile reactions within the French trade-union movement: in particular, there emerged the perception that stock options would create a new class of affluent French, thereby widening inequalities in French society and contradicting the traditional French values of equality and social solidarity (Trumbull, 2004). Since the Jaffé affair, trade-union attitudes towards stock options have slightly changed. For example, the French Christian Workers' Confederation (*Confédération française des travailleurs chrétiens – CFTC*) has gradually adopted a more favourable view towards this form of employee remuneration. Crucially, the union's position has shifted from outright opposition to qualified acceptance, on the provision that stock options are widely dispersed throughout the workforce and not merely limited to management staff (*ibid*). This position appears to be shared by trade unions representing the interests of employees in the French ICT sector. For example, Yvan Béraud, the president of the

[18] See, for example, 'A very big French turn-off – Electricité de France' in *The Economist*, 3 July 2004, 372, 8382, p77

*Bétor-Pub* union, has called for regulations to ensure that stock options are awarded not only to the very top managers but also to other employees in ICT companies (Noyer, 2000). However, the General Confederation of Labour (*Confédération générale du Travail – CGT*) have remained formally opposed to any form of financial participation and continues to question the extent to which stock-option programmes give power to employees. For example, Bernard Thibault, the general secretary of the CGT, has claimed that employee shareholders must have no illusion as to the absence of influence that they exert over their bosses (Aizicovici and Van Eeckhout, 2000).

Concerned that the widespread diffusion of private pensions will undermine the existing pay-as-you-go system in whose administration they participate (Schröder *et al*, 2002), and worried by the high-profile cases of pension corruption during the 1980s and 1990s, in particular the case of Robert Maxwell (Barbeau, 1998), French unions have adopted a vehemently hostile position regarding the introduction of privately-managed pension funds based on stock-market income (Barbeau, 1998: Schröder *et al*, 2002). In such a hostile environment, France's main trade unions tend to portray private pensions as a 'right-wing, World Bank-dictated conspiracy' (Smith, 2004: 62). Against this background, policy statements published, for example, by the *Force Ouvrière* union (see, for example Blondel, 2002: Force Ouvrière, 2003a: Force Ouvrière, 2003b: Force Ouvrière, 2003c) depict a 'world of sinister plots hatched by a New York-London axis of financiers bent on the destruction of European public-sector pensions' (Smith, 2004: 62).

### 5.1.2 Policy stakeholders in Germany

In addition to ICT business associations and trade unions, the empirical investigation identified federal- and sectoral-level business associations as the main stakeholders

having participated in German debates on financial reform. The specific policy demands espoused by these identified stakeholders are reported below.

#### 5.1.2.1 Policy stakeholders in the ICT sector

Within the German ICT sector, the Association of the German Software Industry (*Verband der deutschen Softwareindustrie - VSI*) has argued that the lending practices of German banks attach little value to creativity and intellectual property[19]. According to a survey conducted by the association in 2001, the majority of German software companies feel neglected by the German banking sector[20]. A further survey conducted by the association in 2002 revealed that almost all participants believed that the relationships between ICT companies and banks have worsened over recent years whilst 48% of respondents claimed that German banks did not take into account the specific requirements of ICT companies[21].

The German Association for Information Technology, Telecommunications and New Media (*Bundesverband Informationswirtschaft, Telekommunikation und neue Medien - BITKOM*) has been similarly critical of Germany's banks. For example, the association has criticised the ambivalent attitude of German banks to the ICT sector, denouncing in particular their increased withdrawal from the financing of small and medium-sized IT companies in Germany (BITKOM, 2003a). A survey of BITKOM members conducted in 2004 revealed that 69% of small IT companies experienced difficulties obtaining bank loans (BITKOM, 2004).

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[19] 'VSI-Umfrage zur deutschen Banken', available from http://www.vsi.de/inhalte/information/presse/presse_29.htm on [Accessed 27 July 2005]

[20] 'VSI-Umfrage zur deutschen Banken', available from http://www.vsi.de/inhalte/information/presse/presse_29.htm on [Accessed 27 July 2005]

[21] 'Das deutsche Bankwesen auf dem Prüfstand', available from http://www.vsi.de/inhalte/information/presse/presse_32.htm [Accessed 29 July 2005]

Alongside criticising the country's banking system, policy stakeholders in the German ICT sector have also advocated the development of financial markets. From the perspective of the BITKOM association, the government should actively promote financial markets so as to provide venture-capital investors with potential exit channels (BITKOM, 2003a). In the absence of such exit channels in Germany, venture capital companies are increasingly withdrawing their funds from young, innovative companies.[22] The BITKOM association has also campaigned for policy measures to develop stock markets so as to promote the use of stock options in Germany. Indeed, the association states that, without sophisticated financial markets, German ICT companies have difficulties implementing stock-option programmes and so are at a competitive disadvantage as regards the recruitment and retention of highly-qualified employees (BITKOM, 2002a).

#### 5.1.2.2 Policy stakeholders in the wider business community

The policy statements issued by stakeholders in the wider German business community point to a wide range of attitudes towards financial reform. On the one hand, there are stakeholders who have actively lobbied for the further development of financial markets in Germany. For example, the Confederation of German Industry (*Bundesverband der Deutschen Industrie - BDI*) and the Association of German Chambers of Commerce (*Deutscher Industrie- und Handelskammertag – DIHK*) have stated that 'well-functioning and flexible financial markets are becoming an increasingly important infrastructure requirement for companies operating in global markets' (BDI and DIHK, 2002: 1) and have called on the German government to introduce measures to

[22] 'BITKOM-Branchenbarometer, 2. Quartal 2005', available from http://www.bitkom.org/files/documents/Vortrag_Berchtold_BITKOM-PK_Branchenbarometer_15.06.2005.pdf [Accessed 23 July 2005]

encourage German financial institutes to focus their stock-market activities in Frankfurt, rather than relocating to London (*ibid*).

In addition, there are mangers of large corporations in Germany who have called for the government to introduce more market-orientated financial reforms (Grässlin, 1998: Beyer and Höpner 2003, Höpner and Krempel, 2003, Vitols, 2004, Cioffi, 2005). In this regard, Germany has witnessed since the 1990s the emergence of a group of company managers, including Paul Achleitner of the *Allianz* insurance group, Rolf Breuer of *Deutsche Bank*, Gerhard Cromme of *ThyssenKrupp,* Heinrich von Pierer of *Siemens* and Jürgen Schrempp formerly of *DaimlerChrysler* who are particularly strong admirers of the Anglo-American, market-based financial system (Beyer and Höpner 2003). Jürgen Schrempp, the former managing director of *DaimlerChrysler*, consciously called himself "Mr Shareholder Value" when he took control of the company in 1995 (Grässlin, 1998). For his part, Ulrich Schumacher, the former managing director of *Infineon Technologies*, a semi-conductor manufacturer, has attracted attention in Germany for his flamboyant, American approach to business and for his vocal opposition to Germany's financial traditions[23]. In particular, these managers have called for legislation that introduces in Germany the financial practices typically associated with market-based financial systems; concerned that Germany's financial system is excessively and largely dominated by domestic insiders (Cioffi, 2005), these high-profile industrialists have called for financial reforms that facilitate the use of financial engineering, stock options and share buybacks (Vitols, 2004).

[23] See 'Chip racers - How Ulrich Schumacher is trying to overtake his global rivals' in *The Economist*, 25 October 2003, page 82

On the other hand, however, there exist stakeholders who have resisted attempts to dismantle Germany's networks of bank-supported interlocking shareholdings, thereby preventing the dispersion of share ownership in Germany. Of particular note in this regard are *Allianz* and *Munich Re*, two German insurance companies that have campaigned against any mandatory abolition of their large and extensive cross-shareholdings. According to the managers to these two companies, any form of compulsory divestment would force them to incur large capital gains tax liabilities (Jürgens *et al*, 2002).

However, it is in the sphere of corporate governance that policy stakeholders in the wider business community has been most vocal in their opposition to the reforms of Germany's financial system. Of particular note in this regard is the joint paper published by the BDI, the BDA, the DIHK, the Federal Association of German Banks (*Bundesverband deutscher Banken* – BDB) and the German Insurance Association (*Gesamtverband der Deutschen Versicherungswirtschaft* – GDV) in 2003 (BDI, 2003). This paper criticised the bureaucratic nature of the government's proposed measures for strengthening company integrity and increasing the protection and rights of shareholders. Specifically, the associations demanded that the government re-examine its recommendations and question whether additional corporate-governance regulations were absolutely necessary (*ibid*). Similarly, the *Wirtschaftsprüferkammer* (WPK), the state-supervised organisation of public accountants and accountancy companies in Germany, has challenged the need to introduce additional corporate-governance legislation, arguing that existing regulations already provide Germany with sufficient levels of corporate control[24].

[24] 'Wirtschaftsprüfer gegen neue Reformen' in *Die Welt*, 29 June 2002, available from http://www.welt.de/data/2002/06/29/427741.html [Accessed 6 October 2005]

A number of prominent business leaders have also actively contributed to the political surrounding corporate governance. Klaus Liesen, a German manager who sits on the supervisory boards of *Allianz, Ruhrgas, Thyssen Stahl* and *Volkswagen*, has argued that over-regulation of the German system of corporate governance could deter international institutions from investing in Germany[25]. Helmut Perlet, an executive board member of *Allianz*, has argued that Germany should not blindly follow the United States and introduce new laws and regulations to solve corporate governance problems. Indeed, according to Perlet, the Public Company Accounting Reform and Investor Protection Act (the so-called Sarbanes-Oxley Act) passed in the United States in 2002 to strengthen governance and accounting standards introduced rules which had already existed in Germany for many years[26]. Paul Achleitner, also a member of the *Allianz* executive board, has argued that more severe punishments for corporate fraud and deception would not increase financial-market transparency. Rather, draconian threats of punishment would serve only to weaken the German system and stifle entrepreneurship and the taking of risks[27].

#### 5.1.2.3 Policy stakeholders in the financial sector

In Germany, stakeholders in the financial sector have also participated in policy debates regarding financial reform. Such stakeholders first include Germany's large private banks. As economic growth in Germany slowed in the 1980s and 1990s, company demand for bank loans fell, leading to increased competition amongst banks and a narrowing of the interest-rate spread, a mechanism historically used by German banks to generate most of their profits (Vitols, 2004). As an alternative to unprofitable

[25] 'Die Regulierungswut schreckt Investoren ab' in *Die Welt*, 2 May 2002, available from http://www.welt.de/data/2002/05/02/416245.html [Accessed 4 October 2005]
[26] 'Hinter Amerika müssen wir uns nicht verstecken' in *Die Welt*, 24 January 2003, available from http://www.welt.de/data/2003/01/24/35604.html [Accessed 6 October 2005]
[27] 'Hinter Amerika müssen wir uns nicht verstecken' in *Die Welt*, 24 January 2003, available from http://www.welt.de/data/2003/01/24/35604.html [Accessed 6 October 2005]

interest-based incomes, large private banks, especially *Deutsche Bank* and *Dresdner Bank*, sought to develop fee-based income from new activities such as investment banking or asset management (Höpner and Krempel, 2003). Since such activities are heavily reliant on growing financial markets, German banks mobilised their sectoral association, the Association of German Banks (*Bundesverband deutscher Banken* – BDB), to push for reforms to the German securities markets (Cioffi, 2005). Against this background, the chair of the management board of *Deutsche Bank*, Josef Ackermann, is considered to be one of Germany's most high-profile supporters of market-inspired financial reforms (Landler, 2005).

However, the Association of German Banks has been less vocal in its support for reform to Germany's system of corporate governance. For example, the association has, alongside the associations representing the wider German business community, criticised the bureaucratic nature of the government's corporate-governance regulations and insisted the any new rules are introduced on a predominantly self-regulatory basis (BDI, 2003). For its part, the German Insurance Association (*Gesamtverband der Deutschen Versicherungswirtschaft – GDV*) has argued that Germany needs to equip itself with a new set of corporate-governance regulations, especially given the criticisms levied by international institutional investors, such an pension funds and investment banks, against the lack of transparency that has traditionally characterised the German stock exchange and governance structures (Gesamtverband der Deutschen Versicherungswirtschaft, 2002). Yet on the other hand, the GDV was one of the signatories of the joint statement issued by the BDI criticising the bureaucratic nature of the government's proposed measures for strengthening company integrity and increase the protection and rights of shareholders (BDI, 2003).

#### 5.1.2.4 Policy stakeholders within the German trade-union movement

German trade unions have also participated in broad policy debates with the potential to influence the composition of Germany's national system of financial. In particular, trade unions have actively contributed to debates surrounding the use of the German stock market as the basis for future pension provision. Fearful that changes to the existing pension system could challenge one of the cornerstones of the German system of social security, namely the tradition of parity financing of old-age pensions through both employer and employee contributions, German trade unions have adopted a cautious attitude towards the introduction of private pensions (Lamping and Rüb, 2001). Notwithstanding the open hostility of the *IG Metall* metalworkers' union to privately-funded pension schemes based on stock-market incomes[28], the DGB has advocated a more moderate approach. Although not opposed in principle to pensions built upon financial markets, the DGB has signalled that employee contributions to private pension should be matched by employers (Scheele, 2000). In addition, two leading figures within the German trade union movement, notably Dieter Schulte and Ursula Engelen-Kefer of the DGB, have insisted that private pension schemes be introduced as a voluntary as opposed to a compulsory addition to the state pension (*ibid*, 2000), so as to avoid unacceptable coercion associated with a model of 'pension by force' (*Zwangsrente*) or 'saving by force' (*Zwangssparen*) (Nonhoff and Wiesner, 2005). Furthermore, the DGB has argued that any introduction of private pensions in Germany should not be accompanied by a corresponding fall in the levels of state-provided old-age pensions (Deutscher Gewerkschaftsbund, 2000). Moreover, the umbrella trade-union organisation argued that contributions to private pension schemes should be capped at 2.5% of an employee's gross income (Scheele, 2000).

[28] 'Proteste gegen die Rentenreform 2000', available from http://www.labournet.de/diskussion/wipo/rente/proteste.html [Accessed 3 November 2004]

German trade unions have also contributed to debates regarding the introduction of stock options as a remuneration tool. In the words of Michael Sommer, the former president of the DGB, stock options represent one of the 'false gods (*Götzen*) of unbridled capitalism.'[29] At one level, there have been concerns within the German trade-union movement that stock-option programmes could lead to greater inequalities in German society. In this respect, the *IG Metall* union has argued that stock options, as a form of individualised remuneration, run the risk of increasing wage differentials in Germany (IG Metall, 2001). At another level, unions have been concerned that stock options also have the potential to erode Germany's centralised system of collective bargaining (Pendleton and Poutsma, 2004) and generally undermine trade-union influence in the workplace (Leparmentier, 2000a: Balz, 2002). Against this particular background, Klaus Zwickel, the president of the *IG Metall* union, lamented the fact that, for many employees in German high-tech companies, 'a custody account (*Aktiendepot*) is today more important than an *IG Metall* membership badge' (quoted in Buck, 2000).

### *5.2 Identifying the principal financial policies*

Having identified the main stakeholders who have participated in debates surrounding financial reforms and having presenting their respective policy positions in these discussions, attention now turns to identifying the most prominent policy measures and initiatives introduced by the national governments of France and Germany in the sphere of financial reform and describing in greater detail the provisions of each of these measures.

[29] 'Ein neuer Sozialkontrakt für Deutschland', 3 July 2002, available from http://www.dgb.de/dgb/gbv/reden/stat_sozialkontrakt.pdf [Accessed 20 September 2005]

### 5.2.1 Policy measures introduced in France

Having consulted the rich body of literature addressing recent changes to France's financial system, and having supplemented this information with data from online databases, most notably the International Reform Monitor and the European Industrial Relations Observatory, a number of policy initiatives were identified as major policy developments in the area of French financial reform. On the one hand, there are policies aimed at improving the financial situation of ICT firms. These policies include measures to promote the availability of venture capital, measures to create new stock markets for ICT firms and measures to introduce stock options. On the other hand, there has been introduced in France more generalised policies with the potential to affect its national financial system. These include privatisation programmes, measures to increase market and governance transparency and pension reforms. The key provisions of these individual policy initiatives are identified and described in greater detail below.

#### 5.2.1.1 Policies to improve the financial situation of ICT companies

Since the late 1990s, French financial policy have incorporated a number of measures designed specifically with the needs of ICT companies in mind. These are detailed below.

##### *5.2.1.1.1 Measures to promote the availability of venture capital*

First of all, the French government has undertaken measures to promote the availability of venture capital. For example, the government established state-funded venture capital programmes, such as the *Fonds de Promotion pour le Capital Risque* (FPCR – Public Funds for Venture Capital). In 1999, Dominique Strauss Kahn, the French Economics Minister in the Jospin government, channelled close to €100 million from the sale of *France Télécom* shares in this particular venture-capital fund (Trumbull, 2004). In

addition, legislation was introduced under the Jospin administration to make the government the gatekeeper for large volumes of private investment funds, including the *Fonds Commun de Placement à Risque* (FCPR – Mutual Fund for Risk Placement) and the *Fonds Commun de Placement pour l'Innovation* (FCPI – Mutual Fund for Investment in Innovation). Investors in the latter fund enjoy a tax exemption for earnings from technology start-ups. A total of €1.5 billion has been invested in FCPIs since their inception (Trumbull, 2004).

#### *5.2.1.1.2 Creation of new stock-market segments*

To assist ICT companies, the French government has also given its approval to the creation of new stock-market segments that match the requirements of different types of firm, and in particular small and medium sized enterprises (SME). For many years, the listing rules of the Paris Stock Exchange were considered to be unsuitable for small, high-growth companies (Plückelmann, 2000). Indeed, in order to list their shares on the French stock exchange, companies had to have a minimum market capitalisation of €750-800 million and, upon listing, were required to sell at least 25% of their total equity to the public (O'Sullivan, 2001). Moreover, issuing companies were required to provide financial accounts for each of the three years prior to their initial public offering. Given such requirements, it was only predominantly large and established companies that were able to float on French stock markets (O'Sullivan, 2003a). Against this background, the Juppé government approved plans by the French stock-exchange operator (*SBF-Bourse de Paris*) to develop the French market for initial public offerings (IPO) for high-growth, high-potential companies. Aimed specifically at high-growth ICT companies, the resulting *Nouveau Marché* (new market) was launched in February 1996 and was endowed with more relaxed listing rules and regulations. The tasks associated with organising and promoting the *Nouveau Marché* were conferred to the

*Société du Nouveau Marché* (SNM), which was set up as a subsidiary of the SBF-Bourse de Paris. Following the merger of the Amsterdam, Paris and Brussels stock exchanges in 2000 to create the pan-European Euronext stock exchange, the *Nouveau Marché* is now integrated in Euro.nm, a cross-European network of stock markets dedicated to high-growth companies.

#### *5.2.1.1.3 Measures to introduce stock-option programmes*

French policies to improve the financial situation of ICT companies have also included measures to promote the use of stock options in French companies. Although the granting of stock options to company employees has been governed by specific legislation since 1970 (Pendleton and Poutsma, 2004), the former Economics and Finance Minister Dominique Strauss-Kahn made legal changes to the existing legislative framework in 1997 by introducing so-called subscription bonds for the founders of new companies (*bons de souscriptions de parts de créateurs d'entreprise* - BSCPE) (Trumbull, 2004). These bonds have been introduced only gradually and incrementally in France. Upon their creation in 1997, they were applicable only to unlisted companies less than seven years old. With the enactment of the Innovation Law ('*loi sur l'innovation*') under the aegis of Claude Allègre in 1999, their field of application was extended to companies less than 15 years old and listed on the *Nouveau Marché*. During parliamentary discussions on the state budget in 2000, plans were shelved to extend the usage of subscription bonds to all service-orientated companies. Under the terms of a new law on employee savings ('*loi sur l'épargne salariale*') introduced by Laurent Fabius in February 2001, a new fiscal regime for stock options was introduced to increase the taxation of large stock option packages (Pernot, 2000, 2001 and 2004). Specifically, this new regime reduced from five to four years the minimum holding period required to qualify for a reduced tax rate on stock options; if

this retention period was not respected, however, the capital gain would be treated as salary income which is taxable up to a marginal rate of 52.8 per cent.

#### 5.2.1.2 General financial policies

Alongside these initiatives that specifically address the financial requirements of ICT companies, policies have also been introduced in France with the potential to affect the country's wider system of finance. These measures, which include privatisation programmes, measures to increase market and governance transparency and pension reforms, are described below.

##### *5.2.1.2.1 Privatisation programmes*

One particular measure that has dominated policy developments in the sphere of financial reform in France is that of privatisation. Since the mid-1980s, successive French governments have launched successive privatisation programmes. Before being ousted in 1988, Chirac's government had privatised a total of twenty-two companies, including *Saint Gobain, TF1, Havas* and *Matra* (Ardagh, 2000). With effect from 1993, the Balladur government launched an even larger French privatisation programme. Declaring that his privatisation programme would replace the *rue de Rivoli* (the former location of the Ministry of Finance) with the *Palais Brongniart* (the location of the French stock exchange) as the heart of French industry (O'Sullivan, 2003a), Balladur privatised a total of twenty one companies, including *Rhône-Poulenc, Elf-Aquitaine, Usinor-Sacilor, Péchiney* and *Renault* (Goldstein, 1996). Since the late 1990s, privatisations have continued apace (Clift, 2002). Under the Jospin government of 1998-2002, for example, companies such as *Thomson-CSF, Thomson Multimedia, Crédit Lyonnais, GAN, CIC* and *France Télécom* passed from public to partial private ownership (O'Sullivan, 2003b). More recently, the Raffarin government partially

privatised the gas production and distribution company, *Gaz de France* (GDF). Indeed, 22% of shares in GDF were floated on the stock exchange in July 2005, with small shareholders and company employees being offered first refusal (Rehfeldt, 2005). Also in 2005, the French government proposed plans to dispose of the shares it held in three motorway operating companies. Specifically, it announced its intention to sell its 50.3% stake in *Autoroutes du Sud de la France* (ASF), its 70% stake in *Autoroutes Paris-Rhin-Rhône* (APRR) and its 75% stake in *Société des autoroutes du Nord et de l'Est de la France* (SANEF) (Robin, 2005). The government has also revealed plans to privatise and open up to competition some last remaining strongholds of the French public sector, including in particular the French postal service (*La Poste*) and the freight transportation services operated by the French National Rail Company (*Société nationale des chemins de fer français - SNCF*) (Trouille, 2004).

Each successive wave of privatisations in France has to a greater or lesser extent shared a number of common features. Each has been accompanied by the creation of stable groups of investors, known in France as *noyaux durs* or 'hard cores' of cross shareholdings, with the ownership of many previously state-owned companies being concentrated in the hands of a limited number of other companies (L'Hélias, 1997). More recently, the selling off of the government interests in the French motorway network has taken place within the context of a share-issue by rather within the parameters of a bidding process. Consequently, the majority of motorway leases are held by a small number of mainly French-owned companies, including *Areva*, *Bouygues*, *Eiffage* and *Vinci*, together with the original, primarily state-owned Semi-public Motorway Management Companies (*Sociétés d'économie mixte autoroutières – SEMCA*) (Robin, 2005). In many cases, the state has retained a significant stake in

privatised companies. During the initial privatisation of *France Télécom*, for example, it was agreed that the State would retain a stake of at least 51% in the company. In the case of the GDF privatisation in July 2005, only 22% of the company's shares were floated on the stock exchange (Rehfeldt, 2005). Each successive privatisation has also included the promotion of employee share ownership as one of its stated objectives. This has been achieved by offering employees substantial discounts when buying shares or by offering them free shares as an incentive to retrain their shares over extended periods of time (O'Sullivan, 2001). In addition, governments have privatised companies only slowly, so as to allow public-owned companies, under the protection of the state, to strengthen their positions and gain a competitive edge in the transition period (Braud, 2004: Gadault and Nicolas, 2004). The case of *Electrictié de France* provides a case in point. The company has been able to benefit from its near-monopolistic situation on the protected French market to pursue a strategy of aggressive expansion in those European Union countries where energy markets had already been deregulated. (Trouille, 2004).

#### *5.2.1.2.2 Measures to increase market and governance transparency*

Within the broad context of financial policy, measures have also been introduced in France to promote transparent and open systems of corporate governance that underpin well-functioning financial markets. For example, the Law on New Economic Regulations ('*loi sur les nouvelle régulations économiques'*) enacted in May 2001 re-defined French principles of corporate governance and focused in particular on issues relating to the balance of power within executive boards, the selection of directors, the evaluation of executive boards and the communication of items not included on company balance sheets. With its specific focus on ethics within companies, a key provision of the law on new economic regulations obligated companies whose shares are traded on French stock markets to publish details of executive pay and stock

options. For its part, the Law on Financial Security (‘*loi sur la sécurité financière’*) of August 2003 amalgamated the three hitherto existing securities regulators – the *Commission des Opérations de Bourse* (COB), the *Conseil des Marchés Financiers* (CMF) and the *Conseil de Discipline de la Gestion Financière* (CDGF) – to create a single stock-market watchdog, the *Autorité des Marchés Financiers* (AMF). The objective of this merger was two-fold. First, it sought to improve the coordination and efficiency of France’s financial markets, and second it aimed to raise the international profile of the French regulator. The remit of the AMF is to safeguard investments in financial products, ensure that investors receive material information and to maintain orderly financial markets[30].

#### *5.2.1.2.3 Pension reform*

Finally, governments, almost exclusively on the right of the political spectrum, have attempted to increase the number of institutional investors in France by passing legislation in favour of the introduction of private pension funds (El Makkanoui de Freitas, 2004). Optional, privately funded pensions have existed in certain professions, albeit on a small scale, for many years in France (Palier, 2002). More recently, however, efforts have been tentatively undertaken to generalise such pension funds. Examples include the passing of the so-called Thomas Law (*Loi Thomas)* in 1997 and the Fillon Law (‘*loi sur la reforme des retraites*’) of 2003, which made provisions for tax incentives to increase access to stock-market based pension-savings tools.[31] Enacted in March 1997, the Thomas Law sough to introduce a system of retirement savings plans based on stock-market income. For its part, the Fillon Law laid the foundations for a genuine ‘third pillar’ of pension funding by introducing a new type of retirement

[30] ‘Mission de l’ Autorité des Marchés Financiers’, available from http://www.lautorite.qc.ca/autorite/a-propos/mission.fr.html [Accessed on 4 July 2005]
[31] From ‘It has to happen, but will it? French pensions reform’ in *The Economist*, 26 April 2003, page 34

scheme based on stock-market earnings. Based on an agreement with an insurance company or other type of institutional investor, this individual personal pension savings plan (*plan d'épargne individuel pour la retraite – PEIR*) enabling people to accumulate entitlement to a life-long annuity (Jolivet, 2003a and 2003b).

### 5.2.2 Policy measures introduced in Germany

A number of policy initiatives were identified as major policy developments in the broad area of financial reform in Germany. As was the case in France, there are policies aimed at consolidating the financial situation of ICT companies. These policies include measures to promote the availability of venture capital, measures to create new stock markets for ICT firms and measures to introduce stock options. There has also been a variety of more general policies with the potential to affect the German system of finance. These include measures to modernise Germany as a financial centre, policies addressing stock-market transparency and corporate governance, privatisation programmes and pension reform. The provisions of these two broad bodies of individual policy measures are discussed below.

#### 5.2.2.1 Policies to improve the financial situation of ICT companies

Policy developments in Germany point to efforts made by public actors to improve the ability of the country's financial system to provide finance to new technology-based firms that have neither a financial track record nor physical assets to use as security against bank loans.

##### *5.2.2.1.1 Measures to promote the availability of venture capital*

The first major development in this regard was the creation and expansion of state-supported venture-capital programmes which co-invest alongside of, or in certain cases provide guarantees for, private venture-capital companies. Rather than substituting

private venture-capital funds entirely, the objective of these public funds was to help subsidise the entry of private venture-capital in the financing of new technology companies. The Private Equity for Small High-Technology Enterprises fund (*Beteiligungskapital für kleine Technologieunternehmen – BTU)* has been the most prominent of these state-promoted private-capital programmes. The fund works by either providing 70% of venture-capital investments; or by co-financing up to 50 per cent of the total investment and guaranteeing up to 50% of the private investment (Kulicke and Wupperfeld 1996).

#### *5.2.2.1.2 Creation of new stock-market segments*

Related to the direct attempts to subsidise the entry of private venture-capital in the financing of new technology companies is the support of the federal government for the creation of a specific segment on the Frankfurt stock market reserved for early stage, innovative and high-growth companies that were not viable candidates for admission on Germany's main stock markets (Giudici and Roosenboom, 2005). Essentially, the federal government gave its approval to the establishing of the *Neuer Markt*, a stock-market segment designed as a viable exit channel for German venture capitalists seeking to liquidate their investments (Engelhardt, 2004). This market segment provided less restrictive listing requirements than the Frankfurt Stock Exchange so that young companies without a history of solid profitability could be brought to market. Specifically, the *Neuer Markt* waived the minimum requirements regarding the profitability and age of IPO candidates, but insisted on listed companies compiling quarterly financial reports on the basis of minority-shareholder friendly accounting and reporting systems, such as the US-GAAP (Vitols, 2001). Disbanded in November 2003 following a series of accounting scandals, the *Neuer Markt* stock market has subsequently been replaced by the TecDax index.

#### *5.2.2.1.3 Measures to introduce stock-option programmes*

The Schröder government also sought to make employee participation in the capital and profits of their companies a key element of its political programme. Perceiving the principles of financial participation as one of the pillars of the German social market economy, the government considered stock options as method for redistributing wealth, financing pensions and enabling new technology-based companies to pay higher salaries and attract employees (Leparmentier, 2000a). Against this background, the Law on Corporate Control and Transparency (‘*Gesetz zur Kontrolle und Transparenz im Unternehmensbereich’*) of 1998 permitted for the first time in Germany’s history the awarding of stock options as an employee-remuneration tool (Deutschmann, 2000: Commissariat général du Plan/Deutsch-Französisches Institut, 2001: Enterprise Directorate General, 2003). Prior to the enactment of this legislation, the use of stock options for remuneration purposes had been either prohibited or difficult to implement (Vitols, 2004). The legislation on stock options introduced in Germany makes no special provisions for small and medium-sized companies. In addition, stock options are subjected to a specific taxation regime in Germany. Essentially, when employees exercise their right to buy stock options, they pay 20.5 per cent capital gains tax; at the same time, their employer must match this contribution, and pay 20.5 per cent corporation tax. When employees sell the shares that they have procured through stock-option plans, they pay income tax at a rate of 51 per cent. Hans Eichel, the former Federal Finance Minister, continually rejected calls for the introduction of a more favourable taxation regime (see, for example, Berschens, 2000: Leparmentier, 2000b: Tartler, 2001: Wetzel, 2001).

#### 5.2.2.2 General financial policies

In addition to policy measures that have specifically targeted the financial requirements of ICT companies, policies in Germany have also been introduced with the potential to affect the nation's wider financial system. These contents of these measures, which include efforts to modernise Germany as a financial centre, policies addressing stock-market transparency and corporate governance, privatisation programmes and pension reform, are described in detail below.

##### *5.2.2.2.1 Modernisation of Finanzplatz Deutschland*

Major general reforms to Germany's system of finance have first taken place within the parameters of a series of laws designed to promote financial markets. As detailed below, this so-called *Finanzplatz Deutschland* ('*Germany as a financial centre'*) initiative builds on a number of legislative measures introduced since the early 1990s.

###### 5.2.2.2.1.1 First Law on the Promotion of Financial Markets

The First Law on the Promotion of Financial Markets (*Finanzmarkt-Förderungsgesetz*) was introduced in 1990 and sought to remove a number of barriers that were considered to hamper the development of a competitive financial centre. A key provision of this law was the reduction of turnover tax levied on stock-exchange transactions.

###### 5.2.2.2.1.2 Second Law on the Promotion of Financial Markets

The Second Law on the Promotion of Financial Markets (*Zweites Finanzmarkt-Förderungsgesetz*) was passed in 1994 and was designed to close the gap between Germany and the international practice of financial-market regulation. Crucially, it aimed to increase market transparency and improve the protection of small investors on the stock exchange (Weisgerber and Jütten, 1995). In this regard, a central element of this legislation was the creation of the Federal Securities Trading Commission

(*Bundesaufsichtamt für Wertpapierhande*). Prior to the enactment of this law, the regulation of financial markets had been conducted under the aegis of Germany's regional governments. The introduction of this regulatory body at the federal level sought to enhance the ability of German financial authorities to cooperate with regulatory authorities in other countries and help make regulation more transparent for foreign market participants (Lütz, 1996).

#### 5.2.2.2.1.3 Third Law on the Promotion of Financial Markets

Enacted in 1998, the Third Law on the Promotion of Financial Markets (*Drittes Finanzmarkt-Förderungsgesetz*) focused specifically on establishing Frankfurt as the leading European centre for financial services. Its largely technical provisions, targeting stock exchanges, investment companies and equity-finance companies, aimed to promote the supply and demand for equity capital in Germany. With regard to the stock exchange, the law facilitated the issuing of new shares by enabling securities admitted in one regional stock market to be issued in all other German markets; efforts were also undertaken to attract foreign share issuers, most notably by permitting these to publish their investor-relations documentation in languages other than German. With respect to investment companies, the law broadened the authorised scope of investment funds to include index funds, mixed securities, real-estate funds and retirement-income funds. The law sought to promote equity-finance companies by introducing reductions in taxation.

#### 5.2.2.2.1.4 Fourth Law on the Promotion of Financial Markets

Against a background of boom and crisis on the German financial markets between 1998 and 2001, the German government enacted the Fourth Law on the Promotion of Financial Markets ('*Viertes Finanzmarkt-Förderungsgesetz*') in July 2002. A key focus

of this piece of legislation was the protection of shareholder interests ('*Anlegerschutz*'), and a number of measures were introduced to address this specific issue (Lenenbach, 2002: Franz, 2003: Gebauer, 2004). For example, the law strengthened existing legislation regarding duty of notification ('*Mitteilungspflicht*'), obligating companies to provide stock-market investors with more information on their general economic situation and future development. In addition, the law consolidated regulations governing directors' dealings and insider trading: accordingly, managing directors now have to notify their supervisory boards if they or their close family circles trade company shares. Moreover, the Fourth Law on the Promotion of Financial Markets outlawed companies from undertaking any form of action that could manipulate their stock-market price.

#### *5.2.2.2.2 Measures to increase market and governance transparency*

In addition to the Second Law on the Promotion of Financial Markets which sought to close the gap between Germany and other industrialised nations with respect to financial-market regulation, other policy initiatives in Germany have also addressed the issues surrounding market transparency and corporate governance. For example, the Law on Corporate Control and Transparency ('*Gesetz zur Kontrolle und Transparenz im Unternehmensbereich'*) of 1998 sought to improve the activities of supervisory boards ('*Aufsichtsräte*') so as to bring Germany in line with international accounting standards. Essentially, the law limited to ten the number of mandates that a supervisory-board member can hold simultaneously; it also increased from two to four the annual number of supervisory-board meetings for listed companies. The law also required that companies publish in their annual reports information on the number of board meetings and the number of mandates held in total by their board members (Becht and Böhmer, 1998). The Law on Corporate Control and Transparency also authorised Germany

companies to adopt capital-market-orientated accounting standards, such as those set out in the International Accounting Standards (IAS) or in the Generally Accepted Accounting Principles (GAAP), in place of the accounting rules established in the German Commercial Code (*Handelsgesetzbuch – HGB*).

The Schröder government further attempted to change Germany's corporate-governance landscape within the parameters of the Tax Reduction Law *('Steuersenkungsgesetz')* of 2000 by creating a more active market for corporate control. This law provided incentives for the dissolution of financial ties between German banks and German industry. Instead of imposing prohibition acts on banks, this law abolished the levying of capital gains taxes *('Körperschaftssteuer')* on the liquidation of cross-shareholdings.

In September 2001, the Schröder government established the Commission of the German Corporate Governance Code ('*Regierungskommission Deutscher Corporate Governance Kodex'*) specifically to raise the confidence of domestic and foreign investors in Germany's capital markets and system of corporate governance. Headed by Dr. Gerhard Cromme, the chair of the supervisory board of *ThyssenKrupp*, the commission is charged with addressing all major criticisms levelled against Germany's system of corporate governance, and especially those from the international community. Since the commission is a self-regulating body composed for the most part by leading German industrialists including Dr. Paul Achleitner (*Allianz)*, Dr. Rolf Breuer (*Deutsche Bank*), Max Dietrich Kley (*BASF*) and Dr. Wendelin Wiedeking (*Porsche*),[32] its recommendations on corporate-governance practices are implemented on a largely voluntary basis.

32 'Mitgliederliste Regierungskommission Deutscher Corporate Governance Kodex', available from http://www.corporate-governance-code.de/ger/mitglieder/index.html [Accessed 15 August 2006]

The federal government took another step towards increasing market transparency with the implementation of the Company Transparency and Disclosure Law (*Transparenz- und Publizitätsgesetz*) in July 2002. This legislation introduced further requirements concerning the reporting commitments of German companies. Specifically, it engaged companies listed on German stock markets to state in a declaration of conformity ('*Entsprechenserklärung*') whether they had adopted the recommendations of the German Corporate Governance Code. Although non-compliance with the Code's recommendations does not entail any legal consequences, it has the potential to inflict financial consequences on companies, namely through the deterioration of share prices.

#### *5.2.2.2.3 Privatisation programmes*

Compared to France, privatisation programmes in Germany has been much less significant, not least since most of the country's leading businesses have traditionally been privately as opposed to state owned (Esser, 1998). Nonetheless, Germany has witnessed since the mid-1990s a wave of privatisation that has extended even to those parts of the economic landscape where state ownership had long been regarded as indispensable (Beyer and Höpner, 2003). The case of *Deutsche Telekom* provides a case in point. The telecommunications company was partially privatised under the Kohl administration in 1996. At that time, its privatisation represented the largest ever initial public offering of any European company, with 40% of its total shares being placed with small German shareholders (Gordon, 2003). Privatisation of the company continued under the Schröder government. During a second public offering in 1999, a further 281 million shares were issued, targeting largely household investors across

Europe[33]. In June 2000, state-ownership of *Deutsche Telekom* fell from 22 per cent to 15 per cent as a third share issue placed a further 200 million in private ownership[34].

Alongside the high-profile sell off of *Deutsche Telekom*, the recent wave of privatisations has also included the partial transfer to private ownership of the airports of Hamburg and Frankfurt and the *Bundesdrückerei*, the government printing office whose tasks include printing bank notes, identity cars and passports. It has also included the partial privatisation of the federally-operated postal service (*Deutsche Post*), which was listed on the stock exchange in 2000. Some 28.8 per cent of its stock is now privately owned, and further public offerings are expected in the near future. It is also planned to partially float the German federal railways (Deutsche Bahn AG) on the stock market. However, despite efforts to ready the company for privatisation by re-structuring it into five separate entities, the company remains state-owned in 2006.

#### *5.2.2.2.4 Pension reform*

Changes made to the regulation of the German pension system within the parameters of the Retirements Savings Law (‘*Altersvermögensgesetz’*) enacted by the Schröder government in 2001 must also be considered under the umbrella of financial policy; indeed, they can be seen as an attempt on the part of the government to promote the role of financial markets in the German system of finance. Historically, private and semi-public pensions have been, in terms of their financial weight, of minor significance in Germany (see, for example, Schmähl, 1994: Baums and Fraune, 1995: Nürk, 1998: O’Sullivan, 2001). Since the late 1990s, however the Federal government has introduced measures to develop the emergence of private pension funds based on stock-

[33] ‘Die Deutsche Telekom AG auf einem Blick’, available from http://www.telekom.de/dtag/cms/content/dt/de/4874 [Accessed 15 August 2006]

[34] ‘Die Deutsche Telekom AG auf einem Blick’, available from http://www.telekom.de/dtag/cms/content/dt/de/4874 [Accessed 15 August 2006]

market incomes, and thus increase the proportion that shareholdings occupy in the total financial assets of German households (Jürgens and Rupp, 2002: Vitols, 2004).

Although the Third Law on the Promotion of Financial Markets (‘*Drittes Finanzmarkt-Förderungsgesetz’)* of 1998 formally recognised privately funded pensions for the first time in Germany, it was the Retirements Savings Law of 2001 that marked the first serious attempt of any federal government to develop private pensions in Germany (Scheele, 2000). The law, named the Riester Pension (‘*Riester Rente’)* after the former Minister of Social Affairs Walter Riester, was designed firstly to address the crisis in the funding of Germany’s public pension: alongside this primary objective, it also sought to raise the flow of funding to Germany's capital markets by increasing the number of institutional investors and raising the amount of investments made by such investors (Vitols, 2004).

Crucially, the law sought to replace, in the long term, Germany’s historical pension system of paying current pensions from contributions made by the current working population (the so-called ‘pay-as-you-go’ system) by a dual pension regime based on both the pay-as-you-go system and supplementary private pensions. To do this, the law aimed on the one hand to reduce gradually the levels of state pension from 70% of average employee earnings to 68% by 2010, 67% by 2020, 64% by 2030 and finally to 54% by 2050 (Scheele, 2000). In order to fill the gap left by the reduction in state pension provision, the law sought on the other hand to promote stock-market-based private pension funds based on the Anglo-American model. Indeed, with effect from 2002, Germans were offered tax-deduction incentives to invest up to 1% (rising to 4% by 2008) of their income in private pension schemes offered by financial service

providers registered with the Federal Supervisory Office for Financial Services (‘*Bundesanstalt für Finanzdienstleistungsaufsicht – BAFin*’) (Vitols, 2004).

### *5.3 Summary*

This chapter has reported and presented the results that were obtained from the empirical investigation underpinning this research. Its focus has been trained specifically on broad policy debates whose outcomes had the potential to influence the composition of France and Germany’s national systems of finance. In its first section, the chapter identified the main policy stakeholders which, alongside trade-union associations and business associations representing the French and German ICT sectors, most actively contributed to these particular policy debates. The policy positions advocated by each policy stakeholder were subsequently described. A complete list of the main policy stakeholders identified appears in the appendix of this thesis.

The second section of the chapter identified and described the provisions of the most prominent policy initiatives introduced in the broad sphere of financial policy. In France, measures were first identified that aimed specifically at improving the financial situation of ICT companies. These including the creation of the *Nouveau Marché*, the creation of BSCPE subscription bonds, the creation of the FPCR, FCPR and FCPI venture-capital funds, the Law on Innovation and the Law on Employee Savings. In addition, other more general policies were identified, including the on-going privatisation programmes aimed at generally developing France’s capital markets, the Thomas and Fillon Laws aimed at developing capital markets as a source of pension provision and the Law on New Economic Regulations and Law on Financial Security aimed at making the French system of corporate governance more transparent.

Measures aimed particularly at improving the financial situation of ICT companies were also identified in Germany. These included the creation of the BTU venture-capital fund, the creation of the *Neuer Markt* and the provisions on stock-option included in the Law on Corporate Control and Transparency. Other more general financial polices were identified. These included the on-going *Finanzplatz Deutschland* initiative aimed at developing capital markets and improving the German system of corporate governance, the privatisation of former state monopolies, the Tax Reduction Law aimed at loosening bank-company relationships, the creation of the Corporate Governance Commission and the Retirement Savings Law, which aimed to increase the size of the German stock market.

These data presented here are fully analysed in Chapter 8. In the meantime, Chapter 6 continues the presentation of the results and identifies the main stakeholders that have participated in political debates surrounding France and Germany's labour-market institutions.

# 6 Policy debates surrounding national labour-market institutions

Both France and Germany have, since the mid-1990s, witnessed on-going debates surrounding the future development of their national labour-market institutions. This chapter first identifies the main stakeholders who have participated in these debates, and presents the policy positions that each stakeholder has defended. It then proceeds to identify the most prominent policy measures and initiatives undertaken by the national governments of France and Germany in the sphere of labour-market reform and describe in greater detail the provisions of each of these measures.

## *6.1 Identifying policy stakeholders*

The empirical investigation revealed a number of different stakeholders have, in both France and Germany, contributed to debates addressing labour-market reforms.

### 6.1.1 Policy stakeholders in France

In the case of France, the policy stakeholders that contributed to debates surrounding the country's labour-market institutions included, in addition to business associations in the ICT sector and trade union organisations, policy stakeholders representing the interests of the wider French business community and student associations. The following section presents detailed information on the specific policy positions defended by each of these stakeholders.

#### 6.1.1.1 Policy stakeholders in the French ICT sector

Policy stakeholders representing the interests of the French ICT sector have been predominantly critical of their country's labour-market institutions. Their criticisms have been specifically targeted at working-time regulations. For its part, the *Croissance*

*Plus* association has called for a 'liberation of working time'[35], criticising France's traditional working-time regulations for imposing considerable additional costs on ICT companies and preventing ICT companies from planning and conducting work in a project-based manner. Eric Hayet, a former president of *Syntec-Informatique*, has described France's working-time regulations as the legacy of the 19th century, designed with the requirements of industrial production in mind (Lemaître, 2002). In the words of Pierre Dellis, the current Vice President of *Syntec-Informatique*, French working-time regulations have traditionally been formulated not for high-tech industries but rather for heavy industry where, unlike the ICT sector, 'the majority of costs are generated by machines and where employees are poorly qualified and interchangeable' (Macke, 2003).

In addition to criticising French working-time regulations, the business associations representing the French ICT sector have also challenged the traditional French system of employment contracts. For example, the *Syntec-Informatique* association has actively lobbied for the creation of so-called 'assignment contracts' (*contrats de mission*) (Syntec-Informatique, 2003). Unlike France's traditional fixed-term contracts (the so-called *contrat à durée déterminée* or CDD) which allow for a maximum 18-month period of tenure, the assignment contract envisaged by *Syntec-Informatique* would enable ICT companies to recruit new staff on fixed-term employment contracts whose period of tenure was linked to the project for which they were recruited (*ibid*). Calls for more flexible employment contacts have also been issued by the Croissance Plus association. Its former president, Christian Poyau, called for the creation of 'project contracts' (*contrats de project*), which should be limited to the lifecycle of a given

[35] 'Libérez le temps de travail', available from http://www.croissanceplus.com/nomembers/action/action.htm [Accessed 5 September 2005]

project in order to enable high-growth companies to deploy specific skills as and when required (Croissance Plus, 2003: Arnal, 2004). The *Centre des jeunes dirigeants d'entreprise* (CJD) has equally called for legislation authorising assignment contracts (Fondeur, 2004). More recently, the *Croissance Plus* association has vocally advocated the so-called 'first recruitment contract' (c*ontrat première embauche – CPE*), a new type of employment contract providing greater flexibility regarding the hiring and firing of employees under the age of 26 who are hired by companies with more than 20 employees. For example, in a press release issued in January 2006, the association argued that this new type of employment contract represented an important step in adapting French employment law to the economic rules that govern companies at the start of the 21st century.[36]

#### 6.1.1.2 Policy stakeholders in the wider business community

Policy stakeholders in the wider French business community have also been critical of France's labour-market regulations. A particularly vocal critic is the country's national employers' confederation (*Mouvement des Entreprises de France - Medef*). With respect to reforms to dismissal-protection legislation, the association has claimed that France lags twenty years behind other European countries such as the Netherlands and the United Kingdom and has called for the acceleration of reform efforts (Medef, 2005). In the opinion of the employers' confederation, reforms should be undertaken in such a direction that 'each company [is] able to adapt its staffing levels to changes in economic activity, in order to respond to customer needs' (*ibid*: 2).

The employers' confederation has equally challenged French regulations governing employment contracts. For example, within the parameters of its *refondation sociale*

[36] 'Croissance Plus se félicite de la décision prise par le gouvernement', available from http://www.croissanceplus.com/media_p.php?id_presse=198&type_presse=1 [Accessed 10 August 2006]

initiative, an ambitious reform programme launched in February 2000 aimed at overhauling the French system of industrial relations, the *Medef* mooted the idea of new types of employment contracts. Critical that existing fixed-term employment contracts could be signed only for a maximum period of eighteen months, the *Medef* lent its support to the introduction of so-called 'assignment contracts' (*contrats de mission*) and 'project contracts' (*contrats de projet*), as pioneered by the *Syntec-Informatique* association and discussed above (Bilous, 2000). The *Medef* association and its predecessor, the National Council of French Employers (*Conseil national du patronat français – CNPF*), have in particular challenged the country's traditional labour-market institutions for their inability to provide sufficient levels of working-time flexibility. For its part, the CNPF described plans by the Jospin government to reduce statutory working time as an 'absurdity' (quoted in Bilous, 1998a) and as a decision 'entirely motivated by ideology' (quoted in Bilous, 1997a). Elected as head of the employers' association in December 1997, Ernest-Antoine Seillière made opposition to reductions in working time a main issue of his presidency (Bilous, 1997b). More recently, the Medef association has claimed that France's heritage of working-time regulations has undermined employee motivation, devalued work and negatively impacted on national competitiveness (Husson, 2004).

Alongside the *Medef* association of French employers, business associations at the sectoral level have also challenged the traditional arrangements of France's labour-market institutions. For example, in opposition to plans to further reduce statutory working time, the Association of French Banks (*Association Française des Banques – AFB*) terminated with trade-union associations collective agreements which had regulated relationships between employees and employers in the banking sector since

1947 (Damesin, 1998). This move was subsequently followed or threatened by the Union of Metallurgy and Mining Industries (*Union des industries métallurgiques et minières – UIMM*) (Bilous, 1998a), the employer's association representing city-centre department stores (*Union des commerces de centre ville – UCV*) (Bilous, 1998b) and the sugar industry employers' association (*Syndicat national des fabricants de sucre – SNFS*) (Bilous, 1998c). Guillaume Sarkozy, the president of the French Union of Textile Industries (*Union des industries textiles - UIT*) has argued that not only a 35-hour working week, but also the concept of statutory working time, was 'non-sensical' (Husson, 2004).

Furthermore, a number of high-profile reports published in recent years by leading French business personalities have called for the introduction of more flexibility in France's system of employment contracts. For example, Michel de Virville, the head of human resources at Renault, issued a report in January 2004 (De Virville, 2004) proposing the creation of new 'assignment contracts' enabling companies to recruit employees exclusively for the duration of a particular project. Non-governmental organisations in France have also called for a modernisation of France's labour laws. For example, the *Institute de l'entreprise*, a think-tank established in 1975 to provide studies that reflect the thinking of business leaders in France, established during the late 1990s a working group (*Commission 'modernisation du droit du travail'*) to advise the French government on how to simplify France's Labour Code. From the perspective of this organisation, existing legislation governing the termination of employment contracts, economic redundancies and fixed-term and atypical employment contracts represent 'a serious handicap for France, without employees necessarily being able to get something out of them' (Worms, 2004: 5).

Although policy stakeholders in the French business community have argued for greater flexibility in French labour law, it is possible to observe a subtle yet potentially significant change to the positions adopted by business leaders in debates surrounding labour-market reform. For example, Laurence Parisot, elected as president of the *Medef* association in July 2005, has expressed reservations regarding the introduction of flexible employment contracts for young workers. Specifically, she has questioned the logic behind subjecting certain population groups to special treatment (Gremillet and Platat, 2006). Concerned by the prospect of an increased number of dismissed workers bringing their cases before industrial tribunals, the *Medef* also believes there is a case for maintaining existing regulations governing periods of notice and justification for redundancy (Lefrense, 2006). This subtle change in attitudes towards labour-market reform is equally observable in a high-profile report on youth unemployment in France produced by a group of French industrialists under the aegis of Henri Proglio, the managing director of *Veolia Environnement* and close supporter of French President Jacques Chirac (Proglio *et al*, 2006). Crucially, this report included amongst its recommendations for integrating young people into working life an appeal to maintain the 'contract of indeterminate duration' ('*contrat de durée indéterminée*') as the standard form of employment contract

#### 6.1.1.3 Trade-union organisations

From the perspective of France's trade-union organisations, the issue of labour-market reform is an extremely sensitive one and invariably generates high levels of anxiety. Dismissal-protection legislation is one area that unions commonly attempt to defend. Owing to the increased feelings of insecurity amongst French workers, the *Confédération Générale du Travail* (CGT) union has called for existing dismissal-protection legislation to be extended so that it covers a larger number of employees in

small and medium-sized companies (CGT, 2002c, 2004a, 2004b); in the case of large companies, the union has argued for the power of works councils (*comités d'entreprise*) to be increased so as to prevent unjustified dismissals (*ibid*). The *Confédération française démocratique du travail* (CFDT) union shares the perception that existing regulations governing redundancies in France are insufficient and that their coverage should be extended. Essentially, this particular union is concerned that French workers, especially in small companies, are not covered by the provisions of redundancy plans in the event of dismissal.[37] For its part, the *Force Ouvrière* union contends that any weakening of existing French dismissal-protection legislation is 'unforgivable and immoral'[38] and threatens to 'open the door to a social retreat of the highest order'.[39]

French trade unions have also called for the preservation of permanent, open-ended employment contracts. For example, François Chérèque of the CFDT union has argued that 'permanent contracts must remain the standard employment contract'[40] and has claimed that any increased usage of fixed-term contracts constitutes a clear risk for French employees, especially in terms of job insecurity.[41] In the words of Maryse Dumas of the CGT union, legislation should be introduced to extend the coverage of permanent, open-ended contracts to all employees. In particular, Dumas is concerned that introducing fixed-term employment contracts will weaken French dismissal-protection legislation; in this regard, she states that 'companies do not have the right to

[37] 'Plans sociaux – des mesures utiles pour certains salariés', 26 April 2001, available from http://www.cfdt.fr/actualite/emploi/emploi_insertion/archives/emploi_018.htm [Accessed 5 January 2006]
[38] 'Assouplissement des licenciements', 21 October 2002, available from http://www.force-ouvriere.fr/rec/index2.asp?p1=c&p2=licenciement&offset=50# [Accessed 5 January 2006]
[39] 'Assouplissement des licenciements', 21 October 2002, available from http://www.force-ouvriere.fr/rec/index2.asp?p1=c&p2=licenciement&offset=50# [Accessed 5 January 2006]
[40] 'Le risque est évident pour les salariés', 15 January 2004, available from http://www.cfdt.fr/actualite/presse/media/actumedia150.htm [Accessed 5 January 2006]
[41] 'Le risque est évident pour les salariés', 15 January 2004, available from http://www.cfdt.fr/actualite/presse/media/actumedia150.htm [Accessed 5 January 2006]

use precariousness as a form of permanent employment' (quoted in Joly, 2005). For its part, *Force Ouvrière* is concerned that, over the past twenty-five years, the concept of permanent employment has been continually undermined by the development of precarious working practices[42]; in particular, the union is concerned by the doubling since 1991 of workers employed on fixed-term contracts.[43] Against this background, Marc Blondel, the former general secretary of the FO union, argued that fixed-term employment contracts represent the greatest threat to the French employment model.[44]

Trade unions have been particularly opposed to the introduction of 'assignment contracts' as proposed by business associations in the ICT sector. In a joint statement issued in October 2003[45], the CFTC, FO and CGT unions criticised the *Syntec-Informatique* association for proposing 'fast-food style hire-and-fire procedures' to conceal incompetences in human-resource management, and promised 'to do everything possible to prevent or even scupper any negotiations.' Within the ICT sector itself, the *Fédération CGT des Sociétés d'Etude* claimed that, by proposing project-based employment contracts, *Syntec-Informatique* was attempting to subject French ICT professionals to 'total liberalism' and 'transform an alleged high value-adding sector into one based on temping agencies' (Arnal, 2003). More recently, the different trade unions organisations in France joined forces to present a united front against the 'first recruitment contract' proposed by the Villepin government (Noblecourt 2006a and 2006b), as evidenced by the series of jointly-organised nationwide demonstrations in

[42] 'Pas de répit pour la précarité', 9 April 2003, available from http://www.force-ouvriere.fr/rec/index2.asp?p1=c&p2=CDI&offset=5# [Accessed 5 January 2005]
[43] 'L'usage abusif de l'intérim condamné', 2 March 2004, available from http://www.force-ouvriere.fr/rec/index2.asp?p1=c&p2=CDI# [Accessed 5 January 2005]
[44] 'Contrat à durée incertaine en gestation', 18 January 2006, available from http://www.force-ouvriere.fr/rec/index2.asp?p1=c&p2=CDI# [Accesed 23 January 2006]
[45] 'Non à la précarisation du secteur des SSII', 16 October 2003, available from http://www.soc-etudes.cgt.fr [Accessed 31 October 2005]

March and April 2006 calling for the withdrawal of this new type of employment contract[46].

The policy demands of the French trade-union movement also reflect a will to maintain the historical development of working-time arrangements. For its part, the CGT trade union has called for working hours to be further reduced to create new jobs and efficiently tackle the issues of precarious employment and exclusion from the employment market. In the words of the union

> "What is the use of technological progress and increases in productivity if not to reduce the intensity of work, shorten working hours, to transform its contents, increase job satisfaction and find a balance between working and private life?"[47]

Essentially, the union considers the statutory 35-hour working week as the maximum working-time threshold and has called for negotiations within individual industries and companies with a view to introducing a 32-hour working week (CGT, 2002a and 2002b, 2005a). The issue of working hours has also long been a major concern for the CFDT union, which frames the trend towards shorter working times in France within the context of a century-long struggle between employees and employers (CFDT, 2000). The trade union's general secretary, François Chérèque, has called for short working hours to be maintained since they have improved the quality of life of French

[46] See also 'A tale of two Frances - France's troubles' in *The Economist*, 1 April 2006, p.22 and 'Le climbdown - French reforms' in *The Economist*, 15 April 2006, p.40

[47] 'Temps de travail', 1 July 2002, available from http://www.cgt.fr/internet/html/lire/?id_doc=873 [Accessed 5 January 2005]

employees, increased leisure time and ushered in a better work-life balance.[48] From Chérèque's perspective, reduced working hours have also improved the organisation and competitiveness of a many French companies.[49]

#### 6.1.1.4 Student associations

Notwithstanding the existence of student associations such as UNI, *Liberté d'étudier*, *SOS Education* and *Halte au blocage* who have declared their support for more flexible working contracts, student associations have for the most part been widely critical of attempts to inject greater levels of flexibility into the France's labour-market institutions. Their criticisms have focused predominantly on the so-called 'first recruitment contract'. The French National Union of Students (*Union nationale des étudiants de France - UNEF*), the National Secondary School Students' Union (*Union nationale des lycéens - UNL*) and the Student Confederation (*Confédération étudiante*) all condemned efforts to introduce these new types of employment contract as the 'institutionalisation of a precarious employment status' (Lefrense, 2006); in addition, each of the associations considered that the contract would lead to serious discrimination towards young people (*ibid*). Against this background, Bruno Julliard, the president of the UNEF, continually called for the withdrawal of the 'first recruitment contract'. For example, in an interview with *Le Monde*, he argued that 'the French labour code cannot be an adjustable variable in the fight against unemployment.'[50]

[48] From 'Intervention intégrale de François Chérèque le 7 janvier devant la mission d'évaluation sur les 35 heures', available from http://www.cfdt.fr/actualite/emploi/rtt/archives/rtt_0001.htm [Accessed 5 January 2005]
[49] From 'Intervention intégrale de François Chérèque le 7 janvier devant la mission d'évaluation sur les 35 heures', available from http://www.cfdt.fr/actualite/emploi/rtt/archives/rtt_0001.htm [Accessed 5 January 2005]
[50] 'CPE: les arguments contre' in *Le Monde*, 28 February 2006, available from http://www.lemonde.fr/web/chat/0,46-0@2-3224,55-745929,0.html [Accessed 10 August 2006]

### 6.1.2 Policy stakeholders in Germany

In the case of Germany, the policy stakeholders identified, alongside ICT business associations and trade unions, as having actively participated in debates surrounding the country's labour-market institutions included business associations at both the federal and sectoral level. The positions that these groups have defended in debates on labour-market reform are detailed below.

#### 6.1.2.1 Policy stakeholders in the German ICT sector

Business associations representing the German ICT sector have been critical of the country's labour market institutions. The criticisms have been aimed predominantly at Germany's dismissal protection-legislation and regulations governing the system of fixed-term employment contracts. For example, the Association for Information Technology, Telecommunications and New Media (*Bundesverband Informationswirtschaft, Telekommunikation und neue Medien - BITKOM*) has demanded that Germany's 'present-day regulation of notice periods […] and employment protection legislation be confined to history by 2010 at the latest' (BITKOM, 2003b: 34). The Vice President of BITKOM, Heinz Paul Bonn, has claimed that employment protection legislation in Germany has become a 'a brake pedal (*Bremsklotz*) for new employment' and has argued for employment protection legislation to be 'fundamentally reformed and modernised' in order to create new jobs in the German ICT sector (Benz-Overhage and Bonn, 2003: 23). As regards German employment contracts, the BITKOM association has campaigned for new legislation authorising ICT companies to be able to conclude successive fixed-term contracts – so-called *Kettenverträge* – with the same employee (BITKOM, 2002b). To a lesser extent, the BITKOM has lobbied the German government for a more flexible framework for negotiating working-time regulations. In essence, the association has called for the

statutory maximum number of working hours to be increased (BITKOM, 2002b, 2003b, 2005a), arguing that historical working-time regulations 'do not correspond to economic reality [but] treat employees like children' (BITKOM, 2003b: 10). In the opinion of the former BITKOM president Volker Jung, historical working-time arrangements must be repealed in order to re-focus German labour legislation on the requirements of knowledge workers rather than traditional factory workers[51]. Against this background, the association has called for policy innovations in the area of life-long working-time accounts (*Lebensarbeitszeitkonten*) to assist ICT companies in adapting the working times of their employees to the high levels of market dynamism and short innovation cycles that characterise the ICT sector[52].

#### 6.1.2.2 Policy stakeholders in the wider business community

Associations representing the political interests of the wider business community have been similarly critical of the country's labour-market institutions. Trade associations representing employers in the country's diverse industrial sectors have first called for more flexibility with respect to the hiring and firing of new employees. For example, from the perspective of *Gesamt Metall*, the trade association representing the interests of employers in the German metal and electrical industries, Germany's employment protection legislation 'very clearly illustrates how well-meant protection can, in practice, quickly develop into a disadvantage both for employees and for economic development''[53] especially since it makes employers more cautious about hiring new employees. In a position paper issued in the run-up to the 2005 general election, the

[51] 'Gemischte Erwartungen in der Informations- und Kommunikationswirtschaft', 14 June 2002, available from http://www.bitkom.org/de/presse/38020_7687.aspx [Accessed 3 November 2005]
[52] 'BITKOM legt Mittelstandsprogramm vor', 14 November 2003, available from http://www.bitkom.org/de/presse/archiv/17851_2670.aspx [Accessed 3 November 2005]
[53] 'Kündigungsschutz und Beschäftigung', available from http://www.gesamtmetall.de/Gesamtmetall/MEOnline.nsf/id/06E511FC148C408FC1256EF30050EC75?OpenDocument [Accessed 24 November 2005]

German Association of the Automotive Industry (*Verband der Automobilindustrie – VDA*) called on the new government to exempt companies with less than 20 employees from employment protection legislation and to extend probationary period of employment contracts (VDA, 2005). For the German Electrical and Electronic Manufacturers' Association (*Zentralverband Elektrotechnik- und Elektronikindustrie – ZVEI*), more labour-market mobility and flexibility are necessary to ensure long-term employment and innovation in Germany. Less rigid employment protection legislation is central in this context (ZVEI, 2005).

Demands for a loosening of German dismissal-protection legislation have equally been voiced at the national level. Michael Rogowski, the former president of the Confederation of German Industry (*Bundesverband der Deutschen Industrie - BDI*) made repeated calls for radical reform of employment protection for new employees. Indeed, from his perspective, German employment protection had a 'considerable braking effect on the recruitment' (Von Borstel, 2004) such that, in its current design, it served only 'to promote long-term joblessness.' [54] Consequently, job-protection legislation 'should be resolutely abolished for all new recruits.'[55] From the perspective of the Confederation of German Employers' Associations (*Bundesvereinigung der Deutschen Arbeitgeberverbände – BDA*), employment protection represents a core component of individual employment rights. However, the confederation holds that, in its current form, German employment protection legislation is 'no longer in tune with

[54] 'Rogowski: Kündigungsschutz abschaffen' in *Die Welt*, 27 July 2004, available from http://www2.welt.de/data/2004/07/27/310772.html [Accessed 2 November 2005]
[55] 'Rogowski: Kündigungsschutz abschaffen' in *Die Welt*, 27 July 2004, available from http://www2.welt.de/data/2004/07/27/310772.html [Accessed 2 November 2005]

the times'[56] and has a detrimental effect on employment. Consequently, the BDA argues emphatically for existing legislation to be modernised and made more flexible 'as a matter of urgency'[57]. Indeed, any revival of the German labour market is contingent on reforms to German employment protection legislation (BDA, 2004). From the point of view of the umbrella association representing at the national level the country's network of local chambers of commerce (*Deutscher Industrie- und Handelskammertag – DIHK*), Germany possesses, compared to other industrialised nations, 'extraordinarily rigid employment protection laws' (DIHK, 2003a: 1). From the perspective of the DIHK, the strictness of dismissal protection legislation constitutes the main barrier in Germany to recruiting new employees (DIHK, 2004a).

Business associations at the national level have also challenged Germany's historical regulations governing working-time arrangements, and in particular the importance attached to shorter working hours. For Michael Rogowski of the BDI, longer working hours are necessary in Germany to reduce the country's comparatively high unit labour costs. In his words, it would not be 'unreasonable if Germans, in the future, had five instead of six weeks paid holiday.'[58] In the opinion of the BDA, shorter working hours can, in modern day Germany, no longer be seen as the legitimate expression of increased prosperity.[59] Rather, the trend towards ever shorter working hours have gone too far, insofar as Germany's working-time regulations are now having a detrimental

[56] 'Kündigungsschutz', available from http://www.bda-online.de/www/bdaonline.nsf/id/84BD1057D712F286C1256DE70069F439 [Accessed 23 September 2005]

[57] 'Kündigungsschutz', available from http://www.bda-online.de/www/bdaonline.nsf/id/84BD1057D712F286C1256DE70069F439 [Accessed 23 September 2005]

[58] 'Rogowski: Fünf Wochen Urlaub sind genug' in *Frankfurter Allgemeine Zeitung*, 8 July 2004, available from http://www.faz.net/ [Accessed 2 November 2005]

[59] 'Kollektive Arbeitszeitverkürzung verteuert Arbeit', available from http://www.bda-online.de/www/bdaonline.nsf/id/970E87492B5CAE22C1256DE70069F450 [Accessed 3 November 2005]

effect on the competitiveness of German companies and damaging the reputation of Germany as a business location (*Standort Deutschland*) in the eyes of international investors. In sum, the BDA argues that increasing working hours represents a sensible strategy for ensuring the economic future of Germany.[60] For its part, the DIHK contends that longer working hours are vital for securing the future competitiveness of German companies, in particular in the small and medium-sized sector (*Mittelstand*) (DIHK, 2004a).

#### 6.1.2.3 Trade-union associations

German trade-union associations have also contributed to broad debates regarding labour-market policy. The German Confederation of Trade Unions (*Deutscher Gewerkschaftsbund – DGB*) has called for existing legislation governing dismissal protection to be tightened. Indeed, it has raised concerns about what it perceives to be insufficient levels of coverage of the existing legislation;[61] it has also described as intolerable the situation whereby 6.5 million workers in 1.5 million German companies have no legal protection against dismissal.[62]

The *IG Metall* trade union, the largest and most influential union body within the DGB federation, has equally sought to consolidate Germany's existing dismissal-protection legislation. For example, Karin Benz-Overhage, a member of the union's executive committee, has argued (Benz-Overhage and Bonn, 2003: 22) that

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[60] 'Kollektive Arbeitszeitverkürzung verteuert Arbeit', available from http://www.bda-online.de/www/bdaonline.nsf/id/970E87492B5CAE22C1256DE70069F450 [Accessed 3 November 2005]

[61] 'Kündigungsschutz in Gefahr', available from http://www.dgb.de/themen/themen_a_z/abisz_doks/k/kuendigungsschutz01/view?showdesc=1 [Accessed 25 October 2005]

[62] 'Fakten zum Kündigungsschutz', available from http://www.dgb.de/themen/themen_a_z/abisz_doks/k/fakten_kuendigungsschutz/ [Accessed 25 October 2005]

> "the legal provisions for dismissal protection must remain in place. Anyone who wants to undermine them will not create any more jobs, but rather will leave employees defenceless in the face of employers' hire-and-fire strategies […] For employees, protection against dismissal is a question of personal dignity and protects them from arbitrariness (*Willkür*)"

The president of the IG Metall union, Jürgen Peters, considers attempts to weaken dismissal-protection legislation as 'a general attack on employment rights',[63] as damaging to the 'welfare-state foundations of German society'[64] and as an abandoning of the 'German tradition of the social market economy.'[65] For his part, Hubertus Schmoldt, the general secretary of the Mining, Chemical and Energy Industrial Union (*Industriegewerkschaft Bergbau, Chemie, Energie – IG BCE*), has described attempts to add more flexibility to dismissal-protection legislation as American-inspired 'neo-liberal experiments'[66] with negative consequences for employees. Schmoldt stated that his union would vigorously oppose any hire-and-fire policy, arguing that protection against dismissal had been central to Germany's system of peaceful industrial relations, which for over 50 years had actively contributed to Germany's high levels of economic

[63] 'Peters kritisiert Wahlprogramm der Union als Generalangriff auf Arbeitnehmerrechte', 11 July 2005, available from http://www.igmetall.de/cps/rde/xchg/SID-0A342C90-5F2B43CD/internet/style.xsl/view_4508_4525.htm?seitenid=191 [Accessed 25 October 2005]
[64] 'Peters kritisiert Wahlprogramm der Union als Generalangriff auf Arbeitnehmerrechte', 11 July 2005, available from http://www.igmetall.de/cps/rde/xchg/SID-0A342C90-5F2B43CD/internet/style.xsl/view_4508_4525.htm?seitenid=191 [Accessed 25 October 2005]
[65] 'Peters kritisiert Wahlprogramm der Union als Generalangriff auf Arbeitnehmerrechte', 11 July 2005, available from http://www.igmetall.de/cps/rde/xchg/SID-0A342C90-5F2B43CD/internet/style.xsl/view_4508_4525.htm?seitenid=191 [Accessed 25 October 2005]
[66] 'Modell Deutschland statt Hire & Fire', 26 July 2004, available from http://www.igbce.de/portal/site/igbce/menuitem.7f014179843ff65e0ef9fc94c5bf21ca/ [Accessed 2 December 2005]

and export success.[67] Those who permanently extol other nations' social cultures, suggests the union sarcastically, 'should emigrate to these much-lauded countries.' [68]

In debates surrounding working-time regulations, the DGB has contended that the advocates of increased working hours 'turn the laws of economics of their heads.'[69] Most specifically, the federation maintains that the supporters of unpaid, increased working hours ignore Germany's chronic unemployment problem. Indeed,

> "Longer working times would concentrate the available volume of work on fewer heads and make even more people unemployed. Longer working hours increase the burden of work and have a negative effect on the quality of life" [70]

The individual trade unions comprising the DGB federation are equally critical of calls to lengthen working hours in Germany. For the *ver.di* trade union, the introduction of shorter working hours has been the result of a long trade-union struggle. In recent years, claims the union, the achievements of this struggle have been threatened by German employers seeking not only to put a stop to but also to reverse the trend towards shorter working hours (Bsirske *et al*, 2004). Thus, as a key feature of its working-time initiative

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[67] 'Modell Deutschland statt Hire & Fire', 26 July 2004, available from http://www.igbce.de/portal/site/igbce/menuitem.7f014179843ff65e0ef9fc94c5bf21ca/ [Accessed 2 December 2005]

[68] 'Modell Deutschland statt Hire & Fire', 26 July 2004, available from http://www.igbce.de/portal/site/igbce/menuitem.7f014179843ff65e0ef9fc94c5bf21ca/ [Accessed 2 December 2005]

[69] 'Erklärung des DGB-Bundesvorstandes zur aktuellen Arbeitszeitdiskussion', 6 July 2004, available from http://www.dgb.de/presse/pressemeldungen/pmdb/pressemeldung_single?pmid=2409 [Accessed 2 November 2005]

[70] 'Erklärung des DGB-Bundesvorstandes zur aktuellen Arbeitszeitdiskussion', 6 July 2004, available from http://www.dgb.de/presse/pressemeldungen/pmdb/pressemeldung_single?pmid=2409 [Accessed 2 November 2005]

(*Arbeitszeitinitiative*) announced in 2004, the *ver.di* union announced its intention to 'defend its achievements' and 'ward off increases to working hours' (ibid: 3).

For its part, the *connex-av* union, a representative body closely affiliated with the *ver.di* trade union, has called for German working hours to be shortened further since full-time employees in Germany work, on average, longer hours than their peers and contemporaries in other European countries. Indeed, from the union's point of view (Wiedemuth, 2004):

> "All the facts speak against longer working hours. They do not solve any problems; they only serve to create new ones"

For the *IG Metall* trade union, shorter working hours are effective in increasing productivity since they promote creativity and encourage employees to work more efficiently; longer working hours, by contrast, lead to an idleness of thought (*Denkfaulheit*) (IG Metall, 2004a). Long working hours are, in the eyes of the IG Metall union, particularly damaging to the performance of information-technology professionals, whose work is frequently creative in nature.[71]

### *6.2 Identifying the principal labour-market policies*

The following section identifies and describes the provisions of the key policy measures introduced since the mid-1990s which have affected the labour-market institutions of France and Germany.

[71] 'Längere Arbeitszeiten - Wunschtraum 40 Stunden', 31 January 2005, available from http://www.igmetall-itk.de/index.php?article_id=235 [Accessed 2 November 2005]

### 6.2.1 Policy measures introduced in France

The empirical investigation identified the following as the key policy developments in the sphere of French labour-market policy since the late 1990s:

- The Orientation and Incentive Law on the Reduction of Working Time of 1998
- The Social Modernisation Law of 2002
- The Law on Wages, Working Time and Job Creation of 2003
- Jean-Pierre Raffarin's *Contrat France 2005* announced in 2004
- The introduction of the 'new recruitment contract' in 2005
- Attempts to introduce the 'first recruitment contract' in 2006

The key provisions of these individual policy initiatives are described below.

#### 6.2.1.1 Orientation and Incentive Law on the Reduction of Working Time

In 1997, the Socialist Party, led at the time by Lionel Jospin, included in its election manifesto plans for a general 35-hour week. This election pledge subsequently served as the basis for the so-called Orientation and Incentive Law on the Reduction of Working Time (*loi d'orientation et d'incitation relative à la réduction du temps de travail*). Promulgated by the French parliament in May 1998 and validated by the Constitutional Council the following June, the new law ushered in radical modifications to French working-time regulations. Essentially, it shortened from 39 to 35 hours the length of the statutory working week in France. These new regulations came into affect on 1 January 2000 for companies employing more than 20 workers, and on 1 January 2002 for smaller firms. The reduction in working time did not necessarily force employers to set a strict 35-hour working week. Rather, any hours worked in excess of the statutory 35-hour working week were officially considered as overtime. In accordance with the law,

a range of options were available to employers for dealing with overtime. Specifically, employers are able to financially compensate additional working hours, or enable employees to liquidate overtime in additional rest days. Employers can, for instance, enforce a 39-hour working week and offer their employees an additional number of rest days. Similarly, employers can set a maximum number of hours worked per month or per year, and offset the additional hours worked with rest days.

#### 6.2.1.2 Social Modernisation Law

In 2002, the French parliament passed the Social Modernisation Law (*loi de modernisation sociale*), largely against a background of large-scale and high-profile redundancies announced by Danone, Marks & Spencer and Bata during the course of 2001. Although the law contained a number of social measures of varying scope, the core of the legislation covered provisions designed to strengthen the right to work. In particular, the new legislation focused its attention on tackling two specific areas, notably redundancy protection and precarious employment. As regards redundancy protection, the law strengthened the hitherto existing provisions governing the prevention of economic redundancies ('*licenciements économiques'*). Crucially, the law sought to make such redundancies an employer's last resort. Under the provisions of the law, employers must have reached agreement on the introduction of the 35-hour working week, reduced structural overtime and proposed redeployment opportunities to employees before being able to table a redundancy plan ('*plan social*') (EEO, 2002). If employers fail to respect these provisions, the new law accords more powers to French industrial tribunals, enabling them to block company redundancy plans. With respect to precarious employment, the law sought not only to end abuses of France's system of fixed-term contracts but also to generally restrict the use by employers of such contracts. Specifically, the law increased from 6% to 10% the so-called 'precarious

employment bonus' ('*prime de précarité*') paid out to fixed-term employees upon termination of their contract; in addition, the Social Modernisation Law toughened the regulations governing the period of time that must elapse between the use of fixed-term contracts for the same position. Crucially, the new law insisted that this period must be calculated in terms of working instead of calendar days.

#### 6.2.1.3 Reforms to 35-hour working week

With the election of the Raffarin government in June 2002, the priority of French labour-market policy shifted towards reforming the 35-hour working-week legislation that had been introduced by the previous Jospin government. In this new political climate, François Fillon, the then French Employment Minister, introduced the Law on Wages, Working Time and Job Creation (*loi relative aux salaires, au temps de travail et au développement de l'emploi*) in January 2003 to raise the annual overtime quota from 120 hours to 180 hours per worker in companies with more than 20 employees (Braud, 2002). A further series of reforms to the 35-hour working week regulations was introduced within the parameters of the Contract France 2005 ('*Contrat France 2005'*) initiative announced by the former Prime Minister, Jean-Pierre Raffarin, in September 2004[72]. Although Raffarin's reform package did not challenge the statutory working-week of 35 hours, it nonetheless lifted restrictions governing the maximum number of days that employees could accumulate in company time savings accounts (*compte épargne temps*, CET); building on the reforms already introduced by Fillon, the reform package also further raised statutory overtime quotas to 220 hours per year and authorised employers to liquidate the extra days of leave resulting from the reduction of working time.

[72] 'Un contract France 2005', available from http://www.premier-ministre.gouv.fr/information/actualites_20/intervention_premier_ministre_sur_51160.html [Accessed 19 September 2004]

#### 6.2.1.4 'New recruitment contract'

The so-called 'new recruitment contract' ('*contrat nouvelle embauche*') represents a further labour-market policy development in France. This new type of employment contract was introduced by decree in August 2005 within the context of an emergency employment plan announced by the then newly-appointed Villepin government. This new type of employment contract applies only to firms employing a maximum of twenty employees. Although it represents a permanent employment contract, its redundancy provisions differ considerably from those stipulated by the standard permanent employment contract (the *contrat à durée indéterminée*, or CDI). Crucially, employers can terminate a new recruitment contacts during the first two years without giving any specific justification; in addition, the probationary periods of such contracts (two weeks during the first six months, one month thereafter) are considerably shorter than the three-month period stipulated by normal permanent contracts. The regulations governing 'new recruitment contracts' also oblige companies to pay higher severance payments to employees in the event of a termination before the end of the two-year probationary period. Essentially, firms that terminate a 'new recruitment contract' must pay to the employee concerned an allowance amounting to 8% of his or her total earnings since the beginning of the contract. Furthermore, companies must pay an allowance of 2% of the employee's cumulative earnings to the public employment service in order to finance action to help the employee to find new employment.

#### 6.2.1.5 'First recruitment contract'

Building on the provisions of the 'new recruitment contract', Prime Minister Villepin drafted legislation in February 2006 to introduce the so-called 'first recruitment contract' (c*ontrat première embauche – CPE*). Designed as part of the government's strategy to fight youth unemployment, the provisions underpinning this new type of

employment were comparable to the legislative aspects of the 'new recruitment contract'. Essentially, it was envisaged that the 'first recruitment contract' would start with a two-year probationary period, during which employers could terminate the employment relationship without justification. During this extended probationary period, the 'first recruitment contract' could be terminated with two weeks' notice in the first six months of employment, and one month's notice thereafter. In common with the 'new recruitment contract', the 'first recruitment contract' incorporated severance regulations that obliged firms to pay allowances of 8% of employee earnings upon termination of a contract; companies were also obliged to pay an allowance of 2% of the employee's cumulative earnings to the public employment service. However, the 'first recruitment contract' differed from the 'new recruitment contract' in two key aspects. First of all, the 'first recruitment contract' concerned only employees below the age of 26. Secondly, 'first recruitment contracts' could be signed by all French companies, not only those employing a maximum of twenty employees.

### 6.2.2 Policy measures introduced in Germany

The following initiatives were identified as the key policy developments in the sphere of German labour-market policy:

- Alliance for Jobs, Training and Competitiveness launched in 1998
- Law of Corrections in Social Security and Safeguarding of Employee Rights of 1999
- Law on Part-time and Temporary Work of 2001
- Reforms to the Works Constitution Act undertaken in 2001
- First Law for Modern Services on the Labour Market of 2003
- Second Law for Modern Services on the Labour Market of 2003

- Third Law for Modern Services on the Labour Market of 2004
- Labour Market Reform Act of 2004
- Fourth Law for Modern Services on the Labour Market of 2005

The key provisions of these individual policy initiatives are detailed below.

#### 6.2.2.1 Alliance for Jobs, Training and Competitiveness

A first major labour-policy development in Germany since the late 1990s is the Alliance for Jobs, Training and Competitiveness (*Bündnis für Arbeit, Ausbildung und Wettbewerbsfähigkeit*). Established in December 1998 as a tripartite discussion forum at the national level bringing together representatives of the government, trade unions and employers' associations, the Alliance for Jobs was promoted by the first Schröder government as its most important project for reducing unemployment. The parties set out their common goals in a joint declaration issued upon creation of the forum.[73] With specific reference to labour-market policy, these included the reduction of non-wage labour costs through reform of social-security system; the introduction of flexible working-time regulations: reform of collective bargaining policy in support of job creation; the development of new fields of employment for low-skilled workers; and the extension of labour market policy to fight youth and long-term unemployment (Schulten, 1998). Until its disbanding in 2003, a number of high-profile policy discussions were conducted within the parameters of the Alliance for Jobs. The major ones are reported in the following table:

[73] 'Gemeinsame Erklärung des Bündnisses für Arbeit, Ausbildung und Wettbewerbsfähigkeit', available from http://www.bundesregierung.de/01/0101/02532/index.html [Accessed 23 January 2004]

| Date of meeting | Discussion subjects |
|---|---|
| December 1998 | Indirect wage costs; flexibilisation of work |
| February 1999 | Creation of special committees. |
| July 1999 | Reform of company taxation; partial retirement; pensions; labour market policies for east Germany; vocational training; reduction of overtime work |
| December 1999 | Training; special government programme against youth unemployment; special projects for low-skilled workers |
| January 2000 | Partial retirement; collective bargaining issues |
| July 2000 | Training; reduction of overtime work; working time accounts; flexibilisation of work |
| March 2001 | Further training at company level; employment of older workers; active labour market policies; pensions |
| January 2002 | Pay policy |
| February 2003 | Pay policy; collective bargaining |

**Table 7: Major policy issues discussed within the context of the Alliance for Jobs, adapted from Behrens and Niechoj (2003)**

#### 6.2.2.2 Law on Corrections in Social Security and Safeguarding of Employee Rights

On 1 January 1999, the Schröder government introduced a new law on 'corrections in social security and the safeguarding of employee rights'('*Gesetz zu Korrekturen in der Sozialversicherung und zur Sicherung der Arbeitnehmerrechte'*) – its first concrete reforms to Germany's labour-market institutions since its election in September 1998. Driven largely by the desire to revoke labour-market regulations introduced by the Kohl government in the mid-1990s, the amendments introduced by the law focused in particular on the rules governing dismissal protection. Essentially, the new government sought to repeal the decision taken by the previous government to limit comprehensive dismissal protection to companies with more than 10 employees by re-introducing full protection to all employees hired by companies with more than five workers. In addition, the Law on Corrections in Social Security and the Safeguarding of Employee Rights extended the number of so-called 'social criteria' ('*Sozialkriterien*') that German employers must take into account in the event of redundancies. Crucially, the new law

restricted the recourse to economic redundancies by forcing firms to take into account the length of service and family situation of individual employees before making redundancy decisions.

#### 6.2.2.3 Law on Part-time and Temporary Work

In January 2001, the Schröder government introduced the Law on Part-time and Temporary Work (*Teilzeit- und Befristungsgesetz – TzBfG*). Amongst its provisions, the new law introduced new regulations governing part-time work and the conclusion of fixed-term employment contracts. With respect to part-time work, the new legislation granted employees the legal right to transform full-time employment into part-time employment. Under the terms of the law, employees are legally entitled to reduce their working hours if they have worked in the same company for more than six months, and if their company employs more than 15 workers. Provided that these two requirements are met, employers can refuse their workers the statutory right to part-time work only under exceptional circumstances. The Law on Part-time and Temporary Work also relaxed hitherto existing rules that legally obliged employers to justify their recourse to fixed-term employment contracts. Crucially, the law enabled German employers for the first time to conclude fixed-term contracts up to a maximum period of two years without having to cite specific reasons. The law also relaxed the restrictions for employing older people on fixed-term contracts. In essence, employees over the age of 58 were no longer subject to regulations governing fixed-term contracts, so as to give this particular age group a chance to find work. A key feature of the Law on Part-time and Temporary Work was its insistence on equal treatment (‘*Gleichbehandlung’*). In essence, the law stressed that employees on fixed-term contracts be treated in the same way as permanently employed workers. In this regard, the law stressed for example that temporarily-employed staff should have the same rights as permanently-employed staff

with respect to participation in training courses. Against this background, the government's stated objectives in introducing the legislation was to promote part-time work and fixed-term contracts 'in a way that prevented discrimination against workers employed on such contracts of employment'.[74]

#### 6.2.2.4 Reforms to Works Constitution Act

Almost thirty years since the last major overhaul of the law in 1972, the German parliament approved far-reaching reforms in June 2001 to the country's Works Constitution Act (*Betriebsverfassungsgesetz*), a law first introduced in 1952 to govern the participation rights of works councils (*Betriebsräte*) in German private-sector companies. Alongside its provisions seeking to increase the size of works councils, to streamline their election procedures and to improve the representation of women, the reform of the Works Constitution Act aimed to give works councils a greater say in areas such as training, protection of the environment, the fight against racism in the workplace and employment security. In this regard, the reforms defined issues pertaining to job security as one of the major areas of responsibility of works councils, granting them the right to take the initiative with respect to the promotion and safeguarding of employment and obligating employers to pay greater attention to the proposals of works councils when formulating their human-resources policies (Schulten, 2001).

#### 6.2.2.5 Implementation of recommendations of Hartz Commission

In August 2002, the Schröder government began introducing legislation based on recommendations issued by the Commission for Modern Services on the Labour Market

[74] 'Gesetz über Teilzeitarbeit und befristete Arbeitsverträge', available from http://bundesrecht.juris.de/tzbfg/index.html#BJNR196610000BJNE000500305 [Accessed 27 November 2005]

(*Kommission für moderne Dienstleistungen am Arbeitsmarkt*), a government-appointed working party chaired by Volkswagen's director of personnel Peter Hartz. In essence, the commission drew up a series of so-called 'innovation modules' which aimed at deep-seated reform to Germany's labour market institutions. These modules were implemented as Hartz I – Hartz IV as follows:

#### *6.2.2.5.1 First Law for Modern Services on the Labour Market (Hartz I)*

Promulgated in January 2003, the First Law for Modern Services on the Labour Market (*Erstes Gesetz für moderne Dienstleistungen am Arbeitsmarkt)* included provisions to promote temporary agency work ('*Leiharbeit*') in Germany. Under the terms of the new legislation, a network of so-called personnel service agencies (*Personal-Service-Agenturen* – PSAs) were created across Germany, capable of employing unemployed people and hiring them out on a short-term basis to user companies. The new legislation granted temporary agency workers considerable employment rights. For example, the law stipulated that temporary agency workers be recruited by employment agencies on the basis of permanent contracts, that they enjoy the same pay and conditions as permanent workers in user companies and that their salaries and working conditions be ultimately covered by traditional collective bargaining agreements.

#### *6.2.2.5.2 Second Law for Modern Services on the Labour Market (Hartz II)*

In parallel to the First Law for Modern Services on the Labour Market, the Second Law for Modern Services on the Labour Market (*Zweites Gesetz für moderne Dienstleistungen am Arbeitsmarkt)* was also introduced in January 2003. The regulations established in this *Hartz II* law concentrated on the low supply of labour in Germany. Specifically, the law introduced two measures designed to increase Germany's relatively low employment rate, in particular amongst lower qualified

people. First, it introduced, under the slogan of Ich AG ('Me Plc'), grants for setting up businesses with the objective of facilitating the transition from unemployment to self-employment. The second major incentive of the Hartz II was the introduction of so-called 'Mini-Jobs'. These aimed at improving the employment prospects of low-wage earners. Crucially, the law exempted jobs with a monthly remuneration of €400 from tax and social-security contributions, and reduced to 25% the social-security contributions paid by employers for workers employed on mini-job contracts.

#### *6.2.2.5.3 Third Law for Modern Services on the Labour Market (Hartz III)*

Entering into force on 1 January 2004, the Third Law for Modern Services on the Labour Market (*Drittes Gesetz für moderne Dienstleistungen am Arbeitsmarkt)* focused its attention on improving the efficiency of Germany's public employment service. In response to a report by the German Federal Audit Court (*Bundesrechnungshof*) which revealed that officials of the public employment service had falsified placement statistics to exaggerate their performance, the *Hartz III* legislation incorporated policy instruments designed to improve the organisational workflows and control activities federal employment service. In this respect, *Hartz III* renamed the Federal Institute for Employment (*Bundesanstalt für Arbeit*) as the Federal Agency for Employment (*Bundesagentur für Arbeit*) and sharpened its focus on individually-tailored job-seeker assistance. Profiling was used as a key instrument to assess jobseekers' situations and better ascertain their individual needs. In addition, *Hartz III* improved the efficiency of the PES by creating customer centres (so-called '*Job Center*') which merged services relating to the labour market, including counselling and support services, with social-welfare services.

#### *6.2.2.5.4 Fourth Law for Modern Services on the Labour Market (Hartz IV)*

The main thrust of the Fourth Law for Modern Services on the Labour Market (*Viertes Gesetz für moderne Dienstleistungen am Arbeitsmarkt)* introduced on 1 January 2005 involved far-reaching changes to Germany's unemployment benefit system. Essentially, the Hartz IV legislation radically overhauled hitherto existing rules governing unemployment assistance. Under the terms of the law, income-related unemployment benefit (Unemployment Benefit I, or '*Arbeitslosengeld I'*) was limited to a maximum of 12 months. If still unemployed after this initial 12-month period, jobseekers receive the so-called Unemployment Benefit II ('*Arbeitslosengeld II*') whose level is fixed at the level of the social assistance benefit ('*Sozialhilfe*'). For a single adult, Unemployment Benefit II amounts to €345 per month in western Germany and €331 in eastern Germany.

### 6.2.2.6 Labour Market Reform Act

The Labour Market Reform Act (*Gesetz zu Reform am Arbeitsmarkt)* came into force in January 2004. The law essentially introduced new regulations to govern protection against dismissal and ushered in new rules addressing the use by employers of fixed-term contracts. With respect to dismissal-protection legislation, the Labour Market Reform Act increased the threshold above which dismissal protection should apply. In this way, the coverage of statutory protection against dismissal was reduced to include only those workers in companies with more than ten employees (Dribbusch, 2004). As regards the conclusion of fixed-term contracts, the law permitted newly created companies to sign fixed-term contracts with their employees for a maximum of four years; prior to January 2004, this was permissible only for a maximum period of two years.

### *6.3 Summary*

This chapter has focusing on reporting and presenting the results obtained from observing the policy debates broaching French and German labour markets. In the first section, the chapter identified the main policy stakeholders which, alongside trade-union associations and business associations representing the French and German ICT sectors, most actively contributed to these particular policy debates. The policy positions advocated by each policy stakeholder were subsequently described. A complete list of the main policy stakeholders identified appears in the appendix of this thesis.

The second section of the chapter identified and described the provisions of the most prominent labour-market policies introduced during the period covered by the investigation. In France, these measures were the Orientation and Incentive Law on the Reduction of Working Time of 1998, the Social Modernisation Law of 2002, the Law on Wages, Working Time and Job Creation of 2003, Jean-Pierre Raffarin's *Contrat France 2005* announced in 2004, the introduction of the 'new recruitment contract' in 2005 and the attempts in 2006 to introduce the 'first recruitment contract.' In Germany, the policies and initiatives identified were the Alliance for Jobs, Training and Competitiveness launched in 1998, the Law of Corrections in Social Security and Safeguarding of Employee Rights of 1999, the Law on Part-time and Temporary Work of 2001, the reforms to the Works Constitution Act undertaken in 2001, the Hartz laws introduced between 2003 and 2005 and the Labour Market Reform Act of 2004.

The extent to which these data confirm or refute the predications formulated by the theoretical framework is discussed in Chapter 9. In the meantime, Chapter 7 continues

the presentation of the results and identifies the main stakeholders that have participated in political debates surrounding the provision of workforce skills in France and Germany.

## 7 Policy debates surrounding national institutions for skills provision

Alongside the broad political debates surrounding the future development of national financial systems and labour-market systems, both France and Germany have, over recent years, also witnessed high-profile discussions addressing the broad issue of skills provision. Discussions have focused, for example, on higher education. In France, the system of university education has been described as a terrain on which battles for and against reform are played out (Musselin, 2001), and the last two decades have been marked by attempts at reforming institutions of higher education, often in the face of fierce resistance (Goedegebuure *et al,* 1993: Eurydice, 2000). In the case of Germany, the higher-education reform debate has been described as a 'thirty years war' (Kahl, 2002) and attention has been drawn to the broad spectrum of interconnected stakeholders, including national and regional governments, trade unions and member of the German business community, that have interacted to shape educational policy (Führ, 1997: 56).

The recourse to immigration as a means of overcoming skills shortages has equally been identified as one of the most contentious issues in contemporary French society and frequently stirs up heated controversies (Hargreaves, 1987 and 1995). As in France, immigration policy in Germany has also been a politically sensitive issue, with opposing attitudes to economic migration imbuing political debates for over a century (Herbert, 2001: Meier-Braun, 2002: Luft, 2003). More recently, there have been conducted in each country policy debates that have addressed the issue of lifelong learning (Arnold and Gieseke, 1999: Bournazel, 2001: Cros, 2005: Dobischat and Seifert, 2001: Fellermeyer and Herbrich 2006: Fischer and Vogel 2000: Fouque, 2004: Gauron, 2000: Jallade, 2002: Kade and Seitter 1996). In common with the debates

surrounding higher-education reform and immigration, these discussions have attracted contributions for a wide range of stakeholders, each defending their own policy positions.

Against the background of these debates, the following chapter performs two functions. First, it identifies the main stakeholders who have participated in each of these debates and presents the policy positions that each has advocated. In a second step, it identifies the most prominent policy measures and initiatives introduced by the national governments of France and Germany in the sphere of skills formation and then proceeds to describe in greater detail the provisions of each of these measures.

## *7.1 Identifying policy stakeholders*

In both France and Germany, the investigation identified a number of different policy stakeholders that have contributed to policy debates regarding the provision of skills.

### 7.1.1 Policy stakeholders in France

The following section identifies the main policy stakeholders who have contributed to French policy debates regarding the provision of skills.

#### 7.1.1.1 Debates surrounding higher-education policy

Alongside business associations representing the political interests of ICT companies and trade-union associations representing teaching staff, the investigation also identified business associations representing the wider business community as the policy stakeholders having actively contributed to debates surrounding the French system of higher education. The policy positions defended by these individual stakeholders are presented below.

#### *7.1.1.1.1 Policy stakeholders in the ICT sector*

Policy stakeholders in the French ICT sector have been critical of their country's system of higher education. In November 2000, for example, a number of ICT business associations, including the Cigref (*Club informatique des grandes entreprises*), Gitep (*Groupement des télécommunications et d'électronique professionnelle*), SFIB (*Syndicat des technologies de l'information*) and *Syntec-Informatique* issued a joint call for French universities to be more receptive to the demands of ICT companies (Harlé, 2000). For its part, the *Croissance Plus* association of ICT companies has argued that university courses should be more geared towards the demands of the working world (Croissance Plus, 2000). In this regard, the association holds that the French system of higher education does in particular not take into account the specific needs of high growth companies, with the consequence that ICT start-up companies are unable to find on the job market the skills profiles that they require. Crucially, the association claims that the French system of higher education should equip students with more opportunities to undertake industrial placements ('*stages*') and to specialise earlier in specific technological areas (*ibid*).

From the perspective of *Syntec-Informatique*, the French system of higher education poorly prepares IT professionals for the world of work. Although the association acknowledges that computer scientists graduate from French universities with excellent technological skills, it claims that graduates have considerable problems understanding how such technologies can help to solve companies' problems (Trégouët, 1998). For Jean Mounet, the president of *Syntec-Informatique*, the French system of higher education has kept pace neither with rapidly evolving technologies nor with the

requirements of ICT companies.[75] Crucially, French institutions of higher education are providing computer-science graduates with the type of skills that companies demanded five years ago. In the words of Mounet, 'people who programme code have become obsolete – we now need people who are familiar with the customers' line of business; for example, we need people with training in banking who can talk to bankers to be able to implement banking software.'[76]

#### *7.1.1.1.2 Policy stakeholders in the wider business community*

Policy stakeholders in the wider French business community have also criticised their country's system of higher education. In policy debates regarding the development of the French system of higher education, the *Medef* association of French employers has drawn attention to the absence of vocationally-orientated degree courses offered by the French system of higher education. In response to this problem, the association argues that companies, in common with teachers, parents, local government officials and state representatives, be considered as equal members of France's education community and make a greater contribution to the design and management of France's education system (Medef, 2004). For its part, the Paris Chamber of Commerce and Industry (*Chambre de Commerce et d'Industrie de Paris – CCIP*) has criticised the French system of higher education for having trained its focus too tightly on increasing the number of students rather than on improving the quality of education programmes (CCIP, 2002). Indeed, in the opinion of this organisation, the French system of higher education should be freed from quantitative pressures and focus on adopting an ordered and coherent approach towards improving quality (*ibid*). Think tanks representing the French business

[75] 'Audition Club Sénat de Jean Mounet', available from http://www.club.senat.fr/admin/dir_files/audition_Jean_Mounet_le_07-04-04.doc [Accessed 10 April 2006]

[76] 'Audition Club Sénat de Jean Mounet', available from http://www.club.senat.fr/admin/dir_files/audition_Jean_Mounet_le_07-04-04.doc [Accessed 10 April 2006]

community, such as the *Institut de l'Entreprise* and the *Institut Montaigne,* have also actively contributed to discussions on the future of the French system of higher education. For its part, the *Institut de l'Entreprise* has argued that the relatively low number of vocationally-orientated degree courses at French universities contributes to the high levels of youth unemployment in France and the difficulties experienced by young French people in integrating the French job market (Prévost, 2004). The *Institut Montaigne* has contended that the French education system particularly overlooks the needs of the service sector (Institut Montaigne, 2003). Indeed, '[French] weaknesses in courses preparing students for service-related jobs represent the critical point in our education system' (*ibid*, 12). In particular, the institute cites a mismatch of course contents and firms' educational requirements as a main areas of concern.

#### *7.1.1.1.3 University teaching staff*

Left-wing teaching unions, including most notably the *Fédération Syndicale Unitaire*, have challenged the value of practical, vocational-orientated education in France. These union associations have attempted to ensure that universities remain *la finalité culturelle* by continually resisting calls by industry to provide courses that are more vocationally orientated courses (Ardagh, 2000). In addition, there is a widespread feeling amongst these unions that educational recommendations advanced by international bodies such as the Organisation for Economic Co-operation and Development (OECD), the International Bank for Reconstruction and Development (World Bank), the World Trade Organization (WTO) and the European Union (EU) advocate a purely utilitarian view of higher education (Petrella, 2000: Laval, 2003). In such an environment, teaching unions have argued that increasing the vocational orientation of university studies runs the risk of reducing the task of the French system of higher education simply to providing the human capital required by companies. This suspicion on the

part of higher-education staff to offer practically-orientated courses is especially observable in ICT-related disciplines. For example, it has been noted that teaching staff at French institutions of higher education are reluctant to provide their students with training in specific software systems. In this regard, Corniou and Mijolla (2001) point out that the staff at some universities in France refuse, for ideological reasons, to train IT students in the use of software systems that are available on the market. Against this background, there exists the perception amongst university teachers that education is being subordinated by new technology, and unions lament the fact that the French system of higher education must adapt to new technologies rather than new technologies having to adapt to the demands of human beings (IRHESC, 2005). This sceptical attitude towards ICTs is equally discernable in the propensity of university professors to challenge the technological determinism typically associated with information technologies and question the extent to which technological progress brought about by ICTs is inevitable, unavoidable and irreversible (*ibid*).

#### 7.1.1.2 Debates surrounding immigration policy

Policy stakeholders identified as having actively contributed to debates surrounding immigration policy in France included, alongside sectoral associations representing ICT-producing companies and trade-union organisations, national and industry-level associations in the wider economy. The policy preferences and demands voiced by these stakeholders are described in detail below.

##### *7.1.1.2.1 Policy stakeholders in the ICT sector*

Business associations representing the interests of the French ICT sector have called for a liberal immigration policy. For example, faced with labour shortages at the beginning of the decade, representatives from *Syntec-Informatique*, the *Club informatique des*

*grandes entreprises* (CIGREF), the *Groupement des télécommunications et d'éléctronique professionnelle* (GITEP) and the *Syndicat des technologies de l'information* (SFIB) associations called for streamlined immigration procedures making it easier for ICT companies to recruit IT professionals from non-European Union countries (Harlé, 2000). For its part, the ICT Working Group of the Paris Chamber of Commerce has called for the government to introduce a selective immigration policy so as to attract computer scientists from Romania, Ukraine, Russia and India and fill the skills gaps experienced by French ICT companies (CCIP, 2000); only by means of such a policy measure will France be able to overcome its shortage of ICT professionals (*ibid*). More recently, Jean Moulin of *Syntec-Informatique* has argued that the French government should consider relaxing immigration policy so as to attract highly skilled workers to France and discourage French ICT businesses from outsourcing their IT activities to countries such as India where professional ICT skills are in abundance (Biseul, 2006).

#### *7.1.1.2.2 Policy stakeholders in the wider business community*

Policy stakeholders in the wider business community are divided on the issue of economic migration. On the one hand, there are industry associations, most notably representing the French textile, construction and health sectors, hat have called for more liberal immigration laws (Barroux *et al*, 2003). For example, from the perspective of André Daguin, the president of France's hotel and catering trade association (*Union des métiers et des industries de l'hôtellerie - UMIH*), immigration is necessary to compensate for the large number of young people who train in hospitality professions in France and then seek to make their livings overseas (Wesfreid, 2003). Christian Baffy, the president of the association representing the interests of the French construction industry (*Fédération française du bâtiment - FFB*) favours opening up France's job

market to foreign labour, in particular from Eastern Europe (Kimmel, 2005). On the other hand, however, other stakeholders have adopted a more cautious attitude. Of particular note in this regard is the rather ambivalent attitude of the national employers' association (*Mouvement des Entreprises de France – Medef*) towards immigration. Essentially, the national employers' confederation does not consider it necessary for France to alter radically its immigration policy and attract greater levels of foreign labour (Math and Viprey, 2003). Generally speaking, the *Medef* feels that labour shortages in France can be filled by France's comparatively high levels of unemployment (Tuchszirer, 2001). The General Confederation of Small and Medium sized Enterprises (*Confédération générale des petites et moyennes entreprises – CGPME*) is equally cautious about increased levels of immigration. Although it supports the idea of selective, economic immigration, the confederation contends that French immigration policy should give preference to workers from member states of the European Union (Guerrin, 2005).

#### *7.1.1.2.3 Trade unions*

For their part, France's trade unions are predominantly opposed to economic migration. At the national level, trade unions have dismissed the calls for a more liberal immigration policy that targets skilled professionals in specific industrial sectors. For example, the *Confédération Générale du Travail* (CGT) union has stated that immigration policy should not be reduced simply to the utilitarianism of economic migration proposed by certain sections of France's business community (CGT, 2005b and 2006). Specifically, by attempting to attract to France highly skilled workers and recent graduates, such an immigration policy runs the risk of plundering poor countries of their most valuable assets (CGT, 2005). Attitudes towards immigration are particularly critical amongst French trade-union organisations representing the specific

interests of ICT professionals. In the opinion of Régis Granarolo, president of the French Movement for a National Union of Information Technology Consultants (*Mouvement pour une union nationale des consultants en informatique - MUNCI*), the promotion of immigration is inappropriate at a time when there are between 40,000 and 50,000 unemployed IT specialists in France (Crouzillacq, 2006). For Granarolo, economic immigration represents a real danger for French jobs, an in particular for those unemployed IT professionals who are nearing the end of their careers (*ibid*). Yvan Béraud, the general secretary of the *Bétor-Pub* union, is sceptical about the extent to which immigration policy can be used to overcome the shortages of highly-skilled IT professionals in France (Crouzillacq, 2006). Indeed, Béraud's past experience has shown that foreign IT professionals, such as from India, are often reluctant to live and work in France (*ibid*).

#### 7.1.1.3 Debates surrounding lifelong-learning policy

The policy stakeholders identified as participating actively in policy debates surrounding life-long learning included, in addition to business associations representing the interests of the ICT sector and trade unions, national level employers' associations. The policy positions articulated by these stakeholders are described in the following section.

##### *7.1.1.3.1 Policy stakeholders in the ICT sector*

Business associations representing the political interests of the French ICT sector have advocated increasing access to lifelong learning programmes. For example, Pierre Dellis of the *Syntec-Informatique* business association states that 'lifelong education is a necessity for computer scientists' (Vergé, 2003). Jean Mounet, also of the *Syntec-Informatique* association, has called on the French government to improve the

framework conditions for lifelong education so that ICT companies can respond more efficiently to new waves of technology (Burger and Arpagian, 2003). The *Croissance Plus* association also advocates measures to promote lifelong learning programmes. Essentially, the association is critical that relatively few French workers benefit from the country's programmes of lifelong education (Croissance Plus, 2000). The association holds that provisions for paid educational leave should be modernised so that all employers are entitled to up to twelve months of paid educational leave every 10 years (*ibid*). Further, *Croissance Plus* has lobbied for the creation in France of a job-rotation scheme comparable to the one in existence in Denmark, whereby employers participating in lifelong education measures are replaced during their absence from the workplace by unemployed workers (*ibid*). For its part, the *Centre des Jeunes Dirigeants d'Entreprise* (CJD) laments the fact that, compared to their counterparts in countries such as Sweden, Denmark and Finland, only a small minority of French employees have access to further education and training in the workplace. The CJD association argues that France's existing provisions for life-long education have been largely designed for and by large companies, so that employees in large companies are three times more likely than employees in small and medium-sized companies to participate in life-long learning measures. Consequently, the association has called for the renewal of life-long learning programmes, which should be available to all employees.[77]

#### *7.1.1.3.2 Trade-union organisations*

Trade-union organisations in France have also been vocal in their support for increased access to lifelong learning in France. During the course of the 1990s, for example, France's trade unions played a key role in drawing up a series of official parliamentary

[77] 'Le nouvel enjeu d'une formation tout au long de la vie pour tous et sous toutes ses formes', March 2003, available from http://www.cjd.net/Default.aspx?tabid=84 [Accessed 12 January 2006]

reports that identified a number of weaknesses in the French system of life-long learning and called for a far-reaching reform of existing provisions (Braud, 1999). The trade unions' critique of the French system of lifelong learning was repeated in a white paper published in March 1999 by Nicole Péry, the former French minister for women's rights and vocational training (Péry, 1999). The paper argued that the French system of lifelong learning had reached its limits in giving employees a second chance in the workplace and proposed moving from a situation where training was an issue at company level to one where it was an employee's individual right, transferable and collectively guaranteed (*ibid*). Calls for the creation of a new right or a new guarantee to lifelong learning have been repeated by the CGT and the *Confédération française démocratique du travail* (CFDT) unions (Vincent, 2001). These two union associations are agreed that that such a right to continuing workplace training should be transferable from one company to another and awarded independently of employees' status, thereby enabling employees to design a career plan, validate expertise accrued through experience or learn new skills (*ibid*).

#### *7.1.1.3.3 Policy stakeholders in the wider business community*

In France, policy stakeholders in the wider business community have been more critical about the introduction of new regulations governing lifelong learning. Although seemingly in favour of greater levels of workplace training and fostering amongst French workers an attitude that is more conducive to lifelong learning[78], the *Medef* has by and large been sceptical about introducing a new legislative framework for lifelong learning. Crucially, the association has been concerned that any modifications to the existing regulations governing lifelong learning may lead to employers bearing a greater

[78] 'Une démarche prometteuse pour les entreprises, les salariés, la société française', 12 January 2003, available from http://www.medef.fr/staging/site/page.php?pag_id=1827 [Accessed 12 January 2006]

share of employee-training costs (Braud, 1999). In addition, the *Medef* has questioned the calls for increased levels of workplace training during normal working hours, especially following the introduction of the 35-hour working week (*ibid*). Two other business associations have been critical about possible changes to France's existing lifelong learning regulations. Both the General Confederation of Small and Medium-sized Enterprises (*Confédération générale des petites et moyennes entreprises - CGPME*) and the Craftwork Employers' Association (*Union professionnelle artisanale – UPA*) have argued against the creation of an individual employee right to training (Vincent, 2001). From the perspective of the CGPME association, affording employees an individual right to training will deflect training away from the real needs of companies and deprive employee-training plans of funds (*ibid*). Furthermore, the CGPME and UPA associations have expressed concerns that any changes to France's established rules and regulations for lifelong learning may shackle small and medium-sized companies in France with additional financial burdens. In this regard, both associations have been keen to maintain the traditional practice whereby training funds are collected from all companies, held in a mutual fund and redistributed to smaller organisations (Vincent, 2001).

### 7.1.2 Policy stakeholders in Germany

The following section identifies the main policy stakeholders who have contributed to policy debates in Germany addressing the issues of skills provision.

#### 7.1.2.1 Debates surrounding higher education policy

Alongside business groups representing the German ICT sector, the stakeholders identified by the investigation as contributing most actively to debates on the country's system of higher education included national- and other sectoral-level business

associations, associations representing the political interests of German universities, professors' associations and groups representing the interests of German students. The policy positions advocated by these stakeholders are reported below.

#### *7.1.2.1.1 Policy stakeholders in the ICT sector*

Policy stakeholders in the German ICT sector have challenged Germany's long periods of university study and called for novel university courses which are limited in their duration. For example, the *Initiative D21* association, a network bringing together over 200 companies operating in the ICT sector and related fields, has been critical of the contributory effects of long periods of study in Germany to high drop-out rates at German universities (Initiative D21, 2001). Essentially, the association claims that, as a consequence of long degree courses in Germany and the subsequent high rates of non-completion amongst computer-science students, the German system of higher education is capable of meeting only half the personnel demands of German ICT companies (*ibid*). From the perspective of the Association of the German Software Industry (*Verband der deutschen Softwareindustrie - VSI*), the 100,000 unfilled computer-specialist positions in German ICT companies at the end of the 1990s were the direct consequence of long study times at German universities (VSI, 1999). For its part, the German Association for Information Technology, Telecommunications and New Media (*Bundesverband Informationswirtschaft, Telekommunikation und neue Medien - BITKOM*) has lamented the fact that the German computer-science students take, on average, seven years to complete their studies (BITKOM, 2001). As such, the association has been vocal in its calls for the introduction in Germany of curricula similar to Bachelor and Masters degree courses typically offered at American or British universities (*ibid*).

#### *7.1.2.1.2 Policy stakeholders in the wider business community*

In the wider business community, a number of business associations have voiced their concerns about the capacity of the traditional system of higher education to ensure adequate quality standards and to respond to the needs of modern companies in an increasingly competitive and changing economy (Eissel and Grasse, 2001). For example, the Confederation of German Employers' Associations (*Bundesvereinigung der deutschen Arbeitgeberverbände - BDA*) has argued that shorter study times are necessary to improve the competitiveness of the German economy (BDA, 2003). In this regard, the association cites as problems specific to Germany the increase since the early 1980s by 2.3 years of the average study time of German students and the average graduate age of 29 (Küpper, 2002). According to the BDI, the rise in the average age of German graduates threatens to undermine the innovative capacity of the German economy, especially given the trend towards an aging population (*ibid*). For its part, the Federation of German Industry (*Bundesverband der deutschen Industrie – BDI*) has also called for the government to encourage German institutes of higher education to introduce shorter degree courses. In this regard, Hans-Olaf Henkel argued during this presidency of the BDI that periods of study at German universities were excessively long and symptomatic of Germany's downward spiral in terms of international competitiveness (Henkel, 2002).

However, support in the wider business community for shorter university courses is not universal. Crucially, other groups representing the political interests of the German business community have questioned the need for shorter degree courses at German universities. In this regard, there have been calls, especially from within the German engineering sector, for shorter degree courses to complement rather than fully replace

Germany's *Diplom* qualification, an academic degree comparable to a combined Bachelors and Masters degree and typically taking a minimum of five years to complete. For example, in its recommendations for the development of engineering education in Germany, the German Association of Engineers (*Verein Deutscher Ingenieure - VDI*) has argued that shorter degree courses should not be introduced at the expense of undermining the strengths of Germany's traditional engineering qualifications, which have established themselves as a global standard (VDI, 2004). In the words of Klaus Wucherer, President of the Association for Electrical, Electronic & Information Technologies (*Verband der Elektrotechnik, Elektronik und Informationstechnik - VDE*), the traditional courses offered by German universities in engineering-related disciplines already enjoy an excellent worldwide reputation. As such, shorter degree courses should be offered only to fill the gaps overlooked by the existing course offering, rather than act as a future substitute for existing courses (Wucherer, 2002). For its part, the German Electrical and Electronic Manufacturers' Association (*Zentralverband Elektrotechnik- und Elektronikindustrie - ZVEI*) recognises the advantages of shorter periods of study but has suggested that in future it will continue to consider traditional *Diplom* qualifications as the de facto standard yardstick by which all engineering degrees will be assessed (ZVEI, 2000 and 2004).

#### *7.1.2.1.3 Policy stakeholders in the German system of higher education*

Policy stakeholders in Germany's higher education system are similarly divided on the issue of education reform. On the one hand, there are groups that have called for the introduction of shorter degree courses. For example, the German Rectors' Conference (*Hochschulrektorenkonferenz - HRK*), an association representing the political interests of state and state-recognised universities and other higher education institutions in Germany, has called for the German university system to be restructured so as to

encourage students to complete their studies in a shorter timeframe (HRK, 2002). Since the association considers students graduating from German universities to be too old, it believes that the characteristics of the restructured system of higher education must include modular degree courses, affording students the freedom to shorten their higher education whilst still obtaining a university qualification (*ibid*). From the perspective of the German Centre for University Development (*Centrum für Hochschulentwicklung - CHE*), an initiative founded in 1994 by the Bertelsmann Foundation (*Bertelsmann Stiftung*) and the German Rectors' Conference (*Hochschulrektorenkonferenz - HRK*), shorter Bachelor and Masters courses are necessary to ensure that the courses offered by German universities are more attractive, more flexible and internationally recognised (CHE, 2003). For its part, the Science Council (*Wissenschaftsrat*), an advisory body to the Federal government and German state governments which draws up recommendation on the development of German higher education, has called for the greater use of tiered study programmes (*gestufte Studiengänge*) in Germany (Wissenschaftsrat, 1999). Essentially, the Science Council holds that such shorter degree courses are necessary to adjust university education to changes on the labour market and to the requirements of life-long learning (Wissenschaftsrat, 2000).

On the other hand, however, other policy stakeholders have adopted a more cautious attitude towards the introduction of shorter degree courses. For example, the Consortium of German Institutes of Technology (the so-called 'TU9' group of technical universities in Aachen, Berlin, Braunschweig, Darmstadt, Dresden, Hanover, Karlsruhe, Munich and Stuttgart) has challenged the usefulness of three-year Bachelor degrees in engineering-related disciplines (Finetti and Burtscheidt, 2004). For its part, the Association of German Institutions of Higher Education (*Deutscher Hochschulverband*)

has issued warnings about the introduction of shorter degree courses in Germany (Deutscher Hochschulverband, 1999). Crucially, the association has argued that Germany's traditional degree courses had proven themselves both nationally and internationally and has questioned the extent to which shorter degree courses would find acceptance in Germany. Furthermore, the association contends that shorter degree courses should not be imposed on universities; rather, institutions of higher education should have the freedom to determine whether and to what extent they wish to offer shorter degree courses. Essentially, the association has claimed that it would be irresponsible to replace Germany's proven academic qualifications by shorter degree courses or to afford shorter degree courses a superior status than Germany's historical academic qualifications.

In addition, the majority of German professors' associations (the so-called *Fakultätentage*) have issued a series of policy statements exhibiting a far more reserved attitude towards the introduction of shorter periods of study (Stifterverband für die deutsche Wissenschaft, 2004). Amongst the associations of university professors active in IT-related disciplines, the *Fakultätentag Informatik der Universitäten in der Bundesrepublik Deutschland* has questioned the logic of shorter degree courses, criticising in particular their tendency to reduce university education to school-like instruction (‘*Verschulung*’) (Fakultätentag Informatik der Universitäten in der Bundesrepublik Deutschland, 2001). Concerned that shorter degree courses are introduced simply to save money, this professorial association has called on its members to scrutinise actively the necessity, feasibility and benefits of such courses (*ibid*). In addition, the association has argued that information-technology departments at German universities must continue to enjoy the freedom to determine the type of

degree courses that they offered (Fakultätentag Informatik der Universitäten in der Bundesrepublik Deutschland, 2004). Crucially, IT departments should be able to offer other forms of training - including the traditional *Diplom* qualifications - alongside shorter degree courses. This sentiment is echoed by the *Fakultätentag für Elektrotechnik und Informationstechnik* (FTEI), which has argued for the co-existence of traditional *Diplom* qualifications and shorter degree courses (FTEI, 2004). The FTEI has also contended that high-quality IT professionals are best trained within the framework of a single-tear university system in which degree courses run for a period of five and a half years. This particular university model, argues the association, is also favoured by elite universities in the United States (*ibid*).

For their part, German students have been critical about the introduction of shorter degree courses, as evidenced by the student strikes in November and December 1997, which were partly a reaction against government plans to tighten the regulations of standard periods of study ('*Regelstudienzeiten*'). Many students feared that stricter time restrictions would lead to a greater tendency towards reverting university courses to school-like instruction. Students have equally been concerned that the attempts to curtail student freedom to develop and progress at their own pace would limit the much-valued principle of *Bildung durch Wissenschaft* (Ostermann, 2002). The scepticism of German students to shorter degree courses is also observable in their attitudes to the introduction of student fees for those students whose study times exceed the standard period of study. In this context, the president of the German Union of Students (*Deutsches Studentenwerk - DSW*) Hans-Dieter Rinkens has argued that the introduction of so-called 'long-time study fees' (*'Langzeitstudiengebühren'*) will erect a new hurdle for German students, lead to higher drop-out rates at German universities and

undermine the principles of equality underpinning the German system of higher education (Deutsches Studentenwerk, 2004).

#### 7.1.2.2 Debates surrounding immigration policy

In the case of Germany, the policy stakeholders identified, in addition to ICT business associations and trade unions, as actively participating in immigration-policy discussions included national-level employers' associations, civil groups and the CDU/CSU political parties. The policy preferences and demands voiced by these stakeholders are described in detail below.

##### *7.1.2.2.1 Policy stakeholders in the ICT sector*

For their part, policy stakeholders in the German ICT sector have been the most vocal proponents of increased immigration and have called for the creation of new, comprehensive mechanisms to co-ordinate future immigration movements. Amidst fears that the scarcity of highly qualified personnel would represent a fundamental impediment to the sustainable development of the German ICT sector, trade associations, individual corporations and lobbying agencies of the sector argued in favour of liberalising Germany's immigration laws to facilitate the recruitment of IT specialists from outside the European Union (Kolb, 2005). From the perspective of the *Initiative D21* association, for example, a more liberal immigration framework is vital as the continued lack of specialised staff jeopardises the innovative and competitive capabilities of the German ICT sector (Initiative D21, 2001). In the words of the former BITKOM Vice President Jörg Menno Harms, Germany requires a targeted immigration policy represents as an important policy instrument for alleviating the shortages of IT

experts in Germany[79]. Indeed, the German ICT sector needs immigration 'because the German education system does still not provide sufficient levels of highly qualified employees'.[80]

#### *7.1.2.2.2 Policy stakeholders in the wider business community*

Business associations representing the wider German business community have also declared their support for measures aimed at attracting more non-EU IT specialists to Germany (Dieper, 2000). From the perspective of the BDI, for example, German demand for IT professionals cannot be met in the long term without considering the recruitment of migrant workers, and the association has thus called for flexible, unbureaucratic laws governing immigration (BDI, 2002). For its part, the BDA has argued that more liberal immigration laws are necessary if Germany is to compete with other industrialised nations for the best employees and maintain and secure the attractiveness of Germany as a business location (BDA, 2001). As far as the Association of German Chambers of Industry and Commerce *(Deutscher Industrie- und Handelskammertag - DIHK)* is concerned, it is paramount that Germany equips itself with a modern immigration policy, especially given the increased internationalisation of labour markets for highly qualified staff, particularly in high-tech sectors (DIHK, 2003b).

#### *7.1.2.2.3 Civil groups*

A number of civil groups have contributed to immigration debates in Germany, arguing that a more open attitude towards migration is necessary. Unlike policy stakeholders in the German ICT sector and in the wider business community, these groups argue for

[79] 'Informationswirtschaft Beschäftigungsmotor Nummer Eins', 7 June 2001, available from http://www.bitkom.org/de/presse/archiv/813_7711.aspx [Accessed 17 February 2005]
[80] 'Zwei Jahre Green Card: Testlauf für Zuwanderungsgesetz', 31 July 2002, available from http://www.bitkom.org/de/presse/archiv/18593_2187.aspx [Accessed 24 February 2006]

more immigration on moral and humanitarian as opposed to economic grounds. In this regard, Bade and Bommes (2000) cite the Protestant and Catholic churches, welfare organisations, journalists and scientists as actively lobbying for increased levels of immigration. Other non-governmental organisations have also argued in favour of more immigration, most notably the Bielefeld Refugee Council (*Flüchtlingsrat Bielefeld*) (Marshall, 2000), the Council for Migration (*Rat für Migration*) (Rat für Migration, 1999) and the Protestant and Catholic churches (Rat der Evangelischen Kirche Deutschland und der Deutschen Bischofskonferenz, 1997).

#### *7.1.2.2.4 Trade unions*

For their part, German trade unions have adopted a sceptical attitude in immigration-policy debates. Indeed, it has been questioned within the German trade-union movement whether immigration represents a responsible solution to Germany's shortage of computer scientists, especially given the country's high levels of unemployment. In 2000, for example, the German Confederation of Trade Unions (*Deutscher Gewerkschaftsbund - DGB*) pointed to the fact that 37,000 unemployed IT professionals were registered as unemployed at German job centres (Ette, 2003). Although not outright opposed to immigration, German trade unions nonetheless singled out as a main priority the retraining of these unemployed IT professionals (Annesley, 2004). Against this background, Ursula Engelen-Kefer, the Vice President of the DGB has feared that allowing foreign IT experts access to the German labour market could lead to overall lower wages in the German ICT sector (Scheele, 2000). For his part, Heinz Putzhammer, a member of DGB's executive board, has supported limited temporary immigration, but only on the condition that such immigration practices do not impact negatively on the employment prospects of domestic workers (Behrens, 2001).

#### *7.1.2.2.5 The CDU/CSU union*

In the national debate on immigration, the CDU/CSU union has been sceptical about easing the access of foreign IT professionals to the German employment market. Their opposition was crystallised by Jürgen Rüttgers, the Prime Minister of the Federal state of North Rhine Westfalia. During the 2000 regional elections, Rüttgers made his rejection of increased levels of immigration a centrepiece of his election campaign and coined controversial election slogans such as *Kinder statt Inder* ('children instead of Indians') and *mehr Ausbildung statt mehr Einwanderung* (‘more training instead of more immigration’). At the federal level, CDU/CSU opposition to increased levels of immigration has focused on two specific issues. First, the CDU/CSU parties have linked the question of immigration to Germany's high levels of unemployment and have described the general opening up of the labour market to foreign nationals as a threat to domestic jobs (Kruse *et al*, 2003). Similarly, the CDU/CSU union has been concerned about the effects of wage dumping brought about by a potential influx of cheap foreign labour (*ibid*). Second, the attitude of the CDU/CSU parties to immigration hardened following the terrorist attacks in New York in September 2001 and the Madrid bombings in March 2003. The brutality of these attacks, coupled with the revelation that foreign terrorist cells had been operating in Hamburg, led the CDU/CSU union to frame immigration legislation increasingly in terms of anti-terrorism laws (Bendel, 2004: Prantl, 2004: Theil, 2004). Indeed, in the wake of the terrorist bombings in Madrid, the Christian Democrats made their approval of any new immigration law contingent on the inclusion of stronger security measures.

### 7.1.2.3 Debates surrounding lifelong-learning

Alongside associations representing the interests of ICT companies and trade union associations, the participants in policy discussions surrounding life-long learning policy

were identified as national-level employers' association and academics in the German system of higher education. Their specific policy positions are detailed below.

#### *7.1.2.3.1 Policy stakeholders in the ICT sector*

In the German ICT sector, policy stakeholders have called for a new set of regulations to govern lifelong-learning opportunities. From the perspective of the *BITKOM* association, lifelong education has a greater importance in the ICT sector than in other industrial sectors, especially since ICT-related knowledge typically has a half-life of three to six months (BITKOM, 2005a and 2005b). Consequently, on-going education should be mandatory in ICT companies (*ibid*). The *Initiative D21* association of German ICT companies has called on the government for support in increasing investment in lifelong learning programmes and to increase the number of training opportunities offered to their employees during normal working hours (Initiative D21, 2005). Additional government support is necessary especially since ICT companies will, in the future, be required to make a greater contribution to employee training as universities can no longer be expected to provide students with knowledge and skills whose relevance will endure the 40 years of a typical working life (Accenture/Initiative D21, 2005).

#### *7.1.2.3.2 Trade-union organisations*

German trade-union organisations have also called for political measures to increase access to lifelong learning programmes. For the DGB confederation of trade unions, lifelong learning is 'the basis for global competitiveness and social cohesion.'[81] The DGB is particularly concerned that the number of German employees participating in

[81] 'Lebensbegleitendes Lernen ist Fundament für globalen Wettbewerb und gesellschaftlichen Zusammenhalt', 14 July 1997, available from http://www.dgb.de/presse/pressemeldungen/pmdb/pressemeldung_single?pmid=301 [Accessed 23 March 2006]

lifelong learning programmes has been falling since the late 1990s.[82] In particular, the umbrella organisation of trade unions is critical that over three quarters of all small and medium-sized companies in Germany do not provide their employees with lifelong learning opportunities.[83] For its part, the ICT branch of the *IG Metall* trade union has actively lobbied for a legally enshrined right to lifelong learning and, since 2001, has been attempting to include such rights in collective bargaining negotiations (IG Metall, 2004b). Frank Bsirske, the president of the *ver.di* trade union, identifies lifelong learning as a key factor for innovation, growth and competitiveness, but is concerned that three quarters of small and medium-sized companies in Germany do not offer their staff any form of continued education or training (Schmid, 2006). Bsirske has called for the creation of a right to lifelong education, and has called on the state, employers and employees to create more formally recognised instruments for lifelong learning to provide additional incentives to participate in further education and training (*ibid*).

#### *7.1.2.3.3 Academics at German universities*

Academics at German universities have also argued in favour of new regulations for lifelong learning. In this regard, an independent panel of academic experts from the universities of Speyer, Kassel, Bielefeld and Duisburg was appointed by the Federal government in 2001 to investigate the future financing of lifelong learning in Germany ('*Expertenkommission Finanzierung Lebenslangen Lernens*'). Published in July 2004, the panel's high-profile final report recommended the adoption of an adult education act introducing a variety of new lifelong learning instruments, including learning time accounts ('*Lernzeitkonten*') and extensive job release and re-employment rights ('*Freistellungs- und Rückkehrrechten*') (BMBF, 2004).

[82] 'Deutschland braucht mehr Weiterbildung', available from http://www.dgb.de/themen/bildung/aktuell/news/weiterbildung.htm [Accessed 24 March 2006]
[83] 'Deutschland braucht mehr Weiterbildung', available from http://www.dgb.de/themen/bildung/aktuell/news/weiterbildung.htm [Accessed 24 March 2006]

#### *7.1.2.3.4 Stakeholders in the wider business community*

For their part, groups representing the political interests of the wider German business community have been wary about introducing new regulations on lifelong, workplace education. Although the BDA has recognised that lifelong learning has increased in importance since the 1960s, it has rejected the introduction at the Federal level of additional lifelong learning regulations, such as the creation of an individual right to continued education. In the opinion of the employers' association, additional legal regulations would serve only to discourage employers from offering additional lifelong learning programmes and undermine the overall quality of lifelong learning in Germany.[84] In addition, the BDA is concerned that any attempts to modify existing lifelong learning regulations could increase the already significant financial contribution that employers make to lifelong learning in Germany.[85] Against this background, the employers' confederation contends that ongoing education should remain for the most part the responsibility of individual employees rather than their employers.[86] The rhetoric of the DIHK would also suggest that it advocates greater levels of lifelong learning in Germany, especially as a tool for overcoming labour shortages in specific economic sectors (DIHK, 2005). However, a closer examination of its policy position on lifelong learning reveals a more sceptical attitude. Essentially, the association contends that, since employers already make the largest financial contributions towards company training in Germany, it should in future be the responsibility of employees themselves to finance their lifelong learning activities (DIHK, 2004b). The association also opposes the creation at the Federal level of an institutional framework for lifelong

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[84] 'Lebenslanges Lernen/Weiterbildung : Grundsätze', available from http://www.bda-online.de/www/bdaonline.nsf/id/F8CF4EDEDAC78E25C1256DE70069F3D7?Open&ccm=200030040&L=DE&markedcolor=%23003399 [Accessed 20 April 2006]

[85] 'Steigende Bedeutung der Weiterbildung', available from http://www.bda-online.de/www/bdaonline.nsf/id/LebenslangesLernenWeiterbildun [Accessed 20 April 2006]

[86] 'Steigende Bedeutung der Weiterbildung', available from http://www.bda-online.de/www/bdaonline.nsf/id/LebenslangesLernenWeiterbildun [Accessed 20 April 2006]

learning; the provision of continuing education should rather be governed as far as possible by the market (*ibid*).

### *7.2 Identifying the principal skills-related policies*

Having identified the main stakeholders who have participated in debates surrounding higher education, immigration and lifelong learning in France and Germany, and having described the policy positions that each of these stakeholders has defended, attention now turns towards identifying the most prominent policy measures and initiatives introduced by the national governments of France and Germany in each of these policy areas.

#### 7.2.1 Policy measures introduced in France

In the case of France, a number of policy measures have been introduced since the mid-1990s in the spheres of higher education, immigration and lifelong learning. These are described in more detail below.

##### 7.2.1.1 Higher-education policy

Since the middle of the 1990s, France has witnessed a number of developments in the sphere of higher-education policy. Measures have first been introduced to promote the general computer literacy of university students. For instance, the government introduced the *Certificat informatique et Internet* qualification in 2002 to certify the ability of students to use ICTs for creating, managing and archiving information (MEN, 2002). Second, initiatives have been announced to better equip universities with ICTs, as evidenced for example by government attempts to connect all universities to the broadband RENATER network (MEN, 2004) and the *Micro-Portable-Etudiant* action plan entitling students to a purchase laptop computers at favourable interest rates (Monflier, 2005). Third, higher-education policy has targeted the use of ICTs as a

teaching tool. For example, as part of the *Campus numériques français* initiative, virtual universities have been created under the name of *universités numériques thématiques* to focus on the provision of IT-supported distance-learning courses in medicine, engineering, law and sustainable development (Lefief, 2001). The French government has also introduced initiatives aimed at establishing institutes of higher education whose courses focus specifically on information and communication technologies. For example, as part of the French Governmental Programme for the Information Society (*Plan d'Action Gouvernemental pour la Société de l'Information - PAGSI*), the former French Prime Minister Lionel Jospin announced in 2000 the creation of an institute of higher education designed specifically to train French computer scientists in applied Internet technologies. The Institute of Advanced Internet Applications (*Institut des applications avancées de l'Internet - IAAI*) was subsequently opened in Marseille in September 2002. The government has helped to develop new degree courses at existing *grandes écoles* and universities to meet ICT needs in different specialisations (West *et al*, 2004). In an attempt to create the framework conditions for new, vocationally-orientated courses, the former Minister for Education Claude Alègre introduced in 1999 the vocationally-orientated Bachelor's degree ('*licence professionnelle*'), a degree that is prepared in one academic year following two years of higher education studies. What differentiates the vocationally-orientated Bachelor's degree from other higher-education qualification in France is its focus on on-the-job training, with students having to undertake an internship of 12-16 weeks either in France or abroad. Between 2001 and 2002, the government approved the creation of 45 new vocationally-orientated bachelor courses in IT-related disciplines (Meusy, 2004).

#### 7.2.1.2 Immigration policies

Since the late 1990s, France's legislative framework governing immigration has been modified by a number of policy developments, as detailed below.

##### *7.2.1.2.1 Chevènement Law on Immigration*

Following his election in 1997, the former Prime Minister Lionel Jospin commissioned the prominent political scientist Patrick Weil to research the issue of immigration and nationality in the French context. The result report (Weil, 1997) laid the foundations for the Chevènement Law on Immigration ('*loi Chevènement sur l'immigration*') enacted in May 1998. Concerned that existing immigration legislation deprived France of sources of scarce human capital and undermined its ability to compete globally for highly-skilled yet scarce employees, this law created a special immigration status for scientists and scholars. It also introduced measures designed to ease the conditions of entry for certain highly skilled professional categories, mostly notably in the ICT sector (Bernard and Herzberg, 1998: McLaughlan and Salt, 2002: Blion *et al*, 2003). Essentially, under the terms of the Chevènement Law on Immigration, the French government issued between 1998 and 2002 a series of policy communiqués (*circulaire DPM/DM 2-3 n°98-429, circulaire DPM/DM 2-3 n°98-767, circulaire DPM/DMI 2 n°2002-26*) aimed at facilitating the recruitment of computer scientists from outside the European Union. In accordance with these communiqués, regional authorities in France were instructed to automatically grant work permits to non-European computer scientists and their family members and to award work permits to IT students at French universities seeking to change their residence status from student to worker.

#### *7.2.1.2.2 Creation of transitory regimes at the European level*

Prior to the eastern enlargement of the European Union in May 2004, the French government established, together with Spain, Belgium and Germany, labour-movement restrictions at the European level to limit the access of workers from the new member states to the EU job market (Ferenczi, 2003, 2004a, 2004b: Kesser, 2004: Leparmentier, 2004: Beuve-Méry, 2005: Ricard, 2005). Essentially, the government proposed the creation of so-called transitory regimes ('*régimes transitoires*') authorising the existing fifteen member states of the European Union (EU) to restrict for a maximum period of seven years the flows of migrant workers from eastern Europe (Centre d'analyse stratégique, 2006).

#### *7.2.1.2.3 Law on Immigration Control*

Further regulations on immigration were introduced within the parameters of the Law on Immigration Control ('*loi relative à la maîtrise de l'immigration, au séjour des étrangers en France et à la nationalité*') passed by the French parliament in October 2003. Elected on a platform promising greater security, especially given the terrorist attacks of 11 September 2001 in the United States, the Raffarin government used this legislation to introduce more restrictive immigration regulations (Lochak, 2004: Engler, 2005). Alongside abrogating 'double sentences' ('*double peine*') for foreign criminals and unifying procedures for asylum requests[87], the Law on Immigration Control also reinforced the conditions governing the entry and residency of foreigners in France (Lochak, 2004: Engler, 2005: Kretzschmar, 2005). Despite suppressing residence permits for workers from EU countries, the law tightened the conditions under which long-term residence permits for non-EU immigrants can be issued. Under the specific

[87] For a more detailed account of the provisions of the law, see 'Le Parlement a adopté le projet de loi sur l'immigration' and 'Les principaux points du projet de loi' in *Le Monde*, 19 October 2003

terms of the law, migrant workers could apply for a ten-year residence permit only if they had lived in France for a minimum of five years; prior to the introduction of the law on immigration control, the issuing of such a residence permit was possible after three years' residence (Thierry, 2005). The provisions of the law also stipulated that the issuing of residence permits for non-EU nationals is conditional upon migrant workers being sufficiently integrated into French society (*ibid*).

#### *7.2.1.2.4 Amendments to Chevènement Law*

In January 2004, the French government revoked some of the provisions established by the Law on Immigration enacted in 2003. Specifically, the French Employment Ministry issued a new policy communiqué (DPM/DMI 2 n°2004-12) instructing regional immigration authorities to protect the employment opportunities for French graduates in computer science. This communiqué essentially annulled all previous regulations governing the granting of work permits to IT professionals from non-EU states. Crucially, the new communiqué restricted to one year the length of work-permits for migrant IT professionals and abrogated the rules governing the extension of residence permits to the family members of migrant ICT professionals.

#### *7.2.1.2.5 Reforms to France's Immigration and Asylum Code*

Concerned that France was 'the only developed country which denies itself the right to select the migrants who are essential for its growth and prosperity' (quoted in Viprey, 2006), the Interior Minister Nicolas Sarkozy presented in March 2006 a bill to comprehensively amend France's Immigration and Asylum Code (*Code d'entrée et de séjour des étrangers et du droit d'asile – CESEDA)*. In May 2006, the proposed reforms were adopted by the French parliament. These amendments centre around two main sets of provisions. The first set focuses on the promotion of selective immigration

('*immigration choisie*') through the creation of a new type of residence permit. These so-called 'skills and talents permits' (*cartes de séjour « compétences et talents »*) are awarded to migrant workers whose 'personalities and career projects are beneficial to the development and international status of France.'[88] The law also introduced greater flexibility in granting residence permits to migrants whose skills profiles match job categories and geographical areas characterised by recruitment difficulties. To this end, a government body will now submit to parliament an annual report detailing France's current immigration requirements. The second set of provisions focuses on migrant workers already resident in France. Crucially, the law raised from 12 to 18 months the period that immigrants need to have lived in France to prove that they have sufficient resources in order for their immediate relatives to benefit from French immigration rights. In addition, the law stipulates that residence permits will be granted to the spouse of French nationals only after three years of marriage; prior to the introduction of the new law, this requirement was set at two years. Furthermore, the terms of the new law abolished the automatic right to a long-term residence permit after a person has lived in France for ten years.

#### 7.2.1.3 Lifelong-learning policies

In addition to reforms in the system of higher education and alongside initiatives modifying legislation governing economic immigration, France has also witnessed developments in the sphere of lifelong-learning policy. Crucially, a major body of legislation addressing lifelong learning issues was enacted in May 2004 by the French parliament. Building on a national inter-sectoral agreement on employees' lifelong access to training concluded between the French social partners in September 2003

[88] 'Projet de loi: « l'immigration choisie » au Parlement', 3 May 2006, available from http://www.vie-publique.fr/actualite/alaune/projet-loi-immigration-choisie-au-parlement.html [Accessed 5 May 2006]

(Vincent, 2003), the Law on Lifelong Learning and Social Dialogue ('*loi relative à la formation professionnelle tout au long de la vie et au dialogue social*') has introduced in France a series of new regulations governing access to lifelong learning in French companies (Rivier *et al*, 2005: Corteel *et al*, 2006). First, the legislation introduced a legally-enshrined, individual right to lifelong training ('*droit individuel à la formation*'); this right entitles workers to a total of twenty hours of training per year, on the condition that they have a permanent employment contracts and have worked for at least twelve months in their company. These additional hours of training can be accumulated for up to six years, so that a total of 120 hours can be used by employees for training purposes over an extended period. A second innovation of the new law was the creation of a system for recognising the work-derived experience of employees ('*validation des acquis de l'expérience*'); this system was introduced to improve the transferability between companies of qualifications acquired within the context of programmes of continuing workplace education.

The law also changed the way in which employee-training costs are shared between employees and employers. Under the terms of the law, training activities relating to job adaptation or occupational development are carried out during working time, with the full maintenance of wages. The law also increased the financial contributions of employers to vocational-training programmes. For firms with at least ten employees, this contribution rises from 1.5 per cent to 1.6 per cent of payroll costs. For businesses with fewer than 10 employees, the contribution rose from 0.25 per cent to 0.55 per cent of payroll costs in January 2005. However, any training courses attended within the parameters of the individual right to lifelong training, or any training activities targeting the development of generic, transferable skills, must take place outside normal working

hours, and are limited to a maximum of 80 hours per year. Moreover, employees participating in such training programmes receive only 50% of their normal wages. Finally, the law introduced financial help for small and medium-sized companies so that they can afford to allow their employees to participate in programmes of continuing education. In this particular regard, the law declares that, in the case of companies with less than 50 employees, the state will cover 50% of the salaries of employees when they take part in extended training courses (Vincent, 2003).

### 7.2.2 Policy measures introduced in Germany

A number of policy measures have also been introduced in Germany since the middle of the 1990s in the areas of higher education, immigration and lifelong learning. These are detailed below.

#### 7.2.2.1 Higher education policy

There have been considerable policy developments in the German system of higher education since the mid-1990s. One the one hand, policies have been introduced with the specific purpose of promoting the learning and teaching of ICTs. On the other hand, legislation has been enacted to alter the principles of the German system of higher education.

##### *7.2.2.1.1 Programmes relating to the learning and teaching of ICTs*

Since the middle of the 1990s, Germany has witnessed an increased effort on the part of government policy to introduce ICTs into the learning and teaching processes at German universities (Middendorff, 2002: Bundesministerium für Wirtschaft und Technologie, 2002: Bundesministerium für Wirtschaft und Arbeit and Bundesministerium für Bildung und Forschung, 2003: Grabe-Schöpper, 2004). The government-initiated programmes that have been introduced can essentially be sub-

divided into three categories. First, the government has implemented programmes to promote the usage of ICTs in German universities. Typically taking the form of pilot projects, these programmes have included the IT in Education – Communication not Isolation (‘*IT in der Bildung - Anschluss statt Abschluss*’) programme, the Third University Special Programme (‘*Hochschulsonderprogramm HSP’)*, the University and Science Programme (*Hochschul- und Wissenschaftsprogramm HWP*) the creation of the German Research Network (‘*Deutsches Forschungsnetz*’), the establishing of the German Education Server (‘*Deutscher Bildungsserver’*) and the Study on the Net (‘*Studieren im Netz’*) initiative. Alongside these efforts to promote the usage of ICTs, a second body of initiatives has been launched to improve the ICT infrastructures within German universities (Bundesministerium für Bildung und Forschung, 2003). Notable examples of these initiatives include the Computer Investment Programme (‘*Computer-Investitionsprogramm CIP’)* incorporated into the Law on the Promotion of Building Universities (‘*Hochschulbauförderungsgesetz’)* and the installation of wireless networks (WLAN) at German institutes of higher education.

To a lesser extent, the government has introduced measures to increase the proportion of students choosing ICT-related courses at university (Grabe-Schöpper, 2004). For example, the government has released, together with the Federal states, a total of €50 million in funds for the further development of computer-science courses (Bundesministerium für Wirtschaft und Arbeit and Bundesministerium für Bildung und Forschung, 2003: Bundesministerium für Wirtschaft und Technologie, 2002).

#### *7.2.2.1.2 Amendments to the Framework Act for Higher Education*

Alongside programmes specifically addressing the learning and teaching of ICTs, the federal government has also introduced policies to modify the foundations of the

German system of higher education. Crucially, a series of amendments were made in 1998, 2002 and 2004 to the Framework Act for Higher Education (‘*Hochschulrahmengesetz’*), the legislative framework that establishes at the national level the general principles underpinning the German system of higher education. These amendments targeted three specific areas of the German higher education landscape. First, efforts were undertaken to reduce the average length of time that German students spend at university; this was attempted by introducing standardised study periods ('*Regelstudienzeiten*') of four years for undergraduate students at colleges of higher education ('*Fachhochschulen*') and four and a half years for students at universities (Ostermann, 2002).

Second, the amendments to the Framework Act introduced intermediate examinations ('*Zwischenprüfungen*') to weed out as early as possible those students who may not be suitable for the course they have chosen. At the same time, however, the Framework Act leaves in place the so-called 'free shot' ('*Freischuß*') ruling, which enables students unhappy with their examination results to discard them and defer completion of their studies without penalty. The third amendment to the Framework Act for Higher Education was the introduction of the provisions established in the Bologna Declaration of June 1999, whereby European states aim to create a European Higher Education Area (EHEA) by 2010. Within the parameters of this process, the participating countries are seeking to create greater harmonisation and convergence by adopting two-tier university degrees based on the Anglo-American system of Bachelor and Masters degrees (Van Damme, 2000: Decker and Beck, 2001: Eissel and Grasse, 2001; Kehm, 2004). These shorter degree courses have been introduced as a complement to Germany’s existing

system of traditional university qualifications (Ostermann, 2002: Welsh, 2002: Hega, 2003).

#### 7.2.2.2 Immigration policy

Since the late 1990s, the legislative framework governing immigration in Germany has witnessed two key developments. Indeed, two major pieces of legislation have been introduced since 1998 – one aimed specifically at attracting to Germany IT professionals from outside the European Union, and another introducing for the first time in German history a law dedicated exclusively to immigration.

##### *7.2.2.2.1 IT Specialists Temporary Relief Programme*

In 2000, the former Federal Chancellor Gerhard Schröder announced the creation of the IT Specialists Temporary Relief Programme ('*IT-Sofortprogramm*'). This policy initiative, commonly referred to as the 'Green Card' scheme in the German media, was designed to open up employment opportunities in German ICT companies for highly-skilled computer experts from non-European countries, thereby alleviating the significant labour shortage within the IT industry (Scheele, 2000). The programme initially made provisions for the issuing of a maximum of 10,000 work permits; this quota was subsequently increased to 20,000 (Kolb, 2005). To be entitled to make use of the Green Card scheme, employers and IT professionals had to meet certain pre-conditions (Scheele, 2000). Companies first had to undertake 'qualification offensives' with a view to re-training existing employees to fill any vacant positions. They also had to provide proof that their endeavours to recruit IT specialists from the domestic labour market had been unsuccessful. Furthermore, they had to guarantee migrant IT workers the same working conditions and salaries received by German workers (Kolb, 2005). For their part, IT professionals seeking employment in Germany had to hold a

university qualification in an ICT-related subject. Although the Green Card scheme entitled IT professionals to bring their family members to Germany, these were not granted the right to work. A further condition imposed on migrant IT workers was the understanding that would agree to leave Germany after a maximum period of five years.

#### *7.2.2.2.2 Immigration Act of 2005*

Entering into force in January 2005, the Immigration Act (*Gesetz zur Steuerung und Begrenzung der Zuwanderung und zur Regelung des Aufenthalts und der Integration von Unionsbürgen und Ausländern*) revised German legislation dealing with foreigners and their right to live and work in Germany (Funk, 2004). The law introduced a number of changes, including a re-classification of residence permits. In this respect, the law replaced hitherto existing residence permits. Depending on the purpose of their stay in Germany, migrants are now issued with either a *limited residence permit* or an *unlimited settlement permit*. The law also modified the procedure for approving permit applications. Essentially, work and residence permits are now approved simultaneously by the Federal Employment Service. Prior to the enactment of the Immigration Act, each type of permit was issued and approved by two separate bodies. The new law also established mandatory security checks ('*Regelanfragen*') on all non-European migrants seeking to live or work in Germany.

The Immigration Act of 2005 also extended and enhanced the provisions of the Green Card scheme detailed above by giving highly-qualified migrant workers in *all* economic sectors the right to obtain a *permanent* settlement from the outset. This right, however, is restricted to skilled employees on the provision that they receive a monthly gross salary of at least €7,000 (Hiscott, 2005). In addition, family members who accompany highly-qualified migrants to Germany are also granted the right to work in Germany.

The new law also introduced novel provisions for the immigration of entrepreneurs: essentially, any individual can now enter Germany as an entrepreneur on the condition that they invest at least €1 million and create at least ten jobs. Finally, the law modified the procedures for dealing with students from non-European countries. In the past, such students had to leave Germany after the completion of their studies. Under the terms of the new law, however, foreign students are authorized to remain in Germany for up to twelve months following their graduate for the purpose of seeking employment (Gräßler, 2005).

#### 7.2.2.3 Lifelong-learning policies

In the sphere of lifelong learning, the Federal government has introduced a number of largely experimental initiatives aimed at promoting lifelong learning. For example, beginning in 1996 and pursued within the context of the Alliance for Jobs, Training and Competitiveness, a series of Danish-inspired 'job rotation' programmes were launched on a pilot-project basis (Schömann *et al*, 1998: Bundesanstalt für Arbeit, 2000: Scheele, 2000: Grünewald and Sørensen, 2001). Within the parameters of these pilot programmes, employees were entitled to undertake extended periods of job-related training; during their periods of further training, their vacated workplaces were temporarily filled by the unemployed. In 2001, the Federal government announced its Lifelong Learning for Everyone ('*Lebensbegleitendes Lernen für Alle*') action plan. Aimed specifically at transforming Germany into a learning society, the many sub-programmes of this policy measure included the Networks for Lifelong Learning ('*Netzwerke lebensbegleitendens Lernen*') initiative, designed to improve the co-ordination between educational suppliers and consumers at the national and regional levels into so-called learning regions ('*lernende Regionen*') (BMBF, 2001: Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung, 2001).

In early 2004, the Federal government launched, together with educational representatives from Germany's regional states ('*Länder'*), the Continuing Education Offered By Universities (*Wissenschaftliche Weiterbildung*) programme[89]. This initiative aimed at developing criteria for the modularisation, accreditation and certification of programmes of continuing education offered by higher-education institutes in Germany, with a view to increasing the competitiveness of German universities on the market for continuing education. Also in 2004, the Federal government and representatives from the regional states published, within the context of their Commission for Educational Planning and Research Promotion (*Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung – BLK*), a joint strategy document detailing the future development of lifelong learning in Germany (BLK, 2004). Amongst other provisions, this paper proposed a series of measures to promote a culture of learning amongst the German working population. Alongside broad statements regarding the need to modularise informal and formal workplace training and introduce a system for recognising skills and competences acquired as part of lifelong learning programmes, the paper also stressed the need for equal access to further training; it also emphasised the importance of enabling employees to assume responsibility for their further education and training, so as to balance working and family life (BLK, 2004). More recently, the SPD/CDU in their coalition contract of 2005 stated their intention to introduce at the Federal level framework conditions for lifelong learning and make lifelong learning 'the fourth pillar of education policy in Germany' (CDU/CDU/SPD, 2005: 43). However, aside from discussions with the social partners and representatives

[89] 'Wissenschaftliche Weiterbildung', available from http://www.bmbf.de/de/349.php [Accessed 23 April 2006]

from the German education system, no concrete laws or legislative measures have yet been enacted to further develop lifelong learning in Germany[90].

### *7.3 Summary*

This chapter has performed two functions. First, it has established the main stakeholders who have participated in debates surrounding the provision of workforce skills in France and Germany and presented the policy positions that each of these stakeholders has advocated. A complete list of the main policy stakeholders identified appears in the appendix of this thesis. In a second step, the chapter identified the most prominent policy measures and initiatives introduced by the national governments of France and Germany in the sphere of skills formation and then proceeded to describe the contents of each of these initiatives in greater detail.

In the case of France, the most relevant policy initiatives in the field of higher-education policy were identified as the introduction of vocationally-orientated Bachelor's degrees in 1999 and the on-going measures designed to improve the use and teaching of ICTs in French universities. With respect to immigration, the principal policies were established to be the Chevènement Law on Immigration of 1998, the creation in 2003 of transitory immigration regimes at the European level, the Law on Immigration Control of 2003, the amendments introduced in 2004 to the Chevènement Law and the reforms to France's Immigration and Asylum Code introduced by Nicolas Sarkozy in May 2006. The major policy identified in the sphere of lifelong learning was the Law on Lifelong Learning and Social Dialogue introduced in 2004.

[90] 'Weiterbildung soll ausgebaut werden' in *Die Welt*, 5 May 2006, available from http://www.welt.de/data/2006/05/05/882479.html [Accessed 21 August 2006]

As far as Germany is concerned, the most prominent policy measures introduced in the sphere of higher education were identified to be the numerous programmes relating to the learning and teaching of ICTs at German universities and the amendments made to the Framework Act for Higher Education in 1998, 2002 and 2004. The main policy initiatives in the sphere of immigration policy were established to be the IT Specialists Temporary Relief Programme of 2000 and the Immigration Act of 2005. As regards policies addressing the issue of lifelong learning, the principal measures were determined to be largely experimental initiatives such as job rotation schemes, the Lifelong Learning for Everyone action plan and the Networks for Lifelong Learning programme.

A more detailed analysis of this data is undertaken in Chapter 10.

## SECTION V – ANALYSIS OF RESULTS

Section V of this thesis moves from the descriptive to the analytical level. Whereas Section IV merely presented the findings of the empirical investigation, the objective of Section V is to discuss and interpret these findings using the methods for data analysis elaborated in Chapter 4. This particular section is composed of three specific chapters. Chapter 8 focuses on French and German policy debates and developments in the sphere of financial institutions; chapter 9 concentrates on political developments in the field of French and German labour-market policy. For its part, Chapter 10 is trained on political debates and discussions surrounding the issues of skills provision in France and Germany.

Each of these three chapters consists of three main sub-sections. The first sub-section scrutinises the data collected to ascertain whether each of the stakeholders that have contributed to debates and discussions in the area of financial policy, labour-market policy or skills and training policy can be said to possess a predominantly progressive or a predominantly conservative culture. The second section of each chapter seeks to ascertain the extent to which policy has been responsive to concerns of conservative and progressive stakeholders. The final section of each chapter summarises the data analysis by ascertaining the extent to which the evidence confirms or refutes the predictions formulated by the theoretical framework.

# 8 Analysis of policy debates addressing national systems of finance

This chapter analyses the data collected on policy debates broadly affecting the French and German national systems of finance, as presented in Chapter 5. It is composed of three main sections. The first section scrutinises the data to determine whether the stakeholders that have contributed to debates in this area of policy possess a predominantly progressive or a predominantly conservative culture. The second section of the chapter compares the original policy demands of conservative and progressive policy stakeholders with the contents of the policy initiatives introduced. The objective here is to ascertain the extent to which financial policy in France and Germany has been responsive to the policy preferences of both conservative and progressive policy stakeholders. The third and final section summarises the data analysis by ascertaining the extent to which the evidence confirms or refutes the predictions formulated by the theoretical framework.

## *8.1 Classifying the cultural systems of policy stakeholders*

The following section seeks to determine whether the stakeholders having contributed to debates surrounding financial policy can be said to possess a predominantly progressive or a predominantly conservative culture. Chapter 4 fully described the methods used to classify the cultural systems of stakeholders: as a brief reminder, the following table summarises the characteristic features that were used to differentiate between policy stakeholders with conservative and progressive cultures:

| | Stakeholders with conservative cultures | Stakeholders with progressive cultures |
|---|---|---|
| **France** | Call for preservation of state-controlled system of finance<br><br>Challenge emergence of market-based financial system | Challenge state-controlled system of finance<br><br>Call for emergence of market-orientated financial system |
| **Germany** | Call for preservation of bank-based system of finance<br><br>Challenge emergence of market-based financial system | Challenge bank-based system of finance<br><br>Call for emergence of market-orientated financial system |

**Table 8: Factors used to identify the characteristic features of progressive and conservative cultures in policy debates on financial reform in France and Germany (classified by author)**

### 8.1.1 Classifying the cultural systems of policy stakeholders in France

Based on the data collected for this investigation, the policy stakeholders in the French ICT sector can be considered to possess a progressive culture. Indeed, their policy positions clearly illustrate that they perceive the national tradition of state-led capitalism to be ill-suited to the business requirements of ICT companies. These criticisms are especially observable in the statements made by Jean-Pierre Brulé and Jean-Louis Vincigeurra who, as employees of former state monopolies, contend that state financiers lack the necessary speed and expertise to optimally support ICT companies. Criticisms of the French tradition of state-managed capitalism are equally discernable in the policy statements issued by *Croissance Plus*, which considers government financiers to be too slow in allocating state aid to ICT companies. That policy stakeholders in the ICT sector exhibit the characteristics of a progressive cultural system is equally discernable in the calls by ICT companies for stronger capital markets to support their growth strategies

and enable them to introduce novel staff-remuneration programmes, such as stock options.

Determining whether policy stakeholders in the wider French business community possess a conservative or progressive culture is less evident. On the one hand, there is evidence to suggest that they exhibit the characteristics of progressive cultures. For example, the policy demands espoused by the new generation of business leaders, including Jean-Marie Messier, Ernest-Antoine Seillière, Michel Drancourt, Yvon Gattaz and Claude Bébéar, reflect progressive cultures to the extent that they have called on the government to promote France's capital markets. On the other hand, however, the data point to the traits of conservative cultures. This is particularly observable in debates surrounding corporate governance. For example, the authors of the Viénot report (AFEP and CNPF, 1995) advocated the preservation of France's closed system of cross-shareholdings. The authors of the Bouton report (Bouton, 2002) also questioned the need for new measures to promote greater openness and market transparency, arguing that France is already equipped with a comprehensive set of corporate-governance regulations that in many ways is superior to the American system.

The policy positions advocated by French trade unions reflect a strong hostility to the emergence in France of the constituent components of market-orientated financial systems, and thus clearly point to a strong conservative culture. Although some trade unions, such as the French Christian Workers' Confederation (*Confédération française des travailleurs chrétiens*) and the *Bétor-Pub CFDT* union, have voiced their qualified support for the equal distribution of stock-options in French companies, the General Confederation of Labour (*Confédération générale du travail*) has remained formally

opposed to this particular form of employee remuneration and challenged the extent to which stock-option programmes give power to employees. That French trade unions possess a predominantly conservative culture is also evidenced in their opposition to privatisations, as recently demonstrated by their strikes against the selling off of France Télécom, EDF and GDF, and in their hostility towards the introduction in France of privately-managed pension funds based on stock-market incomes, even as a complement to the country's existing pay-as-you-go system.

### 8.1.2 Classifying the cultural systems of policy stakeholders in Germany

Policy stakeholders in the German ICT sector can be considered to possess a largely progressive culture. First of all, their policy positions criticise Germany's traditional bank-based financial system. Indeed, both the Association of the German Software Industry (*Verband der deutschen Softwareindustrie*) and the Association for Information Technology, Telecommunications and New Media (*Bundesverband Informationswirtschaft, Telekommunikation und neue Medien - BITKOM*) have criticised the capacity of the country's bank-based financial system to provide optimum levels of support for ICT companies, especially given the risk-aversive lending practices of German banks vis-à-vis technology companies. That the cultural system of policy stakeholders in the German ICT sector can be classified as progressive is also observable in their calls for the further development of financial markets in Germany. The BITKOM association has been particularly vocal in this respect: crucially, the sectoral association considers highly-developed financial markets as a pre-requisite for the successful development in Germany of venture-capital companies and stock-option programmes.

Policy stakeholders in the wider business community adopt contradictory policy positions in debates regarding financial reform; as a result, classifying their cultural system proves to be a more arduous task. On first glance, they could feasibly be considered to possess progressive cultures. In this respect, the Confederation of German Industry (*Bundesverband der Deutschen Industrie - BDI*) and the Association of German Chambers of Commerce (*Deutscher Industrie- und Handelskammertag – DIHK*) have actively called for policy measures to promote financial markets and develop Frankfurt as a financial centre. In the same way, high-profile business leaders such as Jürgen Schrempp (the former CEO of DaimlerChrysler), Ulrich Schumacher (the fomer CEO of Infineon Technologies) and Paul Achleitner (member of the Board of Management of Allianz) have called for financial reforms that facilitate the use in Germany of financial practices typically associated with market-based financial systems. A closer analysis of the data, however, suggests that policy stakeholders in the wider business community also exhibit the characteristics of conservative cultures. Especially with respect to corporate governance, the evidence reveals a certain attachment to existing elements of Germany's financial system. Crucially, the BDI and the DIHK together with a number of prominent industrialists, including for example Klaus Liesen (Honorary Chairman of the Supervisory Board of E.ON Ruhrgas), Helmut Perlet, and Paul Achleitner (both members of the Board of Management of Allianz) have questioned the need to introduce new governance and accounting standards in Germany to promote greater market transparency and openness.

Classifying the cultural system of stakeholders in the German financial system is equally problematic. On the one hand, large private banks, including *Deutsche Bank* and *Dresdner Bank* and their sectoral association, the Association of German Banks

(*Bundesverband deutscher Banken* – BDB), can be seen to possess progressive cultures to the extent that they have actively lobbied for reforms to Germany's financial markets, upon which a greater proportion of their profits is contingent. However, in terms of Germany's system of corporate governance, the policy stakeholders in the financial sector can be seen to possess conservative cultures in the sense that they have considered the government's reform proposals to be overly bureaucratic.

The evidence that policy stakeholders in the German trade-union movement entertain sceptical attitudes towards the emergence of the component features of market-based financial systems suggests that they possess a conservative culture. Indeed, although trade unions are not fully opposed to the introduction of private-pensions based on stock-market incomes, they have nonetheless insisted that Germany's traditional pay-as-you-go system should remain in place. The cautious attitude of trade unions towards stock-option programmes, and in particular the concerns they have raised regarding the unequal distribution of stock options amongst employees, also points to a largely conservative culture.

### *8.2 Ascertaining the responsiveness of financial policy*

By comparing the original policy demands of the different policy stakeholders with the contents of the policy initiatives introduced, the following section seeks to ascertain the extent to which financial policy in France and Germany has been responsive to the concerns of conservative and progressive policy stakeholders.

#### 8.2.1 Ascertaining the responsiveness of French financial policy

Superficially at least, there is on the one hand evidence to suggest that financial policy in France has responded to the preferences of those policy stakeholders identified as

possessing progressive cultures. First of all, an analysis of the policy measures introduced in the broad sphere of financial reform reveals that successive French governments have specifically responded to the concerns of policy stakeholders in the country's ICT sector. Government support for the creation of new stock market segments such as the *Nouveau Marché*, coupled with the creation by Dominique Strauss Kahn of state-funded venture-capital programmes such as the Public Fund for Venture Capital (*Fonds de Promotion pour le Capital Risque – FPCR*) and the Mutual Fund for Risk Placement (*Fonds Commun de Placement à Risque – FCPR*) are quite clearly responsive to demands voiced by ICT stakeholders for the development of take-off and venture capital to support in particular ICT start-up companies. Furthermore, the introduction in 1997 of the so-called 'subscription bonds for the founders of new companies' and the subsequent extension of their field of application in 1999 to cover companies less than 15 years old clearly responds to the demands espoused by progressive cultures in the French ICT sector for legislation permitting the use of stock options as a remuneration tool.

Alongside these policies that have responded specifically to the demands of progressive policy stakeholders in the French ICT sector, there is also evidence to suggest that the broad thrust of financial policy in France has recognised and responded to the general calls by progressive cultures for financial markets to be developed. For example, the on-going privatisation programmes that France has witnessed since the 1980s can, superficially at least, be considered as a response to calls from progressive cultures to break with France's traditional state-administered financial system and usher in a financial system based increasingly on capital markets. Indeed, by seeking to transfer the ownership of former state monopolies from the public to the private sector,

increasing share ownership levels in France and increasing the number of listed companies, the privatisation programmes can be seen as an attempt to develop the key components of a market-based financial system. The Thomas Law of 1997 and the Fillon Law of 2003 generally responded to calls for the promotion of stock markets in France by establishing regulatory frameworks for new types of private pension regimes based on stock-market earnings. The Law on New Economic Regulations of 2001 and the Law on Financial Security of 2003 can be seen as a response to calls for the development of capital markets in France insomuch as they sought to promote transparent and open systems of corporate governance. In essence, these laws can be considered as an attempt on the part of the French government to raise levels of trust and attract to France more institutional investors, particularly from abroad.

On the other hand, however, the data collected for the purposes of this investigation also demonstrate that French financial policy has responded to the policy demands of conservative policy stakeholders. Crucially, there is evidence to suggest that policy measures have only half-heartedly attempted to promote the constituent components of market-orientated financial systems. That policy has responded to the concerns of conservative cultures is first evidenced by French legislation governing the introduction of stock options, and in particular the regulations pertaining to subscription bonds for the founders of new companies. Indeed, the government decided to limit the usage of these French-style stock options and not extend their field of application to all service companies. In addition, the new fiscal regime for stock options introduced within the framework of new law on employee savings in 2001 is clearly responsive to concerns within the French trade-union movement that stock options have the potential to widen inequalities in French society and undermine the French tradition of social solidarity.

A closer analysis of the individual privatisations in France suggests that the general attempts at promoting capital markets have taken into account the concerns of conservative policy stakeholders. For example, the decisions to create 'hard cores' of cross shareholdings and to promote share ownership and share retention amongst the employees of privatised companies can be seen as an attempt by French governments to establish the stable shareholder communities demanded by conservative French business leaders to prevent privatised companies from being taken over by foreign rivals. In addition, the decision by successive governments to retain often significant stakes in privatised companies appears to respond to trade union concerns regarding the transfer of state companies to the private sector. For example, in the face of strong trade-union opposition to the second public offering of France Télécom shares in 1996, the government agreed to retain a minimum stake of at least 51%. In response to the trade-union hostility to the planned flotation of EDF and GDF in 2004/2005, Nicolas Sarkozy, the then Minister of the Economy, Finance and Industry, agreed to raise its retaining stake in the capital of the two companies from 50 per cent to 70 per cent (Braud, 2004) and considered delaying the initial public offering of each company by a year (Galinier, 2004). It is also interesting to note that, in privatising France's motorway network, the government has opted for a bidding process, rather than a stock-market flotation.

Developments in the sphere of pension reform also suggest that policy has taken into consideration the concerns of those stakeholders identified as possessing conservative cultures. The Thomas Law, the first major piece of French legislation attempting to generalise private pension funds based on stock-market incomes, was never implemented owing to the dissolution of the National Assembly in June 1997 and the

subsequent election of the left-wing Jospin government. Indeed, in response to trade union concerns, Jospin blocked and subsequently repealed the legislation, claiming that it jeopardised France's pay-as-you-go system of pension provision. In addition, the reforms envisaged by the Fillon Law on pensions of 2003 can be seen to have taken into consideration the concerns of conservative policy stakeholders. Indeed, following mass demonstrations organised by France's trade unions during the spring of 2003[91], the government shied away from ushering in a paradigm shift in the provision of pensions and instead introduced individual personal pension savings plans on a voluntary as opposed to compulsory basis (Jolivet, 2003b).

### 8.2.2 Ascertaining the responsiveness of financial policy in Germany

That financial policy in Germany is responsive to the demands of progressive cultures is evidenced by the policy measures undertaken to improve the ability of Germany's financial system to provide finance to new technology-based firms. First of all, the Private Equity for Small High-Technology Enterprises fund is undoubtedly a response to concerns within the German ICT sector that Germany lacks a viable venture-capital industry. In addition, the Law on Corporate Control and Transparency of 1998 lifted restrictions governing the issuing of stock options: this move appears, superficially at least, to answer calls from the German ICT sector for more flexible employee-remuneration tools. Furthermore, the government's support for the creation of the *Neuer Markt* and the strengthening of shareholder-protection legislation under the terms of the Fourth Law on the Promotion of Financial Markets, especially on Germany's secondary financial markets, provide further evidence to suggest that policy is responsive to the demands of progressive stakeholders in the ICT sector. Indeed, these particular

[91] See, for example, 'It has to happen, but will it? French pensions reform' in *The Economist*, 26 April 2003, page 34 and 'De Lille à Marseille, des defiles fleuves pour la retraite et pour l'emploi' in *Le Monde*, 15 May, page 8

initiatives sought to further develop Germany's financial markets so that they provide venture-capital investors with potential exit channels.

The Retirement Savings Law and the series of laws enacted within the parameters of the *Finanzplatz Deutschland* initiative have quite clearly addressed concerns within both the ICT sector and the wider business community for Germany that Germany should equip itself with highly developed capital markets. The *Finanzplatz Deutschland* initiative, as a on-going programme of reform pursued by both right-wing and left-wing governments, has sought to modernise Germany's capital markets by, for example, reducing the turnover tax levied on stock-market transactions, by enabling securities admitted in one regional stock market to be issued in all other German markets, by introducing measures to protect the interests of shareholders and by generally increasing the attractiveness of Germany for foreign share issuers. For its part, the Retirement Savings Law can at one level be understood in terms of an attempt to increase the capitalisation of the German stock market and raise the number of both institutional investors and individual shareholders.

That policy initiatives have been undertaken to increase the transparency of Germany's stock markets and raise the trustworthiness of its system of corporate governance would also suggest that financial policy in Germany has attempted to put in place the foundations of a more market-orientated financial system demanded by progressive shareholders. In this respect, the Second Financial Markets Promotion Law of 1994, the Law on Corporate Control and Transparency of 1998, the Tax Reduction Law of 2000, the creation of the Commission of the German Corporate Governance in 2001 and the Company Transparency and Disclosure Law of 2002 have introduced in Germany new

regulations designed to raise the confidence of domestic and foreign investors in Germany's capital markets and system of corporate governance.

Notwithstanding the evidence suggesting that financial policy has been responsive to the demands of progressive stakeholders seeking the development in Germany of a market-based financial system, the data collected for the purposes of this research also suggest that policy measures in the sphere of financial reform have also responded to the demands of conservative cultures seeking to impede the constituent components of market-orientated financial systems from taking root.

For example, a closer inspection of the laws introduced to promote a more market-based financial system by improving the transparency and openness of Germany's stock market and mechanisms of corporate governance would suggest that they have been implemented with the concerns of conservative stakeholders in mind. For example, the Tax Reduction Law of 2000 did not legally enforce German companies to dissolve their cross shareholdings, but rather simply provided financial incentives to do so. In addition, the Commission of the German Corporate Governance Code has been established as a self-regulating body. Under the terms of the Company Transparency and Disclosure Law of 2002 state that compliance with the recommendations published by the German Corporate Governance Code is purely voluntary, and there exists no threat of legal repercussions for non-compliance. As such, these measures can be seen to be responsive to concerns in the German business community regarding the mandatory abolition of cross shareholdings and to wider concerns voiced by the BDI, the DIHK and numerous business leaders that additional corporate-governance legislation would serve as an extra bureaucratic hurdle to German industry.

Evidence that financial policy has addressed the concerns of conservative trade unions is provided by the decision to levy comparatively high rates of taxation on income generated from stock options, and by the continued refusal to introduce a more favourable tax regime for stock options. Furthermore, the absence in Germany of any form of stock-option programme designed specifically for small and medium-sized companies would also suggest that the government has responded to the generally sceptical attitude of German trade unions to stock-option schemes. For its part, the decision by the Schröder government to water down a number of the proposals contained in the draft bill of its Retirement Savings Law and replace initial plans for mandatory private pensions with voluntary contributions to private pensions appears to be a response to the strong trade-union opposition concerning the unacceptable coercion of pension provision.

### *8.3 Summary*

Recall that the theoretical framework underpinning this research formulated some key predictions regarding the effects of culture on the production of ICTs in the French and German contexts. It first predicted that stakeholders in the French and German ICT sectors would possess the most predominantly progressive cultural systems. Crucially, it was predicted that ICT business associations would be highly critical of the historically-entrenched financial institutions of their respective countries and would lobby political decision-makers for their radical overhaul. The data collected confirm this contention. Indeed, in both France and Germany, business associations representing the political interests of ICT companies have consistently criticised traditional financial systems and called for their governments to establish the constituent components of market-orientated financial systems.

Second, it was posited that, in both the French and German contexts, trade-union associations would possess the most conservative of cultures. Essentially, it was predicted that trade unions would be the stakeholders most vehemently opposed to changes in France and Germany's financial systems and would actively lobby political decision-makers in their respective countries for the constituent components of these systems to be preserved. Whether the data support this postulate is less clear-cut. Indeed, there is evidence to suggest that the cultural system of German trade unions is more progressive than the cultural system of French trade unions. In Germany, trade-union associations have offered their qualified support to the introduction of stock options as a remuneration tool and the implementation of private pensions based on stock-market income. By contrast, these two issues have been more strongly opposed by trade unions in France, and in particular by the CGT.

Moreover, the evidence showing that business associations representing the interests of the wider French and German business communities have campaigned for the preservation of certain elements of their historically-entrenched financial systems also challenges the prediction that stakeholders with conservative cultures would largely be found within the trade union movements of France and Germany. In France, policy stakeholders within the business community have advocated the preservation of France's closed system of cross-shareholdings and questioned the purpose of fundamental reform to French regulations governing corporate governance. A similar situation exists in Germany, where umbrella business organisations such as the BDI, the BDA and the DIHK have challenged the need to modify Germany's governance and accounting standards.

On reflection, however, it would nonetheless be fair to say that stakeholders in the French and German trade-union movements appear to possess the most conservative of cultures in debates surrounding financial reform. Indeed, the positions that they have adopted in political debates regarding financial reform reflect the strongest hostility to the influence of financial markets. Relatively speaking, the cultural systems of policy stakeholders in the wider French and German business communities are comparatively more progressive than those of stakeholders in the French and German trade-union movements. Although there exists in each country business leaders, especially in traditional industrial sectors, who seem to be opposed to financial reform, particularly in the sphere of corporate governance, there has emerged in both France and Germany a new generation of business leaders who have called for the promotion of capital markets.

Third, it was predicted that government policy affecting the composition of France and Germany's financial systems would be responsive to the demands of policy stakeholders with both conservative and progressive cultures, such that the contents of government policies would reflect a balance of interests of conservative and progressive stakeholders, as moderated by the state. The evidence clearly confirms this prediction. For example, the French privatisation programmes and the German *Finanzplatz Deutschland* initiative, although considerably different in content, can be considered to be responsive to the demands of progressive cultures insomuch as they have pursued the common objective of developing the component features of market-based financial systems. In addition, financial policy in France and Germany can be seen to be responsive to the demands of progressive stakeholders by approving the creation in the late 1990s of new stock-market segments designed to ease the listing requirements of

high-growth, high-risk companies in the ICT sector. The French government agreed to the creation of the *Nouveau marché* (now integrated, within the context of the Amsterdam, Paris and Brussels stock exchange merger to create the pan-European Euronext stock exchange, in Euro.nm, a cross-European network of stock markets dedicated to high-growth companies); for its part, the German government approved the creation of the *Neuer Markt* (disbanded in November 2003 following a series of accounting scandals and subsequently replaced by the TecDax stock market). Pension reforms, such as the Thomas Law of 1997 and the Fillon Law of 2003 in France and the Retirement Savings Law of 2001 in Germany, have sought, albeit it modestly, to increase the capitalisation of Germany's financial markets and generally increase the number of shareholders. To raise the confidence of domestic and foreign investors and improve the functioning of their capital markets, the governments of France and Germany introduced a number of corporate-governance measures, including the Law of New Economic Regulations of 2001 and the Law on Financial Security of 2003 in France, and the Second Financial Markets Promotion Law of 1994, the Law on Corporate Control and Transparency of 1998, the Tax Reduction Law of 2000 and the Company Transparency and Disclosure Law of 2002 in Germany.

Despite these similarities in the responsiveness of financial policy in France and Germany to the concerns of progressive stakeholders, the data also reveal one key difference. Crucially, in terms of financial policy, there is evidence to suggest that French political decision-makers have responded more to the concerns of progressive cultures than have political decision-makers in Germany. This is observable, for example, in the introduction of stock options. Indeed, unlike their German counterparts, French policy makers created a new stock-option regime designed specifically with the

interests of ICT companies in mind. That French financial policy has responded more than German financial policy to the concerns of progressive policy stakeholders is equally discernable in efforts to promote the availability of venture capital. In this regard, the French government introduced three publicly-financed venture capital funds; by contrast, the German government established only one such fund.

The research also confirms the prediction that financial policy in both France and Germany would respond to the concerns of conservative stakeholders that resist the development of a market-based financial system. In the case of France, successive governments can be seen to have been responsive to trade-union concerns in a number of ways. For example, the state has frequently retained a significant financial stake in privatised companies. In answer to trade union fears of privately-funded pensions, the Thomas Law of 1997 was repealed by the Jospin government in 1999 and the original provisions of the Fillon Law of 2003 were diluted so that private pensions were introduced on a voluntary as opposed to compulsory basis. The subscription bonds for the founders of new companies created in 1997 can be considered responsive to trade-union concerns in so much as their rolling out was accompanied by the introduction of a strict taxation regime designed to prevent any widening of wage inequalities and to prevent the undermining of the French tradition of social solidarity. In addition, governments have addressed the concerns expressed by conservative policy stakeholders in the wider business community by creating stable shareholder communities, either in the form of ‘hard cores’ of cross shareholdings or through the promotion of employee share ownership and retention.

The evidence from Germany also shows that financial policy has responded to the concerns of those stakeholders identified as possessing conservative cultures. The Law on Corporate Control and Transparency of 1998 can be seen to have addressed trade-union concerns insomuch as it placed restrictions on the use of stock options as a remuneration tool and subjected any income earned from stock options to high levels of taxation. In the face of opposition from German trade unions, the government withdrew from the Retirement Savings Law of 2001 its intentions to introduce mandatory private pensions. In response to concerns within the wider German business community regarding the passing of additional legislation on corporate governance, many of the provisions included in the Second Financial Markets Promotion Law of 1994, the Law on Corporate Control and Transparency of 1998, the Tax Reduction Law of 2000 and the Company Transparency and Disclosure Law of 2002 were introduced on a voluntary basis. For example, companies failing to comply with the recommendations of the German Corporate Governance Code or refusing to dissolve their cross shareholdings would face no legal sanctions.

# 9 Analysis of policy debates addressing labour-market institutions

This chapter analyses the data presented in Chapter 6 on policy debates surrounding the development of French and German labour-market institutions. It consists of three main keys. In its first section, the chapter interrogates the data to determine whether each of the stakeholders that have contributed to debates in this area of policy possesses a predominantly progressive or a predominantly conservative culture. The second section of the chapter, by comparing the contents of the policy measures introduced to the original policy demands of different policy stakeholders, seeks to ascertain the extent to which labour-market policy in France and Germany has been responsive to the policy preferences of both conservative and progressive policy stakeholders. In its third and final section, the chapter summarises the data analysis by gauging the extent to which the evidence confirms or refutes the predictions formulated by the theoretical framework.

## *9.1 Classifying the cultural systems of policy stakeholders*

In the following section, the data collected are scrutinised to ascertain whether the stakeholders having contributed to debates and discussions regarding France and Germany's labour-market institutions can be said to exhibit the characteristics of a predominantly progressive or a predominantly conservative culture. The methods used to analyse the data are fully described in Chapter 4. The following table, however, provides a brief reminder of the factors used to identify the characteristic features of progressive and conservative cultural systems in policy debates surrounding labour-market reform:

| | Stakeholders with conservative cultures | Stakeholders with progressive cultures |
|---|---|---|
| **France and Germany** | Call for preservation of high levels of redundancy protection<br><br>Defend open-ended, permanent employment contract as the standard employment relationship<br><br>Seek to preserve low working hours | Challenge preservation of high levels of redundancy protection<br><br>Attempt to establish fixed-term employment contracts as the standard<br><br>Seek to increase working hours |

**Table 9: Factors used to identify the characteristic features of progressive and conservative cultures in policy debates on labour-market reform in France and Germany (classified by author)**

### 9.1.1 Classifying the cultural systems of policy stakeholders in France

The positions advocated by policy stakeholders in the French ICT sector clearly point to the existence of a progressive culture insofar as their policy preferences overwhelmingly call into question France's traditional labour-market institutions. Evidence of this progressive culture is first provided by the critical stance of ICT business associations towards working time-regulations. In this respect, representatives of the *Croissance Plus* and *Syntec-Informatique* associations contend that France's existing working-time regulations correspond to the requirements of traditional industrial companies rather than the requirements of companies operating in the digital economy. Against this background, the two associations have criticised the trend towards increasingly shorter working hours and sought to buck the trend by introducing greater flexibility into working-time arrangements. Additional evidence of a progressive culture amongst policy stakeholders in the French ICT sector is provided by their

attitudes towards traditional employment contracts. In this respect, the *Syntec-Informatique* initiated a nationwide debate on the introduction of contract- or project-based employments: the *Croissance Plus* and the *Centre des jeunes dirigeants d'entreprise* (CJD) associations subsequently lent their support to these new types of contract. That in particular the *Croissance Plus* and the *Centre des jeunes dirigeants d'entreprise* associations have favoured the introduction of the 'new recruitment contract' and the 'first recruitment contract' clearly points to a dissatisfaction with France's historically high levels of redundancy protection, and thus to a predominantly progressive culture.

Amongst business associations representing the interests of the wider business community, there is on the one hand minor evidence to suggest the existence of a conservative culture. Indeed, Laurence Parisot, the president of the *Mouvement des Entreprises de France* (Medef) has raised concerns regarding the introduction of flexible employment contracts for young workers, and the Proglio report on youth unemployment stressed the benefits of permanent employment contracts as a means of integrating young people into the workplace. This suggests a certain attachment to the French tradition of permanent employment contracts. Yet on the whole, the wider French business community can be seen largely to exhibit the characteristics of a progressive culture. For example, the Medef employers' association has invested considerable time and effort in campaigning for looser dismissal-protection legislation and in lobbying for the introduction of contract- and project-based employment contracts; it has invested most of its political capital, however, in attempting to reverse the 35-hour working-week legislation. Further evidence of a progressive culture within the wider business community is provided by the critical stances taken, for example, by

the Association of French Banks, the Union of Metallurgy and Mining Industries, the employer's association representing city-centre department stores, the sugar industry employers' association and the Union of Textile Industries regarding the introduction of the 35-hour working week.

There is ample evidence to suggest that French trade unions possess a strong conservative culture. First, the *Confédération Générale du Travail* (CGT), the *Confédération française démocratique du travail* (CFDT) and the *Force Ouvrière* (FO) union have all called for existing dismissal-protection to be consolidated. In addition, the CFDT, the CGT and FO have also all issued policy statements in support of permanent, open-ended employment contracts and in opposition to more flexible types of employment contracts, which they consider to contribute significantly to precarious employment. As has been demonstrated, this hostility towards more flexible employment contracts was particularly evidenced in debates surrounding the contract- and project-based employment contracts proposed by business associations in the ICT sector. Further evidence that trade-union associations possess a conservative culture is provided by their statements on working-time arrangements. Indeed, the CGT and CFDT unions are both committed to preserving the 35-hour working week; for its part, the CFDT union has expressed its desire to reduce working hours even further.

Although certain student associations, such as UNI, *Liberté d'étudier*, *SOS Education* and *Halte au blocage*, can be considered to possess progressive cultures insofar as they have supported the introduction of 'new recruitment contracts' that break with the French tradition of permanent, lifelong employment, these progressive associations are clearly in the minority. Indeed, it has been the French National Union of Students

(*Union nationale des étudiants de France - UNEF*), the National Secondary School Students' Union (*Union nationale des lycéens - UNL*) and the Student Confederation (*Confédération étudiante*) that have contributed most vocally to labour-market-reform debates in France. That these associations have vehemently criticised new types of flexible employment contract clearly illustrates an attachment to France's history of employee protection legislation. On balance, therefore, student associations are considered to possess a predominantly conservative culture.

### 9.1.2 Classifying the cultural systems of policy stakeholders in Germany

The policy stakeholders in the German ICT sector can be considered to be progressive in the sense that they have lobbied for a loosening of Germany's traditionally strict employment-protection legislation. In this regard, the German Association for Information Technology, Telecommunications and New Media (*Bundesverband Informationswirtschaft, Telekommunikation und neue Medien - BITKOM*) has argued in particular for an overhaul of regulations governing notice periods; it has equally advocated the introduction of legislation enabling employees to conclude fixed-term work contracts more easily with their staff. The attitude of policy stakeholders in the German ICT sector towards Germany's traditional working-time regulations also reveals a progressive culture. As has been demonstrated, the BITKOM association has also called for Germany's historical working-time arrangements to be reformed so that they meet the new requirements of knowledge workers rather than traditional industrial workers.

The data presented in Chapter 6 points by and large to a progressive culture amongst policy stakeholders in the wider business community. This progressive culture manifests itself in particular in their policy positions on employment-protection

legislation. Indeed, it is clear that, at both the sectoral and the national levels, trade associations in the wider German economy have actively campaigned for a reduction to Germany's traditionally high levels of redundancy protection; specifically, associations such as *Gesamt Metall*, the German Association of the Automotive Industry (*Verband der Automobilindustrie – VDA*) and the German Electrical and Electronic Manufacturers' Association (*Zentralverband Elektrotechnik- und Elektronikindustrie – ZVEI*) together with the Confederation of German Industry (*Bundesverband der Deutschen Industrie - BDI*), the Confederation of German Employers' Associations (*Bundesvereinigung der deutschen Arbeitgeberverbände – BDA*) and the Association of German Chambers of Commerce (*Deutscher Industrie- und Handelskammertag – DIHK*) have all called for an easing of the labour-market regulations governing hiring and firing procedures. To a lesser extent, the progressive culture of policy stakeholders in the wider business community is also observable in their policy statements regarding Germany's working-time arrangements. In this respect, it has largely been national-level business associations, such as the BDI, the BDA and the DIHK that have called for a halt in the historical trend towards ever shorter working hours. It should be noted, however, that the culture of Germany's wider business community appears less progressive than the culture of stakeholders in the German ICT sector. In this regard, a closer examination of the policy positions advocated by business associations in the wider business community suggests that such associations are less active in their calls for reforms to regulations governing the use of fixed-term employment contracts.

Compared to policy stakeholders in the ICT sector and wider business community, German trade unions can be seen to possess a predominantly conservative culture. Indeed, their policy positions advocate the preservation and, in some cases, the

consolidation of Germany's historically-entrenched labour-market institutions. This conservative culture first manifests itself, for example, in the calls by the German Confederation of Trade Unions (*Deutscher Gewerkschaftsbund – DGB*) and individual trade unions such as the *IG Metall* for existing dismissal-protection legislation to be not only maintained but also extended to cover employees not currently protected by redundancy protection measures. The conservative culture of Germany's trade unions is equally discernable in their attitude towards employment contracts. Indeed, the evidence presented clearly illustrates that trade unions in Germany, and in particular the *IG Metall* union, have lobbied for the preservation of open-ended, permanent employment contracts. The conservative culture of German trade unions is also observable in their opposition to reforms of Germany's working-time regulations. As has been shown, the country's trade union organisations, led by the DGB, have resisted any attempts to lengthen the German working week and have called instead for working hours to be further shortened.

## *9.2 Ascertaining the responsiveness of labour-market policy*

The following section ascertains, by comparing the original policy demands of the different policy stakeholders with the contents of the policy initiatives introduced, the extent to which labour-market policy in France and Germany has been responsive to the concerns of conservative stakeholders and to the preferences advocated by those stakeholders identified as possessing progressive cultures.

### 9.2.1 Ascertaining the responsiveness of labour-market policy in France

In France, there is on the one hand evidence to suggest that labour-market policy since the mid-1990s has responded to the policy preferences of those stakeholders identified as having progressive cultures. First, the data suggest that policy has been responsive to

the calls by progressive policy stakeholders for more flexible forms of employment contracts. For example, the former Raffarin government, and in particular the former Employment Minister François Fillon, were supportive of the so-called 'assignment contracts' pioneered by the *Syntec-Informatique* association of ICT companies (Bronnec, 2003 and 2004: Lecluse and Seux, 2003). The government initially agreed that such employment contracts would introduce more flexibility between fixed-term and permanent employment contracts, and observers suggested that such employment contracts stood a good chance of being incorporated into the French Labour Code (Fondeur, 2004). Superficially at least, the introduction of the 'new recruitment contract' (*contrat nouvelle embauche*) under the Villepin government can be seen as a response to calls from progressive cultures for France to move away from the tradition of job security and embrace greater levels of labour-market flexibility. In this regard, it would appear that, by making provisions for longer probationary periods and shorter periods of notice, this new type of employment contract has introduced in France a labour-market device that enables employers to recruit and dismiss employees more easily. Subsequent attempts to use the 'new recruitment contract' as the template for the 'first recruitment contract' (*contrat première embauche*) also demonstrate a willingness on the part of the Villepin government to respond to the concerns of progressive policy stakeholders and generally increase existing levels of labour-market flexibility.

The data also suggest that policy, particularly under the Raffarin government, responded to the calls by progressive policy stakeholders for greater levels of working-time flexibility. In this respect, the Law on Wages, Working Time and Job Creation (*loi relative aux salaires, au temps de travail et au développement de l'emploi*) introduced by François Fillon raised the annual permissible overtime quotas; for its part, the France

2005 (‘*Contrat France 2005’*) initiative announced by the former Prime Minister, Jean-Pierre Raffarin, responded to the concerns of progressive cultures by lifting the restrictions governing the maximum number of days that can be accumulated in company time savings accounts, by further raising statutory overtime quotas to 220 hours per year and by authorising employers to liquidate the extra days of leave resulting from the reduction of working time.

On the other hand, however, the evidence suggests that French labour-market policy since the mid-1990s has also responded to the demands of conservative policy stakeholders. First of all, the evidence demonstrates that policy has been responsive to the calls by conservative policy stakeholders to continue the trend towards shorter working hours or maintain existing working-time regulations. For instance, the Orientation and Incentive Law on the Reduction of Working Time was quite clearly responsive to the conservative demands of French trade unions, and in particular to their calls for further reductions in working time in order to create new jobs and efficiently tackle the issues of exclusion from the employment market and precarious employment. Although the government answered concerns within the French business community by introducing measures designed to ease the introduction of the 35-hour working week, notably by giving companies with less than 20 employees an extra two years to switch to the new working-time arrangements, the law must on balance be considered largely to incorporate the demands of conservative cultures. Although the Raffarin government seemingly relaxed the regulations governing the implementation of the 35-hour working week, it would be misguided to overstate the responsiveness of these particular policy issues to the demands of progressive policy stakeholders. Essentially, the reform measures introduced within the parameters of the Law on Wages, Working Time and

Job Creation and the *Contrat France 2005* initiative represent not the radical overhaul of working-time regulations demanded by members of the business community but rather a modest relaxation of regulations in certain areas only. Crucially, neither of these reform packages introduced by the Raffarin government challenged the statutory working-week of 35 hours.

Second, the evidence suggests that policy has been responsive to the calls by policy stakeholders with conservative cultures to maintain high levels of redundancy protection and preserve as standard the open-ended, permanent employments. For example, by obliging companies to introduce the 35-hour working week, reduce structural overtime and explore employee-redeployment opportunities before announcing redundancy plans, the Social Modernisation Law undeniably incorporates the conservative policy preferences of French trade unions, and in particular their calls for existing provisions governing the prevention of economic redundancies to be strengthened. That the Social Modernisation Law took into consideration the preferences of conservative trade unions, and in particularly their calls to consolidate employment-protection legislation, is equally noticeable in its provisions designed to further restrict employers' usage of fixed-term contracts.

Evidence that labour-market policy in France has responded to the concerns of conservative policy stakeholders is also provided by the Raffarin government's decision not to introduce the so-called assignment contracts ('*contrats de mission*'). Although initially persuaded that such contracts could be successfully introduced in France, the Raffarin government ultimately chose to shelve plans to introduce such flexible contracts in 2004 and omitted all references to project-based work contracts from its

National Plan for Social Cohesion (*plan national de cohesion sociale*) and from the draft bill of its Law on Mobilisation on Employment (*loi de mobilisation pour l'emploi*).

Although there is evidence to suggest that the 'new recruitment contracts' have responded to calls from progressive cultures for greater levels of labour-market flexibility, a closer examination of their provisions casts doubt over the extent to which French labour-market policy has responded to the concerns of progressive culture. Indeed, these new types of contract can be considered to respond to the concerns of conservative trade unions insomuch as they can be used by a limited number of companies, chiefly those employing a maximum of twenty employees. As such, new recruitment contracts are beyond the reach of larger companies who may nonetheless wish to make use of them. That any employer terminating such a contract before the expiration of the two-year probationary period must provide employees with job-seeking assistance and higher levels of financial compensation also demonstrates that the rules governing 'new recruitment contracts' take into consideration the concerns of conservative stakeholders cultures within the French trade-union movement. The ultimate fate of the 'first recruitment contract' also illustrates that labour-market policy in France has responded more to the concerns of conservative cultures than to the policy demands of progressive cultures. Essentially, in the face of strong opposition from trade unions and student associations, the government was forced to withdraw its plans for this new type of employment contract from its Law on Equal Opportunities ('*loi pour l'égalité des chances*') in April 2006.

### 9.2.2 Ascertaining the responsiveness of labour-market policy in Germany

In the case of Germany, the data on the one hand suggest that labour-market policy since the mid-1990s has responded to the demands espoused by progressive stakeholders. In particular, the evidence suggests that policy have been responsive to their the calls for lower levels of redundancy protection and to their calls for modern flexible rules governing the use of fixed-term employment contracts. For example, the contents of the Law on Part-time and Temporary Work can be seen to have responded to the policy preferences endorsed by progressive actors in the German ICT sector by annulling past regulations that legally obliged employers to justify their recourse to fixed-term employment contracts. Following the promulgation of this law, German employers could for the first time conclude such contracts without having to give specific reasons. For their part, the Hartz reforms can, on the surface at least, be seen to bear the hallmark of one of the policy demands advocated by those progressive business associations representing the German ICT sector. In essence, the laws were an attempt to promote in Germany atypical forms of employment, notably temporary agency work (‘*Leiharbeit*’). Under the provisions of the new legislation, a network of so-called personnel service agencies (Personal-Service-Agenturen – PSAs) were created across Germany, capable of employing unemployed people and hiring them out on a short-term basis to user companies. Furthermore, the Labour Market Reform Act of December 2003 can be seen to be responsive to the preferences of progressive cultures in the way that it reduced the coverage of statutory protection against dismissal to include only those workers in companies with more than ten employees. In addition, the law raised from two to four years the period of time that newly created companies can sign fixed-term contracts with their employees.

On the other hand, however, the data collected also suggest that German labour-market policy has either disregarded the policy demands of progressive stakeholders or addressed the policy preferences advocated by conservative stakeholders. First of all, the labour-market priorities of German governments since the mid-1990s do not appear to match the priorities of progressive cultures. As noted above, progressive cultures in Germany have specifically sought to loosen employment-protection legislation, introduce more flexible types of employment contracts and improve the ability of employers to flexibly vary the working hours of their employees. Since the late 1990s, however, it appears that none of these specific issues have been major policy priorities in Germany. Although the Law on Part-time and Temporary Work, certain elements of the Hartz reforms and the Labour Market Reform Act of December 2003 partially addressed the concerns of progressive stakeholders, the main thrust of German labour-market policy has appeared to focus on reducing unemployment. In this regard, neither the Alliance for Jobs, Training and Competitiveness nor the Hartz Laws have trained their attention directly on the issues of employment-protection or atypical forms of employment. Furthermore, there have been since the mid-1990s no major reforms at the national level to Germany's working-time regulations. In this respect, the 1994 Working Time Act (*Arbeitszeitgesetz*), the most important statutory source of working-time regulations in Germany, has remained untouched during the timeframe considered by this investigation.

Moreover, labour-market policy since the middle of the 1990s appears to have addressed the concerns of conservative policy stakeholders seeking to preserve Germany's historically-entrenched labour-market institutions. For example, the Law on Corrections in Social Security and the Safeguarding of Employee Rights is clearly

responsive to the policy demands espoused by trade unions insofar as it widened the scope of Germany's dismissal-protection legislation to cover all employees working in firms with five or more employees, and increased the number of so-called 'social criteria' ('*Sozialkriterien*') that German employers must take into account in the event of redundancies. Notwithstanding its provisions designed to relax the regulations governing fixed-term employment contracts, the Law on Part-time and Temporary Work responded to the policy preferences of conservative cultures by attaching importance to the concept of equal treatment: crucially, the law responded to trade-union demands related to the improvement of job security for temporary staff in the workplace by affording temporarily-engaged employees the same rights as permanently-employed staff. Reforms to the Works Constitution Act can by and large be seen to have been sympathetic to the conservative demands of German trade unions. Indeed, the reform granted works councils additional representative powers, specifically in relation to issues regarding employment security. In this regard, the reforms defined issues pertaining to job security as one of the major areas of responsibility of works councils, granting them the right to take the initiative with respect to the promotion and safeguarding of employment and obligating employers to take into consideration works councils' subsequent proposals when formulating their human-resources policies.

In addition, the model of temporary agency work promoted by the First and Second Laws for Modern Services on the Labour Market is one that takes significant account of the policy concerns promoted by those stakeholders identified as having conservative cultures. Specifically, the new legislation granted temporary agency workers considerable employment rights. For example, the regulations on temporary agency work set out in the law stipulated that temporary agency workers be recruited by

employment agencies on the basis of permanent contracts, that they enjoy the same pay and conditions as permanent workers in user companies, and that their salaries and working conditions be ultimately covered by traditional collective bargaining agreements. Although the provisions of the Labour Market Reform Act enacted in January 2004 seemingly reflect the policy preferences of progressive stakeholders, the extent to which it responds to these stakeholders should not be overestimated. Crucially, the legislation merely re-instated the employment-protection regulations that the Red-Green coalition government had inherited from Helmut Kohl's outgoing government in 1998. In essence, the regulations governing employment protection established by the legislation introduced in January 2004 do not differ from those that were already in place eight years earlier; therefore, it could be argued that hiring and firing procedures in Germany remained as inflexible in January 2004 as they had been in October 1998.

### *9.3 Summary*

The theoretical framework underpinning this research formulated some key predictions regarding the effects of culture on the production of ICTs in the French and German contexts. First, it was posited that stakeholders in the ICT sector would possess the most predominantly progressive cultural systems and would be highly critical of the labour-market environments within which their members operate; business associations representing the French and German ICT sectors, it was predicted, would therefore actively lobby political decision-makers in their respective countries for a radical overhaul of existing labour-market institutions. The data collected confirm this prediction. Indeed, of the policy stakeholders considered by this research, French and German business associations representing ICT companies have been the most vocal in their criticisms of their national labour-market regulations. Notwithstanding this similarity, a key difference exists between ICT business associations in France and

Germany with respect to the target of these criticisms. Specifically, in the light of the introduction of the 35-hour working week in France, ICT business associations in France have campaigned more intensively than their German counterparts for changes to working-time regulations. Despite this difference, ICT business associations in the two countries have nonetheless invested comparable levels of effort in calling for changes to employment-protection legislation and amendments to regulations governing the use of fixed-term employment contracts.

Second, it was predicted that, in both the French and German contexts, trade-union associations would possess the most conservative of cultures. Essentially, it was predicted that trade unions would be the stakeholders most vehemently opposed to changes in France and Germany's labour-market institutions and would actively lobby political decision-makers in their respective countries for these regulations to be preserved. Whether the data support this postulate is less clear-cut. On the one hand, some actors within the wider French and German business community appear to attach importance to certain existing labour-market regulations. For instance, Laurence Parisot of the Medef association questioned introducing flexible employment contracts for young workers, whilst the Proglio report stressed the benefits of permanent employment contracts as a remedy to youth unemployment. In Germany, umbrella business associations have not been particularly critical of regulations governing employment contracts. Notwithstanding this evidence, however, the cultural systems of policy stakeholders in the wider French and German business community are significantly more progressive than the cultural system of French and German trade unions. Indeed, the policy positions adopted by actors within France and Germany's trade union movements attach the greatest importance to their respective country's existing labour-

market institutions. Thus, on balance, it would be fair to say that trade-union associations in France and Germany posses the strongest conservative culture in debates surrounding labour-market reform.

Third, it was postulated that government policy affecting the labour-market institutions of France and Germany would be responsive to the demands of policy stakeholders with both conservative and progressive cultures, such that the contents of labour-market policies would reflect a balance of interests of conservative and progressive stakeholders as moderated by the state. This prediction is clearly confirmed by the data. Indeed, labour-market policies introduced in both France and Germany up to 2002/2003 were largely responsive to the preferences of conservative policy stakeholders. For example, the French government introduced during this period the Orientation and Incentive Law on the Reduction of Working Time of 1998 and the Social Modernisation Law of 2002. The former responded to the demands of French trade unions by further reducing statutory working time; the latter responded to trade-union demands by strengthening hitherto existing provisions governing the prevention of economic redundancies and the use of fixed-term employment contracts. During the same period, the German government enacted the Law on Corrections in Social Security and the Safeguarding of Employee Rights of 1998. This responded to trade union concerns by widening the scope of Germany's dismissal-protection legislation. In 2001, the federal government also introduced reforms to the Works Constitution Act, which answered trade-union calls for more employee rights and representative powers in matters pertaining to employment security. The Law on Part-time and Temporary Work which entered into force in 2001 responded to the policy preferences of conservative cultures

by affording temporarily-engaged employees the same rights as permanently-employed staff.

The period commencing in 2003 has been characterised by an increasing responsiveness of labour-market policy in each country to the demands of progressive policy stakeholders. In France, for example, the Law on Wages, Working Time and Job Creation introduced by François Fillon in 2003 and Jean-Pierre Raffarin's *Contrat France 2005* initiative both responded to the demands of stakeholders with progressive cultures by relaxing the regulations governing the implementation of the 35-hour working week. For its part, the 'new recruitment contract' (*contrat nouvelle embauche*) introduced in August 2005 within the context of an emergency employment plan announced by the then newly-appointed Villepin government responded to progressive demands by relaxing the rules governing employment contracts. A similar phenomenon is observable in Germany, where the Hartz reforms implemented since 2003 and the Labour Market Reform Act of 2005 have responded to the concerns of progressive policy stakeholders by respectively promoting temporary agency work and reducing the coverage of dismissal-protection legislation.

There exists, however, one key difference in the responsiveness of French and German labour-market policy following 2003. Crucially, although policy in France has increasingly responded to the demands of progressive stakeholders, it remains more responsive than German policy to the concerns of policy stakeholders with conservative cultures. Indeed, since 2003, the French government has, in face of trade-union opposition, shelved plans to introduce not only so-called 'assignment contracts' but also the controversial 'first recruitment contract' (*contrat première embauche*). In addition,

neither the Raffarin government nor more recently the Villepin governments have attempted to raise the length of the statutory working week, which remains untouched at 35 hours. Furthermore, since 2003 the French government has not, unlike the German government within the context of its programme of Hartz reforms, embarked upon any far-reaching efforts to re-calibrate its labour-market institutions.

# 10 Analysis of policy debates addressing institutions for skills provision

This chapter analyses the data collected on French and German policy debates and developments surrounding the provision of skills, as presented Chapter 7. It is composed of three main sections. In its first section, the chapter interrogates the policy statements issued by policy stakeholders to ascertain whether, in these particular debates, they can be considered to exhibit the characteristic traits of predominantly progressive or a predominantly conservative cultures. The second section of the chapter compares the original policy demands of conservative and progressive policy stakeholders with the contents of the policy initiatives introduced. The objective here is to ascertain the extent to which policies affecting the French and German institutions for skills provision have been responsive to the policy preferences of both conservative and progressive policy stakeholders. The third and final section summarises the data analysis by determining the extent to which the evidence confirms or refutes the predictions formulated by the theoretical framework

## *10.1 Classifying the cultural systems of policy stakeholders*

The following section seeks to determine whether the stakeholders having contributed to debates surrounding skills and training policy in France and Germany can be said to possess a predominantly progressive or a predominantly conservative culture. Chapter 4 described in detail the methods used to classify the cultural systems of stakeholders: as a brief reminder, the following table summarises the characteristic features that were used to differentiate between policy stakeholders with conservative and progressive cultures:

| | Stakeholders with conservative cultures | Stakeholders with progressive cultures |
|---|---|---|
| **France** | Seek to preserve theory-based university courses<br><br>Seek to maintain restrictive migration regulations<br><br>Resist calls to increase employee access to lifelong learning programmes | Challenge the value of theory-based degree courses<br><br>Challenge restrictive migration regulations<br><br>Call for increased employee access to lifelong learning programmes |
| **Germany** | Seek to preserve long periods of university study<br><br>Seek to maintain restrictive migration regulations<br><br>Oppose creation of institutional framework at Federal level governing access to lifelong learning programmes | Challenge the value of long periods of university study<br><br>Challenge restrictive migration regulations<br><br>Call for creation of institutional framework at Federal level governing access to lifelong learning programmes |

**Table 10: Factors used to identify the characteristic features of progressive and conservative cultures in policy debates surrounding skills provision in France and Germany (classified by author)**

### 10.1.1 Classifying the cultural systems of policy stakeholders in France

The data collected as part of the empirical investigation clearly show that policy stakeholders in the French ICT sector possess progressive cultures insomuch as they have challenged the foundations underpinning France's traditional institutions for skills provision. The Cigref (*Club informatique des grandes entreprises*), Gitep (*Groupement des télécommunications et d'électronique professionnelle*), SFIB (*Syndicat des technologies de l'information*), *Croissance Plus* and *Syntec-Informatique* associations have all called for a modernisation of French institutes of higher education so that they

are more practically orientated to the demands of ICT companies. The same associations have also called for a more liberal immigration regime, either to alleviate labour shortages in the ICT sector or, in the case of the *Syntec-Informatique* association, to discourage French businesses from outsourcing their IT services to low-wage economies such as India. The progressive culture of policy stakeholders in the ICT sector is equally observable in their policy positions regarding continuing workplace education. In this regard, the *Syntec-Informatique*, *Croissance Plus* and the *Centre des Jeunes Dirigeants d'Entreprise* associations have all called for a radical overhaul of regulations governing lifelong learning, in particular to ensure that more employees, especially in small and medium-sized companies, are guaranteed access to further training.

Whether policy stakeholders in the wider business community possess a conservative or a progressive culture is more ambiguous. On the one hand, the evidence suggests a progressive culture insofar as policy stakeholders have been critical of France's system of higher education. Indeed, the *Mouvement des Entreprises de France* (*Medef*) and industry think-tanks such as the *Institut de l'Entreprise* and the *Institut Montaigne* have criticised the French system of higher education for not offering a sufficiently large number of vocationally- or practically-orientated degree courses and have called on the French government to intervene in order to close the gap between the university education and companies' educational requirements.

However, the stances taken by policy stakeholders in the wider economy in debates regarding economic migration and lifelong-learning seem to provide evidence of a both progressive and conservative culture. For example, industry associations representing

the French textile, construction and health sectors appear to possess a progressive culture: indeed, together with policy stakeholders in the French ICT sector, these associations have been the most vocal in their calls for more liberal immigration laws in France. However, the evidence suggests that the *Medef* and the General Confederation of Small and Medium-Sized Enterprises (*Confédération générale des petites et moyennes entreprises – CGPME*) possess a conservative culture: concerned either by high unemployment or by the prospect of a mass influx of workers from Eastern Europe, both of these national-level employers' associations have been wary about opening up France's borders to new waves of migrant workers.

The attitudes of policy stakeholders in the wider economy towards the issue of lifelong learning is also ambiguous. That the *Medef* has called on the French government to foster an attitude amongst French workers that is more conducive to lifelong learning suggests a progressive culture. However, further evidence gives the appearance of a progressive culture. Crucially, the Medef, the General Confederation of Small and Medium-sized Enterprises and the Craftwork Employers' Association (*Union professionnelle artisanale – UPA*) have raised concerns regarding the financing of lifelong learning programmes and have argued in favour of preserving existing levels of employer contributions.

The data suggest that trade unions in France also exhibit the characteristics of both a conservative and a progressive culture. That university teaching unions, and in particular the *Fédération Syndicale Unitaire* (FSU), are sceptical about training their students in the practical application of ICTs and oppose the educational recommendations by international organisations such as the Organisation for Economic

Co-operation and Development (OECD) and the European Union (EU) for more vocationally-orientated university education suggests that they wish to maintain the theoretical and abstract focus of traditional university education in France. Evidence of a conservative culture is equally observable amongst trade-union associations at the national level and within unions representing workers in the French ICT sector. Indeed, concerned that immigration poses a threat to unemployed IT professionals in France and sceptical as to whether immigration can overcome France's shortages of highly-skilled IT professionals, associations such as the *Confédération Générale du Travail* (CGT), the *Bétor-Pub* union and the French Movement for a National Union of Information Technology Consultants (*Mouvement pour une union nationale des consultants en informatique - MUNCI*) have clearly been in favour of maintaining France's historically restrictive immigration practices. However, the data also illustrate that, in debates surrounding skills and training policies, French trade unions can be seen to possess a progressive culture. Indeed, the CGT and the *Confédération française démocratique du travail* (CFDT) have criticised France's historically-entrenched system of workplace training and called on the government to increase access to programmes of lifelong learning through the creation of a new individual right to lifelong training.

### 10.1.2 Classifying the cultural systems of policy stakeholders in Germany

According to the data presented in Chapter 7, there is considerable evidence to suggest that policy stakeholders in the German ICT sector possess a progressive culture. Indeed, their policy statements on skills- and training-related issues have questioned Germany's historically-grounded institutions for skills provisions and called for these institutions to be re-configured as so to meet the new challenges of the digital economy. In the area of higher-education policy, for example, associations both the *Initiative D21* association and the German Association for Information Technology, Telecommunications and

New Media (*Bundesverband Informationswirtschaft, Telekommunikation und neue Medien – BITKOM*) have highlighted the problems of long study periods in Germany and have called on the government to undertake measures to introduce novel, shorter degree courses. Evidence that stakeholders in the ICT sector possess a progressive culture is equally discernable in the BITKOM's vehement criticisms of Germany's traditional system of immigration regulation and its high-profile lobby work to encourage the government to introduce a radically new visa system aimed at facilitating the immigration of IT professionals from non-EU countries. The BITKOM and *Initiative D21* associations have also lobbied for far-reaching reforms to Germany's existing system of workplace training, focusing for instance on making on-going education mandatory in ICT companies and providing ICT professionals with greater opportunities to undertake training programmes during normal office hours.

Based on the data collected for this investigation, policy stakeholders in Germany's wider business community appear to possess a cultural system that is more conservative than the cultural system of stakeholders in the German ICT sector. On first glance, there is evidence to suggest the business associations in the wider economy exhibit the characteristics of a progressive culture. For example, from the perspective of the Federation of German Industry (*Bundesverband der deutschen Industrie – BDI*), the Confederation of German Employers' Associations (*Bundesvereinigung der deutschen Arbeitgeberverbände – BDA*) and the Association of German Chambers of Industry and Commerce (*Deutscher Industrie- und Handelskammertag – DIHK*), it is imperative that Germany modernises and liberalises its traditional immigration regulations if it wishes to compete with other industrialised nations for the best employees and maintain and secure the attractiveness of Germany as a business location. That the wider business

community exhibits the characteristics of a progressive culture is also discernable in policy debates regarding higher-education reform. Here, the BDA, BDI and DIHK associations have all criticised the German university system for encouraging students to devote excessively long periods of time to their undergraduate studies and have lobbied the federal and regional governments for the introduction of new, shorter degree courses based on the Anglo-American Bachelors and Masters qualifications.

A more detailed analysis of the data, however, provides evidence to suggest that policy stakeholders in the wider German business community also exhibit the characteristics of conservative cultures. This conservative culture manifests itself first in debates surrounding continued workplace education and training where the policy positions adopted by the BDA and the DIHK point to a desire to maintain the status quo of Germany's historically-entrenched rules and regulations. Indeed, the policy statements of these two associations, although paying pay lip service to the benefits of lifelong education, reveal concerns that any reforms to existing training mechanisms may place greater financial burdens on the shoulders of employers. That policy stakeholders in the wider business community exhibit a conservative culture is also evidenced in debates surrounding higher education reform. Much as the BDA, BDI and DIHK umbrella associations have criticised Germany's traditional system of university degrees, these criticisms are not shared unanimously by all sectoral business associations. Crucially, the policy statements issued by business associations representing Germany's heavy engineering sectors, most notably the German Association of Engineers (*Verein Deutscher Ingenieure - VDI*), the Association for Electrical, Electronic & Information Technologies (*Verband der Elektrotechnik, Elektronik und Informationstechnik - VDE*) and the German Electrical and Electronic Manufacturers' Association (*Zentralverband*

*Elektrotechnik- und Elektronikindustrie - ZVEI*), point to an attachment to Germany's traditional engineering *Diplom* qualifications. According to these business associations, the introduction of shorter degree courses risks undermining the international reputation of German engineering.

The positions advocated by trade unions in policy debates surrounding skills and training policies similarly point to both a conservative and a progressive culture. On the one hand, the mostly critical policy statements issued by German trade unions on the issue of immigration suggest a largely conservative culture. Rather than supporting attempts to modernise Germany's immigration regime, actors within Germany's trade union movement have called for German ICT companies to recruit from the country's growing number of unemployed IT professionals and for ICT companies to invest more heavily in re-training measures. On the other hand, however, the positions adopted by trade unions in debates surrounding lifelong learning point to a predominantly progressive culture. Indeed, the DGB, *IG Metall* and *ver.di* have all advocated reforms to Germany's existing system of workplace-based education and training and demanded the creation of a new institutional framework governing lifelong learning that improves employee access to programmes of lifelong learning, particularly in small and medium-sized companies.

In common with business associations in the wider economy and trade unions, policy stakeholders in the German system of higher education can be seen to exhibit the characteristics of both progressive and conservative cultures. On the one hand, umbrella associations representing the political interests of German universities possess a progressive culture insomuch as they support the introduction in Germany of shorter

degree courses that differ from Germany's traditional system of university qualifications. Specifically, associations such as the German Rectors' Conference (*Hochschulrektorenkonferenz – HRK*), the German Centre for University Development (*Centrum für Hochschulentwicklung – CHE*) and the Science Council (*Wissenschaftsrat*) support the introduction of modular degree courses, Bachelor and Masters courses and tiered study programmes. On the other hand, however, the Association of German Institutions of Higher Education (*Deutscher Hochschulverband*), the Consortium of German Institutes of Technology and the majority of Germany's professors' associations, including amongst others the *Fakultätentag Informatik der Universitäten in der Bundesrepublik Deutschland* and the *Fakultätentag für Elektrotechnik und Informationstechnik*, can be seen to exhibit the characteristics of a conservative culture. Indeed, each of these policy stakeholders has challenged the value of introducing in Germany shorter degree courses and has campaigned for the preservation of Germany's traditional degree courses, which are considered to have proven themselves both nationally and internationally. The stances adopted by student associations in debates surrounding higher-education reform also clearly provide evidence of a conservative culture. That the German Union of Students (*Deutsches Studentenwerk - DSW*) organised demonstrations against the introduction of shorter degree courses and long-time study fees suggests the student movement has sought to protect students' historically-entrenched right to academic freedom, which allows them to develop and progress at their own pace.

### *10.2 Ascertaining the responsiveness of skills policy*

The following section ascertains, by comparing the original policy demands of the different policy stakeholders with the contents of the policy initiatives introduced, the extent to which policies addressing the provision of skills in France and Germany have

been responsive to the concerns of conservative stakeholders and to the preferences advocated by those stakeholders identified as possessing progressive cultures.

### 10.2.1 Ascertaining the responsiveness of skills policy in France

On the one hand, there is evidence to suggest that French policies addressing the issue of skills provision have, since the middle of the 1990s, responded to the policy preferences of those stakeholders identified as possessing progressive cultures. On the surface at least, higher-education policy in France can be seen as responsive to the concerns raised by business associations representing the ICT sector, the *Medef*, think tanks such as the *Institut de l'Entreprise* and the *Institut Montaigne* insomuch as efforts have been undertaken to make university education more practically and vocationally orientated. The introduction by Claude Alègre of vocationally-orientated Bachelor degrees (*licences professionnelles*) that focus on practical, on-the-job training provides a case in point. Further developments would also suggest that French higher-education policy has addressed the specific concerns of progressive policy stakeholders in the French ICT sector. Indeed, as part of the French Governmental Programme for the Information Society (*Plan d'Action Gouvernemental pour la Société de l'Information - PAGSI*), the Jospin government encouraged institutions of higher education to introduce new professional computer and multimedia courses and established in Marseille the Institute of Advanced Internet Applications (*Institut des applications avancées de l'Internet - IAAI*).

The data collected also give the impression that French immigration policy has shifted in a direction favoured by progressive policy stakeholders in the French ICT, textile, construction and health sectors. Crucially, the visa system for highly skilled migrant workers introduced as part of the Chevènement Law on Immigration of 1998, together

with the selective-immigration procedures incorporated by Nicolas Sarkozy into France's Immigration and Asylum Code in 2006, suggest that France has moved from a period of zero immigration to a period of controlled immigration with relation to its economic needs.

Superficially at least, skills and training policy in France appears since the late 1990s to have reacted sympathetically to the calls by progressive policy stakeholders for measures to increase employee access to on-going, workplace education. In this respect, the Law on Lifelong Learning and Social Dialogue (*loi relative à la formation professionnelle tout au long de la vie et au dialogue social*) can be seen to be responsive to the demands of trade-unions insofar as it created an individual, transferable right to lifelong learning, and established a qualification system designed to officially recognise the lifelong-learning experiences of employees. The new law can be seen to be sensitive to the concerns of business associations in the ICT sector insomuch as it increased the levels of financial support offered to small and medium-sized companies so that the State now covers 50 percent of employees' salaries when they take part in extended training courses.

On the other hand, however, the data collected as part of this investigation suggest that policy measures addressing the topic of skills provision have also been responsive to the demands of those policy stakeholders identified as possessing conservative cultures. This is first observable in the sphere of higher-education policy. Recall that university teaching unions, including the *Fédération Syndicale Unitaire* (FSU), have been suspicious about their members having to provide more vocationally-orientated courses in the field of computer science. Higher-education policy can be seen to be sensitive to

these concerns insomuch as it has trained its focus more on improving the general computer-literacy skills of university students, through for example the *Certificat informatique et Internet*, the RENATER broadband network and the *Campus numériques français* initiative, than on developing the highly-specialised ICT skills demanded by ICT employers.

The evidence suggests that French immigration policy has also taken into account the concerns raised by policy stakeholders with conservative cultures. That the French government was instrumental in the creation at the European level of transitory immigration regimes in preparation for EU enlargement in 2004 suggests that immigration policy has been responsive to the concerns of French trade unions and the General Confederation of Small and Medium sized Enterprises (*Confédération générale des petites et moyennes entreprises – CGPME*) that France would experience large waves of economic migration from Eastern Europe. Further developments in immigration policy suggest that it has been responsive to concerns expressed by trade unions and the Medef association that increased immigration could lead to higher levels of unemployment amongst French IT professionals. The decision by the Raffarin government in 2004 to revoke the provisions of the visa system for skilled migration workers introduced under the Chevènement Law on Immigration of 1998 provides a case in point. In the same way, Nicolas Sarkozy's amendments to France's Immigration and Asylum Code in 2006 can be seen as responsive to the concerns of conservative policy stakeholders insofar as they tightened existing regulations governing the entry to France of migrant workers' spouses and abolished the automatic right of migrant workers to a long-term residence permit.

Much as the evidence suggests that professional training policy in France has responded to progressive policy stakeholders by undertaking measures to increase employee access to continuing, workplace education, a somewhat different picture emerges if the contents of the measures introduced are more closely examined. Recall that conservative policy stakeholders, such as the Medef, CGPME and UPA, were concerned that the introduction of new regulations governing lifelong learning could lead to a situation whereby employers would have to bear a greater proportion of the costs associated with workplace training. The provisions of the Law on Lifelong Learning and Social Dialogue appear to take account of this concern by stipulating that employees must attend the majority of newly introduced programmes for lifelong learning outside of their normal working hours. The law equally states that employers are not obliged to pay employees when they attend extended training courses.

### 10.2.2 Ascertaining the responsiveness of skills policy in Germany

In the case of Germany, the evidence on the one hand suggests that policies affecting the provision of skills have responded to the policy preferences of those stakeholders identified as having progressive cultures. In the case of higher education policy, for example, the measures designed to increase the proportion of graduates studying ICT-related courses at university are quite clearly sympathetic to the concerns raised by ICT business associations that German system of higher education is unable to meet the educational demands of ICT companies. In addition, by establishing standard study times and laying the foundations for the introduction of shorter university-degree courses based on the Anglo-American Bachelor and Masters system, the amendments made to the Framework Act for Higher Education incorporate the demands by ICT business associations, the BDI, the BDA and associations representing the political interests of Germany's universities for shorter periods of university study in Germany.

In addition, the data give the impression that German immigration policy has also responded to the demands espoused by policy stakeholders with progressive cultures. For example, the IT Specialists Temporary Relief Programme is without question responsive to the demands of progressive policy stakeholders in the German ICT sector that more immigration was needed to alleviate the significant labour shortages on the German IT job market. Further evidence that immigration policy has been responsive to the concerns of progressive policy stakeholders is provided by the Immigration Act of 2005, which sought to create a more liberal immigration regime by extending the provisions of the IT Specialists Temporary Relief Programme to all economic sectors, by authorising non-EU students to remain in Germany and seek work following their studies, by simplifying Germany's system of residence permits and by streamlining the country's regulations governing permit applications.

The data gathered on lifelong-learning policies also give the appearance that government initiatives have responded to the concerns raised by progressive policy stakeholders. In this respect, the Danish-inspired job-rotation programmes introduced as part of the Alliance for Jobs, Training and Competitiveness, the Lifelong Learning for Everyone action plan announced in 2001, the Continuing Education Offered By Universities programme of 2004 and the strategy document on the future development of lifelong learning in Germany published by the Commission for Educational Planning and Research Promotion are all quite clearly sensitive to the demands voiced by ICT business associations and trade unions that a new set of regulations is needed to facilitate access to continued workplace training and generally promote a culture of lifelong learning.

On the other hand, however, there is evidence to suggest that policy measures addressing the topic of skills provision have also been responsive to the demands of conservative policy stakeholders. A closer analysis of higher-education policy, for instance, would suggest that it has addressed the concerns of those conservative policy stakeholders that have sought to maintain the traditions of Germany's system of higher education. In this regard, the Framework Act for Higher Education, by introducing the 'free-shot' ruling and enabling students to discard their initial exam results and continue their studies without penalty, seems to be responsive to student concerns that education reform would undermine their freedom to conduct their studies at their own pace. In addition, by introducing Bachelor and Masters degree courses as an *alternative* for rather than as a *replacement* of Germany's traditional system of university qualifications, the law appears sympathetic to the fears raised by business associations representing Germany's engineering industries, the Consortium of German Institutes of Technology, the Association of German Institutions of Higher Education and associations of university professors active in IT-related disciplines that shorter degree courses have the potential to undermine the strong reputation of engineering education in Germany.

Closer scrutiny of German immigration policy suggest that it has also addressed the concerns of those policy stakeholders possessing conservative cultures. For example, by restricting the total number of available visas, permitting companies to recruit only IT professionals earning a legally-stipulated minimum salary, forbidding their spouses from working in Germany and by forcing IT professionals to leave Germany after five years, the IT Specialists Temporary Relief Programme is seemingly responsive to trade union concerns that increasingly liberal immigration practices could impact negatively

on the employment prospects of German nationals on the IT job market. For its part, the Immigration Act of 2005, by raising the legally-stipulated minimum salaries to be paid to migrant workers and by creating mandatory security checks on all non-European foreigners seeking employment in Germany, can be seen to be responsive to the concerns raised by trade unions regarding possible wage dumping and to the demands by the CDU/CSU union for stronger security measures on foreigners seeking entry into Germany.

Even though it would appear that the Federal government has introduced a large number of policy initiatives specifically addressing the issue of lifelong learning, a more detailed consideration of the ways in which these measures have been implemented seems to suggest that policy has also responded to the demands of policy stakeholders identified as having a conservative culture. Specifically, by introducing lifelong-learning programmes as predominantly experimental pilot projects, by resisting calls for the creation at the national level of a legislative framework for governing educational leave ('*Bildungsurlaub*') and by refusing to date to create an individual right to lifelong education, the Federal government has seemingly responded to the concerns raised by business associations such as the BDI, BDA and the DIHK regarding the costs associated with increased levels of employee training.

### *10.3 Summary*

Recall that the theoretical framework underpinning this research formulated some key predictions regarding the effects of culture on the production of ICTs in the French and German contexts. It first predicted that stakeholders in the ICT sector would possess the most predominantly progressive cultural systems. In essence, it was posited that French and German business associations representing the political interests of ICT companies

would be highly critical of existing institutions for skills provision and would lobby political decision-makers in their respective countries for radical changes to these institutions. The evidence presented here suggests that the cultural system of policy stakeholders in the German ICT sector is more progressive than the cultural system of policy stakeholders in the French ICT sector. Specifically, ICT business associations in France have been less vocal than their German counterparts in their calls for reforms to their national immigration regime and have targeted their criticisms of existing institutions for skills provision more closely on the quality of instruction offered by the French system of higher education. Despite this difference, however, the evidence overwhelmingly suggests that French and German ICT sector possess on the whole similarly progressive cultural systems. Indeed, stakeholders in the French and German ICTs have both called for the introduction of more practically-orientated university courses, and they have both lobbied for far-reaching changes to regulations directing lifelong learning.

It was further postulated that, in both the French and German contexts, trade-union associations would possess the most conservative of cultures. Crucially, it was predicted that trade unions would be the stakeholders most vehemently opposed to changes in France and Germany's institutions for skills provision and would actively lobby political decision-makers in their respective countries for existing institutional configurations to be preserved. However, the data compiled for the purposes of this thesis do not fully support this prediction. For sure, trade-union organisations in the two countries have challenged attempts to introduce more liberal immigration regimes, and university teaching unions in France have opposed the introduction of more vocationally-orientated courses. However, in debates surrounding the issue of lifelong

learning, trade union organisations in both France and Germany quite clearly exhibit the characteristics of a progressive cultural system insomuch as they have challenged historical regulations governing continued workplace education and called for increased employee access to lifelong training.

The prediction that trade unions would possess the most conservative of cultures is also challenged by the evidence showing that business associations representing the interests of the wider French and German business communities have campaigned for the preservation of certain elements of their historically-entrenched institutions for skills provision. In France, for example, the Medef and the General Confederation of Small and Medium-Sized Companies have called on the French government to maintain restrictive migration practices. Together with the Craftwork Employers' Association, these same associations have also resisted far-reaching changes to the existing rules governing the financing of workplace training. Compared to their counterparts in France, policy stakeholders in the wider German business community appear to have a more progressive culture. Indeed, the data show that umbrella business associations in Germany have, in contrast to their opposite numbers in France, been largely supportive of liberalising existing immigration laws. Notwithstanding this difference, there is still evidence in Germany to suggest that stakeholders in the wider business community have similarly lobbied for the preservation of certain elements of their historically-entrenched institutions for skills provision. Indeed, the BDA and the DIHK, concerned by the prospect of increased financial contributions, have been in favour of maintaining existing regulations governing the financing of training. For their part, stakeholders in the wider business community, such as the VDI, the VDE and the ZVEI, have

campaigned for the preservation of Germany's traditional system of university diplomas and questioned the need to introduce shorter degree courses.

The theoretical framework underpinning this research also postulated that government policy affecting the French and German institutions for skills provision would be responsive to the demands of policy stakeholders with both conservative and progressive cultures; as such, the contents of policies would reflect a balance of interests of conservative and progressive stakeholders as moderated by the state. This prediction is quite clearly confirmed by the evidence. On the one hand, the findings support the prediction that policy would be responsive to the demands of progressive policy stakeholders seeking to change existing institutions for skills provision. In France, the creation of vocationally-orientated bachelor degrees is responsive to progressive demands for a more practically-orientated system. With specific reference to the demands of stakeholders in the French ICT sector, the Governmental Programme for the Information Society of 2000 sought to promote practically-orientated ICT degree courses at French universities and established a new *école nationale* offering courses specifically addressing Internet applications. In Germany, amendments in 1998 and 2002 to the Framework Act for Higher Education, and in particular the introduction of standardized study periods, intermediate examinations and Bachelor/Masters level degrees, suggest that higher education policy in Germany has been responsive to the calls by progressive policy stakeholders for shorter periods of undergraduate study. It would appear, however, that French higher-education policy has been more responsive than German policy to the demands of progressive stakeholders in the French ICT sector. This is evidenced, for example, in the more concerted efforts in France to promote a greater number of vocationally-orientated degree courses, especially in IT-

related disciplines, and establish institutions of higher education charged specifically with delivering ICT-inspired courses.

In the area of immigration policy, the Chevènement Law of 1998 and Nicolas Sarkozy's amendments to the French Immigration and Asylum Code in 2006 are responsive to concerns in the French ICT sector regarding labour shortages insomuch as they introduced new mechanisms enabling companies to more easily recruit skilled labour from overseas. Similarly, the provisions of the IT Specialists Temporary Relief Programme launched in 2000 and the Immigration Act of 2005 in Germany facilitated the procedures for the recruitment by ICT companies of highly-skilled staff from outside the European Union. A key difference, however, is that German policy responded much more quickly than French policy to the calls from progressive policy for a liberalisation of existing immigration regulations. Indeed, whereas the German 'green card' scheme was institutionalised in 2000, similar policy provisions were not fully generalised in France until the spring of 2006.

In both France and Germany, policies addressing the issue of lifelong-learning have responded to the concerns of progressive policy stakeholders by increasing the levels of financial support made available to small and medium-sized companies to assist them in providing their employees with on-going education and training opportunities. In addition, governments in each country have introduced measures to generally foster a culture of lifelong learning in the workplace: the French government passed the Law on Lifelong Learning and Social Dialogue of 2005; in Germany, the federal government initiated job-rotation programmes, the Lifelong Learning for Everyone action plan and the Continuing Education Offered by Universities programme. It would appear,

however, that French policy has responded more than German policy to the demands of progressive stakeholders. Crucially, the French government has introduced at the national level a generalised employee right to lifelong learning. By contrast, lifelong-learning programmes in Germany have been introduced largely within the parameters of experimental pilot projects, and there have been no policy measures in Germany to introduce a legally-enshrined employee right to lifelong learning.

On the other hand, however, the data also confirm the prediction that policy in each country would respond to the concerns of conservative stakeholders that resist changes to existing institutions for skills provision. For example, to avoid conflict with conservative policy stakeholders seeking to preserve the educational heritages of their respective countries, higher education policy in each country has focused on promoting the uptake and usage of ICTs at universities; in each country, less importance has been attached to the promotion of more vocationally-orientated computer-science courses. In both France and Germany, immigration policy can be seen to have responded to the concerns of conservative policy stakeholders insofar as regulatory frameworks governing the recruitment of ICT professionals from outside the EU have not been fully liberalised. Despite changes to historically-entrenched legislation, highly-skilled IT workers seeking employment in either France or Germany still have to jump through a number of hoops in order to secure a work permit. In addition, strict rules in each country still govern the ability of migrant workers to be joined by their families.

## SECTION VI – CONCLUSIONS

The final section of the thesis summarises, discusses and interprets the meaning and implications of the results generated by this research. Mindful that researchers have a duty to reflect upon and acknowledge both the strengths and weaknesses of their work, it also discusses the empirical and theoretical contributions of the research and points to its potential limitations. Finally, recommendations for future avenues of enquiry are proposed.

# 11 Conclusions

This thesis has reported the results of an empirical investigation, covering the period from the mid-1990s to early 2006, that was carried out to explore the relationship between culture and the production of information and communication technologies (ICT) in France and Germany. It has dealt specifically with ascertaining whether, during this particular timeframe, conservative-minded policy stakeholders in the two countries have impeded the emergence of business environments that support ICT-producing companies. This final chapter of the thesis begins by providing a brief overview of the research. It then proceeds to summarise the research results by ascertaining the extent to which the predictions generated by the theoretical framework have been borne out by the investigation. A subsequent section of this chapter is devoted to discussing and interpreting the meaning and implications of these results. A further section reflects on the empirical and theoretical contribution of the research and discussed its potential limitations. The final section provides recommendations for future avenues of enquiry.

## *11.1 Overview of research*

As was stated in Chapter 1, this thesis has been primarily concerned with understanding why France and Germany lag behind other industrialised nations in terms of the development and production of ICTs. Given the large number of major French and German companies in the world, and given the size and importance of the French and German national economies in general, one might expect these two countries to possess ICT firms that are well-positioned and highly competitive on world markets. However, it is widely agreed that, despite notable exceptions such as *Business Objects*, *Alcatel* and *Orange* in France and *SAP*, *Siemens* and *Infineon Technologies* in Germany, French and German companies have by and large been less successful in the production and commercialisation of ICTs than their international competitors.

From the existing literature, as reviewed in Chapter 2, it is known that France and Germany lag behind their international rivals in the production of ICTs largely because of their general business environments. The existent empirical research has much to say about the ways in which constraints associated with company financing, human resources and demand conditions have impacted negatively on the development and production of ICTs in each country. By contrast, the existing says little about the influence of culture on ICT production in these two countries. This is surprising, especially given the renewed academic interest in examining the influence of culture on economic activity, as discussed in Chapter 2.

As a response to this knowledge gap, the research project reported here set out to explore the ways in which culture impacts on the capacity of the French and German economies to support ICT companies. Concerned by a number of problems associated with existing theoretical starting points to investigating the relationship between culture and economics, Chapter 3 developed a research framework and formulated a set of predictions focused on understanding the extent to which conservative-minded cultures seeking to preserve the historically-entrenched institutions underpinning national business environments have impeded the emergence of novel framework conditions that support the production of ICTs.

Chapter 4 presented an empirical investigation that was designed to assess the validity of the predictions formulated by the theoretical framework. The specific objective of the investigation was to ascertain the extent to which government policy shaping national business environments responds to the demands espoused by conservative forces. Essentially, specific policy debates in France and Germany were examined to identify

progressive and conservative policy stakeholders, and compare the extent to which policy ultimately responds to the policy preferences advocated by each of these distinct group of stakeholders. Since they are commonly acknowledged as occupying central positions in the patchwork of complementary policy frameworks deemed supportive of successful ICT companies, attention was focused on the broad arenas of financial policy, labour-market policy and policy addressing skills provision.

The cultural systems of policy stakeholders were classified by interrogating their policy statements, gathered either from their websites or from interviews published in the French and German media, using a classification system based on insights drawn from the anthropological works of Kluckhohn and Strodtbeck (1961), Scollen and Wong Scollen (1995), Hofstede (1980), Trompenaars and Hampden-Turner (2002) and Merk (2003). Whether policy responded to the demands of conservative or progressive stakeholders was gauged by comparing their original policy preferences with the outcomes of the policy-formulation process. This method of analysis drew its inspiration chiefly from an approach advocated amongst others by Weber (1977), Ball and Millard (1986) and Selck and Kaeding (2004) and Kaeding and Selck (2005).

### *11.2 Summary of the research results*

The theoretical framework underpinning this research formulated some key predictions regarding the effects of culture on the production of ICTs in the French and German contexts. The extent to which each of these predictions have been borne out by the investigation is summarised below.

### 11.2.1 Prediction 1 – stakeholders in the ICT sector would possess the most predominantly progressive culture

It was first predicted that stakeholders in the ICT sector would possess the most predominantly progressive cultural systems. Crucially, it was predicted that business associations representing the political interests of French and German ICT companies would be highly critical of the institutional frameworks within which their members operate, and would lobby political decision-makers in their respective countries for a radical overhaul of these institutions. This prediction is largely confirmed by the research. Indeed, in each of the policy debates and discussions considered, business associations representing the political interests of the French and German ICT sector are the policy stakeholders that have most consistently criticised existing business environments and campaigned for reforms. In France, ICT business associations have challenged the national tradition of state-administered finance, criticised existing French regulations directing working-time arrangements and called into question historically-entrenched laws governing employment contracts and redundancy protection. They have also contested the value of abstract, theory-based education, lobbied for the introduction of more practically-orientated university courses and campaigned for the radical overhaul of regulations governing lifelong learning. Similarly, sectoral associations representing German ICT companies have criticised the country's historically-grounded bank-based financial system, called for the loosening of Germany's historically strict employment-protection legislation and demanded new regulations to enable the more flexible use of fixed-term employment contracts. In addition, they have taken the lead in calling for reform to Germany's traditionally strict immigration policy and criticised historical mechanisms governing access to lifelong learning.

It should be noted, however, that in debates surrounding the provision of skills, the cultural system of stakeholders in the French ICT sector appears to be less progressive than their German counterparts. Essentially, the evidence suggests that ICT business associations in France have been less vocal in their calls for reforms to their national immigration regime. Although they have broached this subject, their criticisms of existing institutions for skills provision have focused more closely on the quality of instruction offered by the French system of higher education. Notwithstanding this difference, however, the empirical evidence nonetheless still largely supports the contention that policy stakeholders in the French and German ICT sectors would possess predominantly progressive cultures.

### 11.2.2 Prediction 2 – trade union associations would possess the most predominantly conservative culture

Second, it was posited that, in both the French and German contexts, trade-union associations would possess the most conservative of cultures. Essentially, it was predicted that trade unions would be the stakeholders most vehemently opposed to changes in France and Germany's institutional frameworks and would actively lobby political decision-makers in their respective countries for these institutions to be preserved. However, the data collected within the parameters of the empirical investigation do not fully support this prediction. First of all, some of the policy statements issued by trade unions quite clearly exhibit the characteristics of a progressive cultural system. For example, in debates surrounding the issues of lifelong learning, trade union organisations in both France and Germany have challenged historical regulations governing continued workplace education and called for increased employee access to lifelong training. In addition, the data collected suggest that the

cultural system of the German trade unions is more progressive than the cultural system of French trade unions. This is particularly discernable in debates surrounding financial policy, where German trade unions have offered their qualified support to both the introduction of stock options as a remuneration tool as well as to the implementation of private pensions based on stock-market income. By contrast, these two issues have been more strongly opposed by actors in the French trade union movement.

The prediction that trade union associations would possess the most predominantly conservative culture is also called into question by the evidence showing that business associations representing the interests of the wider French and German business communities have campaigned for the preservation of certain elements of their historically-entrenched institutions. This is particularly observable in France. Here, the leading industrialists involved in the drafting of the Viénot (AFEP and CNPF, 1995) and the Bouton reports (Bouton, 2002) advocated the preservation of France's closed system of cross-shareholdings and generally questioned the purpose of fundamental reforms to French regulations governing corporate governance; Laurence Parisot of the Medef raised concerns about introducing flexible employment contracts for young workers (the so-called 'first recruitment contract'), whilst the Proglio report stressed the benefits of permanent employment contracts as a remedy to youth unemployment; the Medef, the General Confederation of Small and Medium-Sized Companies and the Craftwork Employers' Association have raised concerns about the prospect of changes to regulations governing access to workplace-based training; the Medef and the General Confederation of Small and Medium-Sized Companies have also been sceptical about making radical changes to France's existing immigration regime.

Unlike their French counterparts, business associations in Germany have been much less sceptical about changes to immigration policy. Indeed, they have on the whole been supportive of liberalising existing immigration laws. Nonetheless, there research has shown that business associations in Germany have also lobbied for certain elements of the country's existing institutional frameworks to be maintained. For example, the BDI, the BDA and the DIHK have challenged the need to modify regulations governing corporate governance standards and legislation directing access to lifelong education and training; the same associations have not been particularly critical of regulations governing employment contracts. In the sphere of skills provision, business associations representing the wider business communities of each country have argued in favour of maintaining existing regulations governing the financing of training. For their part, stakeholders in the wider business community, such as the VDI, the VDE and the ZVEI, have campaigned for the preservation of Germany's traditional system of university diplomas and lobbied against the introduction of shorter degree courses.

### 11.2.3 Prediction 3 – policy would reflects the interests of both conservative and progressive stakeholders

It was further predicted that government policy affecting the composition of France and Germany's institutions would respond to the policy demands of policy stakeholders with both conservative and progressive cultures, such that the contents of government policies would reflect a balance of interests of conservative and progressive stakeholders, as moderated by the state.

#### 11.2.3.1 Financial policy

The data collected confirm the prediction that financial policy would respond to the concerns of progressive stakeholders seeking to create market-based financial systems.

First, policy initiatives have been introduced in each country to develop the component features of such financial systems; in addition, new stock-market segments have been created especially for high-growth, high-risk companies in the ICT sector; furthermore, pension reforms in the two countries have aimed at increasing the capitalisation of the French and German financial markets and generally raising the number of shareholders; and in both France and Germany, a raft of measures has been introduced to raise the confidence of domestic and foreign investors in national capital markets and generally improve the functioning of stock exchanges. The data suggest that French financial policy has been more responsive than German policy to the concerns of progressive stakeholders. Indeed, French policy makers, unlike their German counterparts, created a new stock-option regime designed specifically with the interests of ICT companies in mind and created more publicly-financed venture-capital funds than in Germany.

The findings also support the prediction that financial policy in the two countries would respond to the concerns of conservative stakeholders that resist the development of a market-based financial system. French and German financial policies are responsive to the concerns of trade-union associations insomuch as efforts to promote stock options have been accompanied by the introduction of strict taxation regimes to prevent any widening of wage inequalities; in addition, privately-funded pensions based on stock-market income have been rolled out in France and Germany on a voluntary as opposed to compulsory basis. With specific reference to France, successive governments have responded to trade-union concerns by retaining a significant financial stake in some privatised companies. The findings also show that financial policies in France and Germany have addressed the concerns of conservative policy stakeholders in the wider business communities. In France, for example, governments have promoted the creation

of stable shareholder communities, either in the form of 'hard cores' of cross shareholdings or through the promotion of employee share ownership and retention. In Germany, many of the provisions of new corporate-governance legislation have been introduced on a voluntary basis, such that companies failing to comply with the recommendations of the German Corporate Governance Code or refusing to dissolve their cross shareholdings would face no legal sanctions

#### 11.2.3.2 Labour-market policy

The findings also confirm the prediction that labour-market policy in France and Germany would be responsive to the demands of both progressive stakeholders that lobby for greater levels of labour-market flexibility and to the concerns of conservative stakeholders that campaign for the preservation of historically-entrenched levels of employment protection and working-time regulations. Up to 2002/2003, policy in each country was largely responsive in both countries to the preferences of conservative policy stakeholders. In France, for example, legislation was introduced to further reduce statutory working time, and efforts were undertaken to strengthen hitherto existing provisions governing economic redundancies and the use of fixed-term employment contracts. In Germany, measures were introduced to widen the scope of the country's dismissal-protection legislation, either by according works councils greater powers in matters pertaining to employment security or by affording temporarily-engaged employees the same rights as permanently-employed staff.

Since 2003, labour-market policy in both France and Germany has become increasingly responsive to the demands of progressive policy stakeholders. In France, for example, measures were implemented by the Raffarin government to relax the regulations governing the implementation of the 35-hour working week; under the Villepin

government, attempts have been made, such as through the introduction of the 'new recruitment contract', to introduce more flexible rules governing employment contracts. In Germany, efforts have been undertaken, though the Hartz reforms and the Labour Market Reform Act of 2005, to promote temporary agency work and reduce the coverage of dismissal-protection legislation.

However, although labour-market policy in France has increasingly responded to the demands of progressive stakeholders, it remains since 2003 more responsive than German policy to the concerns of conservative-minded policy stakeholders. Indeed, since 2003, the French government has, in face of trade-union opposition, shelved plans to introduce 'assignment contracts' and the controversial 'first recruitment contract'. In addition, neither Raffarin nor Villepin attempted to raise the length of the statutory working week, which remains untouched at 35 hours. Furthermore, no French government since 2003 has, unlike the German government within the context of its programme of Hartz reforms, embarked upon any far-reaching efforts to re-calibrate its labour-market institutions.

#### 11.2.3.3 Skills policy

The findings of the empirical investigation also support the contention that policies in the broad sphere of skills provision would respond to the concerns of both progressive policy stakeholders seeking to create new institutions for the provision of skills and to conservative stakeholders seeking to preserve existing regulations.

That higher-education policy in Germany has responded to the demands of progressive policy stakeholders is evidenced by the introduction of standardized study periods, intermediate examinations and Bachelor/Masters level degrees. It should be noted,

however, that French higher-education policy seems to have been more responsive than German policy to the demands of progressive stakeholders in the ICT sector. This is evidenced by the more concerted efforts in France to specifically promote, alongside the creation of vocationally-orientated bachelor degrees, a greater number of vocationally-orientated degree courses geared especially to IT-related disciplines, and by the creation of an *école nationale* offering courses specifically addressing the Internet and its applications. In both France and Germany, attempts have been made to introduce new mechanisms enabling companies to more easily recruit highly skilled IT professionals from outside the European Union. In this regard, however, German policy responded much more quickly than French policy to the calls from progressive policy for a liberalisation of existing regulations so as to attract ICT professionals from overseas.. In both countries, measures have been introduced to generally foster a culture of lifelong learning in the workplace and to increase the levels of financial support made available to small and medium-sized companies to assist them in providing their employees with on-going education and training opportunities. However, French policy seems to have been more responsive than German policy to the demands of progressive stakeholders insofar as it has introduced a generalised employee right to lifelong learning.

The research also confirms the contention that policy in each country would respond to the concerns of conservative stakeholders that resist changes to existing institutions for skills provision. For example, higher education in both France and Germany has avoided conflict with the conservative policy stakeholders seeking to preserve the educational heritages of their respective countries by focusing on the uptake and usage of ICTs at universities and assigning secondary importance to promoting more vocationally-orientated computer-science courses. The French and German regulatory

frameworks governing the recruitment of ICT professionals from outside the EU have not been fully liberalised. In response to concerns in the business community regarding the financing of continuing workplace education, lifelong-learning programmes in Germany have been introduced largely within the parameters of experimental pilot projects, and there has been no attempt, unlike in France, to introduce a legally-enshrined employee right to lifelong learning.

### *11.3 Discussion of the results*

The research project has generated some interesting results, but what exactly do they mean? In essence, they mean that the French and German governments must apply a special effort if they want to create the business environments that support the production of ICTs. Indeed, the results show that, in the cases of France and Germany, endeavours to emulate the best institutional practices of other countries come up against three similar and interlinked problems.

First of all, political decision-makers on both sides of the Rhine face the common challenge that the optimum framework conditions associated with the successful production of ICTs are inherently complex and are influenced by a wide range of policy areas. In terms of financial institutions, the production of ICTs flourishes in market-based financial systems where financial markets play a dominant role in economic governance. Indeed, such financial systems provide companies with incentives to specialise in high-profitability, high-risk business areas; they increase the availability of venture capital, upon which in particular start-up ICT companies are largely dependent; and they are a key prerequisite for stock-option programmes, which in particular small and medium-sized ICT companies need for attracting and retaining (scarce) staff without having to drain their (scarce) liquid assets.

In terms of labour market institutions, ICT production thrives in countries where employers can easily recruit and dismiss employees and in countries where labour-market regulations provide high levels of working-time flexibility. Essentially, flexible hiring and firing mechanisms provide employers with incentives to develop entirely new product lines; the ability to easily recruit employees with the requisite expertise and subsequently replace them with new employees when their expertise becomes obsolete enables ICT companies to move quickly in and out of rapidly developing markets. High levels of working-time flexibility enable ICT firms to easily increase daily, weekly or annual working time arrangements to match the dynamic demand-conditions on the ICT market.

As regards institutions for skills provision, the production of ICTs, as a largely interdisciplinary activity, requires higher education institutions that support the cross-professional convergence of purely technical IT skills and non-technical competencies. The production of ICTs is also most likely to be successful in countries equipped with open and liberal immigration regimes, so that migrant workers can be used as a flexible labour reserve that compensates for the low occupational mobility of native-born populations. In addition, institutions for skills provision are said to best meet the requirements of ICT companies if they provide employees with solid opportunities for continually upgrading their skills so that they can equip themselves with the new skills and competencies required to keep pace with rapid technological change.

Second, in their attempts to create business environments that are more supportive of ICT companies, political decision-makers in both France and Germany have been

forced to depart from a similar starting point. In essence, both France and Germany face the common problem that their institutional framework conditions have, historically speaking, differed considerably from those considered most supportive of ICT production. For example, the financial systems of France and Germany have, from a historical perspective, developed along trajectories that differ quite considerably from the market-orientated financial system. France has been considered to possess a system of state-led capitalism in which the government historically played a prominent role in the financial system, adopting simultaneously the role of regulator, owner and interventionist. For its part, Germany has throughout the twentieth century been seen as a textbook case of a bank-based financial system, in which banks have been the dominant actors and where bank deposits and bank credit have traditionally represented the major types of financial assets and liabilities. A similar situation exists as regards labour market institutions. In essence, both France and Germany have long traditions of employment-protection. Indeed, successive governments in each country have been long concerned with protecting employees in what is considered to be an unequal relationship with employers. Over the years, a large body of legislation has been introduced aimed at redressing this balance and providing employees with a counterbalance to the stronger position of employers. In addition to this, employees on both sides of the Rhine still largely consider open-ended employment contracts as the norm. Furthermore, the French and the Germans have below average working hours compared to other industrialised nations. In the sphere of skills provision, too, France and Germany's institutions have, historically speaking, differed from what are today widely perceived as the best institutional practices. For example, both the French and German systems of higher education have traditionally attached greater importance to theory-based instruction than to practically-orientated education. In the case of

Germany, the university systems has traditionally encouraged students to take their time over their studies. In terms of immigration policy, there has been a recent tradition in both France and Germany of restricting and controlling immigration flows and a common reluctance to open up borders to economic migrants. In neither France nor Germany have there historically existed well-developed incentives or opportunities for employees working especially in small and medium-sized companies to participate in programmes of lifelong learning.

This research has focused mainly on a third problem, chiefly the difficulties experienced by political decision-makers in France and Germany in creating business environments that are favourable to ICT-manufacturing companies, and in particular on the impact of conservative-minded forces on efforts to create such business environments. On the one hand, the investigation has shown that, in both France and Germany, policy has been responsive to the concerns of progressive policy stakeholders, such that progress has been made in establishing the framework conditions that support the production of ICTs. In terms of financial institutions, for example, publicly-funded funds, such as the Public Fund for Venture Capital and the Mutual Fund for Risk Placement in France and the Private Equity for Small High-Technology Enterprises fund in Germany, have been created to boost the availability of venture capital. The governments of the two countries also approved the creation of new stock-market segments, chiefly the Nouveau Marché in France and the Neuer Markt in Germany, as exit channels for venture-capital companies seeking to liquidate their investments in ICT companies. In both countries, legislation has been introduced to promote the use of stock options as a remuneration tool. At a more general level, the governments of both France and Germany have sought to create the constituent components of well-functioning market-

based financial systems which are deemed essential to ICT production. For example, the successive privatisation programmes in France, the Finanzplatz Deutschland initiative in Germany and pension reforms in each country have attempted to increase the size of national stock markets and develop share ownership amongst French households. Regulations, such as the Law on New Economic Regulations and the Law on Financial Security in France, and the Company Transparency and Disclosure Law in Germany, have been introduced to increase the transparency of national corporate-governance mechanisms and thereby raise the confidence of domestic and foreign investors in the French and German stock markets.

Noticeable progress has also been made in establishing labour-market institutions that are more supportive of ICT productions. In France, for example, the Law On Wages, Working Time and Job Creation of 2003 and Raffarin's *Contrat France 2005* initiative relaxed regulations governing the implementation of the 35-hour working week. These measures can be seen as an attempt on the part of the French and German government to inject more flexibility into working-time arrangements enabling companies to better match dynamic demand conditions on the ICT markets. Political capital has also been invested in easing existing hiring and firing mechanisms, thereby enabling ICT companies to move more quickly in and out of rapidly developing markets. For example, the Villepin government introduced so-called 'new recruitment contracts'. In Germany, the Law on Part-time and Temporary Work of 2001 relaxed the regulations governing the use of fixed-term employment contracts; the Hartz reforms introduced between 2003 promoted amongst other things atypical forms of employment favoured, most notably temporary agency work. For its part, the Labour Market Reform Act of

January 2004 relaxed dismissal-protection legislation in a direction that matched the demands of progressive cultures.

Progress has equally been made in creating in France and Germany institutions for skills provision that better meet the requirements of ICT companies. By introducing *licences professionnelles* in 1999 and promoting as part of its Government Programme for the Information Society vocationally-orientated ICT degree courses, the French government has undertaken efforts to equip students with the combination of highly specialised technical competencies and transferable social skills required for the successful production and commercialisation of ICTs. Amendments to the Framework Act for Higher Education in 1998 and 2002, by introducing standardized study periods and Bachelor and Masters degree courses, have the potential to speed up the availability of IT graduates on the German job market. The Chevènement Law of 1998 and Nicolas Sarkozy's amendments to the Immigration and Asylum Code in 2006 in France and the IT Specialists Temporary Relief Programme launched in 2000 and the Immigration Act of 2005 in Germany sought to facilitate the recruitment by ICT companies of highly skilled professionals from overseas, thereby attempting to alleviate labour shortages on national job markets. In the sphere of skills policy, the French government created as part of the Law on Lifelong Learning and Social Dialogue of 2005 an individual right to lifelong learning and increased the levels of financial support available to small and medium sized companies; for its part, the German government introduced job-rotation programmes in 1998, the Lifelong Learning for Everyone action plan in 2000 and the Continuing Education Offered by Universities programme in 2001. Consequently, employees in ICT companies in France and Germany now have more opportunities to

equip themselves with the new skills and competencies required to keep pace with rapid technological change.

Notwithstanding this progress, however, the research has on the other hand shown that, in France and Germany, policies designed to create the type of business environment deemed most supportive of ICT production face opposition from conservative forces seeking to preserve and maintain historically-entrenched institutions. For example, attempts to create the market-orientated financial systems that are most supportive of the production of ICTs face opposition from trade unions, which have actively lobbied against privatisation, the introduction of stock options and privately managed pension funds based on stock-market incomes. They also face opposition from policy stakeholders in the wider French business community campaigning against the transparent and open systems of corporate governance that underpin well-functioning capital markets. A similar situation exists in Germany, where trade unions have adopted a cautious and sceptical attitude towards private pensions and stock options. Efforts to create financial systems that better meet the requirements of ICT companies have also come up against resistance from policy stakeholders in the wider business community and financial sector that have challenged the need to modify Germany's corporate governance and accounting standards.

Policy proposals aiming to establish the type of labour-market institutions that support ICT production are, in each country, similarly confronted by oppositional forces. In the case of France, trade unions have actively lobbied for the preservation of the tradition of permanent, open-ended employment contracts and for the maintenance of the historical trend towards shorter working hours; student associations have vehemently criticised

new types of flexible employment, and in particular the 'first recruitment contract' tabled during the spring of 2006; some sections of the French business community have questioned the logic in introducing more flexible forms of employment contract and actively called for the preservation of the permanent, open-ended employment contract (*contrat à durée indéterminée*). In Germany, policy proposals have encountered resistance from trade unions, which have called for the preservation and, in some cases, the consolidation of Germany's historically-entrenched labour-market institutions; unions have also lobbied against the generalisation of fixed-term employment contracts and campaigned for a further shortening of German working hours.

Efforts to establish in France and Germany institutions for skills provision that are more in tune with the requirements of successful ICT production have also come up against oppositional forces. In the case of France, business associations such as the Medef and the General Confederation of Small and Medium-Sized Enterprises have voiced concerns about liberalising the country's existing immigration regime. In addition, the General Confederation of Small and Medium-Sized Enterprises, together with the Craftwork Employers' Association, has opposed any profound changes to the financing of continued workplace training. For their part, trade unions representing the teaching profession have voiced opposition to the introduction of more vocationally-orientated courses at universities. Unions specifically representing the French ICT sector have lobbied against more immigration, which they see as a threat to the jobs of indigenous IT professionals. In Germany, the BDA and the DIHK have opposed changes to the regulations governing access to ongoing workplace training. Associations representing the interests of Germany's traditional industrial sectors, such as the *Verein Deutscher Ingenieure*, the *Verband der Elektrotechnik, Elektronik und Informationstechnik* and the

*Zentralverband Elektrotechnik- und Elektronikindustrie*, together with Association of German Institutions of Higher Education, the Consortium of German Institutes of Technology and the majority of Germany's professors' associations, have challenged the value of shorter degree courses and campaigned for the preservation of Germany's traditional *Diplom* qualification. For their part, German trade unions have raised concerns about modernising Germany's immigration regime.

Assuming that political decision-makers in France and Germany mediate between the competing demands of conservative and progressive policy stakeholders, and assuming that public policies are essentially a social compromise mirroring a balance of societal forces, the data collected and analysed here suggest that conservative policy stakeholders have had a noticeable impact on French and German attempts to create the type of institutional framework conditions that are perceived as most supportive of ICT-manufacturing industries. For example, as a result of conservative policy stakeholders, financial systems that provide optimum supportive for the production of ICTs have not fully taken root in France and Germany. In each country, the introduction of strict taxation regimes on stock options potentially undermines the acceptance of this particular remuneration tool amongst national workforces and denies ICT companies in both countries with an important device for attracting and retaining scare staff. In addition, private pensions remain underdeveloped in each country: as they have been introduced on a voluntary as opposed to mandatory basis, an opportunity has been missed to create a key component of well-functioning market-based financial system, notably a wider and more dispersed ownership of equity. With specific reference to France, most former state monopolies have been privatised only partially and gradually; in many cases, privatisations have been accompanied by attempts to establish stable

groups of investors, either by creating 'hard cores' of cross shareholdings or by promoting share ownership and retention amongst the employees of former state monopolies. This has established two constraints on the full development of a market-based financial system in France: chiefly, it has limited the potential size of the French stock market and concentrated share ownership in the hands of a limited number of individuals. With specific reference to Germany, conservative stakeholders have ensured that new corporate-governance legislation has been introduced on a primarily self-regulatory basis. This raises questions as to whether the German financial system meets the exacting requirements of in particular international investors, who seek guarantees of highly transparent governance structures before placing their investments.

Similarly, conservative policy stakeholders can be seen to have hindered the emergence in France and Germany of the labour-market institutions deemed most supportive of ICT production. The Social Modernisation Law and the decisions to shelve both the 'assignment contracts' and 'new recruitment contract' in France and the Law on Corrections in Social Security and the Safeguarding of Employee Rights, the Law on Part-time and Temporary Work of 2001 and the Works Constitution Act of 2001 in Germany included measures that potentially undermine the ability of ICT companies in each country to move quickly in and out of rapidly developing markets. Indeed, by maintaining and in some cases strengthening existing levels of employment-protection, these measures deny ICT companies the possibility to easily recruit employees with the requisite expertise and subsequently replace them with new employees when their expertise becomes obsolete. In the case of France, the Orientation and Incentive Law on the Reduction of Working Time of 1998 reduced the capacity of ICT companies to flexibly modify daily, weekly or annual working time arrangements to match the

dynamic demand-conditions on the ICT market. The existence of conservative forces means that reforms to the 35-hour working week are being introduced only gradually and timidly. In the case of Germany, the existence of conservative policy stakeholders means that no legislation has been passed to add further flexibility to national working-time regulations.

Policy stakeholders with conservative cultures can also be considered to have hampered in each country the type of institutions for skills provision that optimally support the production of ICTs. In both France and Germany, higher-education policy has focused on promoting the usage of ICTs at universities; considerably fewer efforts have been undertaken to increase the number of vocationally-orientated IT-related courses that equip students with the combination of highly specialised competences and transferable 'soft skills' demanded by ICT companies. In the case of France, attempts to reform immigration policy so as to make France more attractive to ICT professionals from outside the European Union have been slow to take off. Moreover, some of the changes introduced can also be considered to have erected a number of additional hurdles that skilled workers and their families must jump before obtaining a work permit. This potentially aggravates the ability of France to recruit on the highly competitive international labour market for ICT professionals the necessary staff to alleviate labour shortages. In addition, the Law on Lifelong Learning and Social Dialogue of 2005, by obligating employees to attend the majority of lifelong-learning programmes outside of their normal working hours, has potentially created disincentives for participating in lifelong-learning programmes. In the case of Germany, the decision to introduce the 'free shot' ruling and introduce Bachelors and Masters degrees as an alternative not substitute to Germany's existing university qualifications may do little to positively

affect the speed with which computer-science graduates from German universities become available to ICT companies on the job market. The IT Specialists Temporary Relief Programme and the Immigration Act of 2005, by imposing restrictions on the number of visas available, introducing stricter measures regarding the actual allocation of these visas and by introducing security checks on migrant workers coming from non-EU countries may deter ICT professionals from seeking employment in Germany. The experimental nature of many government initiatives in the sphere of lifelong learning hardly provides the solid basis required to encourage employees to participate in continuing workplace training and equip themselves with new skills and competencies required to keep pace with rapid technological change.

Given the progress that has already been made in France and Germany in creating the types of institutional frameworks deemed most supportive of ICT-producing companies, the existence of these conservative forces does not mean that the two countries cannot create the type of business environment that supports the production of ICTs. What is does mean, however, is that the emergence in these two countries of such a business environment is taking a considerable amount of time and requires an especially concerted effort. The problem here, though, is that, especially at the European and international level, debates surrounding new technologies tend to emphasise the imperative of rapid policy responses (European Commission, 1994, 1999, 2000, 2001, 2002a, 2003a, 2004a, 2004b: OECD, 1997a, 2000a, 2001a, 2001b, 2002a, 2004a). So if France and Germany are not to fall further behind their main international rivals in the digital economy, the German coalition partners and the next French President will have to find the necessary political courage to face up to conservative policy stakeholders and press ahead with existing reform efforts.

## *11.4 Contribution of the research*

The value of this research lies particularly in its empirical contribution to existing understandings of the production of ICTs in France and Germany, in its theoretical contribution to debates surrounding the relationship between culture and economic activity and in its specific comparative nature.

### 11.4.1 Empirical contributions

At the empirical level, the research has extended existing understandings of why France and Germany continue to lag behind their main international rivals in the development and production of ICTs. Building on existing knowledge that the general business environments of France and Germany have not optimally supported the production and innovation regimes typically associated with ICTs, the research has broken new ground by highlighting factors that are potentially constraining the ability of governments to create business conditions that are more favourable to the development and production of ICTs. In this regard, the study has focused primarily on the way in which culture has hampered the emergence in France and Germany of business environments that support ICT companies. To the author's knowledge, no other major piece of scholarly research has specifically addressed this issue.

At a broader empirical level, the research also contributes to the existing body of scholarly knowledge that addresses the issue of resistance to social and economic change in the French and German contexts. Indeed, it provides extensive evidence on how resistance to economic and social change in France and Germany has affected the development of one key industrial sector, chiefly the ICT sector. Moreover, by gathering empirical data on the policy preferences of a wide range of policy stakeholders, the investigation challenges the commonly-held view (as expounded, for

example, by Andolfatto, 2004: Andolfatto and Labbé, 2006: Albertin, 2004: Barroux, 2005: Bonnazza, 2005: Bonoli 1997 and 2000: Bourbon *et al*, 2005: Darnault, 1999: Henley, 2005: Houssen, 2005: Landier and Labbé, 2004: Mandin, and Palier, 2002: Prasad, 2005: Schmid and Steffen, 2003: Smith, 2004: Streeck and Trampusch, 2005: Wiesenthal, 2002) that it is largely trade-union organisations in France and Germany that seek to preserve and maintain existing institutional configurations. In this regard, the thesis provides evidence to suggest that other stakeholders, including the political representatives of French and German industry, have similarly attempted to preserve France and Germany's traditional institutional configurations.

Against this background, the research can also be seen to have contributed to existing empirical research into the political representation of business interests in France and Germany. Crucially, the research has illuminated potential divisions in the business communities of France and Germany. This confirms the findings of existing authors who have pointed to cleavages in business associations in France and Germany (see, for example, Weber, 1977: Wilson, 1987: Bunel, 1995: Triesch and Ockenfels, 1995: Reutter, 2000: Rehfeldt, 2001: Adam, 2002). However, whereas these writers have largely stressed the differences in opinion between small and large companies and illustrated how small and medium-sized companies have joined forces to counterbalance the perceived dominance of large companies, the research reported here has drawn attention to divisions based on the industrial sector within which companies operate. Indeed, the evidence presented here suggests that, in both France and Germany, a cultural gap is possibly opening up between companies operating in traditional manufacturing industries and firms active in emerging high-tech industries. In Germany, this cultural gap is evidenced, for example, in debates surrounding higher-

education reform. On the one hand, conservative business associations representing the interests of traditional industrial sectors have called for traditional degree courses to be maintained; on the other hand, progressive business associations representing the ICT sector have actively campaigned for new, shorter degree courses. In the case of France, cultural differences within the business community are evidenced, for instance, in the differing attitudes towards lifelong learning. Indeed, umbrella associations representing French business have, unlike business associations representing ICT companies, been concerned by the prospect of far-reaching reforms to existing regulations regarding access to continued workplace education and programmes of lifelong learning.

### 11.4.2 Theoretical contributions

At the theoretical level, the study critically appraised the arguments and theoretical underpinnings of three research frameworks that are commonly used for explaining the effects of culture on economic activity, and raised concerns about the appropriateness of applying each of these individual approaches to an investigation into the impact of culture on the production of ICTs in France and Germany. Concerns were first raised that the aggregate-personality traits framework would promote simplistic, highly generalised and stereotypical accounts of national cultures. Such an approach, it was argued, would overlook the cultural richness and diversity of France and Germany, and fail to consider the possibility that the French and German ICT sectors have their own distinctive cultural systems. Questions were also raised regarding the theoretical assumptions of the organisational-culture framework, and in particular its insistence that company managers have the power within themselves to create and nurture corporate cultures conducive to innovation. Crucially, concerns were raised regarding the overemphasis of this framework on human agency and its failure to consider the extent to which wider socio-cultural contexts exert exogenous influences on French and

German ICT companies. The suitability of the institutional-culture framework was equally challenged, in particular because it encourages researchers to consider the citizens of a country in terms of passive social actors who accept in an uncontested and unquestioning manner the institutional frameworks in which they are embedded. It was considered that such a framework would overlook the extent to which the political representatives of the French and German ICT sectors actively question, challenge and ultimately attempt to change the institutional frameworks within which they are embedded.

In response to these concerns, a theoretical framework was developed that selectively incorporated components from the organisation-culture and institutional-culture perspectives and combined these with theoretical insights gleaned from interest-group theory. Bringing together these theoretical components has avoided the theoretical weaknesses of existing research frameworks seeking to explain the effects of culture on economic activity whilst still attempting to harness their explanatory strengths. By integrating insights from the organisational culture approach, the research has identified a certain degree of cultural heterogeneity in France and Germany by showing that policy stakeholders in each country exhibit the broad characteristics of either a conservative or a progressive culture. As such, this investigation has refuted the contention made by supporters of the aggregate-personality trait framework that all citizens of a given country possess a broadly similar, homogeneous cultural system. By including theoretical premises from the institutional-culture approach, the research has shown that the production of ICTs in France and Germany takes place within a wider socio-economic context and accepted that this socio-economic context impacts on ICT companies as an external variable. That ICT production in the two countries has been

hampered by historically-entrenched financial systems, labour-market institutions and institutions for skills provision challenges the claims made by the advocates of the organisation-culture framework that company managers have the power within themselves to create and nurture company-specific cultures that foster the values necessary for improving innovation. By incorporating elements of interest-group theory, the research has avoided overstating the influence of this wider socio-economic context. Rather, it has demonstrated that the political representatives of French and German ICT companies actively question, challenge and ultimately attempt to change the business environments within which they operate. This finding calls into question the excessively holistic claims by supporters of the institutional-culture framework that institutional cultures directly shape the behaviour of largely passive and unquestioning social actors.

### 11.4.3 Comparative contributions

A further contribution of this research is its specific comparative policy analysis. Earlier academic work seeking to explain why France and Germany lag behind their international rivals in terms of the production of ICTs consists largely of single-country studies. Crucially, these existing volumes focus their attention either on France or on Germany and compare the production of ICTs in this country against the perceived best practices of other countries, most notably the United States. By contrast, this research has taken a broader comparative perspective. On the one hand, it has identified similarities in the business environments of France and Germany. Essentially, it has been shown that the two countries have both, from a historical perspective, lacked the highly-developed capital markets, flexible labour-market institutions and open, vocationally-orientated institutions for skills provision that are deemed supportive of ICT production. On the other hand, however, the research has illuminated the differences that exist between the business environments of France and Germany. In

this way, the research has, at a time when countries feel under pressure to emulate the best institutional practices of other industrialised nations and create business environments that are more supportive of the production of ICTs, compared and contrasted the cases of France and Germany to uncover differences and similarities in the ways that two countries with decidedly different economic regimes and traditions are adapting to the challenges of the ICT revolution.

## *11.5 Possible limitations of the research*

Mindful that researchers have a duty to reflect upon and acknowledge both the strengths and weaknesses of their research, it appears appropriate at this point to discuss the potential limitations of the research reported in this thesis and consider the ways in which the research might have been improved.

### 11.5.1 Benchmarking methodology

A first limitation relates to the benchmarking methodology deployed by the research. A particular feature of this research was its evaluation of the way the French and German business environments supports the production of ICTs in relation to best practices in other countries. This could be perceived as problematic insomuch as the research uses as its comparative yardstick the best institutional practices gleaned from largely Anglo-Saxon countries and evaluates the extent to which the French and German models stray from these best practices. Consequently, the research could be charged with overlooking problems regarding the production of ICTs that are specific to France and Germany. In response to this possible criticism, however, it is countered that the research did pick up on some distinguishing features of the production of ICTs in the French and German contexts. Indeed, by considering France and Germany's institutional arrangements to be historically grounded, and by illustrating the extent to which conservative forces

attempt to preserve these institutional configurations, the research has highlighted cultural issues that question the transferability of the perceived best practices to the French and German contexts.

### 11.5.2 Methods of data collection

A second potential limitation relates to the method chosen for collecting data on the policy preferences of the individual stakeholders. Recall that data underpinning the empirical investigation were gathered primarily from secondary sources, including the websites of French and German interest groups or from media interviews with the representatives of these groups. The relative strengths and weaknesses of using secondary sources of data are thoroughly discussed elsewhere (see, for example, Robson, 1993: King *et al*, 1994: Frankfort-Nachmias and Nachmias, 1996: Sarantakos, 1998: Singleton and Strait, 1999: May, 2001). It is therefore acknowledged that the decision to rely solely on secondary sources of data could potentially be criticised from a number of perspectives.

For example, the data underpinning this programme of research may be limited and partial in nature. Notwithstanding the large volume of articles consulted, it is questionable, for example, whether it was possible to read every single newspaper article dealing with the attitudes of different stakeholders in France and Germany to the three policy areas under investigation. Second, the interview data gathered for the purposes of this programme of research were reported by journalists whose objectives were likely to have differed from those pursued by the current research. Specifically, there is a risk that the interviews, as reported by the media, are imbued with the unstated biases and distortions introduced by journalists. Of particular note in this regard is the editorial control to which the interview data have been clearly subjected. Indeed, rather

than providing their entire interview transcriptions, the journalists choose to publish only selected extracts from their interviews. As such, information from the original interviews may have been discarded in favour of features of interest, and how the interviews are reported may heighten the problems associated with reductive data.

Notwithstanding these potential drawbacks, two key reasons justify the use of such secondary data sources. First of all, the media and websites represent rich sources of information on the preferences espoused by policy stakeholders. Indeed, lobby groups in France and Germany are now more than ever using the media and their websites to articulate their interests and form public opinion so that it is sympathetic with their causes. Researchers of interest groups in France, for example, have illustrated that groups are increasingly using aggressive media strategies to alert public opinion to specific issues and thus contribute to the political development of France (Guiliani, 1991: Lamarque, 1994: Safran, 1998: Lagneau-Ymonet, 2002: Stevens, 2003). In the same way, research into the German system of interest-group politics has shown that groups use public relations mechanisms to command the attention of specific target audiences and increase the visibility of their concerns (Sebaldt, 1997: Martell, 1999: Roberts, 2000: Conradt, 2001).

Second, the recourse to secondary data became a necessity as the programme of research developed. Indeed, it was originally planned to gather primary data directly from policy stakeholders by means of postal questionnaires or face-to-face interviews; these original plans, however, had to be re-considered following problems experienced attempting to persuade potential respondents within individual interest groups to participate in the research. Essentially, a number of business associations in both France

and Germany failed to respond to pre-survey letters inviting them to take part in the research project, and to follow-up letters reminding them of the research and emphasising the value of their participation. Upon reflection, the reticence of policy stakeholders to participate in the research is perhaps understandable. Indeed, researchers active in the field of French and German interest-group politics stress that, for both strategic and historical reasons, interest groups in these two countries are reluctant to impart information on their lobbying activities (Weber, 1977: Wilson, 1987: Bunel, 1995: Stevens, 2003). From a strategic viewpoint, interest groups in France and Germany are often unwilling to release into the public domain in-depth information on their lobbying activities for fear of weakening their positions vis-à-vis the government or rival associations. From a historical perspective, political lobbying does not enjoy the same legitimacy in France and Germany as it does in the United Kingdom and in particularly in the United States. In national environments characterised by wariness and scepticism towards lobbying, it would appear that interest groups are reluctant to draw unnecessary attention to their political activities.

### 11.5.3 Methods of data analysis

Two further possible limitations of the research relate to the analysis of the data. The first of these relates to the classification of the cultural systems of policy stakeholders into one of two diametrically opposed categories. Indeed, classifying the cultural systems of policy stakeholders as either conservative or progressive proved to be an arduous task, not least since the classification system did not anticipate that the policy statements issued by policy stakeholders could feasibly exhibit simultaneously the characteristic features of both conservative and progressive cultures. In addition, it could be argued that such a dichotomous taxonomy of cultural systems restricted the

research to a simplistic study of the extremes of black and white, overlooking the richness of cultural systems that exists in the shades of grey in between.

In answer to these possible charges, however, it could be counter-argued that the classification system provided a relatively straightforward means of investigating the multiple cultures in existence within the French and German political economies. Indeed, by categorising policy stakeholders as possessing either a conservative or progressive culture, it was possible to synthesise the large amounts of empirical evidence collected into a small number of easily understandable cultural characteristics. In addition, in presenting the results of the empirical investigation, care has been taken not to identify policy stakeholders as possessing an exclusively conservative or an exclusively progressive cultural system. Rather, attempts have been made to accommodate the richness of data gathered on the cultural systems of policy stakeholders by emphasising that the cultural system of one particular policy stakeholder can be considered to be *comparatively* conservative or progressive *in relation to* the other stakeholders that contribute to political debates.

A second potential limitation of the data analysis relates to the notion of policy responsiveness and the way in which governments react to the demands presented to them by individual stakeholders. On the basis of this study alone, it is difficult to assess in a conclusive way whether policy has responded as a direct result of political pressure from individual stakeholders. Indeed, it is also possible that other forces not anticipated by the research have affected the formulation of policy. In the area of financial reform, for instance, the exogenous forces of Europeanisation and globalisation might have weighed heavily on the contents of domestic policies. Indeed, the European

Commission has encouraged members of the EU, for example by issuing directives on insider trading and investment services, to adapt their national systems of corporate governance to internationally recognised standards (Lütz, 2000). In addition, the Commission has, as a cornerstone of its public-sector deregulation initiatives, encouraged member states to privatise many public sector companies (Cole, 1999: Cole and Drake, 2000: Trouille, 2004).

The wider forces of globalisation may also have exerted an external pressure on the formulation of financial policy. Indeed, over the past twenty years, the number of institutional investors, largely of American and British origin, has increased largely in France (Commissariat général du Plan and Deutsch-Französisches Institut, 2001: Maclean, 2001) and to a lesser extent also in Germany (OECD, 1997c: Streeck, 2001: Jackson, 2001: Lütz, 2000). Against this background, it could possibly be argued that general endeavours to upgrade the financial systems of France have been undertaken not because of pressures from internal policy stakeholders but rather because of pressure from these exogenous shareholders acting as 'Trojan horses' inside a fortress (Clift, 2004b).

Such exogenous forces, however, are likely to have had positive impacts on French and German efforts to create the institutional frameworks perceived as providing the optimum level of support for ICT companies: the only gradual emergence in France and Germany of business framework conditions deemed necessary for successful ICT production would still appear to be the result of indigenous policy stakeholders that adopt a cautious attitude towards institutional change

As a possible means of more closely analysing the responsiveness of policy, additional data could have been collected from political decision-makers themselves. Essentially, these could have been interrogated so as to determine whether certain policy measures did indeed incorporate certain provisions directly as a result of pressure from the stakeholders covered in the empirical investigation. However, as Wilson (1990) points out in this discussion on measuring the influence of interest groups, quite aside from the further issues associated with identifying and then negotiating access to interview these decision-makers, it is questionable whether, even if they knew the answer to the question, they would admit that the incorporation of certain elements in a specific policy measure was the direct result of pressure from a stakeholder.

### *11.6 Recommendations for future research*

This thesis does not consider itself to be an isolated piece of scholarly activity, but rather as one that exists along a continuum of research. In this regard, the thesis has already acknowledged the previous body of work upon which it is based. As a final reflection, however, it also looks to the future and indicates the directions that future avenues of research could possibly explore.

Alongside addressing some of the issues highlighted as possible limitations of the current investigation, future research could also focus on additional policy measures. Specifically, the theoretical framework developed for the purposes of this research could be applied to policy initiatives that have been more recently introduced in France and Germany. Recall that this research has focused specifically on policy developments up to early 2006. Future research could focus on the policy measures that have been introduced since this date. In the case of Germany, for example, the framework could be applied to the formulation of the *Hightech-Strategie für Deutschland* initiative.

Announced by the federal government in the autumn of 2006, this package of measures seeks to inject by 2009 over €15 billion into future-orientated industries and technologies to assist Germany in rejoining the world's group of leading of industrial nations.[92] Attention could also be focused on applying the framework to the planned *Informationsgesellschaft Deutschland 2010* programme, which at the time of writing is being elaborated by the federal economics minister Michael Glos[93]. Given the prospect of political change in France following the presidential and general elections planned for 2007, it would be interesting to investigate whether public policy will in future increasingly respond to the demands of progressive stakeholders, and in particular to stakeholders in the ICT sector. This appears a particularly fruitful line of enquiry, not least since the main contenders in the presidential race have stressed the need to modernise France (Royal, 2006: Sarkozy, 2006: Strauss-Kahn, 2006).[94]

Second, the theoretical framework underpinning this research could be applied to other policy areas that affect innovation in ICTs. Recall that this empirical investigation has drawn inspiration from Joseph Schumpeter's invention-innovation-diffusion trilogy (Schumpeter, 1980) and focused exclusively on the highly visible and highly politicised areas of financial policy, labour-market policy and skills policy, and how these policy areas affect the *production* of ICTs. Drawing on this trilogy, further research could be undertaken to apply the theoretical framework to the formulation of policies that impact on the *invention* and *diffusion* of ICTs. As regards the diffusion of these types of technology, future research could be conducted to investigate, for example, the extent to

[92] 'Regierung formuliert erstmals Hightech-Strategie' in *Die Welt*, 30 August 2006, available from http://www.welt.de/data/2006/08/30/1015469.html [Accessed 26 October 2006]

[93] 'Informationsgesellschaft Deutschland 2010', available from http://www.bmwi.de/BMWi/Navigation/Technologie-und-Innovation/informationsgesellschaft,did=6090.html [Accessed 12 October 2006]

[94] See also 'Where there's a will' in' The art of the impossible – A survey of France' in *The Economist*, 28 October 2006, p15

which the former state telecommunications monopolies of France and Germany have used their dominant positions to challenge ICT market reforms and preserve their historically-entrenched privileges. In the case of Germany, such an investigation could focus on the lobbying endeavours undertaken by Deutsche Telekom to maintain ownership of so-called 'local loop' infrastructures so as to restrict access by new-entrant Internet service providers to local telecommunication networks (Gower, 2006).[95] In the case of France, attention could be focused on the attempts by France Télécom to shape regulation principles governing telecommunications services so as to promote its own Internet service providers and block access to its telecommunications networks from third-party rivals (Dombey and Johnson, 2003: Francesso and Dombey, 2003).

With specific reference to the invention of ICTs, the framework could be used to analyse whether conservative cultures hinder the emergence of the framework conditions necessary for basic research into ICTs. Such an investigation would invariably focus on basic science policy in France and Germany. In the case of Germany, attention could be focused on investigating the formulation and implementation of IT Research 2006 (*IT-Forschung 2006*), a major funding programme for research into ICTs established by the Schröder government in 2002 (Bundesministerium für Bildung und Forschung, 2002). Given that one of this programme's stated objectives was to strengthen research links between universities and the German ICT industry, it would be interesting to investigate whether there exists in the German system of higher education conservative-minded actors who are attached to the tradition of pure, basic research and reluctant to collaborate with private industry to

[95] See, for example, 'EU nimmt Telekom-Grössen ins Visier' in *Financial Times Deutschland*, 3 December 2002, available from http://www.ftd.de/technik/it_telekommunikation/1038869504672.html [Accessed 26 April 2004] and 'EU takes action against Deutsche Telekom on local loop' in *European Tech Wire*, 3 August 2005, available from http://www.europeantechwire/etw/2005/08/eu_takes_action.html [Accessed 23 September 2005]

undertake research that is more applied and designed to develop specific ICT technologies to solve specific industrial problems. In France, attention could be focused on ascertaining whether conservative policy stakeholders have hampered the creation and functioning of the national agency for industrial innovation (*Agence de l'innovation industrielle – AII*) established by the French Financial Ministry in August 2005 to promote, within the context of private-public partnerships, research into highly innovative products and services (Trouille and Uterwedde, 2008)[96]. Of particular interest would be an investigation into the Quaero project of the AII. A Franco-German research project involving amongst others Thomson, France Télécom, Siemens, Thales, the French National Institute for Research in Computer Science and Control (*Institut national de la recherche en informatique et en automatique - INRIA*), the National Centre for Scientific Research (*Centre national de la recherche scientifique – CNRS*) and the University of Karlsruhe, this initiative aims to research and develop Internet search technologies to rival the Google search engine.[97]

In addition, the validity of theoretical framework elaborated for this particular investigation could be further tested by applying it to other emerging industries in France and Germany. Obvious candidates for additional investigation would include the biotechnology or nanotechnology sectors, which in common with the ICT sector, have attracted a considerable amount of scholarly and media attention over recent years, especially since Europe is perceived to lag behind other industrialised nations in these emerging technologies (Allansdottif *et al*, 2002: Arundel, 2003: European Commission, 2003b and 2003c). It may also be interesting to apply the framework to understand why France, unlike other European countries, does not possess any leading budget airlines

[96] See also '*Mission de l'AII*', available from http://www.aii.fr/srt/aii/flb/show?location.id:=1337 on [Accessed 23 April 2006]
[97] See, for example, 'Attack of the Eurogoogle' in *The Economist*, 11 March 2006, p10

comparable to EasyJet, Ryan Air or Air Berlin. Indeed, there is already anecdotal evidence to suggest that conservative forces have hindered the emergence of a business environment that supports the proliferation of non-frills airlines. For example, Air France has lobbied for, and in some instances successfully secured, the preservation of Public Service Obligation (PSO) agreements that have historically conferred it a monopoly position on certain routes within France[98].

Finally, the framework forming the basis of this research could be applied to other countries. On the one hand, it could be used to investigate whether the backwardness of other industrialised countries in the sphere of ICT production can also be explained by the existence of conservative policy stakeholders seeking to preserve historically-entrenched institutional configurations. Conversely, an inverted version of the framework could be used to conduct investigations into countries such as the United States and the Scandinavian nations, and in particular Finland, which appear to be at the forefront of the ICT revolution. In essence, the framework could be used to ascertain whether the leading positions of these countries in the production of ICTs can be attributed to the existence of a greater number of more powerful progressive policy stakeholders that favour the ushering in of new institutional configurations that match the business requirements of ICT companies.

[98] See 'Passengers lose out as easyJet blocked by Air France monopoly on Paris-Ajaccio route', available from http://www.easyjet.com/EN/News/easyjet_blocked_by_air_france_monopoly.html [Accessed 26 March 2006]

## SECTION VII – BIBLIOGRAPHY & REFERENCES

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## 13 Appendix

Tables 11-15 list the major policy stakeholders which, alongside business associations in the French and German ICT sectors, actively contributed to debates surrounding each of the individual policy areas covered by this study.

**Table 11: Policy stakeholders identified as contributing to debates on financial reform in France and Germany (compiled by author)**

| **France** | **Germany** |
|---|---|
| National-level employers' associations, including *Mouvement des Entreprises de France* (Medef), the *Association Française des Entreprises Privées* (AFEP), the *Association des Grandes Entreprises Françaises* (AGREF) | National-level employers' associations, including the *Bundesvereinigung der Deutschen Arbeitgeberverbände* (BDA), the *Bundesverband der Deutschen Industrie* (BDI) and the *Deutscher Industrie- und Handelskammertag* (DIHK) |
| Prominent business leaders and industrialists, including Jean-Marie Messier, Ernest-Antoine Seillière, Michel Drancourt, Yvon Gattaz and Claude Bébéar | Prominent business leaders and industrialists, including Paul Achleitner, Rolf Breuer, Gerhard Cromme, Heinrich von Pierer, Jürgen Schrempp, Ulrich Schumacher |
| Economic think tanks, including the *Institut Montaigne* and the *Institut de l'Entreprise* | Policy stakeholders in the German financial sector, including the *Bundesverband deutscher Banken* (BDB), the *Gesamtverband der Deutschen Versicherungswirtschaft* (GDV), Deutsche Bank, Dresdner Bank, Allianz and Munich Re |
| Trade-union associations, including most notably the *Confédération française des travailleurs chrétiens* (CFTC), *Bétor-Pub* and the *Confédération générale du Travail* (CGT), *Force Ouvrière* (FO) | Trade-union associations, specifically the *Deutscher Gewerkschaftsbund* (DGB) and IG Metall |

**Table 12: Policy stakeholders identified as contributing to debates on labour-market reform in France and Germany (compiled by author)**

| **France** | **Germany** |
|---|---|
| Mouvement des Entreprises de France (Medef) | National-level employers' associations, including the *Bundesverband der Deutschen Industrie* (BDI), the *Bundesvereinigung der Deutschen Arbeitgeberverbände* (BDA) and the *Deutscher Industrie- und Handelskammertag* (DIHK) |
| Sectoral business associations, including the *Association Française des Banques* (AFB), the *Union des industries métallurgiques et minières* (UIMM), the *Union des commerces de centre ville* (UCV), the *Syndicat national des fabricants de sucre (SNFS*) and the *Union des industries textiles* (UIT) | Sectoral business associations, including *Gesamt Metall*, the *Verband der Automobilindustrie* (VDA) and the *Zentralverband Elektrotechnik- und Elektronikindustrie* (ZVEI) |
| Think tanks, most specifically the *Institut de l'entreprise* | Trade-union associations, including the *Deutscher Gewerkschaftsbund* (DGB), *IG Metall*, the *Industriegewerkschaft Bergbau, Chemie, Energie* (IG BCE), *ver.di* and *connex-av* |
| Prominent business leaders and industrialists, including most notably Michel de Virville and Henri Proglio | |
| Trade-union associations, most notably the Confédération Générale du Travail (CGT), the Confédération française démocratique du travail (CFDT), Force Ouvrière (FO) and the *Fédération CGT des Sociétés d'Etude* | |
| Student associations, including UNI, *Liberté d'étudier*, *SOS Education, Halte au blocage,* the *Union nationale des étudiants de France (UNEF*), the *Union nationale des lycéens (UNL*) and the *Confédération étudiante* | |

**Table 13: Policy stakeholders identified as contributing to debates on higher-education reform in France and Germany (compiled by author)**

| **France** | **Germany** |
|---|---|
| *Mouvement des Entreprises de France* (Medef) | National-level employers' associations, including the *Bundesverband der Deutschen Industrie* (BDI), the *Bundesvereinigung der Deutschen Arbeitgeberverbände* (BDA) and the *Deutscher Industrie- und Handelskammertag* (DIHK) |
| *Chambre de Commerce et d'Industrie de Paris* (CCIP) | Sectoral business associations, specifically the *Verein Deutscher Ingenieure* (VDI), the *Verband der Elektrotechnik, Elektronik und Informationstechnik* (VDE) and the *Zentralverband Elektrotechnik- und Elektronikindustrie* (ZVEI) |
| Think tanks, most notably the *Institut de l'Entreprise* and the *Institut Montaigne* | Associations representing the political interests of the higher education system, including the *Hochschulrektorenkonferenz* (HRK), the *Centrum für Hochschulentwicklung* (CHE), the Wissenschaftsrat, the Consortium of German Institutes of Technology, the *Deutscher Hochschulverband,* the *Fakultätentag Informatik der Universitäten in der Bundesrepublik Deutschland*, the Fakultätentag für Elektrotechnik und Informationstechnik and the *Deutsches Studentenwerk* (DSW) |
| French teaching unions, most notably the *Fédération Syndicale Unitaire* (FSU) | |

**Table 14: Policy stakeholders identified as contributing to debates on immigration policy in France and Germany (compiled by author)**

| **France** | **Germany** |
|---|---|
| National-level employers' associations, including the *Mouvement des Entreprises de France* (Medef) and the *Confédération générale des petites et moyennes entreprises* (CGPME) | National-level employers' associations, including the *Bundesverband der Deutschen Industrie* (BDI), the *Bundesvereinigung der Deutschen Arbeitgeberverbände* (BDA) and the *Deutscher Industrie- und Handelskammertag* (DIHK) |
| Sectoral business associations, most notably the *Union des métiers et des industries de l'hôtellerie* (UMIH) and the *Fédération française du bâtiment* (FFB) | Civil groups, including the Protestant and Catholic churches, the *Flüchtlingsrat Bielefeld* and the *Rat für Migration* |
| Trade-union associations, including the *Confédération Générale du Travail* (CGT), the *Mouvement pour une union nationale des consultants en informatique (MUNCI)* and Bétor-Pub | *Deutscher Gewerkschaftsbund* (DGB) |
| | CDU/CSU union |

**Table 15: Policy stakeholders identified as contributing to debates on lifelong-learning policies in France and Germany (compiled by author)**

| **France** | **Germany** |
|---|---|
| Trade-union associations, including the *Confédération Générale du Travail* (CGT) and the *Confédération française démocratique du travail* (CFDT) | National-level employers' associations, most notably the Bundesvereinigung der Deutschen Arbeitgeberverbände (BDA) and the Deutscher Industrie- und Handelskammertag (DIHK) |
| National-level employers' associations, including the *Mouvement des Entreprises de France* (Medef) and the *Confédération générale des petites et moyennes entreprises (CGPME*) and the *Union professionnelle artisanale (UPA*) | Trade-union organisations, including the DGB, *IG Metall* and ver.di |
| | Academics at German universities, within the context of the *Expertenkommission Finanzierung Lebenslangen Lernens* |