

# European Trend Chart on Innovation

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## European Conference on Innovation and e-Business

26 –27 May 2005

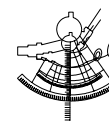
Charlemagne Conference Centre  
Rue de la Loi 170, Brussels

### ***Background Paper***

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**(Using input from the Trend Chart correspondents  
and Paul Cunningham (PREST - University of Manchester))**

*The contents of this paper have not been verified by the European Commission and do not necessarily  
express the position of the European Commission*



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### **Introduction**

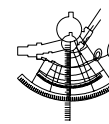
Companies' ability to innovate has long been linked to their ability to acquire and absorb knowledge. In the transition to a more knowledge-driven, technology-based economy, the link extends to the use of technology to help these processes<sup>1</sup>. Therefore businesses need to exploit the opportunities presented by Information and Communication Technologies and to understand the dynamic relationship between all business processes and technology. This in essence is e-business, a productive use of information and communication technologies (ICTs) to support both internal and external business processes. Therefore it can affect innovation within companies in two ways:

- Efficiency gains via process innovations (e.g. transforming business process through technology)
- The creation of new products or services (innovations)

E-business is a topic that has been widely discussed over the last decade as an important tool for companies embracing the information society. This issue was originally just perceived as e-commerce but this has quickly become absorbed by the term of e-business which depicts a more dynamic relationship between all business processes and technology. The coupling of innovation and e-business is seen in many policy initiatives at the European and the National level. With around 50% of the countries covered having an agency or Ministry that covers both e-business and innovation issues (although policies will still be found outside of these institutions). It is more likely that an innovation policy will address an e-business issue than an e-business policy purport to address an innovation issue. Also even when the responsibility for both types lies with one institution, it is not always the case that they are addressed within the same set of activities. For example in the UK, the DTI is responsible for both, but it has distinct innovation activities and its e-business activities are aligned with Information Society policies and SME policies. In Spain, the e-business initiatives are also aligned with SME policies and covered by the

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<sup>1</sup> Foray and Lundvall 1996



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Ministry responsible for Industry. The Ministry for Industry is however also responsible for some innovation activities, along with the Ministry for Education and Science. These are not precise divisions and the linkages between all the policies are difficult to ascertain.

The European Commission is committed to helping the Member States to take advantage of e-business and in 2002, the industry council conclusions (6 June 2002) invited Member States and the European Commission to *intensify dialogue, exchange regularly experience, identify specific goals for e-business and to share best practice.*

This paper provides a background document for the European Conference on e-Business and Innovation. It gives a short overview of the area that will be covered and sets out the context for discussions on the activities and policies that are already being developed in the area.

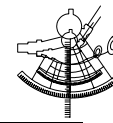
The objective of the conference is to look more closely at the relationship between innovation and the implementation of e-business tools and to discuss key success factors for e-business & innovation. The conference offers a platform to policy makers, industry representatives, and academics to discuss in greater depth and exchange experience on the linkages between the e-business and innovation. The more adapted policy instruments that are being used to affect change successfully will be challenged and recent policy developments to address these two concepts in parallel will be analysed.

### **Understanding the relationship between e-business and innovation**

E-business in the past has suffered from being looked at as an isolated phenomenon rather than an expression of the wider process of change which takes place within companies. Innovation<sup>2</sup> itself is a principal key to the prosperity of companies and the

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<sup>2</sup> Innovation is defined as a new or significantly improved product (good or service) introduced to the market or the introduction within an enterprise of a new or significantly improved process (CIS3 – Community Innovation Survey). Innovations are based on the results of new



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combination of innovation and technological developments like e-business can lead to new and improved products, processes and services that are vital to future competitiveness. Other<sup>3</sup> argue that the e-business and ICT has become a commodity good (or infrastructure technology) which is available to everyone and is not anymore a strategic device for companies to gain competitive advantage or improve innovation. On the other hand *how* companies actually use opportunities offered by e-business and ICT differs strongly and determines their innovative behaviour and economic advantage.

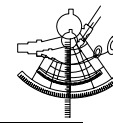
Linking the two concepts of innovation and e-business can be seen theoretically, but there is little explicit data showing the affect that the two concepts have upon each other. This may be due to the definition of the concepts, especially as e-business as a collection of tools is fast changing.

Below is a classic diagram which shows how innovation takes place within the marketplace with the **coupling** between the market, science and technology. E-business can be used at any point in the system as a tool for innovation, effecting process, product or management change (a commodity or a driver). This includes marketing and communication, supply chain management and newer areas of knowledge management and codification.

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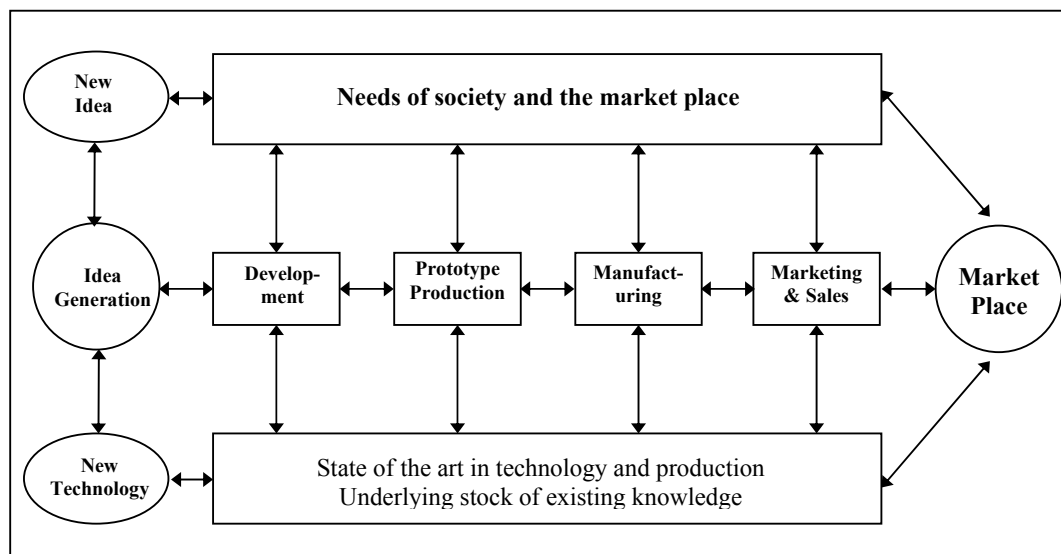
technological developments, new combinations of existing technology or the utilisation of other knowledge acquired by the enterprise.

<sup>3</sup> Nicholas Carr. 2003. IT doesn't matter. Harvard Business Review. May 2003.



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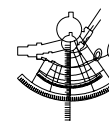
### Exhibit 1 Modern 'Coupling' Model of Innovation



**Source:** Mowery, D.C. and Rosenberg, N., 'The Influence of Market Demand upon Innovation: A Critical Review of Some Recent Empirical Studies', *Research Policy*, April 1978

Despite the potential benefits of ICT and e-business, at all stages in the business process, there is still an ongoing debate about whether and how their adoption improves firm performance and where e-business fits in? Based on the above diagram, depending on where you decide to invest in e-business, there will also need to be a complementary investment in skills, organization and innovation and change, all of which entail risks and costs as well as bringing potential benefits.

This is backed up by the work done on the OECD's Electronic Commerce Business Impacts Project (EBIP)<sup>4</sup>. This project studied a set of 220 early successful adopters of e-business strategies in a range of established sectors in eleven different countries. This study showed the positive impacts of e-commerce on their turnover and profitability and to a lesser extent on employment. Further work by researchers in 13 OECD countries based on large scale statistical surveys provides evidence that the use of ICT can contribute to improved firm performance, in terms of increased market share, expanded product range, customised products and better response to client demand. However, the analysis shows that complementary investments in skills, organisational change and innovation are key to making ICT work, and that the use of



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ICT affects firm performance primarily when accompanied by other changes and investments and that without these, the economic impact of ICT may be limited.

**To summarize:** The following issues will be explored and discussed during the conference:

- Is e-business a commodity or a driver of innovation
- Where is it within the innovation model that e-business can be successfully applied?
- What type of evidence is there that e-business has improved performance and innovation?

### **Public support policies in operation in Europe**

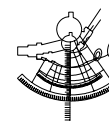
In order further investigate the policies that are already in evidence across Europe, a questionnaire was sent out to all of the Trend Chart Country correspondents in order to collect data. A distinction was made between six innovation policy fields relating to:

- A. R&D Funding
- B. Demonstration and test centres
- C. Technology Transfer, Partnership and Networking
- D. Provision of data, market analysis and supporting studies
- E. Demand side initiatives, and
- F. Incubators and innovation clusters

All these areas had the potential to contain e-business related policy priorities. For example, in R&D funding, we see the research themes relevant to e-business such as, in the German Thematic Research Programme for Information Technologies which covers 3 main programme lines: software systems, basic technologies for communication, and Internet technologies. In demonstration and test centres, we see examples of electronic platforms that have been set up to help SMEs test out their e-business needs. In technology transfer, partnership and networking, e-business can be

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<sup>4</sup> [http://www.oecd.org/department/0,2688,en\\_2649\\_33757\\_1\\_1\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/department/0,2688,en_2649_33757_1_1_1_1_1_1,00.html)

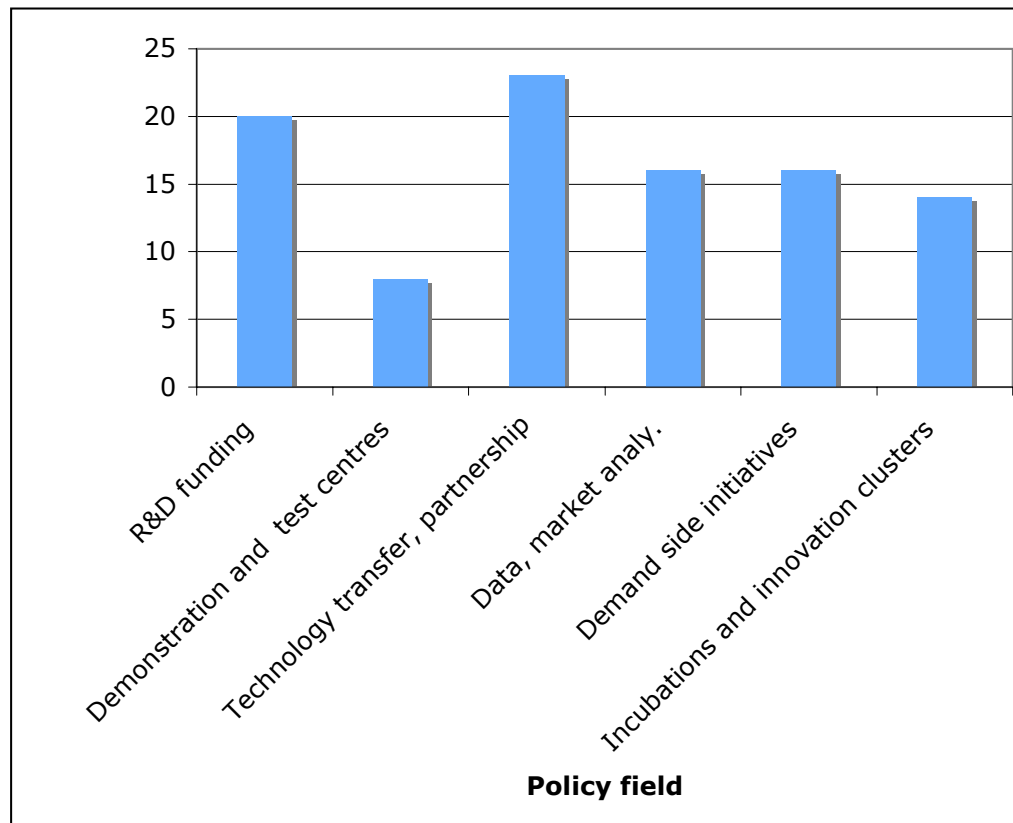


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seen as a tool to facilitate these processes as well as an innovation to be transferred, for example, the D21 initiative in Germany which involves over 400 representatives of enterprises, associations, parties, political institutions and other organizations. Oversees some 50 practical projects and covers Education, Qualification and Equality of Opportunity; eGovernment/ Security and Trust in the Internet; Information and Communications Technologies in Healthcare and Growth and Competitiveness.

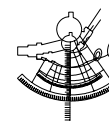
The following exhibit shows the distribution of policy instrument types across the Trend Chart countries.

**Exhibit 2**      **Distribution of policy instruments across the countries analysed (n=33)**



A breakdown of the results are provided in appendix 1.

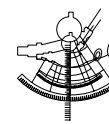
Across all countries, policy instruments associated with the field of technology transfer, partnerships and networking are the most frequently employed, followed by those addressing R&D Funding. The policy area of demonstration and test centres attracted the least policy attention. Some of the responses received in this exercise



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appear to have broadened the concept of e-business into far less specific areas such as research and development of ICT and the public uptake of ICTs, to name but two. Thus, broad policy initiatives into e-learning, e-governance, simplification of administration, boosting SME competences, sectoral infrastructural upgrading and the Information Society have also been included in the range of responses because many have an explicit or implicit connection with e-business issues. In fact it is interesting to note that e-business itself does not appear to be a clear policy area but is linked horizontally as a tool to many different policy areas. One of the major issues is that e-business is more commonly linked to wider Information Technology related policies rather than innovation policies. E-business has traditionally been part of the IT policy arena for a number of reasons. Information Technology has been both an important driver of change in many policy areas, as well as being categorised as a policy area itself. As a driver of change, it has affected policy areas as diverse as education, social, innovation and the environment. Innovation policy is not dissimilar to Information Technology policy. They both take an incremental approach to development as they adapt and change to incorporate new challenges created elsewhere in the economy and across industry sectors. Therefore subjects that evolve out of one of these policy areas can often cross over and become integrated elsewhere as the area matures. In the case of e-business we are seeing the positive effects that it has on the economy, and as this is documented, the linkages between innovation and e-business will become more apparent.

This is not a new problem, as defining the limits of any policy area has always been difficult. In this case, there are arguments for e-business being part of IT and innovation policy. In the broader sense, the acquisition and use of new ICT by companies, or the public sector, does not necessarily imply an automatic increase in the innovativeness of the acquirer, although it may affect them in some other area. However, the use of new ICTs and the attendant opportunities for new ways of 'doing business' by government agencies and departments, for example, may not be part of an explicit innovation policy although its application may be highly innovative and beneficial to the public sector 'customer base'. E-business is currently viewed in several ways, simply as a commodity, to improve speed, to connect to



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customers/suppliers, or as a facilitator of change in the whole business process. This point is emphasised by the several examples of additional policy fields in which e-business is perceived by the respondents to be linked to and is an interesting point of discussion for the workshop.

Furthermore, each country correspondent was asked to provide a maximum of three examples of policy instruments for the support of e-business and innovation. These country-specific examples are detailed below in Appendix 2.

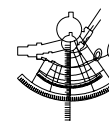
Several of the programmes put forward, as already mentioned cover more than one policy area in scope. Projects and funding for the support of feasibility studies are also well represented, possibly as a consequence of the ongoing experimental nature of e-business and e-commerce development. There are several examples of policies that link e-business and innovation and which are linked to innovation policy fields. Examples include the Irish “webworks”, the Swedish “SIBED”, the UK’s “ICT carrier programme”, the Hungarian “ITEM” and the Swiss “e-Academy”.

### **Webworks – Enterprise Ireland**

Webworks is an Enterprise Ireland regional development scheme. It aims to expand existing clusters of technology-based companies to achieve a critical mass in informatics, e-business, digital media or health sciences. This model gives preference to start-ups with research and development capabilities and a high potential for export sales. As part of the cluster building, it is providing flexible, highly wired office accommodation and management support.

### **The UK ICT Carrier programme**

The ICT Carrier programme is an example of an initiative aimed at transferring ICT into UK engineering industries and driving its uptake. This is a programme where the tool is ICTs but the objective is to “promote enterprise, innovation and increase productivity”. Particular emphasis is placed on the integration of e-business and e-manufacturing into engineering industries and their immediate supply chains. The programme is delivered through projects in the form of feasibility studies, full collaborative projects and scoping studies. The feasibility studies target trade associations to evaluate the current ICT position and opportunities/needs of the sector including options for adaptation & transfer of technology from other sectors. Full collaborative projects are aimed at adapting and transferring leading edge ICT into the recipient sector(s). The results must have strong



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potential to improve the industry's competitiveness and/or productivity. Scoping Studies are designed to take a view of the opportunities open to manufacturing through emerging and innovative ICT solutions in the next 3 - 5 years, with the main objective of improving productivity and innovative business solutions. Innovated themes have been identified that have the potential to have a significant impact on UK manufacturing.

Looking specifically into examples of best practice that involve SMEs, in 2002, DG Enterprise undertook a benchmarking of national e-business policies for SMEs. The policies put forward by the Member States had been developed in response to different challenges to meet the different needs of SMEs. One of the policies held up as an example of good practice was eASKEL from Finland. The eASKEL programme looked specifically at e-business as a tool within the context of improving the overall company strategy and therefore in the wider context of improving economic performance. This is one of the programmes that will be presented during the conference.

### eASKEL

Developed by the Ministry of Trade and Industry in order to enhance e-business all over Finland, the goal of eASKEL was to increase SME management competencies in strategic e-business development, realise profitable e-business opportunities, identify core development needs for e-business, and to produce a development plan for participating companies.

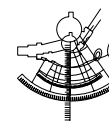
The programme was aimed at SMEs who:

- Seek to develop their business activities by using the Internet and new information technology solutions.
- Are developing or reassessing their business strategy.
- Seek new ways to enhance operational efficiency.
- Seek to strengthen relations with their clients or associates.
- Have a need to develop network-based operational models for their customers.
- Are expanding their international activities.

The instruments for delivering the programme consist of

- Access to a specialist to look at the development prospects of the business and to analyse the company's business activities and information solutions.
- Looking at practical methods for exploiting the benefits of e-business services available
- Drafting a development programme

On the subject of transferability, of particular interest to the EU context is the Bulgarian example of the "Promotor Plus" programme which represents the transfer of a "successful Spanish practice Promotor plus is a European initiative where there



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is a transfer of knowledge from ‘donating countries’ ready to share their experience with some of the new Member States in the area of SME start up. The idea comes from a Spanish programme set up to positively affect the economic growth of Castilla de la Mancha, by building a framework of conditions for establishment and development of new technology based start-ups. The possibility of transferring good practice is a key element of this conference.

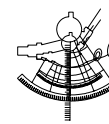
**To summarize:** The following issues will be explored and discussed during the conference:

- Where can policies and programmes be found that directly affect the e-business and innovative capabilities of firms and is this linked to specific policy fields (e.g. innovation policy)?
- How are SMEs actively involved in such programmes?
- Are the successful initiatives and instruments transferable to other Member States?

## **E-business and Innovation Governance**

There exists a major opportunity for Member States to learn from each other in the field of public support related to e-business and innovation. By looking at issues of Governance, this conference provides an opportunity for Member States to explore some of the existing mechanisms of governance and weigh up the pros and cons of pursuing, national, regional, local agendas and also public, private or public/private responsibilities for implementation. In this case we explore the concept of policy rather than the specific programmes that take place as a consequence of a political agenda.

The appendix 3 provides an overview of what types of governance and coordination exist across the Member States. The information received from the country correspondents as input to this conference reinforced the view that in many countries, several agencies and bodies are involved in both innovation policy and e-business policy. 16 out of the 28 countries replying indicated that the same organisation is in charge of both innovation and e-business at the national level, this equates to around 58% (although there is often more than one organisation looking at both of the



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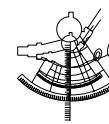
issues). If you look only at the original EU 15, this percentage goes up to around 73% having the same organisation in charge of both. However this does not imply that such policies are necessarily coordinated.

In the new Member States, there are more new Ministries or Councils in charge of Information and Communication Technologies or the Information Society, whereas, in the EU15, the Information Society is more likely to be subsumed into an existing Ministry or organisation responsible for innovation, R&D and industry. For example, Norway has a relatively centralised system with the main ministries involved being the Ministry of trade and industry and Ministry of education and research. As a result Norway has distinct policies for the two areas; eNorway, the governments Information Society policy plan and Innovation Norway covering its Innovation Policy. In Iceland, there are also two Ministries that cover these issues: the Ministry of education, science and culture and the Ministry of industry and commerce. The linkages between the two Ministries is that the Ministry for education, science and culture appoints a sub-committee on science and the Ministry for industry and commerce appoints a sub-committee on technology. There is an overlap of individuals across these bodies with the intention of promoting closer policy coordination.

Some other countries address innovation and e-business policies in parallel. For example, in the Netherlands the Ministry of Economic Affairs has responsibility for both policy types, but e-business issues are delegated to an external agency (Syntens) and other Ministries are also involved. This does not however ensure policy coordination and the linkage of innovation and e-business policies. The Interdepartmental Investigation Innovation Policy (2002) concluded that the portfolio of policy instruments for innovation of all Ministries was departmentalised and fragmented<sup>5</sup>. Co-ordination and collaboration between Ministries was one of the options that were recommended by this government report. As a response to the challenge of integrated governance the Interdepartmental Committee for Science,

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<sup>5</sup> Interdepartementaal Onderzoek Technologiebeleid (IBO) Samenwerken en stroomlijnen. Opties voor een effectief innovatiebeleid. Eindrapportage IBO technologiebeleid, 2002.



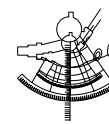
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Innovation and Informatics (CWTI) has been established. This is a co-ordination body that aims to prepare the overall policy strategies on science, research, (information) technology and innovation policy.

In Italy the Action Plan for ICT innovation in Enterprises launched in 2003 by the Ministry for Innovation and Technologies and the Ministry for Productive Activities covered both policy areas and was considered as a best practice example in the DG Enterprise study on "Benchmarking national and regional policies in support of the competitiveness of the ICT sector in the EU". This Action Plan was also not just limited to the concepts of ICT and innovation and explored other linkages and factors that determine the innovative potential of a business, including education and training, research and development, entrepreneurial thinking and cultural issues. They have also set up a consulting e-Business Committee with representatives of academia, business associations, financial institutions and trade unions. Based on the successes achieved with the 2003 Action Plan, a new policy framework has been launched for 2005: the II Action Plan for ICT Innovation in Enterprises. In order to understand the factors affecting businesses at the local level, the Action Plan is setting up a national committee for ICT innovation that gathers ministerial representatives as well as representatives of local governments.

Across all countries; the majority of policy coordination is still carried out at the national level, although it is clear that local/regional and national problems are being addressed through a number of means, including the development of umbrella organisations. There is the level of the delivery (i.e. by regional university or government) as well as the level of operation of the initiative (through regionally-based networks of stakeholders or communities of practice).

The permutations and combinations of governance when exploring two policy areas at the same time are many. By understanding the process that takes place at the Member State level, ideas for added value at the European level can be explored.

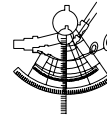


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**To summarize:** The linkage between the governance of innovation policy and e-business policy is being explored during the conference through the following questions

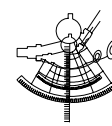
- What are emerging trends in governance of innovation and e-business policies
- How are e-business and innovation promoting policies related?
- How are local/regional and national problems being addressed and what articulation is given between the levels?
- What added value can be achieved at the European Union level?



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### Appendix 1 Presence of policy instruments for e-business support

Policy field	A. R&D funding	B. Demonstration & test centres	C. Tech. transfer., partnership, networking	D. Data, market anal., support studies	E. Demand side initiatives	F. Incubators & innovation clusters	Other
AT	Y	N	Y	Y	Y	Y	Fiscal, e-tourism
BE							
DE	Y	Y	Y	?	?	?	Legal
DK							
EL	Y	N	N	Y	Y	Y	N
ES	N	N	Y	N	N	N	Education & training
IE	Y	Y	Y	Y	Y	Y	Training, Innovation policy
FI							
FR	Y	Y	Y	Y	?	?	N
IT	Y	Y	Y	Y	Y	Y	Awareness raising
LU	N	N	N	N	N	Y	N
NL	Y	Y	Y	?	Y	?	Regional policy, Research policy
PT	Y	N	Y	N	Y	Y	?
SE	Y	Y	Y	Y	Y	Y	Regional, Defence, Administration, Educ./research
UK	Y	N	Y	?	?	?	N
EU15	10	5	10	6	7	7	7
CY	Y	N	Y	Y	Y	N	Industrial policy
CZ	N	N	Y	Y	N	Y	N
EE	N	N	N	N	N	N	N
HU	Y	Y	Y	Y	Y	Y	Info. Soc., Enterprise dev., Competitiveness
LT	Y	N	Y	Y	Y	Y	e-Business training
LV	N	N	Y	N	Y	N	N
MT	Y	N	Y	Y	N	Y	?
PO	N	N	N	N	Y	N	N
SK	Y	N	Y	N	N	N	N
SV	Y	Y	Y	Y	Y	N	N
NMS	6	2	8	6	6	4	4
BG	Y	N	Y	Y	Y	Y	
CH	Y	N	Y	Y	N	N	N
IL	N	N	N	N	N	Y	Enabling priorities
IS	N	?	N	N	Y	?	International trade
LI	N	N	N	N	N	N	N
NO	Y	?	Y	Y	?	?	?
RO	Y	Y	Y	Y	Y	Y	SME policy
TU	N	N	Y	N	N	N	SME policy
AS	4	1	5	4	3	3	3

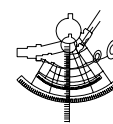


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### Appendix 2 Policy instrument examples in support of e-business and innovation

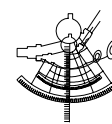
Name	Policy field <sup>6</sup>	Organisation responsible	Description
<b>Austria</b>			
<i>Digital economy/ICT</i>	A,C,D, E,F	Federal Ministry of Economics and Labour	An action programme addressing producer/developer enterprises of ICT/e-business applications and ICT/e-business using enterprises.
<i>Industrial competence centres</i>	A, C	Federal Ministry of Economics and Labour	Technology-neutral action to support installation of R&D institutions to promote cooperation between businesses and research institutions.
<i>Research Studios Austria</i>	A	Federal Ministry of Economics and Labour	Small research units addressing special fields of ICT with focus on rapid prototyping.
<b>Germany</b>			
<i>Thematic Research Programme "Information Technologies" (DE_69)</i>	A	German Space Centre – funded by BMBF and BMWA	Large multi-annual, collaborative programme. Current 3 main programme lines cover research themes relevant to E-business: software systems, basic technologies for communication, and Internet technologies. Closely interlinked with "Information Society Germany 2006"
<i>Mcert (see DE_31)</i>	B	On the public side, the BMWA and the Federal Ministry of the Interior participate	A neutral and producer-independent competence centre for IT. Goal is to provide reliable and easy to use practices related to Internet security and use of E-business in SMEs. It is a private public partnership headed by BITKOM, the association of IT companies. Offers are specially targeted towards SMEs.
<i>Initiative D21</i>	C	Public-private initiative funded from membership fees	Founded in 1999 to facilitate Germany's way into a knowledge society, with strong emphasis on rapid use on new ICTs, including E-business. Involves over 400 representatives of enterprises, associations, parties, political institutions and other organizations. Oversees some 50 practical projects and covers Education, Qualification and Equality of Opportunity; eGovernment/ Security and Trust in the Internet; Information and Communications Technologies in Healthcare and Growth and Competitiveness
<b>Greece</b>			
<i>Prekas Nikolaos</i>	A	General Secretariat for Research and Technology	"Coordinated programme" of R&D on e-business, implemented by consortia of universities, research centres and enterprises (latter minimum 50% of participation).
<i>"Dyktiotheite" (Go Digital)</i>	C, E	EOMMEX, GRNET	Supports the acquisition of computers and Internet linkage by SMEs
<i>Tzikas Anastasios</i>	F	Technopolis Thessalonikis	Development of a High Tech Business and innovation Park for ICT companies in the Central Macedonia area
<b>Spain</b>			
<i>ARTE/PYME II</i>	C	Ministry of Industry, Tourism and Trade	To encourage the use of new telecommunication technologies and e-commerce by SMEs. Finances projects for the adoption of new technologies and use of IT for marketing purposes.
<i>FORINTEL</i>	Educ./ Train.	Ministry of Industry, Tourism and Trade	Training of professionals in Telecommunications and IT.
<b>France</b>			
<i>PROGSI</i>	A	DGE	Encourages services and new usage on transversal subjects and general interest on the basis of new possibilities offered by new generation high speed networks.
<i>OPPIDIUM</i>	A	DGE	Support of new commercial security solutions adapted to the future legal framework relating to cryptology and electronic signatures, with priority to development of platforms aiming at the promotion of national security.
<i>Scoreboard on electronic commerce</i>	A	DGE	National indicators on electronic commerce.
<b>Ireland</b>			
<i>Informatics Research Initiative</i>	A	Enterprise Ireland	Support applied research projects of benefit to industry and the HE sector. Projects supported in areas of digital media, e-business and mobile/wireless.
<i>Webworks</i>	F	Enterprise Ireland	Established technology hubs to generate a critical mass of high potential start-ups in the regions. Webworks are office facilities that are highly "wired" flexible offices for companies. Also offer mentoring services.
<i>e-Business Solutions</i>	D	Enterprise Ireland	e-Business database of companies and e-library with case studies of good practice, self-tests, workbooks and formats. Reports on

<sup>6</sup> A: R&D Funding; B: Demonstration and test centres; C: Technology transfer, partnership, networking; D: Provision of data, market analysis, supporting studies; E: Demand side initiatives, F: Incubators and clusters.



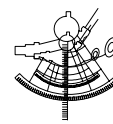
## European Trend Chart on Innovation

Name	Policy field <sup>6</sup>	Organisation responsible	Description
			broadband security, e-work etc. Provides workshops, seminars, national conferences, business advice and a special e-business unit.
<b>Italy</b>			
<i>e-Commerce Call</i>	A	Ministry of Productive Activities	3rd call for the presentation of projects oriented towards the development of e-commerce activities by Italian enterprises.
<i>Action Plan for ICT innovation in enterprises</i>	A	Ministry of Innovation & Technology/Ministry of Productive Activities	Aims to increase access to technologies by a large number of Italian firms, particularly SMEs, and to promote the establishment of innovative enterprises, including ICT companies.
<i>FAR (Funds to sustain Research)</i>	A	Ministry of Innovation & Technology/Ministry of Education and Research	Financing of projects aimed at increasing the use of digital technological innovations in firms, especially SMEs. Thematic areas: Innovative ICT platforms to develop new processes and technologies for industrial districts; Intelligent logistic systems for SMEs
<b>Luxembourg</b>			
<i>InfoCom Cluster</i>	F	Luxinnovation	ICT cluster which aims to foster cooperation and initiate specific projects in the telecoms sector, including e-business projects.
<b>Netherlands</b>			
<i>Electronic Commerce Platform- ECP.nl</i>	B	Ministry of Economics/Syntens	Advice and support for SMEs on e-business
<i>Regional initiatives:</i>	Regional	Syntens and others	E.g.: "Innovieren met ICT voor Noord-Nederland", "Elektronisch zakenden Flevoland", "InnovIT! Voor MKB Utrecht" – Initiative to provide advice and support to SMEs
<b>Portugal</b>			
<i>Digital SME programme</i>	C, E	GGPRIME	Integrated support mechanism for SMEs – creates a restricted set of Networks of Information and Technical Aid (RIAT) and a special phase in the SIPIE (Promotion of small business initiatives)
<i>Entrepreneurial Partnerships</i>	A, E	GGPRIME	Public and private partnership projects showing a strong multiplying or growth potential, such as e-commerce or digital economy.
<i>Digital Cities/Regions</i>	A, F	POS_Conhecimento	TIC Clusters/Incubators
<b>Sweden</b>			
<i>The 24/7 Agency</i>	B, C	Swedish Agency for the Public	Use of IT in the public sector – has established a 600+ person network related to ICT-usage ( <a href="http://www.24-timmarsmyndigheten.se">www.24-timmarsmyndigheten.se</a> )
<i>SIBED</i>	A, B, C	VINNOVA	Sweden/Israel collaboration to support development of telecom technologies and applications using testbed facilities. ( <a href="http://www.sibed.org">www.sibed.org</a> )
<i>ICT-based home healthcare</i>	A, B, E	VINNOVA, KK-Foundation, Carelink	Brings together researchers, businesses and policy makers in the field of IT-based home healthcare.
<b>United Kingdom</b>			
<i>LINK Programme</i>	A	Department of Trade and Industry	Covers areas of "E-Science GRID Technologies" and "People at the Centre of Communications & Information Technology".
<i>Star</i>	C	Databank Consulting (Italy)	EU initiative- aims at further research and dissemination in e-commerce looking at claim that fundamentally new business models are emerging due to growing use of Internet for B2B and business to customer transactions.
<i>.ICT Carrier</i>	A	Department of Trade and Industry	Funding for feasibility and collaborative projects that aim to provide low-cost solutions to ICT-related challenges faced by industry.
<b>Cyprus</b>			
<i>Research for enterprise actions</i>	A, C, E	Research Promotion Foundation	Aims to stimulate research interest in Cyprus business and to provide incentives for cooperation between enterprises and research centres. Supports R&D activities aiming at exploitation of ICTs in primary, secondary and tertiary sectors of the economy.
<i>Subsidies for studies and specialised software development</i>	D, C	Cyprus Institute of Technology	Supports SMEs' market expansion and establishment of new infrastructure for exploitation of ICT. Supports market research.
<i>Thematic Actions</i>	A, C	Research Promotion Foundation	Supports research by local research institutes and promotes collaboration between local/foreign research institutes and academia and industry. Areas = Technology; Information Society; Sustainability; Society; Economy; Health.
<b>Czech Republic</b>			
<i>INNOVATION</i>	C	Ministry of Industry and Trade	Helps introduce innovation including non-technological into industrial companies
<i>CLUSTERS</i>	F	Ministry of Industry and Trade	Helps develop clusters through provision of state aid – money includes helping members in the rational use of ICT
<b>Hungary</b>			
<i>ITEM</i>	A	Min. of Informatics and Communications & National Office for Research and	Aims: supports development and diffusion of innovative IS technologies and digital applications; modernisation of physical infrastructure of R&D units; adaptation and adoption of foreign R&D results; participation in eEurope and eEurope Plus projects.



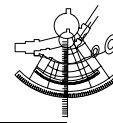
## European Trend Chart on Innovation

Name	Policy field <sup>6</sup>	Organisation responsible	Description
		Technology.	
<i>Promotion of Integrated Business Systems</i>	E	Ministry of Economy and Transport/Ministry of Informatics and Communications	Main aims: introduction of integrated business systems; business intelligence systems; business process control and electronic document management systems. Covers introduction of new systems, updating and extension, related analyses, planning, training, quality assurance.
<i>Application oriented cooperative RTD activity (HU_01)</i>	A, C	National Office for Research and Technology & Min. of Economy and Transport	Main aim: fostering the development of new products, services and processes in infocom technologies (among other fields) through cooperative RTD projects.
<b>Lithuania</b>			
<i>PHARE 2002 ESS Programme/Development of Production Sector</i>	A	Lithuanian Business Support Agency	Direct financial support for development and implementation of e-business systems in enterprises.
<i>Kaunas Regional Business Incubator</i>	F	Lithuanian Ministry of Economy	Establishment of structures to support IT and IT business and e-business development
<i>Kaunas e-Region Information Society Partnership programme</i>	regional	Kaunas County Governors' Administration	Development of Kaunas e-Region feasibility study and Information Society partnership programme. Promotion of e-business development.
<b>Latvia</b>			
<i>State Support Programme (LV_69)</i>	E	Latvian Investment and Development Agency	Sub-programme of the "Support to modernisation of the Business Infrastructure" programme. Includes targeted funding of telecommunications systems for businesses.
<i>Information Systems cluster</i>	C	Ministry of Economics	Facilitated through the Industrial Cluster restructuring project – brings together expert-oriented IT companies and related bodies.
<b>Malta</b>			
<i>National RTDI Programme</i>	A	Malta Council for Science and Technology	Aims at promoting research and innovation via research grants to academia and SMEs. In particular provides funding for SME collaborative research in any area including ICT and e-business.
<i>Innovation Relay Centre Network</i>	C	Innovation Relay Centre	Provides local SMEs with technology transfer, partnering and networking support. ICT is one of targeted areas.
<i>Kordin Business Incubation Centre Malta</i>	F	Malta Enterprise	Business development programme to assist start-ups. ICT is a key targeted area.
<b>Poland</b>			
<i>SME advisory service</i>	E	Ministry of Economy	Facilitates access of SMEs to specialised advisory services. Grants subsidies to cover part of costs from specialist advisory bodies.
<i>SMEs investment support</i>	E	Ministry of Economy	Provides support to SME investment projects, including application and use of e-economy technologies and ICT in enterprise management processes.
<b>Slovakia</b>			
<i>Strategy for Information Society &amp; Action Plan for the Information Society</i>	C	Ministry of Transport, Post and Telecommunications	Include 6 priority development areas including: e-business, e-government and IT-infrastructure
<i>Business and Innovation Centre (BIC)</i>	C	?	Promotion of business and innovation consulting, e-business, transnational technology transfer and support under the Sixth Framework programme
<b>Slovenia</b>			
<i>e-SLOG</i>	E	Chamber of Industry and Trade	Promotion of e-business as an innovative business policy via network of 70+ project member companies. Now covers e-business strategy, legal and administrative issues, security, open software development, etc.
<i>e-commerce Centre</i>	B	Faculty of Organisational Science, University of Maribor	Information on innovation and collaboration including e-business perspectives.
<i>ICT Technology Network</i>	C	University of Ljubljana	Network of over 40 key companies with interest in ICT – including priority projects in development of ICT innovative environment and e-business.
<b>Bulgaria</b>			
<i>National Innovation Fund</i>	A	SME Promotion Agency	Subsidises innovative projects in SMEs.
<i>Innovation Database</i>	D	National Centre for Information and Documentation	Contains information on latest ready to transfer innovative products available in a given field.
<i>Promotor Plus</i>	E	Sofia University "St Kliment Ohridski"	Transfers successful Spanish practices in gearing research and innovation through: identifying entrepreneurs, training, financing and incubation.
<b>Switzerland</b>			
<i>Enabling Technologies</i>	C	Innovation promotion	Aims to strengthen and focus ICT (incl. software) capabilities and to



## European Trend Chart on Innovation

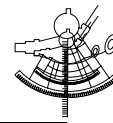
Name	Policy field <sup>6</sup>	Organisation responsible	Description
<i>(Soft[net], ICT)</i>		Agency (KTI)	help build national software industry and raise qualification of IT specialists. Joint industry/science projects.
<i>ICT-Net</i>	C	Univ. of Applied Sci. for Technics and Architecture, Freiburg	Promotes cooperation between the University and businesses in ICT area. Network comprises 26 academic partners and 11 business partners.
<i>E-cademy</i>	C	University of Applied Science, Basel	Network of excellence for e-business and e-government, which brings together partners from business, government and education and elaborates special focus topics (e.g. B2B-e-commerce, CAD, e-fulfilment, e-procurement, etc.).
<b>Israel</b>			
<i>Digital signature law</i>	Legal	Ministry of Justice	Law permitting the use of digital signatures
<i>e-government</i>	A	Ministry of Finance	"Shoham" Israeli Government e-payment system
<i>New generation foreign Trade system</i>	A	Ministry of Finance	?
<b>Iceland</b>			
<i>e-Business</i>	International trade	Trade Council of Iceland/Euro Info Office	Specialist services in the fields of export and marketing to Icelandic and assistance for overseas companies in contacting Icelandic firms. Information includes details of electronic business exchanges and legal framework for e-business.
<i>Icepro</i>	C	Icelandic Committee on Trade Procedures and e-Commerce	Forum of official bodies, businesses and individuals working on facilitating commerce and trade procedures, using EDI, ebXML and other means of Electronic Commerce. Members cover whole spectrum of economy.
<b>Norway</b>			
<i>BIT programme (e-business)</i>	A, C	Innovation Norway	Objective is to increase value creation in SMEs through efficient use of ICT and e-business. Supports firms' projects aimed at development and diffusion of e-business solutions. Includes R&D, innovation, competence building, networking, internationalisation and results dissemination.
<i>ICT programme</i>	A, C	Research Council of Norway	Stimulates high-risk R&D in cooperation with leading technology developers and innovation-oriented users. Projects are: User-initiated innovation projects and competence projects with user participation.
<i>SME development, Internet and e-commerce</i>	A, D	Innovation Norway	Assists individual SMEs in mapping their possibilities for making use of the Internet and e-business. Supports development projects.
<b>Romania</b>			
<i>National Plan for RDI</i>	A	Ministry of Education and Research	Provides funding for projects, including those addressing e-business as a component of the technical modernisation and re-launch of traditional sectors or development of high-tech fields.
<i>National Plan for RDI</i>	C	Ministry of Education and Research	Supports e-business projects related to technology transfer, partnerships and networking.
<i>National Programme INFRATECH</i>	F	Ministry of Education and Research	Development of Innovation and Technological Transfer Infrastructure: supports e-business projects that contribute to development of innovation and technology transfer entities.
<b>Turkey</b>			
<i>Information networks and e-business support scheme (TR_24)</i>	C + finance	KOSGEB (Small and Medium Industry Development Organisation)	Awareness raising among SMEs on e-commerce and e-business. Programme develops culture of e-business among SMEs. Subsidises establishment of e-commerce infrastructure and procurement of consultancy and promotion.



## European Trend Chart on Innovation

### Appendix 3 Governance and coordination of e-business and innovation policy

	Organisation(s) in charge of linking innovation and e-business policy (N=national, R=regional, L=local level, O=other)	Organisation(s) in charge of e-business same as those in charge of innovation?	Policies addressing e-business and innovation in parallel
AT	Federal Ministry of Economics & Labour (N) Federal Min. of Transport, Innovation & Technology (N) Chamber of Commerce (O)	same	None
BE			
DE	BMBF (N) BMW (N)	same	Yes: e.g. Info Tech Research programme
DK			
EL	Managing Authority of the Operational Programme for the Information Society (N) General Secretariat for Research and Technology (N) EOMMEX (N)	not same	Yes: e.g. support to incubator facilities
ES	Ministry of Industry, Tourism and Trade (N)	not same	Yes: e.g. ARCO/PYME II
FI			
FR	DGE (N) ANVAR (O)	same	None
IE	Department of Enterprise, Trade and Employment (N) Forfas (State policy body) (O) Enterprise Ireland (State Development body) (N)	same	Yes: e.g. e-Business Solutions
IT	Ministry of Innovation and Technology (N) Ministry of Productive Activities (N) Ministry of Education, Universities and Research (N) Institute for Industrial Promotion (N)	same	Yes: e.g. Action Plan for ICT innovation in Enterprises
LU	Ministry of Economy and Foreign Trade (N)	same	None
NL	SYNTENS (N) Ministry of Economic Affairs (N) SenterNovem (N) Media Plaza (N)	same but e-business delegated to SYNTENS	Yes:
PT	PRIME Managing Bureau (N) POS C Managing Bureau (N) UMIC (Public Electronic Purchasing) (N) ACEP – Portuguese Association for Electronic Commerce (O)	same	Yes: e.g. Digital SME programme; TIC Clusters Incubators
SE	VINNOVA (N) Swedish Institute for Growth Policy Studies (N) Invest in Sweden Agency (N) Swedish National Post and Telecom Agency (N)	same	Yes: many examples, especially between IT and innovation policy.
UK	BLOC – Creative Technology Agency of Wales (R) Business Links (L) Department of Trade and Industry (N)	same (depends on level)	Yes: see examples in previous table.
CY	Research Foundation Promotion (N) Cyprus Institute of Technology (N)	same	Yes: e.g. New Industrial Policy
CZ	Council for Research and Development (N) Ministry of Industry and Trade (N)	same	Yes: e.g. National Innovation Policy
HU	Ministry of Economy and Transport (N) Ministry of Informatics and Communications (N) National Office for Research and Technology (N)	not same	Yes: e.g. Hungarian Information Society Strategy
LT	Ministry of Economy (N)	not same	Yes: e.g. Innovation in business programme
LV	Ministry of Economics (N) National Council of Information Society (N)	not same	None
MT	Ministry for Investment, Industry and Information Technology (N) Malta Council for Science and Technology (N) Malta Enterprise (N) University of Malta (N)	not same	Yes: e.g. National eBusiness Strategy
PO	Ministry of Economy (N) Marshals' Offices (R)	same	None
SK	Ministry of Transport, Post and Telecommunication (N) Ministry of Economy (N) VUC (R)	not same	None
SV	Ministry of Information Society (N) [now closed]	not same	None



## European Trend Chart on Innovation

	Organisation(s) in charge of linking innovation and e-business policy (N=national, R=regional, L=local level, O=other)	Organisation(s) in charge of e-business same as those in charge of innovation?	Policies addressing e-business and innovation in parallel
BG	Ministry of Economy (N) Ministry of Transport and Communication (N) Bulgarian SMEs Promotion Agency (N) ICT Development Agency	not same	None
CH	KTI (Innovation Promotion Agency) (N)	same	Yes: see previous table examples
IS	Ministry of Education, Science and Culture (N) RANNIS (N)	not same	None
NO	Ministry of Modernisation (N) Ministry of Trade and Industry (N)	same	Yes: eNorge (Govt's plan for ICT policies)
RO	Ministry of Research and Technology (N) National Network of ITT entities (O) National Agency of SMEs and Cooperation (N) Chambers of Trade and Industry (O)	not same	Yes: e.g. Action Plan for Implementation of Industrial Policy, Governmental Strategy for Sustaining the Development of SMEs.
TU	TUBITAK (Scientific and Technical Research Council of Turkey) (N) KOSGEB (N)	same	Yes: S&T policy of Turkey includes innovation policy and policy items for -commerce uptake among enterprises