



## *Multi-stakeholder partnerships for e-skills in Europe*

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*>> Initiatives for widening and deepening of e-skills within the EU through involvement of actors from government, industry, social partners and academia in multi-stakeholder dialogue and partnerships for action >>*

 Skills Policy



European Commission



## >> *Background*

### *Benchmarking e-skills Policies on Multi-Stakeholder Partnerships in Europe*

The study was launched by the European Commission's DG Enterprise and Industry. It has carried out a stock-taking of multi-stakeholder partnerships for e-skills using a network of national correspondents from all EU27 Member States as well as Croatia, Iceland, Norway and Turkey.

The main objectives were to benchmark policies and initiatives in Europe on multi-stakeholder partnerships in the field of e-skills and to recommend appropriate legal, financial and institutional frameworks for the development of scalable and sustainable multi-stakeholder partnerships. The study has resulted in more than ten good practice case studies and recommendations for policy action.

Results were released in December 2007.

This brochure presents findings and conclusions from the study activities. A more comprehensive report and further resources (best practice descriptions) are available in electronic format at:

[www.eskillspolicy-europe.org](http://www.eskillspolicy-europe.org)

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#### **Imprint**

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## >> Foreword

*E-skills multi-stakeholder partnerships are key for Europe*

Europe needs to ensure that the knowledge, skills, competences and creativity of the European workforce – including its IT practitioners – meet the highest global standard and are constantly updated in a process of effective lifelong learning.

In its Communication “e-Skills for the 21st Century: Fostering Competitiveness, Growth and Jobs” (September 2007), the European Commission made clear that e-skills are central in formulating policy designed to ensure that Europe can boost the productivity and employability of its workforce and respond to global competitive challenges.

The Communication conveys three key messages:

- >> It is essential for the European Union and all Member States to adopt a long-term and consistent e-skills agenda.
- >> Co-operation between the public and private sectors must be improved in order to make an effective link between basic e-skills training, higher education and professional development.
- >> Industry and policy makers must act more decisively and consistently regarding their strategies to promote the attractiveness of ICT education, jobs and careers.



This means that the way towards widening and deepening e-skills within the EU is through involvement of all actors from government, industry, social partners and academia in multi-stakeholder dialogue and partnerships for action.

This benchmarking study of multi-stakeholder partnerships for e-skills in Europe provides the first comprehensive overview of the topic, with detailed information and case-study evidence on existing schemes and developments. It also brings higher levels of transparency to the IT practitioner training and certification market, and the recommendations provide useful inspiration for policy makers, industry, social partners and other stakeholders.

Jean-Noel Durvy

Director, Innovation Policy  
Enterprise and Industry Directorate-General  
European Commission



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**Multi-stakeholder partners**

## >> **Introduction**

Multi-stakeholder partnerships for e-skills are important elements in the long-term EU strategy to promote competitiveness, employability and workforce development, and to put Europe in a better position to respond to global competitive pressures. But e-skills development in Europe has been, and remains, complex.

Against this background, empirica was selected in an open call launched by DG Enterprise and Industry of the European Commission to carry out a stock-taking exercise and to identify, analyse, describe and evaluate multi-stakeholder partnerships for e-skills in 31 European countries, with the aim of identifying good practices.

This study provides some clarity to support progress in this field. It makes several recommendations about the next steps to different target groups. These include templates of national institutional structures for e-skills, so that promising schemes do not cease to exist after only a few years of operation. They include much needed suitable and sustainable governance and business models for national institutions acting as a gateway to e-skills development and certification, supporting the implementation of a co-ordinated long-term and consistent e-skills agenda. Other recommendations relate to an e-skills information exchange and observatory mechanism for continuous monitoring of demand and supply of e-skills provision in Europe, better structuring and pooling of resources to share knowledge and good practices, and continued awareness-raising activities.



The development of some necessary support tools is already underway - such as a European e-Competence Framework, in line with the proposal for a European Qualification Framework (EQF), or a European e-Skills and Career Portal.

With these prerequisites in place the European Union and its Member States are likely to become successful and develop a workforce with a sound command of e-skills which will be a major asset for European firms in the global economy of today.

**Werner B. Korte**  
Benchmarking Study Manager  
Director, empirica GmbH

## >> Industry demands

*Ambitious policy initiatives to provide the necessary framework conditions for increasing e-skills provision*

Broad agreement exists that e-skills are central aspects of any policy to ensure that Europe can boost the productivity and the employability of its workforce and can respond to global competitive challenges. Europe needs to ensure that the knowledge, skills, competences and inventiveness of the European workforce – including but not limited to its IT practitioners – meet the highest global standards, and that they are constantly updated in a process of effective lifelong learning. This means that “the way forward towards the widening and deepening of e-skills within the EU is through involvement of all actors from government, industry, social partners and academia in multi-stakeholder dialogue and partnerships for action” (Declaration of the European e-Skills Conference 2006).

This consensus on the importance of e-skills in Europe is in line with the work of the European e-Skills Forum and the November 2006 report of the ICT Task Force, the European Commission’s September 2007 Communication on “e-Skills for the 21st Century: Fostering Competitiveness, Growth and Jobs”, and the November 2007 Competitiveness Council Conclusions on “A Long-Term Strategy for e-Skills”.

### **Multi-stakeholder partnerships for e-skills are commonplace in Europe**

The multi-stakeholder partnerships for e-skills now developing in Europe take different forms. Most aim to help citizens develop their digital literacy, i.e. basic IT skills. However, initiatives for further development and certification of IT practitioner skills (e-skills) exist in all European countries.

### **Many different types of multi-stakeholder partnerships for e-skills in Europe**

Multi-stakeholder partnerships for e-skills in Europe can be distinguished according to their target groups and the e-skills to be provided and/or developed. They include partnerships addressed to:

>> Citizens, for digital literacy improvement to increase their employability;

>> Public education systems (universities, high schools, colleges and vocational schools), through vendor-based e-skills training and certification activities; these range from awareness and promotion activities or initiatives to make these offers an integral part of the study programme, to partnerships providing training courses and certification opportunities;

>> IT practitioners; these include well-known and widely-recognised vendor-based schemes, as well as partnerships developed by different groups of actors with the aim of establishing vendor-independent e-skills schemes.

### **Vendor-independent versus vendor-based e-skills and certification schemes**

Vendor-independent e-skills development and certification schemes have been developed over the past decade in several countries. However, there are huge differences across Europe, with clear front-runner countries where a longer tradition of multi-stakeholder partnerships for e-skills has resulted in well developed vendor-independent e-skills frameworks and job profiles. These are regularly updated by different actors and provide a framework to which vendor-based schemes also aim to adhere.

Vendor-based initiatives dominate the market of e-skills development and training in many countries, especially in the newer EU Member States, where they typically team up with commercial training institutions and government institutions. In many of these countries, no vendor-independent partnerships could be identified.

Cooperation of vendor-based schemes with independent schemes is only starting to emerge. An example is “Cisco meets APO” in Germany - a combination of the global Cisco Networking Academy Program and the (so far) national “APO IT” further training concept. Both partners use existing structures and content, but the combination has resulted in a new quality of further education for employees in the IT industry.



**Yvon le Roux**  
Vice-President, Public Sector,  
European Markets, Cisco  
Systems

*„The rapid rate of technology change in the ICT sector requires teaching content and job profiles to be frequently refreshed. Therefore demand for well qualified recruits in the ICT sector can cause demand/supply gaps in many technologies and geographic areas. Given the impact that skills shortages can have on European productivity, we believe technology companies such as Cisco have a responsibility to support the public sector and other relevant stakeholders in managing this change through, for example, future-needs forecasting, curriculum and certification development or the use of new teaching tools like simulations or virtual classrooms“.*



# >> Definition of multi-stakeholder partnerships



**Michael Ehrke**  
Senior Advisor,  
IG Metall

*„Commonly shared competence and qualification frameworks and standards with the associated education models like the Advance IT Training System (AITTS) are a prerequisite for achieving the goal of a European labour market with higher levels of mobility of workers. These need to ensure a real high-quality of training, competences and qualifications. „Highly qualified, made in Europe“ has become a trademark worldwide. Multi-stakeholder partnerships for e-skills development involving the social partners are the key to success to achieve high levels of acceptance of e-skills development and certification initiatives among employers and employees. We all need to communicate this more actively into the ICT community. The European Commission is also asked to initiate these processes in a multitude of industrial sectors. IG Metall will be pleased to join in.“*

*Different key actors join forces to achieve a common goal*

**Multi-stakeholder partnerships for e-skills have received substantial attention and have become a leading item on the European agenda when formulating policy to boost Europe’s productivity and the employability of its workforce.**

### Broad definition

The European e-Skills Forum has identified multi-stakeholder partnerships as key to adaptation of e-skills attainment to e-skills needs and requirements in Europe. Multi-stakeholder partnership is seen as “a more general concept than public-private partnerships”, offering the potential to stimulate cooperation between educational or training establishments, enterprises, and other key stakeholders (social partners, intermediaries, etc.) on issues including training, certification, and market transparency.

### What do we mean by multi-stakeholder partnerships?

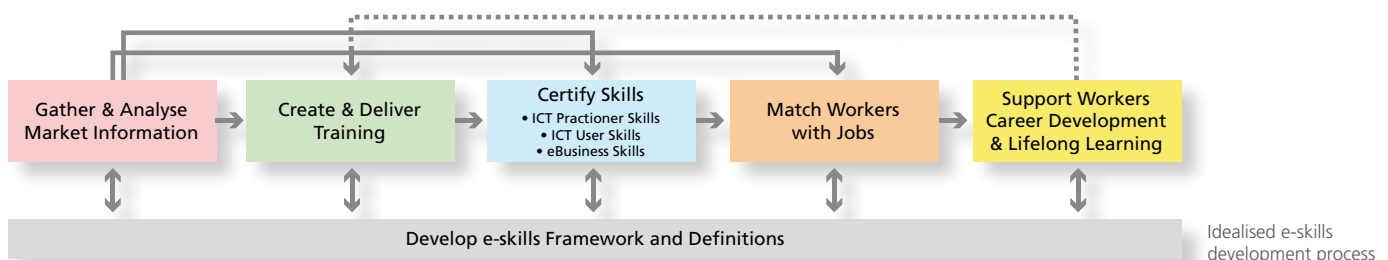
The central feature of multi-stakeholder partnerships is that private-sector partners (industry, employers from the private sector) take new roles and responsibilities which have typically been held by public sector institutions in education systems. They build pragmatically on the recognition that the private sector can complement, supplement and extend services provided by the public sector, by increasing the available resources, expertise and channels. >>

>> They are related to the idea of public-private partnerships (PPP), which are usually defined as systems in which a government service is funded and operated through a partnership between government and one or more private sector companies. In a multi-stakeholder partnership, non-industry partners come not only from the public sector but also from social partners and civil society, e.g. trade unions and non-governmental associations (NGO) etc. The emphasis is on involving relevant stakeholders for a certain e-skills related issue – rather than just a couple of partners who join forces to conduct a fixed-term assignment. This involvement contributes to ensuring comprehensive and self-sustaining progress, as opposed to piecemeal, opportunistic and uncoordinated approaches. Some of these multi-stakeholder partnerships have also been launched by IT vendors and other stakeholders under the umbrella of corporate social responsibility alliances.

Multi-stakeholder partnerships offer a way of overcoming the traditional polarisation between the public education system’s role in supply of formalised skills on the labour market and employers’ demand for particular skills.

In many cases, industry has stepped in to fill the gap which it perceives between the skills supplied by formal education systems and the current needs of employers. In the fast-moving area of e-skills, industry-based education has quickly become one of the mainstays of skills provision. This has helped to close some of the most obvious gaps in skills availability on labour markets and to overcome some of the structural shortcomings of formal systems of education.

## >> Areas for multi-stakeholder partnership initiatives



### *Purposes of multi-stakeholder partnerships for e-skills*

Over the years, multi-stakeholder partnerships on e-skills have been developed for different purposes. The idealised e-skills development process (see box below) distinguishes different elements.

#### Categorisation and application areas of multi-stakeholder partnerships on e-skills

>> (1) Market information – This includes regular gathering, analysis and publication of information about supply and demand in e-skills, and the skills gaps, mismatches and shortages resulting from these, as well as future needs for e-skills. The information and the data need to be collected and disseminated in effective and efficient ways.

>> (2) Creation and delivery of training – This includes the development and continuous updating of ICT-related curricula to match the rapid pace of technical innovation and the evolving needs of industry and society. Students and workers need alternative channels of educational achievement. Workers' capability for "on-the-job" and "just-in-time learning" needs enhancing. SMEs need to be enabled to engage more in staff training. And new approaches to delivering e-skills are needed to exploit e-learning more fully.

>> (3) Skills certification – Individuals need the opportunity to get their prior learning recognized and certified, regardless of how, when or where acquired. Progress in skills certification could >>

>> improve the ability of workers to signal their skills to potential employers, improving the efficiency of labour market mechanisms. Certification activities can apply a vendor-specific or a vendor-independent approach.

>> (4) Matching workers with jobs – This implies the establishment of a coherent mechanism to steer professional and skill development to meet the needs of employers and society and the ambitions of individuals. Facilitating workforce mobility across regions and countries is an important element in this. Related measures include the implementation of highly usable Internet portals/knowledge databases.

>> (5) Support for career development and lifelong learning: For the skills of the labour force to better match the requirements of employers, employability needs strengthening. This includes support for career development and lifelong learning, as independently as possible from individual employers and jobs. Related initiatives include creation of social support structures for the mobile workers of today. The ultimate goal is a labour force with the possibility and the ability to increase its skills, strengthen its employability, and respond to better job opportunities.

>> (6) Skills frameworks and definitions: The development of widely recognised e-skills frameworks and definitions is a horizontal objective which touches upon market information, development and delivery of training, certification as well as supply-demand matching and support to employability. Such frameworks are essential for effective and efficient knowledge-flow between industry and educational institutions.



## >> Multi-stakeholder partnerships for e-skills in Europe

### *Current evidence*

All European countries have some multi-stakeholder partnerships for e-skills addressed to IT practitioners. They range from well known and widely recognised vendor-based schemes to those developed by groups of actors as part of multi-stakeholder partnerships to establish vendor-independent e-skills schemes. They vary in scope and range. Some are aimed at gathering relevant market information, some at the creation and delivery of training to e-skills certification. Others focus on matching workers with jobs, support for career development and lifelong learning, or the development of skills frameworks and definitions.

Vendor-independent frameworks exist in front-runner countries - Germany, United Kingdom, Belgium, France, Ireland, Luxembourg and the Netherlands - with well-developed e-skills frameworks and multi-stakeholder partnerships for e-skills certification.

These are regularly updated by different actors and provide a framework which vendor-based schemes also adhere to. Examples include such well-known e-skills frameworks and methodologies as AITTS (Advanced IT Training System) and APO IT in Germany, SFIA (Skills Framework for the Information Age) in the United Kingdom, and «La nomenclature des métiers du système d'information dans les grandes sociétés 2005» by CIGREF (Club informatique des grandes entreprises françaises) in France. In these countries vendor-independent schemes co-exist with vendor-based IT practitioner schemes.

By contrast, in the new Member States, the e-skills development and certification scene is largely dominated by the vendor-based certification schemes. In Hungary these and the associated curricula have even been adopted by the national vocational IT education systems as national standards in this area.

Nowhere in these countries can vendor-independent schemes be identified which aim at IT practitioner e-skills development and/or certification.

Vendor-based schemes are widely offered in Europe and well recognised in industry and by employees and other players. Prominent among these many schemes are the Cisco Networking Academy Program, the Microsoft Academy and Microsoft initiatives as part of the 'European Alliance on Skills for Employability', Oracle's Workforce Development Programme, and the Oracle Academy. Typically these schemes have been set up as multi-stakeholder partnerships with the involvement of local, regional or national governments, institutions and training centres, universities and schools.

Industry is keenly interested in winning full recognition from the formal education system for its industry-based e-skills development and certifications ("vendor qualifications"), so that they become integrated in national certification systems. Successful examples include:

- >> the recognition of some vendor certifications by the "Qualification and Curriculum Authority" in the United Kingdom;
- >> the recognition of vendor certifications by the Dutch National Body for Vocational Education (ECABO) in the Netherlands;
- >> the development of a "National Vocational Qualification" (NVQ) in Hungary based solely on the first four semesters of the Cisco Networking Academy Program (CNAP).

However, in the early years of this century, e-skills development and certification initiatives of different types have been developed and are offered to reduce the dependency on vendor-dependent schemes. The development of vendor-independent schemes is progressing.



## >> Good practices

### *Examples of key issues and lessons learned*

The number and variety of e-skills and digital literacy initiatives – operating as multi-stakeholder partnerships, public-private-partnerships or other constellations – makes transparency an issue for policy makers, industry, and other actors and stakeholders. The e-Skills Policy study aims to shed some light and provide greater transparency. The experience of existing multi-stakeholder partnerships for e-skills also provides some valuable lessons to support policy and strategy development by stakeholders in Europe.

#### Stakeholder involvement

A good stakeholder mix is important. The kind of stakeholders, their number, and also the type and intensity of involvement in today's multi-stakeholder partnerships for e-skills vary widely, and are strongly dependent on the type of multi-stakeholder partnerships. Some schemes are addressed to e-skills framework development (such as AITTS, SFIA or CIGREF), and some aim at e-skills development and certification (such as FIT or APO IT). Others include the establishment and operation of not-for-profit institutions set up by industry, educators and government in collaborative action to support e-skills development (e.g. e-Skills UK), or purely vendor-based multi-stakeholder partnerships for e-skills. Several of the vendor-independent schemes also aim at the involvement of the social partners, in a bid to raise motivation of employers and employees for IT practitioner training and certification.

**FIT (Fastrack to Information Technology)** is a unique industry initiative working in collaboration with government agencies, education & training providers and community organisations. Involving major indigenous and international companies (AIB, Alchemy, AOL, Analog Devices, Apple, BT, Creative Labs, CSC, Danone, DELL, Dulux, Eircom, Halifax, HBOS, HP, IBM, ICT Ireland, Liberty, Microsoft, O2, Oracle, >>

>> Pivotal, Sercom Solutions, Siemens, Skillsoft and Symantec) FIT is actively committed to the integration of marginalised job seekers into the workforce through the acquisition or marketable ICT skills. Industry involved in the initiative view its role and strategy as being complementary to existing education and training provision while providing employers with a unique opportunity to support the effective progression of marginalised job seekers. In this regard all FIT Training Programmes, have been developed by industry (currently 24 ICT curricula, covering technical skills and personal / professional development). FIT provides ongoing support to the graduates of its programmes and views its primary objective as not just progression and placement but ongoing career development.

Since its commencement in 1999 the FIT Initiative has realised significant achievements throughout Ireland and has drawn the attention of international commentators as an effective working model of effective CSR and a demonstration of the potential and impact of cross-sector (private, public and community) collaboration. In addition to promoting training for employment FIT is also an active promoter of IT literacy and digital inclusion. Over 2,500 people have participated in its digital inclusion initiatives and attained the FIT e-Cert award. These programmes, which engage a wider population, encourage and demonstrate the practical benefits of PCs in daily living; build confidence around training and ICTs and thereby encourage participants to progress into FIT ICT training for employment programmes or other educational programmes. FIT is actively involved in a number of EU digital inclusion initiatives and is a member of the European Alliance on Skills for Employability. The initiative has earned the endorsement and support of the Department of the Taoiseach (the Prime Minister), and is co-financed by the Department of Enterprise, Trade and Employment. FIT actively collaborates and creates synergies between a range of stakeholders including a number of government departments, the education sector, the national training authority FAS, local communities and the Public Employment Service.



## Multi-stakeholder partners

>> **SFIA (Skills Framework for the Information Age), UNITED KINGDOM** started in 1996 as a Department of Trade and Industry project and is probably the best-known skills framework covering the IT sector in Europe. It is developed and maintained by the SFIA Foundation, formed for that purpose in 2003 as a not-for-profit body. The active stakeholders and members are the British Computer Society, e-Skills UK, the Institution of Engineering and Technology and the Institute for the Management of Information Systems. One of the members, e-Skills UK, itself constitutes a multi-stakeholder partnership for e-skills. It is a not-for-profit, employer-led organisation, licensed by government as the Sector Skills Council for IT, Telecoms and Contact Centres. e-Skills UK is dedicated to the needs of business, improving competitiveness and productivity through action on skills. It is part of the Skills for Business network of 25 employer-led Sector Skills Councils and a strategically focused organisation with an ongoing government remit operating to a five-year rolling plan.

>> «**La nomenclature des métiers du système d'information dans les grandes sociétés 2005**» by **CIGREF, FRANCE**, is the French equivalent of the British SFIA and dates back to the early 1990s, when a group of CIOs from key French companies joined forces to develop a national e-skills framework designed to assist other players in the market to create training programmes that match industry needs.

>> The equivalent German e-skills framework is the **AITTS (Advanced IT Trainings System), GERMANY**. The different German multi-stakeholder partnerships for e-skills - AITTS and APO IT, KIBNET and "Cisco meets APO" - work to enhance e-skills training, further development, and certification, mainly independent of vendor-based certificates. AITTS and APO IT were developed jointly by the social partners, researcher and certification institutions, and industry organisations, with generous government funding. APO IT was initially fully government funded, and social partners (represented by a union and an employer association) played a leading role in the project. The KIBNET project, funded by the government, followed APO IT, mainly as a marketing and dissemination vehicle for AITTS and APO IT. >>

>> APO IT has developed and delivered the methodology for AITTS, but although fully operational, it is lacking a clear "owner". APO IT and KIBNET are run by the trade union IG Metall and the IT industry employer association BITKOM, offering access to e-skills development and certification directly to employers and employees. Both have also agreed on regularly updating AITTS. In 2006 IG Metall and Cisco joined forces in the "Cisco meets APO" initiative, to improve further training for employees in the IT industry. This initiative suggests an interesting possible further evolution of multi-stakeholder partnerships for e-skills operation in Europe as a cooperation model involving a vendor-based scheme (CNAP) and a vendor-independent scheme (APO IT).

### **Institutional frameworks and governance/ business models**

Different national and regional situations and multi-stakeholder partnerships require different institutional frameworks and different governance and business models. The structure and set-up of multi-stakeholder partnerships for e-skills in Europe varies significantly across countries, and schemes operate within very different institutional frameworks. These include schemes which have been implemented as:

>> **Government funded competence and training centres** (e.g. TechnofuturTIC, Loket MBO-ICT) providing related services,

>> **Legal entities governed by a board** of primarily government-funded agencies/offices either directly or indirectly funded through awarding contracts by governments for the performance of specific services (e.g. e-Skills UK, FIT),

>> **Publicly funded projects** making use of either national funding programmes (e.g. APO IT, KIBNET) or European funding such as the European Social Fund (ESF) (e.g. ChangePro, e-Pracownik),

>> **Research and training centres at a university** set up with funds from EU PHARE and TEMPUS programmes, offering vendor-based e-skills training and certifications services on a commercial basis (CIST - Centre for Information Society Technologies and other examples, mainly in the new EU Member States),

>> **Service offer by a foundation** (ECDL) already active in the field of digital literacy courses and certifications to citizens, to project a product (e-skills certification developed by an informatics professional association) onto the market;

>> **An agency** fully funded by commercial partners operating on a project base ("IT Fitness" project running as part of the "European Alliance on Skills for Employability").

These are complemented by the broad range of vendor-based schemes, all of which are based on a business model operating according to similar principles. In most cases, these schemes also manage to achieve some public funding (direct, or, mostly, indirect) through a division of labour, where public institutions take over specific roles (for instance Cisco Networking Academy Program (CNAP) Thuringia), or where vendor-based schemes constitute a central part of ESF-funded projects (E-Pracownik built on the CNAP).

While vendor-based schemes have a business model underlying their activities and operations, vendor-independent ones depend strongly on public funding and are often of limited duration. Some can even be described as one-off, while others have obtained (or are trying to obtain) further funding, and operate as a series of consecutive funding projects.

**FIT (Fast Track to IT)** in Ireland and **e-Skills UK** have been set up as a legal entity. e-Skills UK operates as a not-for-profit institution with a traditional company structure and clear lines of responsibility governed by a board representing its members. FIT is set up as a legal entity and also governed by a board.

The German **AITTS** and **APO IT** operate through an agreement between the partners (here the social partners) and a certification institution, but suffer from lack of evident "ownership" and are not widely known in industry. >>

>> Where services are offered through government-funded competence centres, it is possible to identify clear guidelines for partnership (**Loket MBO-ICT**) and government structures, such as a management board and steering committee (**TechnofuturTIC**).

In most cases, written agreements with partners are in place reflecting the mutual interests of the stakeholders (e.g. CIST). In the case of Cisco and the **Cisco Networking Academy Program** these take the form of a Memorandum of Understanding (MoU) and of contracts with other stakeholders, which also include a quality assurance plan (for instance CNAP Thuringia).

Those schemes operating as projects are guided and governed by the rules of the funding programme (e.g. the ESF in the case of **E-Pracownik**, **Change-Pro**) and have established typical project management structures.

The initiative "**IT Fitness**" – also set up on a project base under the leadership of **Microsoft** – is another example of a multi-stakeholder partnership for e-skills, with a specific institutional framework and governance structure. This initiative was recently started in Germany as part of the "European Alliance on Skills for Employability". Decisions are taken by consensus in the steering committee and the advisory board with representatives of all stakeholders. Additional meetings and the development of activities and projects take place in individual structures, depending on the intended target groups of activities and on the subsidy which can be provided by the consortium of partners.

Those schemes responsible for e-skills framework development, maintenance and further development operate under different structures depending on the country. **CIGREF** for instance was set up as a group of large companies from industry and is governed by a board of members which include the CIOs from these organisations. In the United Kingdom the corresponding **SFIA** scheme was established as a foundation and partnership with a legal structure, "articles of association" and directors coming from each member. One of the members is e-Skills UK (besides BCS, IET and IMIS, which are professional bodies representing IT professionals), which has been licensed by the government as the Sector Skills Council for IT and Telecoms.



**Dr. Bernhard Rohleder**  
Director General, German Association for Information Technology, Telecommunications and New Media (BITKOM)

*„Education is a core issue for BITKOM. The e-skills-shortage is one of the most important obstacles to the further development of the ICT industry in Germany. BITKOM cooperates with public authorities and the social partners in order to develop modern approaches to company-based advanced training. One important element in this respect is the Advanced IT Training System (AITTS). KIBNET, the multi-stakeholder-project of BITKOM and IG Metall which is supported by the Federal Ministry of Education and Research, succeeded to tie together public and private engagement for the development of AITTS and the objectives of work-process-oriented learning. The joint commitment for a continuing support of AITTS in this context will make sure that AITTS remains up-to-date.“*



## Financing and funding

Financing and funding options for multi-stakeholder partnerships for e-skills in Europe range from fully publicly-funded schemes and initiatives to those where different stakeholders have set up a mostly not-for-profit institution using their own resources and other sources (including indirect public funding). Other multi-stakeholder partnerships are vendor-based schemes funded on fees for participation or courses, run by vendors in cooperation with public and other institutions where participants aim to achieve an IT practitioner certification. Industry-led and funded multi-stakeholder partnerships also exist as IT industry investments.



**Peter Davitt**  
CEO of FIT  
(Fast Track to IT)

*"Multi-Stakeholder partnerships are a key enabler for sustained and scalable impact in the provision of skills for employability. Partnership across sectors and the provision of complementary business competencies by diverse companies are required to equip the most disadvantaged with new skills to enter the workplace in the 21st century. While e-skills are a necessary entry ticket to the labour market, we cannot discard the role of complementary soft skills, customer relationship, self confidence and other employability related competencies. The European Employability Alliance has picked up this challenge of cross sectoral collaboration to ensure the delivery of real impact in training and reaching 20 Mil people by 2010."*

**Multi-stakeholder partnerships set up as not-for-profit institutions:** Many of these have a mixed funding model. In the United Kingdom, for instance, they are established as not-for-profit bodies such as SFIA, run by the SFIA Foundation, a not-for-profit private limited company. The foundation says it receives no external funds or direct government subsidies but is funded through its partners and licensing fees. Each of the four partners is responsible for operating its own allocated task using its own resources. Each partner contributes GBP 2,500. The remainder comes from license fees which are paid by operators making commercial use of the SFIA framework. Indirectly, and since one of the partners (e-Skills UK) has an ongoing government remit and is also (mainly) publicly funded, SFIA also benefits from public money. **e-Skills UK** has been established in a similar format and is run as a not-for-profit, employer-led organisation. The organisation is licensed by government as the Sector Skills Council for IT, Telecoms and Contact Centres. Government and industry provide financial and human resources. As part of this licensing arrangement e-Skills UK receives public funds. In addition employers provide extensive resources to support skills development initiatives. e-Skills UK also proposes and carries out specific project activities funded by a variety of sponsors. The companies' four income strands are as follows:  
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1. Annual government grant to cover basic operational costs
2. Management fees for projects such as "CC4G", "ITMB", "Chances" etc.
3. Fees for services such as the "e-skills Passport"
4. Support in kind from partners.

The operating budget is approximately GBP 8 million per annum. In addition e-Skills UK is responsible for the disbursement of individual budgets for the initiatives it contracts for with government. The e-Skills UK budget comes mostly from government funding as direct payment for basic operational costs or management fees for projects initiated by government departments. Details of the exact proportion of government funding are not available at present, but it is clear that most income is derived from government sources either as a direct annual grant or as the management fee for the various initiatives instigated by government in response to perceived needs.

**Fully publicly-funded multi-stakeholder partnerships:** Schemes developed and run with public funding have mostly been set up as projects with a limited duration and have been discontinued after the project finished. Others are run as a series of consecutive projects receiving public funds. In several cases the discontinuation of public funding after a project ended had a negative impact and resulted in the termination of services. In other cases (such as APO IT), lack of "ownership" has acted as a constraint to more widespread use: only with promotional support through a further publicly-funded project (KIBNET) are the APO IT services starting to penetrate the market.

In cases such as **TechnofuturTIC** in Belgium, the service operators receive continued public funding only for specific training in the e-skills area which they develop and offer. They always need to find new funding sources for any new projects they might intend to develop and offer.



**Partly publicly-funded vendor-based multi-stakeholder partnerships:** Most of the vendor-based schemes are at least partly publicly funded - mostly indirectly - since governments and public institutions contribute to the operation of the schemes through, for instance, providing trainers and/or training of trainers. In some cases, governments provide financial incentives in the form of subsidies to participants in the training and certification courses.

In a few cases vendors have built large-scale project-type multi-stakeholder partnerships with public money. In **E-Pracownik** in Poland and **CIST – Centre for Information Society Technologies** in Bulgaria, a vendor (Cisco, together with public authorities and education institutions and other players) has obtained substantial public funding for operating the Cisco Networking Academy Program in new EU Member States. For E-Pracownik, the money for training and certifying large numbers of IT practitioners came from the **European Social Funds**. This activity is likely to continue in a successor project, again funded through the ESF. In Bulgaria, the starting point for CIST was an institution building project at the University of Sofia, funded by the EU PHARE and TEMPUS programme. From its beginning as a research and training institution, CIST evolved so that it now offers vendor-based certification courses from different vendors, including Cisco, Microsoft, and Oracle, to students and to IT practitioners. It has been self-supporting for many years, offering the courses on a commercial basis.

### Recognition among target groups

The vendor-based multi-stakeholder partnerships for e-skills are well-known and positively recognised in public. Vendor-independent schemes are often less well-known, and less recognised among target groups.

**External communications** remains a challenge for the German AITTS and APO IT, despite the additional efforts under the KIBNET project, which, it was hoped, would create higher levels of awareness and motivation among social partners' clientele. The impending end of the KIBNET project suggests these expectations will not be met. APO IT may however win attention among target groups through the recent cooperation with Cisco in the joint initiative "**Cisco meets APO**".

Longstanding multi-stakeholder partnerships for e-skills that were set up as key national initiatives benefit from higher levels of recognition. For instance, **FIT (Fast Track to IT)** has successfully involved many well-known institutions, and its offers are communicated through these partners' communication channels, including local employment services networks, job centres, the national training and employment authority and other government agencies such as the Department of Enterprise, Trade and Employment.

In the United Kingdom **SFIA** and **e-Skills UK** are well established and widely known. On average the SFIA website receives nearly 2,000 visitors per day, and over 6,000 people have registered to receive the SFIA newsletter.



## Becoming self-sustaining

Almost all successful multi-stakeholder partnerships for e-skills have become **self-sustaining as a result of a long-term commitment of the key stakeholders** and secure financing and funding for more than five years.

Vendors such as Cisco Systems typically agree on a joint activity in a country or region together with governments and public authorities by signing a **Memorandum of Understanding (MoU)** regulating duration, allocation of responsibilities and similar details. These MoU have proven to be an effective mechanism for establishing and running multi-stakeholder partnerships for e-skills. Other multi-stakeholder partnerships have developed **a solid institutional structure**, such as e-Skills UK. e-Skills UK offers a broad range of services and generates an income through a mixture of activities, ranging from membership fees and licensing fees for products and services to certifications offers. Some government funding comes from management fees for disbursement of individual budgets for initiatives contracted for government or management fees for initiatives instigated by government in response to perceived needs. Direct annual grants and external contract work funded by EU, national and regional programmes, completes the sources.

Other multi-stakeholder partnerships are starting to achieve sustainability through the **commitment and active promotion** of founding members, such as APO IT in Germany, which is promoted by the IG Metall union and the employer association BITKOM, through the KIBNET initiative and through the "Cisco meets APO" joint initiative with Cisco Systems.

It is the project-based and ESF-funded schemes where sustainability has not yet been achieved, because these initiatives started with a short-term opportunistic approach.



**Terry Hook**  
Professional ICT Skills  
Development Executive,  
e-Skills UK

*"At an individual level we know that teamwork and cooperation are hallmarks of personal success and that achievements are leveraged through collective endeavour. In this respect organisations can reflect and multiply the same effect by working in partnership across the division of fiscal and legal structures. e-Skills UK welcome the opportunity to encourage multi-stakeholder partnerships and congratulate the sponsor and author of this report for raising awareness of best-of-breed collaborative strategies."*

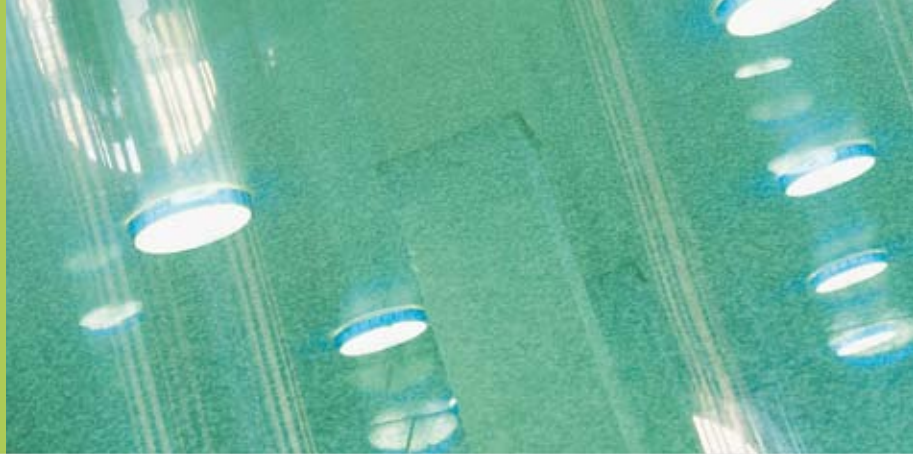
The UK-based multi-stakeholder partnerships have developed particularly interesting institutional and business models to ensure sustainability. For instance the **SFIA** partners have made a long-term commitment to maintaining the e-skills framework. Funding is primarily provided by the four partners in cash or kind, but some income is derived from a licence fee that is charged for commercial use and training activities run by appointed training consultants. Another UK example, **e-Skills UK**, has secured funding through a combination of five-year licensing agreements and separate independent project activities ranging from one to five years. It is a strategically focused organisation with an ongoing government remit operating to a five-year rolling plan. It is likely that this type of financing and funding will continue to be in place in the future.

In France, funding for **CIGREF**, which started in 1991, will continue to be provided by a group of large industry company CIOs who have committed themselves to the further development of the «La nomenclature des métiers du système d'information dans les grandes sociétés 2005». There are no suggestions of discontinuing the activity.

In Germany, **APO IT** training and certification are functioning with slowly increasing volumes, but only the future will show whether the current system is sustainable, or whether diffusion and use in industry depend on shifting the full responsibility to a more solid institutional structure - such as attaching it to the education and training department of IG Metall or to the Federal ministry which funded the project. With **CERT IT**, the project has already established a certification structure reaching beyond its own confines.

**FIT ("Fast Track to IT")** is a long-term initiative, already in operation for some eight years and financially supported by the government. Concrete plans for the future exist with a definite commitment from the active stakeholders for a further five years.

Since the start of **CIST (Centre for Information Society Technologies)** in Bulgaria on a project base financed by the EU PHARE programme and supported by different vendors, it has attained critical mass and become a sustainable institution within the structures of Sofia University. >>



>> **E-Pracownik**, established with European Social Fund money, will finish in 2008 as planned and contracted. However, the next programming period of EU Structural Funds (2007-2013) provides some opportunity for related undertakings, and the consortium partners plan for the continuation of the activities.

All vendor-based initiatives operating under well-developed business models (**Cisco, Microsoft or ORACLE** have been analysed in more depth in the present study) have demonstrated their sustainability under varying conditions.

### Transferability

Transferability of the schemes can be measured by identifying whether a multi-stakeholder partnership has achieved recognition - even implementation - outside the country or domain it was originally implemented in. Naturally, the vendor-based schemes with their underlying business models have a clear advantage in this respect. However, some of the vendor-independent schemes in European countries have also shown transferability potential, and some have been applied in other countries.

**FIT ("Fast Track to IT")** has high transferability potential and achievement. It is highly regarded outside Ireland and has prompted attempts to emulate its partnership approach and its targeting of those on the margins of the labour market and of society. FIT is involved in e-skills framework development and is actively co-operating with partners such as the UK's National Recognition Information Centre, the national agency under contract to the UK Government Department for Education and Skills, involved in the recognition and evaluation service of individual awards. FIT has also promoted Europe-wide acknowledgement of e-skills certifications along the lines of the present scheme through the "ICT Career Compass" initiative funded under the EU Leonardo da Vinci Programme. In addition, FIT is operational in the UK (in Northern Ireland) and is planning a further expansion of its activities there. Inspired by FIT, there is a FIT-like initiative commencing in Finland with the involvement of major industry players including Microsoft, and a similar initiative has been proposed for Bulgaria.

**CIST (Centre for Information Society Technologies)** also has potential for transferability. Started as a pilot within an EU-funded institution building project in 2000-2002, and now established at Sofia University and self-sustaining, it offers an example for other new EU Member States or candidate countries. Similar projects could be implemented at European level, as part of a national programme, or as an IT industry cluster initiative, but in all cases administrative and financial support would be needed.

All the vendor-based initiatives have demonstrated their potential for transferability to different countries or industry sectors, operating under varying financing and funding mechanisms. Cisco has been widely active, including in local, regional and national level partnerships.



## Multi-stakeholder partnerships

### Good Practice Multi-stakeholder Partnerships for e-Skills in Europe

Country	Name of multi-stakeholder partnerships	MSP type
<b>VENDOR-INDEPENDENT multi-stakeholder partnerships</b>		
Belgium	TechnofuturTIC competence centre	e-skills training and certification
Finland	ChangePro	e-skills training and certification, focus: SMEs
France	The 2005 referentials of ICT skills (La nomenclature des métiers du système d'information dans les grandes sociétés 2005) by CIGREF (Club informatique des grandes entreprises françaises)	e-skills framework development
Germany	AITTS (Advanced IT Training System) and APO IT	e-skills framework and methodology development
Germany	KIBNET (Competence Centre IT Training)	e-skills awareness and promotion
Ireland	FIT "Fast Track to IT"	e-skills training and certification; focus: unemployed
Netherlands	LOKET MBO-ICT	e-skills framework development
United Kingdom	SFIA (Skills Framework for the Information Age) Foundation	e-skills framework development
United Kingdom	e-Skills UK	e-skills framework development, awareness and further activities
<b>VENDOR-BASED multi-stakeholder partnerships</b>		
<b>&gt;&gt; Cisco Systems</b>		
Germany	Cisco Networking Academy Program (CNAP) in Thuringia	e-skills training and certification
Germany	Cisco meets APO	e-skills awareness and promotion leading to training and certification
Bulgaria	CIST Centre for Information Society Technologies	e-skills training and certification
Poland	E-Pracownik (E-Employee)	e-skills training and certification
<b>&gt;&gt; Microsoft</b>		
Germany	"IT Fitness" (part of the 'European Alliance on Skills for Employability')	e-skills awareness, promotion, training and certification
Portugal	Technology, Innovation and Initiative Programme (TII – Tecnologia, Inovação e Iniziativa)	e-skills training and certification
Europe-wide	EUGA (EU Grants Advisor)	Enabler for multi-stakeholder partnerships for e-skills
<b>&gt;&gt; Oracle</b>		
Different countries	Oracle Workforce Development Programme	e-skills training and certification
United Kingdom	Oracle Academy	e-skills training and certification

Source: empirica GmbH: Benchmarking Policies on Multi-Stakeholder Partnerships for e-Skills in Europe - Evaluation of Good-Practice Multi-stakeholder Partnerships for e-Skills in Europe, December 2007



## >> Key success factors

What does a successful multi-stakeholder partnership for e-skills look like? What makes it a success? Several factors have emerged but there is no single formula for success.

Twelve key factors for success can be identified:

### >> 1. Policy environment

Favourable policy environments at national level are crucial for the establishment and take-up of multi-stakeholder partnerships for e-skills - whether vendor-independent or vendor-based. Multi-stakeholder partnerships often result from decisions of policy-makers who have been convinced of the merit of such activities - giving rise to supportive actions and finance. On occasions, public funding has even been provided from public budget lines not originally foreseen for such purposes. This was the case when the Federal Ministry for Education and Research in Germany (bmbf) funded the APO IT and KIBNET projects from the "New Media in Education" programme. Today APO IT constitutes the methodology of the German national AITTS – Advanced IT Training System.

### >> 2. European and national programmes

European Union support programmes (ESF, PHARE) can play an important role in the development and operation of multi-stakeholder partnerships for e-skills, and also in institution building in this area, especially in the new EU Member States. The CIST Centre for Information Society Technologies in Bulgaria is a successful example. E-Pracownik in Poland and ChangePro in Finland are examples of successful attempts to obtain European Social Fund support for running successful multi-stakeholder partnerships for e-skills. National programmes such as the "New Media in Education" programme in Germany have also provided support.

### >> 3. Stakeholder involvement and mix

Government involvement is crucial for the success of multi-stakeholder partnerships for e-skills. Typically governments play a role not only in vendor-independent but even in many vendor-based schemes, such as the Cisco Networking Academy Programme (CNAP) in different countries and regions. In CNAP Thuringia, for instance, government institutions take over certain roles in training the trainers.

It may also be useful to fund external management consultancy to support institution building of a multi-stakeholder partnership after perhaps a two-year founding period.

Social partners can also contribute to success by playing a positive role in approaching and motivating the employers and employees that are key target groups for IT practitioner training and certification.

### >> 4. Clear objectives

Stakeholders need to be clear about their objectives. They should not overstretch their multi-stakeholder partnership by including objectives which have little or nothing in common, and will only distract from the key objectives and the related activities needed to attain them.

### >> 5. Format of partnership

The format of a partnership needs to follow the objectives and targets set. Different objectives will result in different approaches and different partnership formats. Good-practice cases include a wide variety of partnerships, ranging from government-funded competence and training centres (e.g. TechnofuturTIC, Loket MBO-ICT) providing related services, to legal entities governed by a board of primarily government-funded agencies.



**Luc van der Veen**  
Programme Manager,  
Kenteq

*"Loket MBO-ICT is a classic example of a transparent cooperation between two public education organisations in relation to their stakeholders: businesses and their (future) employees i.e. graduated ICT-professionals, trained by the executive schools in a competence-orientated manner."*



The funding may be either direct or indirect, through contracts for the performance of specific services (e.g. e-Skills UK, FIT), publicly funded project partnerships making use of either national funding programmes (e.g. APO IT, KIBNET) or European structural funds (e.g. ChangePro, E-Pracownik), partners from research and training centres at a university set up with funds from EU PHARE and TEMPUS programmes offering vendor-based e-skills training and certifications services on a commercial basis (CIST and other examples mainly in the New EU Member States), or a temporary agency fully funded by the commercial partners operating the multi-stakeholder partnership on a project base (“IT Fitness” project in Germany running as part of the “European Alliance on Skills for Employability”).

### >> 6. Governance structure

The partnership format and the underlying objectives need to be reflected in the governance structure. Where e-skills training and certification are to be offered, an institution with a full business plan is required. Where the objective is the development of an e-skills framework, specific forms and processes for consultation, discussion, debate and decision-making need to be established.

In several good-practice cases, governance is based on a Memorandum of Understanding (MoU), where stakeholders have agreed on a longer-term commitment for partnership and joint activities. Prominent successful examples of this model are the MoUs signed under the Cisco Networking Academy Program with cooperation partners at regional and national level (such as CNAP Thuringia). The good-practice cases provide illustrations of some governance structures that provide the best fit to diverse conditions.

### >> 7. Institutional structure, framework conditions and sources of income

Without a clear institutional structure, any multi-stakeholder partnership is likely to fail. Without appropriate legal and financial framework conditions from national (or regional) governments, a multi-stakeholder partnership for e-skills development and certification is not likely to succeed in the long run.

Many multi-stakeholder partnerships which started as projects failed to establish themselves in the market as a national vendor-independent e-skills development and certification institution. Major constraints include:

- >> the lack of supportive framework conditions in terms of a strong government will for the establishment of an institutional structure;
- >> no financial incentives extending beyond the scope of project funding (often through EU programmes such as the European Social Funds); and
- >> cooperation of the scheme as a project instead of developing the necessary institutional structures. Running multi-stakeholder partnerships for e-skills on a project base is valid only during the development and early operation phases, when the necessary stakeholder commitment can usually be obtained only for the limited duration of the project. But it is likely to result in a lack of „ownership“, with negative consequences after project completion.

Successful multi-stakeholder partnerships are those offering a broad range of services that generate the income necessary for successful operation and for survival in the market. But active government support is needed too.

Multi-stakeholder partnerships such as e-Skills UK have developed a solid institutional structure, and government has developed the necessary framework conditions under which the multi-stakeholder partnership operates successfully. e-Skills UK generates income through a broad range of services and activities. e-Skills UK and the SFIA Foundation constitute valuable templates for appropriate framework conditions and institutional structures.

### >> 8. Ownership

Clear allocation of ownership of the results and achievements of multi-stakeholder partnership is crucial, since this has serious knock-on effects on the development of appropriate institutional structures.

Lack of ownership has hampered several initiatives after an e-skills certification methodology was developed and a certification product and process were ready for the market - notably APO IT in Germany, which is still struggling in the German market.



## >> 9. Stakeholder commitment

Stakeholder commitment is vital, not only in the early phases of an initiative, but especially after the end of a first project phase. The commitment should be expressed in financing, or at least in kind. Operating purely on the basis of successive projects, with nothing more than project-management structures and public support programmes, is unlikely to lead to long-term success.

## >> 10. Business plan

The long-term sustainability and survival of multi-stakeholder partnerships offering products and services in the market is dependent on a business plan. Even partnerships with a less commercial focus should at least develop a work and financing plan setting out annual operational objectives and priorities and the work to be carried out, with financing sources and nature for each activity (e.g. core activity to be funded by all core members and supplementary funding from other sources, development projects funded by public support programmes, etc).

## >> 11. Communications and PR strategy

There are difficulties in getting off the ground even for well-developed and comprehensive offers of e-skills training and certification which have clear positive distinguishing factors in the market and have been developed as part of vendor-independent multi-stakeholder partnerships. Those with more "traditional" offerings face even greater challenges.

Positive recognition among target groups can come only from clear and well-targeted communications strategies. It is essential to avoid inappropriate or inadequate PR activities, contradictory messages from different partners, or communications in scientific language that is hard for target groups to understand. In this respect, vendor-based schemes have an advantage, since they can build on professional global communications and PR strategies and support mechanisms established by their parent companies.

## >> 12. Transferability

Successful transfer of a multi-stakeholder partnership to another country or market is usually a positive indication of the utility of the services offered, and it increases the chances of sustainability in both home and additional markets.

Transferability can take the form of transfer to a different target group (e.g. a standard scheme to be adapted and successfully applied to marginalised groups on the labour market) or the application of the same scheme in another country (e.g. FIT "Fast Track to IT"), or cooperation between vendor-independent and vendor-based schemes that have been further developed to complement each other (e.g. "Cisco meets APO").

Those multi-stakeholder partnerships able to demonstrate their transferability come up with a real market discriminator distinguishing them from the mass of other services in the marketplace, and increasing their chances of success in the market.



**Karl Cox**  
Vice President, Public Policy and Corporate Affairs, Oracle Europe, Middle East, Africa

*„Oracle welcomes this report and the efforts of the European Commission to foster and promote e-skills in Europe. Success in building e-skills in the ICT sector and the broader workforce is critical to Europe's ability to prosper in the years ahead. We are committed to working with government, academia and enterprises throughout Europe to prepare students, job seekers and workers for careers in the ICT professions“.*



## >> Conclusions and Recommendations

### Recommendations for the creation of transparency and for increased sustainability of multi-stakeholder partnerships in the e-skills development and certification market in Europe

Multi-stakeholder partnerships for e-skills play an important role in ensuring that the knowledge, skills, competences and inventiveness of the European workforce meet the highest global standards and in increasing the productivity and employability of European workers. The recommendations which have been developed on the basis of the findings from the e-Skills Policy study focus on general and specific issues that need addressing to establish the necessary framework conditions. The recommendations should guide the future activities of national policy makers, industry (in general, and the IT industry in particular), the social partners, and the other stakeholders who are or need to become active to cooperatively develop and adopt a necessary long-term strategy on e-skills within the European Union.

Some recommendations - covering stakeholder type and involvement, the roles of vendors, requirements for institutional, financial and legal structures, frameworks for development of scalable and sustainable multi-stakeholder partnerships - are mainly directed to national governments and stakeholders interested in setting up and operating multi-stakeholder partnerships for e-skills in their respective countries.

Several recommendations are also directed to the European policy level - particularly increasing transparency and reducing complexity and confusion in the e-skills development and certification market in Europe, so as to adopt a long-term e-skills agenda. This is required to:

>> (a) increase the employability of the European workforce and increase the competitiveness of European industry,

>> (b) advance long-term cooperation between public and private sectors and improve links between the different levels and institutions active in the field of e-skills training, vocational and higher education and professional development, and

>> (c) raise awareness of the benefits of e-skills development and certification and of the possibilities which exist, and to promote the image and attractiveness of IT jobs and careers.

The recommendations emphasise the importance of national framework conditions, institutional structures, appropriate governance and business models to achieve sustainability.

The study also reviews the potential role of EU funding programmes in supporting the establishment and operation of multi-stakeholder partnerships for e-skills development and certification, and in the institution building that can ensure longer-term sustainability.

The recommendations emphasise the scope for learning from experiences and good practices, and argue that the current selection of identified schemes could be taken as a starting point for a European and national e-skills information exchange. An observatory mechanism to support transparency in the e-skills market could provide much-needed orientation for different target groups, interested parties and stakeholders. The establishment of a European e-skills and career portal resulting in a better structure and transparency of the e-skills development and certification market and a pooling of resources for joint activities, sharing of knowledge and exchanging of good practices is proposed as an option for action at European level.

Multi-stakeholder partnerships involving cooperation between vendor-based and vendor-independent schemes - such as "Cisco meets APO" - should be evaluated as potential guides for future development. They may prove useful to convince national governments - especially in the new Member States - of the merits of providing framework conditions that help move away from dependency on vendor-based schemes.

Clarification is sought on how the new European e-Competence framework would relate to the existing national IT practitioner skills/competence frameworks and the relationships between skill/competence frameworks and qualifications frameworks (including EQF). This will improve comprehension among the general public, businesses and experts.

Awareness and motivation activities remain important and relevant. The study urges communicating the message to industry and citizens that e-skills and their development matter. This may also require systems to fund learners and SMEs and to provide e-skills training and certification, supported by e-learning wherever possible.

European monitoring of developments is also recommended, i.e. the establishment and operation of a long-term and continuous monitoring and benchmarking exercise on the evolution of demand for and supply of e-skills provision in Europe, with an annual progress report covering EU Member States and the European level.

Abridged versions of the recommendations that are further elaborated on in the main study report are provided below. The recommendations are structured in three groups, i.e. those on: (A) strategies and guidelines; (B) institutional, legal and governance structures; and (C) awareness raising, promotion and monitoring.

## A. Strategies and guidelines

**>> 1 Develop, promote and implement in each European country a national strategy for e-skills, including specific provisions for the promotion of multi-stakeholder partnerships (with clear objectives and targets), in co-operation with all relevant stakeholders, based on the findings of this study, the recent Commission Communication on "e-skills for the 21st century", and the Competitiveness Council Conclusions**

National governments and stakeholders (especially industry and social partners) and the European Commission are asked to support the establishment of multi-stakeholder consortia and develop appropriate legal conditions and governance models. They should learn from existing government policies and experiences from multi-stakeholder partnerships such as e-Skills UK (United Kingdom), FIT (Ireland), and APO IT (Germany), and carefully evaluate the experiences in this respect from newly emerging types of cooperation between vendor independent and vendor-based schemes (e.g. "Cisco meets APO"). Integrated approaches of this type

could support new EU Member State governments - where vendor-based schemes are prevalent - in developing a more balanced and vendor-independent e-skills strategy, combining and integrating the best of both worlds. This would also ease the linking of such newly developed independent national e-skills frameworks to the European e-Competence framework. Based on this analysis, it will be possible to develop, promote and implement in co-operation with relevant stakeholders a national e-skills strategy in line with the recent Commission Communication and the agreement reflected in the Competitiveness Council Conclusions on e-skills of 23 November 2007.

**>> 2 Thoroughly assess and monitor existing multi-stakeholder partnerships in each European country where vendor-based and vendor-independent multi-stakeholder partnerships have been implemented, with a view to promote the scalability and the sustainability of successful initiatives**

Co-operation between vendor-based schemes and vendor-independent schemes has only started to emerge with the case of the "Cisco Networking Academy Program" (CNAP) and "APO IT" in Germany. This multi-stakeholder partnership called "Cisco meets APO" suggests a further stage of multi-stakeholder partnerships for e-skills operation in Europe. It was established as a co-operation model between a vendor-based (CNAP) and a vendor-independent scheme (APO IT) as recently as 2006, so is still in its development and early phase, but indications of how far this may provide a more general way forward could become available from 2008 onwards.



**Gerhard Rohde**  
Head of Department,  
UNI Union Network

*"e-skills are critical for the European economy. Innovation and productivity depend increasingly on e-skills: user skills, practitioner skills and e-business skills. Multi-stakeholder partnerships are becoming promising tools to analyse, develop, implement, monitor and improve the demand and supply of e-skills. From a trade union perspective, I see multi-stakeholder partnerships not as a substitute, but rather as a supplement to social dialogue and collective bargaining. A commitment to constructive cooperation, an appreciation of distinctive backgrounds and the recognition of each others' legitimacy will be essential for the success of any multi-stakeholder partnership."*



### >> 3 Encourage and support the launch of industry led-initiatives on e-skills in each European country and recognise the importance of tertiary education funding in promoting e-skills development

National governments should encourage and support the launch of industry-led initiatives on e-skills in each European country and recognise the importance of tertiary education funding in promoting e-skills development. They should provide appropriate framework conditions and jointly establish multi-stakeholder partnerships with an agreed division of labour between IT industry players, other stakeholders and public sector stakeholders so as to secure substantial IT industry investments in such initiatives. The perspectives of vendors (e.g. the e-Skills Industry Leadership Board at European level) and users (e.g. CIGREF at national level) are equally important and can benefit each other through their respective strengths. National and regional governments should also actively encourage tertiary educational institutions to offer programmes in e-skills by giving them a higher priority weighting in decisions about funding allocation.

### B. Institutional, legal and governance structures

### >> 4 Build on the experiences from successful multi-stakeholder partnerships on how to use various sources of funding (including national and EU funding instruments and programmes) in order to foster new e-skills multi-stakeholder partnerships and to efficiently transfer good practices

All stakeholders interested in - or already involved in - multi-stakeholder partnerships, including national governments and the European Commission, should build on the experiences from successful approaches to using various sources of funding (including national and EU funding instruments and programmes) so as to foster new e-skills multi-stakeholder partnerships and to transfer good practices efficiently into new territories and domains. They should learn from good practices with regional, national and EU programmes

(such as European Regional Development Funds, the European Social Fund, and the Lifelong Learning Programme 2007–2013). Appropriate tools should be developed for the different key stakeholders and target groups, to inform them through good practice examples about the possibilities of public support. The EU Grants Advisor initiative (EUGA) is an early example of such a support tool.

### >> 5 Develop guidelines and templates in each European country for the promotion of long-term and sustainable multi-stakeholder partnerships for e-skills, based on the main findings of this study and on good practices

Guidelines and templates should be developed in each European country for the promotion of long-term and sustainable multi-stakeholder partnerships for e-skills based on the main findings of this study and good practices. Stakeholders, especially industry and social partners, and national governments and the European Commission, should aim to develop institutional structures to help stakeholders in developing sustainable schemes. The templates can take different forms: not-for-profit organisations with traditional company structure and clear lines of responsibility governed by a board constituted of high-level representatives from its members where income generation is achieved through a mixture of activities (such as SFIA and e-skills UK in the United Kingdom and FIT (Fast Track to IT) in Ireland); longer-term commitments for partnership and joint activities in a multi-stakeholder partnership for e-skills under a Memorandum of Understanding in which annual review meetings are fixed (such as the Cisco Networking Academy Program cooperation with partners at regional and national level, as with CNAP Thuringia); or provision for external management consulting after a founding period of a multi-stakeholder partnerships of perhaps two years to support institution building.



**K.S. Karani**  
Public Private Partnership  
Business Manager,  
PNO-econet

*„Large corporations are now realising the potential of multi-stakeholder partnerships to drive the relationship with key stakeholders across their corporate social responsibility initiatives. A good example is EU Grants Advisor, developed by Microsoft in partnership with HP and Intel as well as other public and private institutions including banks, telcos, Chambers of Commerce and others. The aim is to increase the awareness and understanding of the funding opportunities available and to enhance and facilitate the participation of SMEs and LRGs. PNO-econet welcomes the EU benchmarking initiatives around multi-stakeholder partnerships and encourages this collaboration and engagement model helping multi-stakeholder partnerships to leverage public funding to sustain and scale activities.“*



**>> 6 Create favourable framework conditions to establish and operate national mechanisms or institutions as gateways to e-skills development and certification, guiding and supporting the development and implementation of a long-term and consistent e-skills agenda in close co-operation between the public and private sectors**

Gateways should be established to e-skills development and certification in the EU Member States, playing a guiding role in the development and implementation of a long-term and consistent e-skills agenda with close co-operation between the public and private sectors. National governments and stakeholders (especially industry and social partners) should work together to create favourable legal and financial framework conditions to establish and operate these national mechanisms or institutions, which would bring together employers, educators and government on a common strategy for e-skills development and certification. Members of each of these partnerships need to be the relevant stakeholders in the e-skills development and certification area, together with the social partners, and - if deemed appropriate - educational authorities. Close cooperation should be ensured with industry institutions and those representing global IT industry on topics like digital literacy and e-skills, such as e-Skills ILB at European level.

### C. Awareness raising, promotion and monitoring

**>> 7 Set-up "e-skills information exchange and observatory mechanisms" at both EU and national level, for e-skills development and certification and for a long-term and regular monitoring of progress on the demand for and the supply of e-skills, bringing together key stakeholders for the implementation of a long-term and consistent e-skills agenda**

A "European information exchange and observatory" platform should be established for e-skills development and certification in Europe. This would conduct a long-term and continuous coordination

and monitoring exercise on progress, strategy and demand for and supply of e-skills, providing policy analysis, indicators, statistics, and foresight scenarios. It should bring together industry and social partners and the e-skills Industry Leadership Board, national and, where appropriate, regional governments, the CEN/ISSS Workshop on e-skills, and the European Commission, in cooperation with Member State governments and statistical institutes. Building on the experience of the European e-skills Forum, it should be provided with clear and efficient operational mechanisms and funding plans, and its deliverables should include an annual "e-skills in Europe" report based on the Commission Communication on e-skills of 7 September 2007. Through regular dialogue it should help develop a European e-competence framework involving industry stakeholders, promote multi-stakeholder partnerships, and pool resources. It would also further develop the Europass initiative, generate new e-competence curriculum guidelines, increase the participation of women in the ICT sector, and make financial incentives operate more efficiently.

**>> 8 Develop and promote a "European e-competence framework" at EU level in co-operation with relevant key stakeholders and in line with the European Qualifications Framework, focusing on its benefits for stakeholders and its added-value to (existing or new) national IT practitioner skills frameworks. Each European country should develop its own e-competence framework.**

A "European e-competence framework" should be promoted at EU level to ensure greater transparency in and structure for the IT practitioner certification market. This will require co-operation between the CEN/ISSS Workshop on e-skills, stakeholders interested in or already involved in multi-stakeholder partnerships, national governments, and the European Commission. There is an important need to strengthen the approach already started by CEN/ISSS with experts and representatives from national and international IT industry, vocational training organisations, social partners and other institutions. The framework should take account of the European Qualifications Framework, to make use by employers (especially SME) and



**Jan Muehlfeit**  
Chairman Europe,  
Microsoft Corp

*"Only if public and private institutions work together with educational institutions and community training organisations we will make today's students ready for the workplace of tomorrow. We have grounded our education programs to the principle and practice of multi-stakeholder partnerships. We believe that these partnerships are a guarantee to address the trans-national issues and create the framework, infrastructure and competencies necessary for e-skills to flourish in Europe. Microsoft IT Academy Program is an example of such approach on a global scale".*



## Multi-stakeholder partners

the workforce easier. It should focus on benefits for stakeholders and its added-value to national IT practitioner skills frameworks (such as SFIA, CIGREF, APO IT). Each European country should also develop its own e-competence framework.

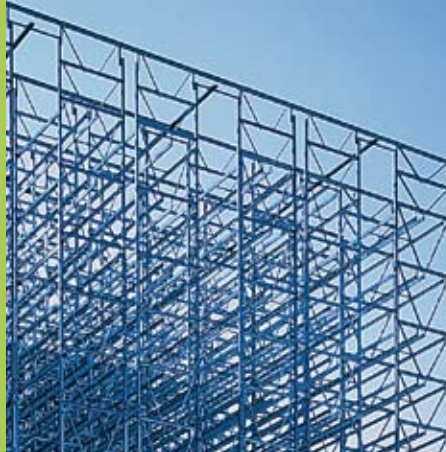
**>> 9** *Raise awareness among European youth and the public at large concerning the benefits of e-skills and digital literacy development, lifelong learning, e-learning and the existing offers and possibilities. Develop specific efforts to communicate to older people and marginalised groups.*

Awareness should be raised within smaller firms and among European youth and the population at large about the benefits of e-skills and digital literacy development, lifelong learning, e-learning and the existing offers and possibilities. Specific efforts should be developed to communicate to older people and marginalised groups. This will require cooperation among providers of vocational and other adult education, key players in the financial sector, employer associations, trade unions, national governments, the European Commission, and associations which represent older people and marginalised groups in Europe. Core features will have to be agreed for an e-skills development and certification support framework (as with the “European e-Competence Framework”), and a continuous and well-targeted communication campaign will be necessary, perhaps via support mechanisms set up through European programmes like the ERDF or ESF. It will be necessary to provide support (via e-learning techniques wherever possible) to learners and SMEs that provide e-skills training. Dedicated research will be needed to reveal the attitudes and perceived barriers to participation in digital literacy and e-skills development among older Europeans and marginalised groups. Training/learning and course supply should be more user-centric building on successful experiences from multi-stakeholder partnerships for e-skills addressed to the target groups.

**>> 10** *Promote the setting-up of a “European e-skills and career portal” at EU level resulting in a better structure and transparency of the e-skills development and certification and a pooling of resources for joint activities, sharing of knowledge and exchange of good practices*

A “European e-skills and career portal” should be developed at EU level to provide a better structure and increased transparency of e-skills development and certification, and to help pool resources for joint activities, sharing of knowledge and exchange of good practices. Key stakeholders will be the ICT industry, national and regional governments and existing national e-skills portals, the European Commission, employers associations and trade unions, and other stakeholders interested in or already involved in multi-stakeholder partnerships. An online mechanism should be created for exchange of experience, lessons learned, knowledge sharing and learning from each other, taking advantage of good practices based on the outcomes of the feasibility study released to the European Commission in autumn 2007.

All the recommendations are set out in full in the main study report, which can be downloaded from [www.eskillspolicy-europe.org](http://www.eskillspolicy-europe.org).



## >> e-Skills Policy study 2007

### Methodological Notes

The e-Skills Policy study was launched by the European Commission DG Enterprise and Industry in late 2006. It identified and carried out a stock-taking of multi-stakeholder partnerships for e-skills development and related policies using a network of national correspondents from all EU27 Member States as well as Croatia, Iceland, Norway and Turkey. The main objectives of the study were „to benchmark existing policies and initiatives in Europe on multi-stakeholder partnerships in the field of e-skills and to research and recommend appropriate legal, financial and institutional frameworks for the development of scalable and sustainable multi-stakeholder partnerships“.

The study resulted in a series of good practice case studies, a benchmarking framework, and recommendations for policy action.

### Approach

The overall strategy of this study was to start with a broad „scanning“ for potentially relevant multi-stakeholder partnerships (Phase 1), develop brief abstract descriptions of these, and – based on these abstracts and recommendations from the national correspondents - to select those most relevant for the present study. For these schemes data have been collected and detailed descriptions developed in Phase 2 using a common data-gathering template and a multi-stakeholder partnership description format. In parallel, the EU Member State policy contexts in this area have been analysed and described, again using a common data-gathering template and description format. These phases involved national correspondents, other experts, policy representatives and stakeholders from multi-stakeholder partnerships in all 31 countries covered. Phase 3 focused on selecting multi-stakeholder partnerships which best lend themselves to become candidates for the good practices multi-stakeholder partnerships. This was achieved using selection criteria that also addressed and referred to the policy contexts in which the partnerships have been developed and the extent to which they are integrated

in these policies. Those schemes with the highest scores constituted the good practice candidates. From these good practice candidates the final set of good practice multi-stakeholder partnerships was selected in Phase 4 using a set of evaluation and benchmarking criteria.

In the final Phase 5 the key results of the study were synthesised in a promotional brochure.

### Results

Altogether, more than 100 multi-stakeholder partnerships initiatives were found in the 31 countries covered; 87 detailed multi-stakeholder partnerships descriptions were produced including their relevant policy contexts; 30 good practice multi-stakeholder partnerships candidates were selected and more than 10 best practices multi-stakeholder partnerships have been identified.

### More information

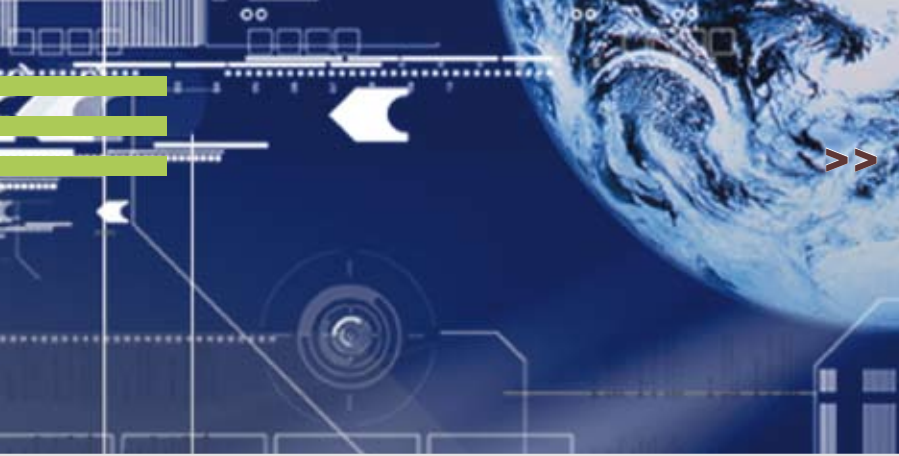
More information, including the full study report and detailed structured descriptions of the good practice multi-stakeholder partnerships for e-skills, is available. This has been developed using a common description format and can be found on the study website:

[www.eskillspolicy-europe.org](http://www.eskillspolicy-europe.org)

in the form of an Online Knowledge Base.

To view them, click on “Multi-stakeholder Partnerships”, then on “Benchmarking policies on multi-stakeholder partnerships for e-skills in Europe”, scroll down and press the button “search” to be offered a list of the multi-stakeholder partnerships. Clicking on “view” will present them, and provide the possibility to sort according to items and words.





## >> *The “European e-Skills Forum”*

**A strategic initiative for a long term agenda to ensure adequate e-skills for the future across both workforce and population**

The European e-Skills Forum released a report „e-Skills in Europe: Towards 2010 and beyond” in September 2004. Several initiatives and studies were launched in 2005 based on the recommendations of the Forum, to prepare for the development of a long-term e-skills agenda. The European e-Skills 2006 Conference (Thessaloniki on 5-6 October 2006) was an important milestone towards the preparation of a long term strategy to ensure adequate e-skills for the future across both workforce and population. The European Commission adopted a Communication on “e-Skills in Europe: Fostering Competitiveness, Growth and Jobs” in September 2007. It was endorsed by the Competitiveness Council of Ministers in November 2007.

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## >> Links

- >> APO IT  
<http://www.kibnet.org/english/en.aitts/content.en.aitts.2/index.html>
- >> CEN/ISSS ICT Skills Workshop  
<http://www.cen.eu/cenorm/businessdomains/businessdomains/iss/ activity/wsict-skills.asp>
- >> ChangePro  
<http://www.dipoli.tkk.fi/itkoulutus/changepro>
- >> CIGREF (Club informatique des grandes entreprises françaises)  
<http://cigref.typepad.fr>
- >> Cisco Networking Academy Program (CNAP)  
<http://www.cisco.com/web/learning/netacad/index.html>
- >> Cisco meets APO  
<http://www.kibnet.org/lexi.115/index.html>
- >> CIST Center for Information Society Technologies  
<http://www-it.fmi.uni-sofia.bg/cist/>
- >> EASE - European Alliance on Skills for Employability  
<http://www.e-skills-ilb.org/alliance/default.aspx>
- >> Nederland Digitaal in Verbinding (Ecabo & Kenteq)  
<http://www.syntens.nl/ndiv>
- >> ECDL - European Computer Driving License Foundation  
<http://www.ecdl.com/publisher/index.jsp>
- >> E-Pracownik  
<http://www.epracownik.edu.pl>
- >> e-Skills@Cedefop  
<http://eskills.cedefop.europa.eu/>
- >> e-Skills Industry Leadership Board  
<http://www.e-skills-ilb.org>
- >> e-Skills UK  
<http://www.e-skills.com>
- >> EUROPASS  
<http://www.europass-info.de/EN/start.asp>
- >> EUGA - EU Grants Advisor  
<http://www.microsoft.com/emea/euga>
- >> European Commission on e-Skills  
[http://ec.europa.eu/enterprise/ict/policy/ict-skills/ict-skills\\_en.htm](http://ec.europa.eu/enterprise/ict/policy/ict-skills/ict-skills_en.htm)
- >> European 2006 e-Skills Conference  
<http://www.e-skills-conference.org>
- >> European e-Competence framework  
<http://www.ecompetences.eu>
- >> European e-Skills Conference 2006 Declaration  
[http://eskills.cedefop.europa.eu/conference2006/Thessaloniki\\_Declaration\\_2006.pdf](http://eskills.cedefop.europa.eu/conference2006/Thessaloniki_Declaration_2006.pdf)
- >> FIT (Fast Track to IT)  
[http://www.fit.ie/fit\\_home.htm](http://www.fit.ie/fit_home.htm)
- >> IT-Fitness  
<http://www.it-fitness.de>
- >> KIBNET  
<http://kibnet.org/>
- >> Loket MBO-ICT  
<http://www.loketmboict.nl>
- >> Microsoft IT Academy  
<http://www.microsoft.com/education/msitacademy/default.msp>
- >> Oracle Academy  
<https://academy.oracle.com/>
- >> Oracle Workforce Development Programme  
<https://workforce.oracle.com/>
- >> SFIA (Skills Framework for the Information Age) Foundation  
<http://www.sfia.org.uk/>
- >> TechnofuturTIC Competence Centre  
<http://www.technofuturtic.be/code/fr/hp.asp>
- >> Technology, Innovation and Initiative Programme (TII – Tecnologia, Inovação e Iniziativa)  
<http://www.citeve.pt>

### Contact information

For further information and to request copies of this brochure, please contact:



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