e-Skills
Fostering Competitiveness, Growth and Jobs

Wrocław, Poland, 15 October 2014
The e-Skills Pyramid

- **e-Leadership skills**: these correspond to the capabilities needed to exploit opportunities provided by ICT, notably the Internet; to ensure more efficient and effective performance of different types of organisations; to explore possibilities for new ways of conducting business/administrative and organisational processes; and/or to establish new businesses.

- **ICT practitioner skills**: these are the capabilities required for researching, developing, designing, strategic planning, managing, producing, consulting, marketing, selling, integrating, installing, administering, maintaining, supporting and servicing ICT systems.

- **ICT user skills**: these represent the capabilities required for the effective application of ICT systems and devices by the individual. ICT users apply systems as tools in support of their own work. User skills cover the use of common software tools and of specialised tools supporting business functions within industry. At the general level, they cover "digital literacy".
ICT Workforce Growth in Europe

- 2001-2004: 0.9% p.a.
- 2011-2012: 1.8% p.a.
- 2012-2013: -1.2%

* 2010/11 break in series
<table>
<thead>
<tr>
<th>Narrow Definition</th>
<th>ISCO-08 code</th>
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<td>Systems analysts</td>
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<td><strong>Management, architecture and analysis</strong></td>
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<td>Information and communications technology service managers</td>
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<td><strong>Other ICT practitioners - professional level</strong></td>
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<td>Electronics engineers</td>
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<td>Telecommunications engineers</td>
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<td>Information and communications technology sales professionals</td>
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<td><strong>Core ICT practitioners - professional level</strong></td>
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<td>Process control technicians not elsewhere classified</td>
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<td>Air traffic safety electronics technicians</td>
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<td>Medical imaging and therapeutic equipment technicians</td>
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<td>Medical records and health information technicians</td>
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<td>Broadcasting and audio-visual technicians</td>
<td>3521</td>
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<tr>
<td>Telecommunications engineering technicians</td>
<td>3522</td>
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Management, architecture and analysis: 1,765,000
Core ICT practitioners - professional level: 2,608,000
Other ICT practitioners - professional level: 1,289,000
Other ICT practitioners - associate/technician level: 1,045,000
Core ICT practitioners - associate/technician level: 1,289,000

EU28 2013 - Total: 7,325,000

European Union (EU28)
Changes in External IT Spending among European Organisations, 2014

Source: IDC European Vertical Markets Survey 2013, n = 1,651
Countries included: France, Germany, Italy, Spain, U.K.
Question: In calendar 2014, do you expect your organization's external IT spending to increase, decrease or stay the same? (% of companies)
IT Priorities among European Organisations

Source: IDC European Enterprise Software Survey 2014, n = 1,309
Countries Included: France, Germany, Italy, Spain, U.K., Netherlands, Nordics
Question: Please rate the importance of the following IT priorities to your organization for the next 12 months.
The Three Scenarios (2012-2020)

- **Main Forecast Scenario**
  - 2012: 274,000
  - 2014: 449,000
  - 2016: 509,000
  - 2018: 730,000
  - 2020: 730,000

- **Stagnation**
  - 2012: 274,000
  - 2014: 449,000
  - 2016: 509,000
  - 2018: 730,000
  - 2020: 730,000

- **Disruptive Boost**
  - 2012: 274,000
  - 2014: 449,000
  - 2016: 509,000
  - 2018: 913,000
  - 2020: 1,346,000
ICT Workforce Expected Growth (2011/2020)

Management, business architecture and analysis

ICT practitioners & technicians

Process control, engineering and industry specific technicians

Total

- 2020
- 2015
- 2012

- 44.159%
- 8.452%
- 15.529%
- 9.511%
- 9.344%
- 5.837%
- 1.990%
- 1.819%
- 3.206%
Key messages

Demand keeps growing despite crisis. Forecasts: even the worst scenario sees increasing excess demand

- Growth trend in core jobs between 2 to 4%
- Management jobs up to 8% growth p.a.
- Technician/associate level jobs declining
- Need to continuously increase the quality and the relevance of e-skills

Job growth largest in highly skilled jobs

- Management, Architecture and Analytics positions, where also e-Leadership skills are required. Usually recruited from seasoned practitioner pool and other (non-ICT) managers.
- New job profiles not yet fully covered in classification, such as Big Data and Cloud computing specialists
Communication on e-Skills
Adopted by the Commission on 7 September 2007

The Communication on “e-Skills for the 21st Century” includes a long-term e-skills strategy. It was followed by:

• **Council Conclusions on the e-skills strategy**
  Competitiveness Council on 23 November 2007

• **Europe 2020 Flagships** adopted in 2010 (Digital Agenda, Innovation Union, News Skills for Jobs etc.)

• External **Evaluation** (2010 and 2013)

• **Employment Package** (2012)

• **Grand Coalition for Digital Jobs** (4-5 March 2013)

• **European Council Conclusions** (24-25 October 2013)
Main Activities at EU Level (2008-2014)

- Benchmarking e-Skills Multi-stakeholder Partnerships
- European e-Competence Framework (with CEN)
- European e-Skills and Career Portal (by industry)
- Monitoring Supply and Demand
- Developing Foresight Scenarios (2015-2020)
- Assessing the Impact of Global Sourcing
- Benchmarking Financial and Fiscal Incentives
- European e-Competences Curricula Development Guidelines
- Proposing e-Learning Content Exchange Mechanisms
- European e-Skills Week: Awareness Raising Campaign
- Two Evaluation of the Implementation of the Communication
- Assessing impact of cloud computing, cyber-security and green IT
- Towards a European Framework for ICT Professionalism
- e-Leadership: e-Skills for Competitiveness and Innovation
- Towards a Quality Label for ICT Industry Training and Certification
- European e-Skills Workshops and Conferences
Towards a Digital Economy
Importance of Policy Initiatives on e-Skills

Source: Empirica

Networked Readiness Index 2012/2013
Source: World Economic Forum
The Grand Coalition for Digital Jobs (March 2013)
Grand Coalition Pledge Tracker

55
Pledging organisation

6
National coalitions

8
Local coalitions

Check the progress of the pledges

Check the progress of the national and local coalitions

http://www.linkedpolicies.eu/pledge/
The pledges engage in multiple activities to implement the Grand Coalition objectives

(N. of Pledges, multiple answers)

- Awareness raising, Communication: 35
- Networking, building collaboration: 12
- Developing training/education / certification content: 7
- Developing platforms, software tools: 11
- Delivery of training, education, certification courses: 39
- MOOCS: 11
- Internships and apprenticeships: 15
- Placement and recruitment: 14

IDC
Analyze the Future
European e-Competence Framework

A common pan-European framework for ICT practitioners in all industry sectors: it is a reference framework of 36 ICT competences that can be used by ICT user and supply companies, the public sector, educational and social partners across Europe. The framework provides a pan-European tool for:

- ICT practitioners and managers, with guidelines for their competence development
- HR managers, enabling the anticipation and planning of competence requirements
- Education and training, enabling effective planning and design of ICT curricula
- Policy makers and market researchers, providing a clear and Europe-wide agreed reference for ICT skills and competences in a long-term perspective
Maturing the ICT Profession in Europe
e-Leadership

Strong business enablers are critical for increasing the likelihood of high performance and mitigating the risks of wasting investments in ICT.

- Strong business involvement
- Sufficient technology-focused talent
- Sufficient management-focused talent
- Mature digitized platform
  - An organization’s **digitized platform** is a “catch all” term for the technology, digitized business processes (such as HR, ICT, procurement and operational processes) and data components that an organization accumulates over time.

Definitions

As firms rely more on ICT to operate and innovate, they are demanding new types of leaders.

- **E-LEADER**
- **LEADER**
- **MANAGER**
- **ENTREPRENEUR**
- **DIGITAL ENTREPRENEUR**

**Leadership** is the accomplishment of a goal through the direction of human resources.

**E-leadership** is the accomplishment of a goal that relies on ICT through the direction of human resources and uses of ICT.


Objective:
- To develop, demonstrate and disseminate European guidelines and quality labels for new curricula fostering e-leadership skills
- Focus: Innovation empowerment for IT executives and CIOs in medium to large enterprises

Approach
- Survey of existing potential curricula for e-leadership skills
- Best practice identification
- Stakeholder-mediated development
- Multi-region pilot demonstration
- Pan-European dissemination: 10 major events

Complementary initiative was launched in January 2014 focusing on entrepreneurs, managers and advanced ICT users in SMEs, start-ups and gazelles

Contact: guide@empirica.com
European e-Skills Week

- Target groups: **ICT Practitioners and young people**
- **37 countries** covered
- More than 1,800,000 people participated in **2,335 events**
- Over 130 million touch points twice as many as in 2010
- Over **260 stakeholders** (including 27 Pan-European)
- Coordinated multi-stakeholder campaign including educational institutions, public bodies, NGOs and industry
- e-Skills Manifesto

**New Campaign in 2014: "e-Skills for Jobs"

Contact

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website: http://ec.europa.eu/enterprise/sectors/ict/e-skills/index_en.htm

European e-Skills 2014 Conference
e-Leadership and IT Professionalism
2 - 3 December 2014, Brussels

www.eskills2014conference.eu