Skills for a sustainable future in Europe

European Policy Centre

Industrial policy Task Force meeting on "knowledge-driven re-industrialization: impact on skills and human capital"

Brussels, November 13th 2013
### Sectors covered

<table>
<thead>
<tr>
<th>Sector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>Furniture</td>
</tr>
<tr>
<td>Building of ships and boats</td>
<td>Health and social work</td>
</tr>
<tr>
<td>Chemicals, pharmaceuticals, rubber and plastics</td>
<td>Hotels, restaurants and catering</td>
</tr>
<tr>
<td>Computer, electronic and optical devices</td>
<td>Non-metallic materials</td>
</tr>
<tr>
<td>Construction</td>
<td>Other services, maintenance and cleaning</td>
</tr>
<tr>
<td>Defence industry</td>
<td>Post and telecommunications</td>
</tr>
<tr>
<td>Distribution and trade</td>
<td>Printing and publishing</td>
</tr>
<tr>
<td>Electricity, gas, water and waste</td>
<td>Textiles, apparel and leather products</td>
</tr>
<tr>
<td>Electromechanical engineering</td>
<td>Transport and logistics</td>
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<td>Financial services</td>
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The 19 sectors together covers around 60 % of total EU employment

[Map of European Union Member States]
Before the crisis: steady decline in industrial employment

Historical employment trends (EU-27)

Source: Eurostat
Before the crisis: demand for skilled labour going down

Index of changes in employment in the EU27 by occupation

- High skilled labor
- Skilled labor
- Low skilled labor

Source: Eurostat

Polarisation

- Dramatic decline in the need for skilled labour
- Steady demand for low skilled labour
- Significant increase in the need for high skilled labour

Source: Eurostat
Before the crisis: polarization in education

Index of general educational level in EU

Source: Eurostat
During the crisis: the gap deepens

Employment index for the 19 sectors

Based on historical data (Eurostat), validating reviews and scenarios

2001 - 2003: EU-25
2004 - 2012: EU-27

The economic crisis
Post economic crisis

2001 - 2003: EU-25
2004 - 2012: EU-27

Source: Validating reviews
Source: Sum of scenarios
During crisis: services, and services combined with production maintain some employment

Categorized employment index

- Distribution and trade
- Financial services
- Health and social work
- Hotels, restaurants and catering
- Other services, maintenance and cleaning
- Post and telecommunications
- Transport

- Construction
- Electricity, gas, water and waste
- Printing and publishing

- Automotive sector
- Building of ships and boats
- Chemicals, pharmaceuticals, rubber and plastic products
- Computer, electronic and optical products
- Defence industry
- Electromechanical engineering
- Furniture
- Non-metallic materials
- Textiles, apparel and leather products

The economic crisis Post economic crisis
After the crisis: Jobless growth in many sectors

**Employment growth & value added growth**

**Service: High growth sectors**
Significant employment growth combined with growth in added value

**Production sectors: European excellence**
Employment decline. Still high to medium growth in value added
After the crisis: Staying, changing or leaving

**Employment growth & off shoring trend**

### ‘Staying’ sectors (services)
- High employment growth
- Low level of off shoring
- Increase in high skilled jobs
- Still need for low skilled/manual labour

### ‘Changing’ sectors (production)
- Low/no employment growth
- High level of off shoring
- Increase in high skilled jobs (focus on high end value activities)
- Significant decrease in low skilled/manual labour

### ‘Moving’ sectors (production)
- High employment decline
- High level of off shoring
- Decrease in high skilled jobs
- Dramatic decrease in low skilled/manual labour
Main findings 1

- **Polarisation of labour market/skills need:**
  - Significant decline in medium skilled jobs (E.g. craftsmen, etc.)
  - Moderate increase in low skilled jobs (E.g. elementary service occupations)
  - High increase in high skilled jobs (E.g. Professionals, managers, etc.)

- **Significant job growth (only) in service sectors:**
  - Increase in both high, medium and low skilled jobs

- **European excellence within production:** internationalisation, off shoring and specialisation leads to job decline in production sectors but growth in value added
  - Decrease mostly in skilled and low skilled jobs
  - Status quo or increase in high skilled (high end value) jobs

However…

- **Upskilling in all sectors** both historically and in the future
- **Increasing educational levels in all sectors**
Main findings 2

- **Traditional sector divisions are dissolving**: need for new types and mixes of employees and educational backgrounds in most sectors.

- **Traditional job profiles and work tasks are increasingly combined** demanding new combinations of skills and competencies.

- **New skills and competences** are especially related to **sustainability** (environment, climate, health, etc.) concerns (and regulation), **ICT**, and to the **internationalisation** of both workforce, markets and supply chains.

- **High risk of skills (and labour) shortages in many sectors** due to an ageing workforce, poor image among young candidates and/or problems to attract women.
  
  - Production sectors: Faded and a heavy technical image (Ex. ship building, energy(-production))
  - Service sectors: Poor working conditions and career opportunities (Ex.: Horeca, Other Services (cleaning, etc.))
### Main recommendations from the sector studies

#### Recommendations grouped with main findings

<table>
<thead>
<tr>
<th>Findings</th>
<th>Specific recommendations</th>
<th>General recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polarisation of skills need</td>
<td>• Innovation and R&amp;D</td>
<td>• Adapt and modernize VET</td>
</tr>
<tr>
<td>European excellence in production</td>
<td>• Cluster and cross-border networking</td>
<td>• EU certification of education &amp; skills</td>
</tr>
<tr>
<td>Job growth in service sectors</td>
<td>• Sector specific skills</td>
<td>• Programmes for SMEs</td>
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<tr>
<td></td>
<td>• Apprenticeship/Mentoring</td>
<td>• New learning tools</td>
</tr>
<tr>
<td></td>
<td>• Solid skills in educational system</td>
<td>• Culture of life-long learning</td>
</tr>
<tr>
<td>Traditional sector divisions dissolve</td>
<td>• Increase flexibility of educational system</td>
<td>• In-house upskilling and retraining of workers</td>
</tr>
<tr>
<td>Traditional job profiles combined with new skills</td>
<td>• Inter-multidisciplinary approaches in education</td>
<td></td>
</tr>
<tr>
<td>New skills and competences</td>
<td>• Cooperation between stakeholders to adapt to educational system</td>
<td></td>
</tr>
<tr>
<td>Labour shortage due to ageing</td>
<td>• Improve sector images</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Working conditions</td>
<td></td>
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<td>• Career development</td>
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Main recommendations from the sector studies

**Recommendations on education and training**

- Adapt and **modernise vocational education and training (VET)** and general education systems
- Increase the **flexibility of the educational system**. New business models demands new skills
- Include **inter- and multidisciplinary approaches** in education
- Closer **cooperation between stakeholders** is important in order to **adapt the education system** to new skill needs
- Promote **sector specific skills** at an early stage - by renewing forms of education
- Increase use of **apprenticeship/mentoring programmes**
- Greater emphasis should be put on **teaching cultural and social skills** in the educational system
- EU standardization and **certification of educations and skills** to ensure free movement of the labour force
- Develop special/joint education and **training programmes for SMEs**
- Develop high quality **online and digitalised learning tools**
- Create a **culture of life long learning**
- Support **in-house up-skilling and (re)training** of workers
Main recommendations from the sector studies

General recommendations

• Enhance **innovation and R&D**

• Invest strongly **in human capital**

• Improve **sector image** – especially for young candidates
  • Improve **working conditions**
  • Improve **career and personal development possibilities** – especially for low skilled workers

• Improve **collaboration among all stakeholders**
  • Support and **enforce social dialogue**

• Support **diversity policies and programmes** aimed at:
  • Keeping **elderly employees** (Active ageing)
  • Attract **female workers/managers**
  • Integrate and attract **immigrant workers and expats**

• Develop sector **monitoring systems on employment, skills and competences**

• Support **clustering and cross border networking** (for joint training and R&D projects)
Summing up: Common paths of sectoral evolution

Sun rises in the east

Increased competition from neighbouring countries and Asia. Movement of many (mostly basic processing and assembling) functions towards east during the last 10 years, but it increasingly includes more knowledge intensive activities. In the beginning many functions were moved to the New Member States. However this movement now increasingly includes neighbouring EU countries, Asia and other emerging economies.

Mostly production sectors (especially textiles, defence, automotives). Also tourism: basic mass tourism has increased in eastern Europe and some Asian countries. Increased competition within luxury and customised tourism from Asia and other emerging economies as well.

European excellence

As basic processing, assembling and service functions are off shored and moved out of Europe, focus is put on high end value and more knowledge intensive activities for example connected to R&D, tests, marketing, sales, value chain management and financial management. However global competition is also increasing within these activities.

Mostly production sectors: (Especially: furniture, automotives, computer, ship building and electromechanical)

Mind the gap: Polarisation of skills needs

Several sectors report on rising skills needs together with a steady need for low skilled manual workers: Some functions are still highly manual and are at the same time place bound (they cant be off-shored). At the same time internationalisation, market segmentation and new complex consumer demands creates increased need for highly professional managers, expert technical and administrative staff, specialised service workers etc.

Especially prominent within production sectors but also evident in some service sectors like finance and printing & publishing. NB! In the big and low knowledge intensive service sectors like horeca and other services there seems to be a rising need for skilled workers.
Thanks!

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