Skill mismatch
The European experience

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Cedefop skill mismatch agenda

Five priority areas (2008)

- Improve measurement of skills/skill mismatch
- Examine skill mismatch persistence and impacts
- Improve understanding of processes and dynamics
- Focus on skill mismatch of vulnerable groups
- Improve data availability and use

2009-2017

✓ Multiple reports and briefings
✓ Inputs to European Commission/WEF
✓ New EU-level data collection
  (European skills and jobs survey)
✓ Online database of skill mismatch policies
Despite being the generation with the highest education attainment ever, today's young have paid the highest price for the crisis... However, high levels of unemployment co-exist with 2 million unfilled vacancies, an indicator that some people lack the right skills or mobility.

Skills shortages in EU

- About 4 in 10 employers in EU have difficulty filling vacancies with right skills (3rd European company survey)
  - Pronounced in Baltic states, AT, BE, HU, BG, MT, DE
  - Low in south-east Europe ES, EL, HR, CY

- Structural shifts in EU Beveridge curves (ECB, 2012)

- High- or medium-skilled bottleneck jobs e.g. ICT, health, green jobs, skilled trades

- Low skills/skill gaps of those out of work (OECD, 2013; Cedefop, 2015)

- Evidence of 70 million low-skilled EU individuals (OECD, 2013)
Few ‘genuine’ skill shortage vacancies

**HRM inefficiency (13%)**
No competitive graduate training program/slow hiring process/limited resources to market vacancies

**‘Apparent’ skill shortage (46%)**
- Lack of right skills
& and inability to offer competitive wage (24%)
& HRM inefficiency (22%)

**‘Genuine’ skill shortage (12%)**
Lack of applicants with right skills and capabilities

**Uncompetitive wages (29%)**
Inability to offer a competitive salary

*Source: Cedefop (2015) Skill shortages and skill gaps in European enterprises*
Skill shortages: more than meets the eye

Country-level

Skill supply
Business cycle
Employer talent management practices
Labour market Institutions

Enterprise-level

Probability of high-skill bottleneck, 2013, EU28

Finance & business
% female workforce
Wholesale/retail
Atypical hours
Changing workplace
Casual workforce
Training
Health & social work
Private sector
% staff worked overtime

Source: Cedefop (2015) Skill shortages and skill gaps in European enterprises
Skill mismatch, lifelong

- Underskilled
- Overqualified
- Skill gaps
- Overskilled but skill deficit?
- Skills obsolescence
- Skill shortages
Some ongoing convergence among EU countries/generations (Chlon-Dominczak et al., 2016; McGuinness et al., 2017)

- Country differences: unemployment, VET, female participation, EPL?, product market/housing regulations

- 29% qualification mismatch
- ~16-17% overqualified; 29% tertiary
- ~ 45% skill mismatch
- Young: qualifications, low skills
- Older: skilled, low qualifications

Source: Cedefop European skills and jobs survey (ESJS)
Skill mismatch: churn between & within jobs

<table>
<thead>
<tr>
<th></th>
<th>Previous job</th>
<th>Start of job</th>
<th>Current post</th>
</tr>
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<tbody>
<tr>
<td>Skills lower than needed by job</td>
<td>10%</td>
<td>22%</td>
<td>5%</td>
</tr>
<tr>
<td>Skills matched to what job needs</td>
<td>52%</td>
<td>50%</td>
<td>54%</td>
</tr>
<tr>
<td>Skills higher than needed to do job</td>
<td>28%</td>
<td>27%</td>
<td>39%</td>
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Source: Cedefop European skills and jobs survey (ESJS)
Who are the mismatched workers?

**Overskilled**
- Mismatch: Problem-solving
- Mismatch: Learning to learn
- Mismatch: Basic literacy
- Few job opportunities
- Financial constraints
- Motive: job security
- Motive: career prospects
- Frequent learning tasks
- No routine tasks
- Part-time
- Accommodation and food
- Plant and machine operators
- Elementary jobs
- Male
- High educated

**Underskilled**
- Mismatch: Technical skills
- Mismatch: ICT skills
- Mismatch: Planning skills
- Motive: gain work experience
- Financial constraints
- Learning tasks
- Fixed-term contract
- Manufacturing
- Scientific activities
- Managers/professionals
- Before unemployed
- Before inactive
- Low educated
- Tenure: > 5 years
- Age: 55-65

*Source: Cedefop European skills and jobs survey (ESJS); graphs show estimated odds ratios, adult workers, EU28*

Overqualified wage penalty: low work skills, information gaps, bad job quality

Decomposition of raw wage gap between overqualified and matched tertiary graduates, 2014, EU28

- Human capital (14%)
- Information asymmetry (11%)
- Assignment to low-skill jobs (7%)
- Compensating attributes (5%)
- Mobility and career concerns (2%)
- Other search constraints
- Country differences (5%)
- Unexplained (Part of wage gap due to differential returns to characteristics of overqualified or other residual factors) (56%)

Source: McGuinness & Pouliakas (2016) based on Cedefop European skills and jobs survey (ESJS)
Sustained skills matching is intertwined with high informal learning in good jobs

- 69% interacting with colleagues at work
- 63% attended training courses
- 59% trial and error
- 51% self-training
- 40% supervisor taught on the job

22% of EU adult workers have not developed their skills further in their jobs

Drivers of skill growth
- 69% interacting with colleagues at work
- 63% attended training courses
- 59% trial and error
- 51% self-training
- 40% supervisor taught on the job

Source: Cedefop ESJS
Elements of EU skills matching policies

- Include skills matching in ALMPs
- Workplace learning as part of adult training
- Well-defined link between skill needs anticipation and (regional) policies
- Tailored training to learner skill needs (vouchers)
- Include relevant stakeholders in curricula design
- ICT competence-based matching
- Web-based feedback of ALMPs
- Strong link of ALMPs and education tools (validation)
- One stop shop guidance centres
- Networking teachers-business
- Skills as asset for FDI

Source: Cedefop (2015) *Tackling unemployment while addressing skill mismatch*; skills matching policies database
EU skills matching policies
Road ahead

✓ Improve *skills matching activation services*
✓ Improve *skills intelligence* and information for better guidance and career choices
✓ Improve *skills governance* – partnerships between multiple stakeholders (education, industry, social partners)
✓ Incentive *local development or industrial policies* in close alignment with skills policies
✓ Combine skills, activation, employment and mobility policies with *product market, housing & other social policies*
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