European Dialogue on Skills and Migration

Workshop on ICT jobs and skills

Background note

I — Context in the ICT sector and ICT skills

In 2012 there were 4.4 million ICT employees in the EU (managers, professionals and technicians), with an additional 680 thousand self-employed.[1] Up to 20 percent of the workforce in developed nations can be considered as ICT-intensive workers.[2] Due to the increased application of ICT across all economic sectors, specialist ICT technical skills are becoming increasingly transferable outside the core ICT sector, increasing demand and competition for skills.[3] In the ISCO 1-3 categories of occupations — managers, professionals and technicians — 20 to 25 percent of jobs requires advanced ICT skills.[4] In the ICT sector itself, more than half of the employees are highly-skilled, compared to around one-third in the economy as a whole.[5] Information and communications technology professionals have consistently featured in the top bottleneck occupation lists of EU Member States[6,7] and some are facilitating recruitment from abroad.

The European Commission estimates there could be up to 800,000 unfilled vacancies for ICT professionals already by 2020,[8] which would result in missed opportunities and undermine EU competitiveness and growth. In the ICT secor alone, replacement demand will require approximately an additional 2.4 million workers over the period 2010-2025, while over 0.5 million new jobs will be created over the same period. Those new jobs are likely to be in high value-added and specialised services, as basic services and hardware manufacturing moves to lower-cost regions outside Europe.[9]

In March 2013 the European Commission launched a multi-stakeholder partnership, the Grand Coalition for Digital Jobs, promoting actions to attract young people into ICT education, and to retrain unemployed people for ICT jobs. In times of high unemployment, in particular youth unemployment, training and retraining have a major role to play. The aims of the coalition coincide with the EU's efforts to reach an

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[1] European Vacancy and Recruitment Report 2014, Luxembourg: Publications Office of the European Union, 2014.

[2] OECD (2012), "ICT Skills and Employment: New Competences and Jobs for a Greener and Smarter Economy", OECD Digital Economy Papers, No. 198, OECD Publishing. http://dx.doi.org/10.1787/5k994f3prlr5-en.

[3] ETUC, 2012. https://www.etuc.org/sites/www.etuc.org/files/ICT_12-08_fin.pdf.

[4] Advanced ICT skills are, amongst others: developing software, applications or programming; using computer syntax or statistical analysis packages). Source: European Commission, European Semester Thematic Fiche "Skills for the Labour Market". http://ec.europa.eu/europe2020/pdf/themes/2015/skills-for-the-labour-market.pdf.

[5] CEDEFOP data.

[6] "Determining labour shortages and the need for labour migration from third countries in the EU", Synthesis Report for the EMN Focussed Study, forthcoming.

[7] Mapping and analysing Bottleneck Vacancies on the EU Labour Markets, June 2014, Ramboll and SEOR Erasmus School of Economics for the European Commission.

[8] Empirica Working Paper, November 2015. "e-Skills in Europe — Trends and Forecasts for the European ICT Professional and Digital Leadership Labour Markets (2015-2020)" http://eskills-guide.eu/fileadmin/LEAD/Working_Paper_-_Supply_demand_forecast_2015_a.pdf

[9] ETUC, 2012. https://www.etuc.org/sites/www.etuc.org/files/ICT_12-08_fin.pdf

employment rate of 75% and to reduce unemployment rates among vulnerable groups including people with a migrant background.

Like in other sectors, shortages in the ICT sector and as regards ICT skills more generally can be addressed through a variety of means: promoting education, raising awareness of careers in ICT, retraining existing workers, extending the working age, increasing labour market participation,encouraging intra-EU labour mobility and outsourcing.

However, attracting talents from abroad can also play an important role in filling such shortages.

II — Questions for discussion

How can ICT skills be better validated/recognised so as to improve the labour market outcome of migrants, in particular those who arrived in Europe for reasons other than employment?

- How can ICT skills, including those which may be self-taught, be validated by employers and by clients?
- Is there a demand for entry-level ICT workers? Can ICT training courses bring someone up to a level where she/he is able to fill bottleneck occupations in the ICT sector?
- What kind of training/work force development exists/is needed in ICT sector for TCN?

To what extent should skills shortages in the ICT sector be addressed through migration of third-country nationals?

- What added value can actions at the EU level offer to attract skilled ICT workers?
- Are salary thresholds fixed in immigration law inhibiting the recruitment of ICT workers from abroad?
- To what extent can immigration be a substitute for outsourcing?
- How can small and medium-sized enterprises have access to ICT talents from abroad to address their skill needs?