Promoting Integration & Diversity In The Digital Labour Market in Poland

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NEW SKILLS AT WORK
J.P.Morgan

- ➤ There is now evidence of persistent shortages in ICT specialists in Poland in spite of the large graduate output of the country's education and training system. The current shortage is about 40,000-50,000 ICT specialists.

- ➤ The country faces difficulties in attracting larger numbers of girls and women to embark on a career in ICT. Women are significantly underrepresented in the ICT workforce. Current trends in enrolment in ICT studies do not indicate any tangible improvement in the near future.

- ➤ There are significant mismatches due to a widespread lack of non-technical skills among graduates from traditional ICT programmes, such as project management ability and social skills. This implies that even if employees have ICT skills, they may lack the ability to use them effectively in modern work settings, e.g. in team work.

- ➤ In spite of notable improvements in youth unemployment, long-term unemployment and young persons not in employment, education or training (NEET) since the latest recession, persons from a disadvantaged socio-economic background still face significant barriers in finding quality employment.

Current developments in the ICT labour market in Poland

The Polish ICT workforce accounts for about 424,000 workers, or 2.6% of the total workforce. In absolute terms, this is the sixth largest headcount of ICT workers in Europe and the largest in Eastern Europe. Between 2011 and 2015, the number of ICT workers has grown significantly, with most of the growth coming from software developers & analysts and applications programmers.

The average annual need for new ICT specialists according to our model is about 24,000, the sum of expansion and replacement demand. This is less than the 34,700 ICT graduates produced each year by the country's education system, but it does not yet take account of the current vacancy backlog of 40,000-50,000.

Large numbers of ICT graduates leave Poland every year for countries with higher pay grades, such as Germany, the UK and the USA. The share of highly educated persons among emigrants from Poland

has grown constantly and now includes significant numbers of ICT specialists.

Poland has traditionally one of the largest gender gaps in Europe. Women are significantly underrepresented in the total labour force and even more so in the ICT workforce. Young women are much less likely to choose ICT related subjects in university and vocational education. Underlying reasons include deep-rooted cultural norms and out-of-date value systems, including stereotypical views about what type of school subjects and jobs are best suited for girls and women. Moreover, when it comes to retention the lack of childcare facilities and regulatory disincentives such as lack of parental leave that is transferable between both partners and "financial support for families (i.e., in almost all cases, women) that provide long-term care to family members" discourage many women from taking up any paid employment or returning back to work after a family break.[1]

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[1] European Commission (2017b) 'Country Report Poland 2017', p. 22

There is room for improvement with respect to the proportion of NEETs

17.2 % of the 20-34 olds in the EU in 2017 were neither in employment nor in education and training ('NEETs'). The proportion of NEETs ranged from 7.8 % in Sweden to 29.5 % in Italy with Poland with 17.1% in the middle. This compares to lower figures with 11.9% in Germany and 13.7% in the UK but higher ones in France (18.2%) and Spain (20.8%).[2]

The government response

The Polish government has initiated a range of policies to address these challenges. Government policies since 2015 and recently since 2018 reflect awareness, in particular, of the need to better match skills production in the education and training system with the ICT skill needs of employers. Opening up careers in ICT to a wider range of young persons, including women, and other members of groups currently underrepresented in the ICT workforce, is another focus area. Moreover, and over the last 10-15 years, the Polish education system has undergone two reforms which have introduced significant changes to the vocational education and training system (see next paragraph).

Priority is given to reform of the vocational education system to enable it to better respond to labour market needs while offering novel pathways into employment for people at risk of exclusion. This process, however, will take many years to create tangible impact. Little can be said at the moment about whether the reforms will achieve the desired results.

Programmes for addressing unemployment and skills shortages in Poland are mainly organised in the context of the Operational Programmes (OPs) for using European Structural Funds, the main source of funding for this type of activities. The current set of OPs puts strong emphasis on inclusive ICT training, for which substantial financial resources have been made available.

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[2] Eurostat: Statistics on young people neither in employment nor in education or training (28 August 2018):
https://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_young_people_neither_in_employment_nor_in_education_or_training

The inclusive ICT training landscape

ICT is currently the most popular field of study in Poland. There are more than 800 fields of study in the ICT domain. While there are multiple pathways for individuals to gain entry into the digital labour market university degrees are still the most common. 70% of ICT specialists have an academic degree.

Employers are increasingly willing to hire graduates from areas other than ICT. The shortage of ICT skills has had the result that candidates who completed secondary education but have not gone on to pursue higher education, and who have obtained ICT skills through non-formal or short-cycle courses, have good chances of finding employment in entry-level ICT specialist jobs. This is opening up new opportunities for inclusive ICT training programmes.

More and more private sector companies have embarked on partnerships with vocational schools. Their main objective is to be able to influence future availability of skilled staff. This is achieved through co-operation in drafting of curricula and by offering work placements in the form of apprenticeships. Companies can also take patronage of a school class at local vocational school.

Progress is needed in the domain of vocational education and training (VET). In general and also for persons from disadvantaged socio economic backgrounds, VET is a possible traditional pathway into labour, due to the financial burden of academic education and the non-fulfilment of educational entry requirements. However, feedback from employers suggests that graduates from vocational ICT programmes are insufficiently prepared even for entry positions in ICT specialist occupations. There is a need for an adaptation of the VET system in Poland to ensure necessary quality of training.

Industry-driven ICT training programmes are of special relevance for youth and adults without the qualification required to enter one of the traditional pathways into ICT. Programmes such as Coders Lab and Ericsson's Software Development Academy (SDA) offer intensive courses designed in close collaboration with employers from the ICT sector.

Co-operation between such programmes and stakeholders from the social NGO sector is required to give persons from a disadvantaged social background access to such programmes. Coders

Lab's cooperation with NESsT Empowers, an NGO-driven initiative for targeting groups at highest risk of social exclusion, shows how this can be achieved.

Employers demand that applicants have well-developed soft skills in addition to digital skills. For this reason, exposure to the digital tech sector itself is seen as crucial to support someone into employment. Such exposure can take the form of a work placement which is part of the training course, or an apprenticeship where training and work experience are combined throughout.

The quality of work placements in the context of ICT training schemes in Poland is often low. Available evidence suggests that improvements are needed in terms of the average length of the placement, the level of integration of learners in the work process, and support offered to them by mentors assigned.

SMEs face barriers in offering work placements due to lack of resources, lack of experience, lack of a suitable curriculum, risk of losing of trained apprentices after completion, and lack of perceived benefits. **A major challenge in both tertiary and vocational education is the low share of women embarking on careers in ICT**. While Poland ranks 5th in the EU for female scientists and engineers (STEM), this does not translate into ICT careers for women. There still seem to be stereotypical views about women in the ICT domain.

A number of NGOs, industry stakeholders and state agencies have taken the initiative to explore alternative options. They have started to demonstrate the potential for innovative approaches to ICT training focusing on groups currently underrepresented in the ICT workforce.

Poland has a very strong community of engaged citizens who are working, in particular, to promote equality of chances for women in ICT education and the digital workforce. They are carrying out a large range of activities, many of which by women working in ICT and keen to reach out to girls and young women at a time when they make career choices. Successful examples include "Perspektywy" Education Foundation, the organiser behind the "IT for SHE" initiative.

Inclusive ICT training schemes are unlikely to achieve sustainability if employers are asked to absorb costs. One of the main competitive advantages of the ICT sector in Poland is related to low costs in comparison to other countries. Cost-efficient models for inclusive ICT training are therefore required. Different models are explored to this end, such as public subsidies, fellowships, third-party charging and student loans.

Key Recommendations

Promote ICT careers to women

- Modes of training need to be adapted to the need of learners for flexibility and support. Poland has a large share of women who state that they would like to take up a job but are prevented from doing so due to family commitments. ICT training programmes should therefore provide for as much flexibility as possible, making extensive use of ICT (e.g. eLearning) for this purpose.
- Provide more childcare facilities and regulatory incentives (e.g. parental leave that is transferable between both partners) and financial support for families that provide long-term care to family members to encourage women to take up paid employment or return back to work after a family break
- Changing deep-seated misconceptions about women's suitability for tech jobs and the lack of child care facilities for working women and men will require a consistent, strong effort from all major stakeholders.
- The power and creativity of existing communities of activists should be leveraged. Their experience is of great value for giving groups currently underrepresented in the ICT workforce a stronger voice, and for experimenting with novel ways to boost diversity and inclusiveness.

Offer better support to SMEs and training providers to engage them in inclusive ICT training

- A comprehensive support system is required to address the main barriers which keep SMEs from stronger engagement in inclusive training.
- For arranging such a system, multi-stakeholder partnerships at local and regional level have been shown to be most effective.

- The many small specialised providers contracted to operate ICT training programmes have limited capacity to deal with the special challenges posed by the demand for inclusiveness. They require effective, hands-on support to deal with minority groups with which they have had little experience so far.

Open up industry-driven training programmes for people from groups at risk of social exclusion

- Commercial training providers will require some kind of financial arrangement to cover the participation fee as learners are typically not able to afford them.
- In addition, teaching methods, content and support structures may need to be adapted to take account of the needs of, for example, at-risk young people.
- New funding models need to be developed in co-operation between commercial providers and NGOs operating in the social and education domains.

Improve the provision of work placements and mentorship

- Innovative measures need to address structural, bureaucratic and financial barriers to SMEs offering of work placements.
- Industry stakeholders, providers of training and education, NGOs and government should engage in a concerted effort to boost the quality of work placements across all sectors.
- The ICT sector should explore the possibility of launching a larger number of patronage classes, a form of collaboration between employers and VET schools which is showing much promise.
- For increasing use of mentorship, innovative models may need to be developed, such as cross-organisational and cross-regional mentor networks, possibly operating online only.

Improve evaluation and statistics

- There is the lack of serious evaluation of learning interventions, especially those conducted under OPs and funded from the European Structural Funds. Little is known about their impact in terms of employment and career building.
- Research is required on reasons why learners are dropping out, gaining employment or starting own businesses, and why some employers invest in ICT training while others stay inactive.
- Regular up-to-date insight into skills shortages and their relationship to skills produced by the education and training system are required for stakeholders to take the best possible decisions. For instance, training providers need the best information they can get about current and expected future demand for skills. Currently, one-time examples of such reports exist, e.g. NESsT 2017 report on "Closing the Skills Gap in Poland" and FIT Ireland's "ICT Skills Audits". Yet, this form of reporting must be institutionalised.

Further information

For further details about our survey results and methodology, you can request access to our full report, forthcoming in 2018. For questions and queries, please contact:

Werner B. Korte: Werner.Korte@empirica.com;
Daniel Schmidtmann: Daniel.Schmidtmann@empirica.com

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