



IloTNET TRANSNATIONAL REPORT

The IloTNET Transnational report assesses the state of affairs with regard to Industrial Internet of Things (IIoT) in the six Partner Countries (Bulgaria, Greece, Sweden, Cyprus, Italy, and Latvia). This will form the basis for establishing an IIoT Vocational Education and Training providers (VET) network, which, in turn, will help to promote the advancement of IIoT and the reaping of its benefits for all stakeholders.

The full report has four parts, it contains 8 Tables and 48 Figures, and it includes 1 Annex. Here follows a synthesis of main findings.

NATIONAL SCENARIOS

BULGARIA - More than 78% of employers in the country face difficulties in securing personnel, with the most serious difficulties in finding machine operators, programmers, and builders. In 3-5 years, more than 22,500 IT professionals and more economists will be needed. The sector looking for specialists with higher education in the next 3 to 5 years remains "Government, education, humanitarian health" with 22% of all stated needs or 48,391 people in total.

GREECE - Greece has the highest unemployment rate in the EU, although since its peak of 27.9% in September 2013 unemployment has been steadily decreasing. Greece has the lowest share of ICT specialists in total employment in EU, ranking 22nd among EU countries on the Integration of digital technology by businesses.

SWEDEN - The biggest challenge for Sweden in the coming years is the rising long-term unemployment as the number of unemployed people who have been unemployed for more than twelve months is increasing. In addition to a weaker demand for labour, the lack of demand for skills among the unemployed also contributes. The negative development has mainly affected foreign-born women with a lower level education.

CYPRUS - The structure of the economy is impacted by a significant decline in employment in traditionally areas, with

the emergence of new sectors. Having regard to the significant changes in employment and projected aggregate demand, both in the fields of economic activity and in occupations, the importance of timely and effective implementation of strategic employment and human resources development measures in Cyprus is confirmed.

ITALY - The professionals most requested by Italian companies are those who operate in the digital technology sector. Italian companies need graduates in electronic and information engineering, in industrial engineering, technicians and specialists in scientific and IT disciplines. The need for tech specialists concerns not only IT sector, but also other sectors, from legal to manufacturing, from banking to pharmaceuticals.

LATVIA - According to the forecasts of the Ministry of Economics, the largest surplus of labour force will be in service and trade professions, as well as in clerical positions, where the majority of employees have secondary general education, while the number of job seekers with such education will remain high.

IoT PERSPECTIVES

BULGARIA - Currently, Bulgaria ranks 28th in the European Commission Digital Economy and Society Index (DESI, 2019) and it has drafted a "Concept note for the Digital Transformation of Bulgarian Industry (Industry 4.0)", basis for developing a Strategy 4.0. A National Programme linked to the measures supported by the fund "Digital Bulgaria 2025" provides measures to encourage the digitisation of businesses.

GREECE - According to the Hellenic Telecommunications and Post Commission (EETT) in the first half of 2018 there were more than 350 thousand Machine to Machine (M2M) connections in Greece. Doubts remain about the Country's preparedness to implement IIoT, as Greece ranked last in EU (2018) concerning connectivity. Special attention to the digitization of SMEs: less than 5% of the 680,000 SMEs operate digitally

SWEDEN - According to the Digital Economy and Society Index (DESI) 2018, Sweden now ranks 2nd in EU States in terms of digital competitiveness. In May 2017, the Swedish government adopted a strategy that focuses on five areas: digital skills, digital security. To support the implementation of the strategy, a Digitalisation Council has been set up. It consists of 10 advisors, including the Digital Champion, led by the Minister of Digitalisation

CYPRUS- According to the Digital Economy and Society Index (DESI) 2018, "Cyprus ranks 21st out of the 28 EU Member States. Overall, Cyprus is progressing slowly but steadily. It shows improvements in all dimensions of the DESI index, and despite being ranked 21st, it is relatively close to the EU average".

ITALY - Italy ranks 24th out of the 28 EU Member States in the European Commission Digital Economy and Society Index (DESI) 2019. Online public services and open data are available, and take-up of e-health services is good. Fast broadband coverage and take-up are progressing, although the latter remains below the EU average), while ultrafast connectivity is progressing slowly. Italy adopted the national Digital Agenda Strategy 2014-2020 and the National ultra-broadband Strategy in 2015. In September 2016, Italy developed its Industry 4.0 Strategy.

LATVIA - Latvia ranks 17th in the European Commission Digital Economy and Society Index (DESI) 2019. Latvia performs well in Digital public services and Connectivity thanks to the wide availability of fast and ultrafast fixed and mobile broadband networks and the increased take-up of e-government services. However, the Latvian business sector still scores below the EU average on the Integration of digital technology and also on the Human capital dimension.

LESSON LEARNT

The conclusions drawn from the report:

- Crucial to increase the **supply of specific skilled labour**.
 - Digitization is a challenge for education, science and industry with **major changes occurring in all sectors**.
 - **New solutions** are required to raise the level of economic activity.
 - Lack of digital skills by the workers, both managers and employees, is **an obstacle** to the digitisation of companies, especially SMEs.
 - **VET providers** need to focus on digital literacy is.
 - The process of digital education has to start from the nursery and must continue as a **life-long learning**.
 - Digitalisation and automation impact on the **quality and conditions of work**, modifying the structure and the composition of the workforce by increasing the demand for highly specialized jobs.
 - **IloT training schemes** should be planned and implemented to match the supply-demand.
 - The biggest **obstacles for SMEs** are: lack of funding, lack of information, lack of education, training, etc., and lack of interest on the part of management.
 - **Other challenges** must be considered in addition - the ageing of the population, the need to reduce gender disparity in the labour market, territorial imbalances and the necessity to ensure the sustainable internationalization of economic relations.
 - Need to achieve a solid involvement from the **policy makers**.
- All countries should introduce national **IloT (Industry 4.0) policies**

Implemented by



IPS - Institute for Postgraduate Studies (BG)
www.unwe.bg



ITPIO - Institute For Training Of Personnel In International Organisations (BG)
www.itpio.eu



PBI - Vocational Education Association (LV)
www.europea-latvia.lv



TUCEP - Tiber Umbria Comett Education Programme (IT)
www.tucep.org



Helsingland Education Association (SE)
www.hufb.se



AKMI Anonimi Ekpaideftiki Etairia (EL)
www.iek-akmi.edu.gr



ReadLab - Research Innovation and Development Lab P.C. (EL)
www.read-lab.eu



DIMITRA - Dimitra Ekpaideftiki Simvilitiki AE (EL)
www.dimitra.gr



CSI - Center for Social Innovation (CY)
www.csicy.com



With the support of the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.