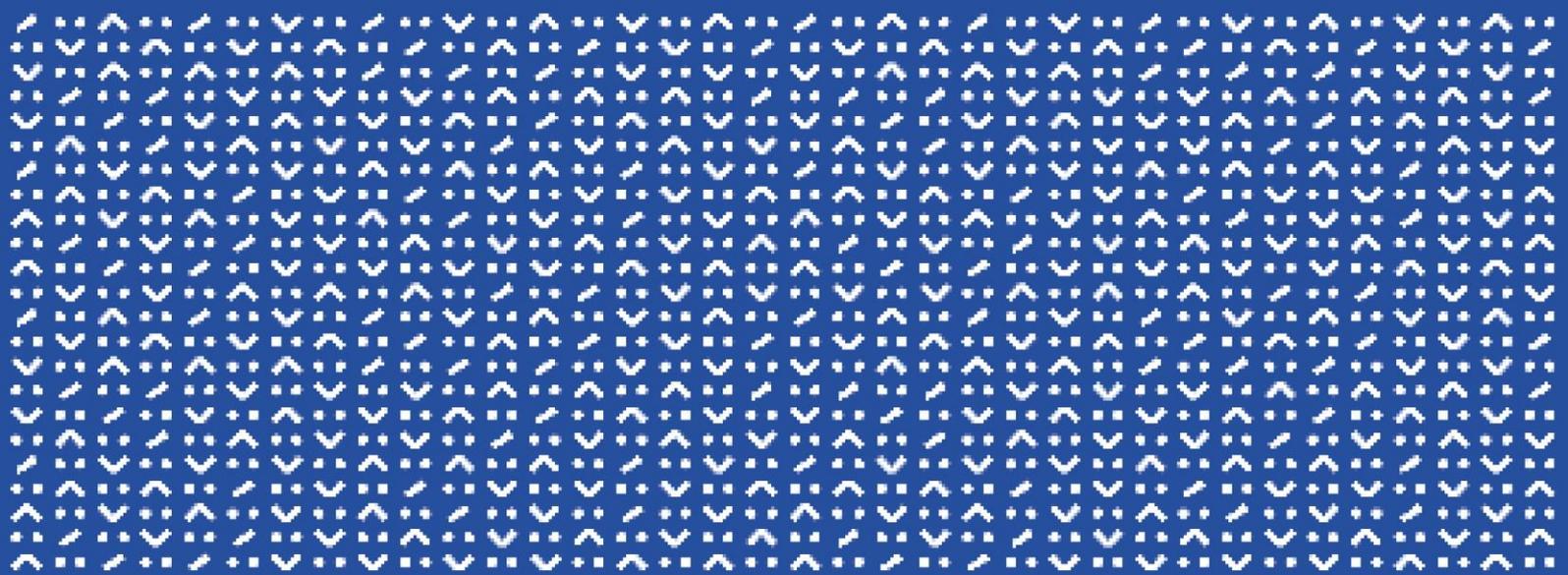# THE
BRATISLAVA DECLARATION
DIGITAL SKILLS MAKING THE DIFFERENCE

The Bratislava Declaration

Digital Skills Making the Difference

Bratislava, 18 October 2016: *Representatives from governments, industry, academia, NGOs, and other key stakeholders across Europe are committed to bridging the digital skills gap to empower Europeans and support Member States as well as the European Commission in this endeavour, by joining forces and working together.*

Digital and key enabling technologies provide the basis for innovation in a range of products across all industrial sectors. They underpin the shift to a greener economy, are instrumental in modernising Europe's industrial base, and drive the development of entirely new industries. Their importance makes them a key element of European industrial policy.

Digital technology opens the world to European business and Europe to global markets, enabling Europe to compete more effectively on the world stage. For the EU28, eliminating barriers to the expansion of the digital economy based on the free flow of information and knowledge could deliver 4% additional GDP growth over the next ten years, a gain of €500bn and similar in scale to the growth dividend achieved as a result of the EU's historic Single Market programme of 1992.

One of the major weaknesses of Europe with regards to new technologies lies in the difficulty of translating its knowledge base into marketable goods and services and into new and better jobs.

With the current scale of the new digital revolution, governments, business, educational institutions will need to change their approach to education, skills, employment, build new training models or even new labour market institutions. Europe does not have much time. The stakes are high; a failure to act now will lead to growing unemployment, labour issues and losing benefits of this new digital revolution.

What is more, over the past several years, the rising number of refugees arriving in Europe has provided an opportunity to fill the digital skills gap. Many refugees have the potential needed to fill this. Upskilling and introducing them to the labour market are the challenges. Companies from across all sectors, including the technology sector, have endorsed this opportunity and many are engaged in actions to make this a reality.

Without appropriately digitally skilled people, the digitisation of the European economy will become problematic.

Building on the European Commission's Communication on "e-Skills for the 21st Century: Fostering Competitiveness, Growth and Jobs", stakeholders, the European Commission and Member States have been actively addressing the IT skills gap for several years. Important developments of such strategy are the launch of the Grand Coalition for Digital Jobs in 2013 and of the "e-Skills for Jobs campaign" (2014-2016). Under the auspices of this campaign, representatives from governments, industry, academia and other key stakeholders across Europe have joined forces with the European Commission to push for further action to stimulate investment, the acquisition of digital skills and the creation of jobs to kick start Europe's anaemic rate of economic growth.

On 10 June 2016 the European Commission has announced a ''New Skills Agenda for Europe''. It includes '10 Actions to equip people with better skills', which underline the actions proposed in this Declaration. Among them is the launch on 1st December 2016 of a ''Digital Skills and Jobs Coalition'' which industry players and key stakeholders are fully committed to support.

A call for Action

Understanding the need to speeding up activities, having a disruptive and open-minded approach to education and launching courageous dialogues between governments, business, educational institutions, NGOs and other relevant stakeholders, we call on Member States and the European Commission to join us, industry and other relevant stakeholders, in acting on the following actions:

1. ***Foster digital skills training programmes***

   Industry has been working closely with schools, universities, employment agencies and NGOs to set up innovative programmes to supply people with key skills necessary for the digital transformation. Industry has been offering MOOCs, VETs, apprenticeships and programmes both to upskill and retrain staff internally and to build a skilled labour pool in the European community at large. Industry has been promoting ICT and STEM careers through their online platforms training people with the skills needed to get into digital jobs. And, jointly with academia, industry has also developed curricula for Industry 4.0.

   Industry will take action to continue to boost digital skills through such initiatives. Industry and SMEs in particular should make use of the ICT Vouchers and that the EC should expand the use of these to include digital training for SMEs. Under the guidance of the EC, apprenticeship schemes should also be bolstered across Europe focused on digital careers. National public employment agencies and public and private training organisations should be encouraged to work together to bridge the gap between demand and supply of digital employment jobs.

   Member States should ensure that their public employment services are up to date with the current and future industry digital skills requirements. They should also ensure that appropriate national and European Union funds such as the European Social Funds are earmarked towards specific digital training to the unemployed and the existing workforce.

   The European Commission should establish a short term Digital Skills Investment Task Force comprised of individuals including leading thinkers from its services, representatives from business and industry, and recognised experts from academia and the OECD. Their mission would be to provide objective analysis of the programmes and reforms within the Youth Employment Initiative (YEI) and other EU funds (European Structural Funds, European Social Funds, Erasmus +, etc.) to identify and promote best practices and assist Member States in the effective and timely use of the funds to increase skills supply and provide lifelong learning.

2. *Harness industry-led education*

New and innovative models are needed to adapt to the fast changing environment, where old actors come together creating added value beyond the traditional cooperation models. Industry has played its part in harnessing the following cooperation models which have the potential to reduce the skills gap.

At university level, provide students with the skills they need to get ahead in the digital careers in the ICT and other sectors. This should be based on employer involvement in the curriculum which in turn should include both technological and business skills in the area of big data, internet of things, cloud and other technology trends. The curriculum should also focus on improving security of products and networks.

Industry will continue to cooperate with stakeholders from the education sector to ensure that the appropriate training is offered to cater for the current and future needs of the economy.

Member States should ensure that their education sector is up to speed with the developments of the new economy for instance by including in the curricula's coding, cross disciplinary programmes, entrepreneurial skills development, but also by ensuring the use technology in classrooms, so as to ensure that future graduates have the relevant skills to meet the demands of industry. Member States should also ensure that teachers receive relevant trainings to achieve minimum standards of digital literacy.

The European Commission should help create a common understanding of future technology careers and digital skills, across all sectors with a focus on the digital transformation of European businesses (large and SMEs) and leadership skills and on growing and emerging technologies such as green tech, internet of things, big data, security, virtual reality, etc.

3. *Accelerate the encouragement of labour mobility for digital jobs*

The success of Europe's Digital Single Market strategy hinges on the ability for people to work in digital jobs across Europe.

Industry will continue to develop its recruitment policies, tools and channels to attract digital talent where this is needed.

Member States should encourage labour mobility by holding European Digital Jobs Fairs under a PPP model where industry, private and public sector employment services and European mobility portals would work together.

The European Commission should seek to bolster its Erasmus+ programme to promote greater student and teacher mobility across the single market.

4. *Bolster national Digital Skills and Jobs Coalitions*

Industry has played a leading role over the past several years within the context of the Grand Coalition for Digital Jobs or setting up and joining national skills platforms (National Coalitions) to provide guidance, engagement and management of actions across all stakeholders at national level (industry, academia, public services and relevant Ministries).

Industry will continue to work at national levels with stakeholders to ensure the success of the European Commission's Digital Skills and Jobs Coalition.

Member States should follow the European Commission recommendation to work together with '…. education, employment and industry stakeholders to develop a large digital talent pool to ensure that individuals and the labour force in Europe are equipped with adequate digital skills'. To drive the New Skills Agenda, leadership is needed at the highest political levels and cooperation between all relevant Member State Ministries on issues such as education, labour and digitalisation.

The European Commission should provide guidance on the implementation of the national digital skills strategies focusing on the skills supply in the area of cloud, big data and internet of things; facilitate the sharing of best practices and innovative cooperation models across national Digital Skills and Jobs Coalitions to enable relevant stakeholders to join or scale the initiatives at the pan European level and create guidelines for small businesses on ways to boost key tech skills, and facilitate organising apprenticeships in digital roles. The European Commission should set up a Member States Working Group to drive this initiative across Europe and to share best practices and encourage the Working Group to appoint an ambassador to champion the case across the EU institutions: the Council, the European Parliament and the Commission.

5. *Raise awareness of the role played by key enabling technologies in the EU's digital single market and the digital career opportunities available*

The European e-skills awareness raising campaigns organised by the European Commission since 2010 have contributed to reducing the predicted 2020 skills gaps from around 1m to just over 700,000. As unemployment levels remain high and, juxtaposed with emerging technologies (products and services), there is a need in to increase understanding of and promote digital careers across all the sectors and organisations, not only across IT industry, and especially among women.

Industry will continue to bolster its outreach to citizens wishing to obtain those digital skills required for todays and tomorrow's jobs.

Member States should be encouraged to be involved in similar awareness raising programmes at national level under their own funding programmes. They should also, through their MEPs, seek to attain the support of European Parliament funds to continue such awareness raising activities.

The European Commission should support industry and Member States efforts via awareness raising campaigns on digital technologies and key enabling technologies to ensure that European citizens and businesses gain confidence and understanding of the application of digital technologies in their lives and businesses.

6. *Foster ICT professionalism and maturing the ICT profession in Europe*

ICT will continue to change our lives on at increasing rate. Entering the next wave of computing, known as pervasive computing, calls for actions in taking steps to mature the ICT profession. Industry needs to ensure that the knowledge, skills, competence ICT practitioners in Europe meet the highest global professional standard and are constantly updated. Failing that would result in the risks to society. It has set

standards of knowledge and experience for professionals and has codes of ethics, conduct and professional practice.

Industry will continue to work with stakeholders to define skills required for ICT profession, support certification, as well as qualifications, non-formal learning and informal learning. Strengthen works on codes of ethics and professional standards for ICT professionals.

The European Commission with support of Member States should continue work on a European Framework for the ICT profession based on four building blocks: 1) European e-Competence Framework and related ICT jobs profiles 2); European ICT foundational body of knowledge and curriculum development guidelines; 3) European recognition of ICT certifications and qualifications across countries based on high quality standards; and 4) shared European professional ethics.

7. *Ensure availability of EU funds dedicated to upskilling initiatives and training platforms at EU level*

According to the New Skills Agenda for Europe in the period 2014-2020, the European Social Fund and the European Regional Development Fund will inject over EUR 30 billion to support skills development, and the Erasmus+ programme supports skills development in education and training with nearly EUR 15 billion.

The European Commission should establish a short term Digital Skills Investment Task Force comprised of individuals including leading thinkers from within the European Commission, representatives from business and industry, and recognised experts from academia and the OECD (See Action 1).

8. *Inspire girls to pursue IT studies and careers and encourage better gender balance by promoting a stronger role of women*

Women can and have to play a stronger role in our future digital society. Digital jobs represent a great opportunity to create a more gender balanced society and women can bring a lot of expertise and capacity to this sector.

Industry will continue to promote inclusion initiatives in companies to attract the attention from girls into the tech space (i.e. champion female role models; open days in tech businesses; coding and app development workshops etc.). The Digital Skills and Jobs Coalition could play a role in promoting women in digital domains, by encouraging the submission of the pledges focusing on attracting and retaining women to technology area and identifying best practices.

The European Commission should put much more efforts to promote digital disciplines and to work closely with national education systems. Women should be encouraged at school and during their professional careers to take full advantage from digital jobs. Industry will continue to collaborate with schools, universities and associations in order to promote digital opportunities and to take all measures needed to facilitate women work placement and integration (i.e. champion female role models; open days in tech businesses; etc.