

The  
G7 Research Group  
at the Munk School of Global Affairs and Public Policy at Trinity College  
in the University of Toronto presents the

## 2018 Charlevoix G7 Final Compliance Report

10 June 2018 — 25 July 2019

Prepared by  
Angela Min Yi Hou, Julia Tops, and Cindy Xinying Ou

23 August 2019

[www.g7.utoronto.ca](http://www.g7.utoronto.ca)  
[g7@utoronto.ca](mailto:g7@utoronto.ca)  
[@g7\\_rg](#)

*“We have meanwhile set up a process and there are also independent institutions monitoring which objectives of our G7 meetings we actually achieve. When it comes to these goals we have a compliance rate of about 80%, according to the University of Toronto. Germany, with its 87%, comes off pretty well. That means that next year too, under the Japanese G7 presidency, we are going to check where we stand in comparison to what we have discussed with each other now. So a lot of what we have resolved to do here together is something that we are going to have to work very hard at over the next few months. But I think that it has become apparent that we, as the G7, want to assume responsibility far beyond the prosperity in our own countries. That’s why today’s outreach meetings, that is the meetings with our guests, were also of great importance.”*

Chancellor Angela Merkel, Schloss Elmau, 8 June 2015

*G7 summits are a moment for people to judge whether aspirational intent is met by concrete commitments. The G7 Research Group provides a report card on the implementation of G7 and G20 commitments. It is a good moment for the public to interact with leaders and say, you took a leadership position on these issues — a year later, or three years later, what have you accomplished?*

Achim Steiner, Administrator, United Nations Development Programme,  
in *G7 Canada: The 2018 Charlevoix Summit*

[munkschool.utoronto.ca](http://munkschool.utoronto.ca)



**At Trinity College**  
1 Devonshire Place  
Toronto, ON  
Canada M5S 3K7  
T: 416.946.8900 F: 416.946.8915

**At the Observatory**  
315 Bloor Street West  
Toronto, ON  
Canada M5S 0A7  
T: 416.946.8929 F: 416.946.8877

**At the Canadiana Gallery**  
14 Queen’s Park Crescent West  
Toronto, ON  
Canada M5S 3K9  
T: 416.978.5120 F: 416.978.5079

## Contents

Preface .....	3
Dedication.....	5
Research Team .....	5
Lead Analysts .....	5
Compliance Analysts.....	5
Executive Summary.....	7
The Interim Compliance Score .....	7
Compliance by Member .....	7
Compliance by Commitment.....	7
The Compliance Gap Between Members.....	7
Future Research and Reports.....	7
Table A: 2018 Priority Commitments Selected for Assessment* .....	8
Table B: 2018 G7 Charlevoix Final Compliance Scores .....	10
Table C: 2018 G7 Charlevoix Final Compliance Scores by Country .....	10
Table D: 2018 G7 Charlevoix Fnal Compliance Scores by Commitment .....	12
1. Democracy: Terrorism .....	13
2. Democracy: Transparency .....	59
3. Trade: International Rules and Intellectual Property Rights .....	71
4. Macroeconomic Policy: Growth that Works for Everyone .....	98
5. Labour and Employment: Skills and Education.....	152
6. Health: Mental Health .....	203
7. Development: African Union Agenda 2063 .....	224
8. Development: International Development Partnerships and Private Sector Investments.....	263
9. Gender: Development Finance .....	292
10. Climate Change: Gender .....	322
11. Climate Change: Paris Agreement.....	345
12. Climate Change: Insurance Risk .....	395
13. Environment: Earth Observation Technologies.....	413
14. Environment: Coastal Resilience .....	437
15. Environment: Ocean Plastics Charter .....	454
16. Environment: Marine Litter .....	482
17. Energy: Energy Security .....	515
18. Gender: Quality Education for Girls and Women .....	560
19. Gender: Equality in Labour Markets.....	622
20. Gender: Sexual and Gender-Based Violence in Digital Contexts .....	657

## 5. Labour and Employment: Skills and Education

“We are resolved to ensure that all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.”

*G7 Charlevoix Leaders’ Communiqué*

### Assessment

	No Compliance	Partial Compliance	Full Compliance
Canada			+1
France			+1
Germany			+1
Italy			+1
Japan			+1
United Kingdom			+1
United States			+1
European Union			+1
Average	+1.00		

### Background

Following the rapid technological change in recent years, G7 members need to ensure that all citizens are equipped to keep up with the demands of a changing labour market. It is vital for every citizen to “contribute to, and share in, economic success” as it helps in maximizing economic prosperity.<sup>1127</sup>

In particular, G7 members aim to promote the culture of lifelong learning for all generations of workers.<sup>1128</sup> This practice has been encouraged by the Organisation for Economic Co-operation and Development (OECD) Education Ministers since 1996, with an emphasis on improving competencies for all “from cradle to grave.”<sup>1129</sup> The OECD stresses that all types (“formal,” “non-formal” and “informal”) of learning should be recognized.<sup>1130</sup> The importance of diverse learning methods tailored to different stages and groups of people has always been a key priority as well.<sup>1131</sup>

The OECD has also put much emphasis on the importance of apprenticeship and vocational learning, with studies and country reviews carried out by the Vocational Education and Training and Adult Learning Team.<sup>1132</sup> Apprenticeships, which typically combine state-funded off-the-job education with work placements, are found to be “a worthwhile investment both for employers and

<sup>1127</sup> Charlevoix Commitment on Equality and Economic Growth. Access Date: 24 August 2018. <https://g7.gc.ca/wp-content/uploads/2018/06/EqualityEconomicGrowth.pdf>.

<sup>1128</sup> G7 Charlevoix Leaders’ Communiqué, G7 Charlevoix 2018 (Charlevoix) 9 June 2018. Access Date: 28 August 2018.

<sup>1129</sup> “Lifelong Learning for All: Policy Directions”, Education Policy Analysis, Chapter 1, OECD (Paris). Access Date: 28 August 2018. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DEELSA/ED/CERI/CD\(2000\)12/PART1/REV2&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DEELSA/ED/CERI/CD(2000)12/PART1/REV2&docLanguage=En).

<sup>1130</sup> “Lifelong Learning for All: Policy Directions”, Education Policy Analysis, Chapter 1, OECD (Paris). Access Date: 28 August 2018. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DEELSA/ED/CERI/CD\(2000\)12/PART1/REV2&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DEELSA/ED/CERI/CD(2000)12/PART1/REV2&docLanguage=En).

<sup>1131</sup> “Lifelong Learning for All: Policy Directions”, Education Policy Analysis, Chapter 1, OECD (Paris). Access Date: 28 August 2018. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DEELSA/ED/CERI/CD\(2000\)12/PART1/REV2&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DEELSA/ED/CERI/CD(2000)12/PART1/REV2&docLanguage=En).

<sup>1132</sup> OECD Policy Reviews of Vocational Education and Training (VET) and Adult Learning, OECD (Paris). Access Date: 29 August 2018. <http://www.oecd.org/education/innovation-education/vet.htm>.

individuals” and vocational training can aid the integration of immigrants.<sup>1133,1134</sup> These sentiments are echoed in the G7 Charlevoix Leaders’ Communiqué as the members commit to developing innovative new approaches and create opportunities that improve employers’ engagement.<sup>1135</sup>

As part of the plan to provide market-driven training, the G7 Charlevoix Leaders’ Communiqué stresses the expansion of training for girls and women in the fields of science, technology, engineering and mathematics.<sup>1136</sup> This connects with the top priority of gender equality during Canada’s G7 Presidency, which aims to increase women’s access to good quality jobs.<sup>1137</sup> The mission to support female labour participation is also a major priority highlighted in the International Monetary Fund Annual Report in 2017, as it can lead to growth in gross domestic product.<sup>1138</sup>

This commitment to preparing workers for emerging technologies builds on previous G7 commitments. At the G7 Taormina Summit in 2017, G7 members agreed on a People-Centered Action Plan on Innovation, Skills, and Labor, with emphasis on challenges brought by the Next Production Revolution (NPR), which are changes that will affect the production process.<sup>1139</sup> The Taormina Summit was the first G7 summit to address NPR.<sup>1140</sup> While the Charlevoix Leaders’ Communiqué does not mention the NPR, it should be remarked that the phrase “new world of work” carries similar meaning. The G7 Research Group measured compliance to provide stability in the labour force and found an average compliance score of +0.50 or 75 percent.<sup>1141</sup>

In June 2018, the G7 Charlevoix Summit’s commitment to economic growth through labour and employment policies was articulated in the Charlevoix Commitment on Equality and Economic Growth document, which was endorsed by the Leaders of the G7.<sup>1142</sup> This is part of the commitment to “eradicate poverty, advance gender equality, foster income equality, ensure better access to financial resources and create decent work and quality of life for all.”<sup>1143</sup>

---

<sup>1133</sup> Kuczera, M., "Striking the right balance: Costs and benefits of apprenticeship", OECD Education Working Papers, No. 153, OECD Publishing (Paris) 11 February 2017. Access Date: 29 August 2018. [https://www.oecd-ilibrary.org/education/striking-the-right-balance\\_995fff01-en](https://www.oecd-ilibrary.org/education/striking-the-right-balance_995fff01-en).

<sup>1134</sup> Unlocking the potential of migrants through vocational education and training (VET), OECD (Paris). Access Date: 29 August 2018. <http://www.oecd.org/education/skills-beyond-school/unlocking-the-potential-of-migrants-through-vocational-education-and-training-vet.htm>.

<sup>1135</sup> G7 Charlevoix Leaders’ Communiqué, G7 Charlevoix 2018 (Charlevoix) 9 June 2018. Access Date: 28 August 2018.

<sup>1136</sup> G7 Charlevoix Leaders’ Communiqué, G7 Charlevoix 2018 (Charlevoix) 9 June 2018. Access Date: 28 August 2018. <https://g7.gc.ca/en/official-documents/charlevoix-g7-summit-communique/>

<sup>1137</sup> G7 Public Engagement Paper — Advancing Gender Equality and Women’s Empowerment, G7 Charlevoix 2018 (Charlevoix). Access Date: 28 August 2018. <https://g7.gc.ca/en/g7-presidency/themes/advancing-gender-equality-women-empowerment/g7-public-engagement-paper/>

<sup>1138</sup> IMF Annual Report 2017 — Promoting Inclusive Growth, IMF (Washington). Access Date: 28 August 2018. <http://www.imf.org/external/pubs/ft/ar/2017/eng/spotlight.htm#gender>.

<sup>1139</sup> G7 People-Centered Action Plan on Innovation, Skills and Labor, G7 Taormina 2017 (Taormina). Access Date: 28 August 2018. [http://www.g7italy.it/sites/default/files/documents/Action%20Plan\\_0.pdf](http://www.g7italy.it/sites/default/files/documents/Action%20Plan_0.pdf).

<sup>1140</sup> 2017 G7 Taormina Final Compliance Report, G7 Research Group (Toronto) 4 June 2018. Access Date: 28 August 2018. <http://www.g7.utoronto.ca/evaluations/2017compliance-final/2017-G7-final-compliance.pdf>.

<sup>1141</sup> 2017 G7 Taormina Final Compliance Report, G7 Research Group (Toronto) 4 June 2018. Access Date: 28 August 2018. <http://www.g7.utoronto.ca/evaluations/2017compliance-final/2017-G7-final-compliance.pdf>.

<sup>1142</sup> Charlevoix Commitment on Equality and Economic Growth, G7 Charlevoix 2018 (Charlevoix) 9 June 2018. Access Date: 27 August 2018. <https://g7.gc.ca/en/official-documents/charlevoix-commitment-equality-economic-growth/>

<sup>1143</sup> G7 Charlevoix Leaders’ Communiqué, G7 Charlevoix 2018 (Charlevoix) 9 June 2018. Access Date: 28 August 2018. <https://g7.gc.ca/en/official-documents/charlevoix-g7-summit-communique/>.

## Commitment Features

G7 members are “resolved to ensure that all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.”

The commitment is broken into two sections where the G7 member: 1) resolved to ensure all workers have access to the skills necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies; and 2) resolved to ensure all workers have access to the education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

“Emerging technologies” has a resulting definition that “identifies five attributes that feature in the emergence of novel technologies. These are 1) radical novelty, 2) relatively fast growth, 3) coherence, 4) prominent impact, and 5) uncertainty and ambiguity.”<sup>1144</sup> This includes fields such as artificial intelligence, 3D printing, blockchain, Internet of Things, etc.

For the first component, “to ensure” suggest a pledge to the commitment and is defined as “to make something certain to happen.”<sup>1145</sup> Access should be interpreted to mean “the right to obtain or make use of the entity in reference.”<sup>1146</sup> The effectiveness of “skills” development and training can be measured by employment to population ratio by skill level. Employment to population ratio and incidence of involuntary part-time work can be used to capture full economic participation.<sup>1147</sup> Thus, actions that count toward compliance must have an explicit impact on improving the well-being of the population. For the purpose of this report, such improvements should be reflected by measures of economic prosperity that present a comprehensive picture.

Furthermore, other than measures that directly impact the skills and knowledge of workers, G7 members should also have tax systems that reduce inequality and support labour market participation.<sup>1148</sup> Changes can be done to the tax burdens such that workers are incentivized. Other potential adjustments to the welfare system that can protect workers who are affected by technological changes include changes to social insurance programmes e.g. unemployment benefits. These skills and education should also account for the changing terrain and the “new world” in which they refer, which includes skillsets in the emerging field of artificial intelligence and computer technology skills as well as other emerging technologies.

The goal of the second part of the commitment is to prepare all workers for innovation and emerging technologies. By committing to help citizens “adapt” to the emerging technologies, G7 members need to ensure that the skills and knowledge of job seekers can be adjusted to suit the new conditions and needs of the ever-changing labour market. This builds the foundation towards allowing all citizens to “prosper,” which means they can succeed in material terms.<sup>1149</sup>

---

<sup>1144</sup> What is An Emerging Technology? SSRN 9 August 2015. Access Date: 1 October 2018. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2564094](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2564094).

<sup>1145</sup> Compliance Coding Manual, G7 Research Group (Toronto) 27 September 2017. Access Date: 30 September 2018. [https://drive.google.com/drive/u/0/folders/1wVDddUQmOQ9EwQ8STOn8xG20yj\\_X4RI2](https://drive.google.com/drive/u/0/folders/1wVDddUQmOQ9EwQ8STOn8xG20yj_X4RI2).

<sup>1146</sup> Compliance Coding Manual, G7 Research Group (Toronto) 27 September 2017. Access Date: 30 September 2018. [https://drive.google.com/drive/u/0/folders/1wVDddUQmOQ9EwQ8STOn8xG20yj\\_X4RI2](https://drive.google.com/drive/u/0/folders/1wVDddUQmOQ9EwQ8STOn8xG20yj_X4RI2).

<sup>1147</sup> Achieving Growth that Works for Everyone, G7 Charlevoix 2018 (Charlevoix) 9 June 2018. Access Date: 28 August 2018. <https://g7.gc.ca/en/official-documents/achieving-growth-works-everyone/>.

<sup>1148</sup> Charlevoix Commitment on Equality and Economic Growth, G7 Charlevoix 2018 (Charlevoix) 9 June 2018. Access Date: 27 August 2018. <https://g7.gc.ca/en/official-documents/charlevoix-commitment-equality-economic-growth/>.

<sup>1149</sup> Prosper, English Oxford Living Dictionaries (Oxford). Access Date: 27 August 2018. <https://en.oxforddictionaries.com/definition/prosper>

Other than reforms and policies carried out by the governments of the G7 members, efforts done through collaborations with different parties and stakeholders to improve the workforce count as compliance. Such collaborations can be with businesses, civil society organizations or educational partners. Note that both the government and the collaboration partner have to be involved in order for the action to be considered as compliance, either through financial support, exchange of knowledge or other forms of collaborations.

The difference between “skills” and “education” in this commitment is dictated by the nature of the knowledge that they acquire. “Skills” can be transferable from various experiences in order for one to propose in the new world of technology, whereas “education” alludes to a type of formal instruction in the field of technology that will aid workers to excel in this cutting-edge technology occupations.

For full compliance, the G7 member must ensure workers have access to the skills AND education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies. For both skills and education, this includes skill set transference as well as formal education on the new technologies. These emerging technologies can include but are not limited to artificial intelligence, 3D printing, blockchain and Internet of Things where to prosper must be accounted for in material terms.

Partial compliance is awarded when G7 member ensures either that workers have access to the skills OR the education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies. Compliance to either the former or latter will result in a 0. Non-compliance is when the G7 member doesn’t ensure workers have access to the skills OR the education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

**Scoring Guidelines**

-1	The G7 member does not ensure all workers have access to the skills NOR education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.
0	The G7 member ensures all workers have access to the skills OR education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.
+1	The G7 member ensures all workers have access to the skills AND education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

*Lead Analyst: Wilkey (Weiqin) Rong  
Compliance Director: Tacye Hong*

**Canada: +1**

Canada has fully complied with its commitment to ensure that all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

On 14 June 2018, the Minister of Employment, Workforce Development and Labor, Patty Hajdu, announced that the government of Canada will fund CAD2.8 million to Trucking Human Resources Canada through the Sectoral Initiatives Program, to develop the sectoral labour market information needed to help the trucking and logistics industry take advantage of opportunities created by e-

commerce.<sup>1150</sup> The project will develop bilingual tools to help employers recruit and retain employees from untapped labour pools.<sup>1151</sup>

On 27 June 2018, Minister Patty Hajdu and Christina Gray, Alberta's Minister of Labour, announced that the governments of Canada and Alberta have signed agreements where Canada will provide the province with over CAD1.7 billion over six years to invest in Albertan workers.<sup>1152</sup> This is an increase in funding of nearly CAD500 million over the period, compared to previous funding levels.<sup>1153</sup> This increase means that about 124,000 more Alberta workers will benefit than before.<sup>1154</sup> The agreement will provide apprenticeship training, academic upgrading, English as a second language, etc. to prepare for the innovation-driven economy.<sup>1155</sup>

On 27 June 2018, the governments of Canada and Northwest Territories signed agreements that will see Canada provide over CAD46 million over six years to invest in Northwest Territories workers.<sup>1156</sup> These agreements represent an increase in funding of nearly CAD4 million over the period, compared to previous funding levels, and helping an estimated 1,300 more workers in Northwest

---

<sup>1150</sup> Government of Canada announces \$2.8 million for Trucking Human Resources Canada to help workers and employers in a changing economy, Ministry of Employment and Social Development Canada (Gatineau). 14 June 2018. Access Date: 10 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-28-million-for-trucking-human-resources-canada-to-help-workers-and-employers-in-a-changing-economy.html>.

<sup>1151</sup> Government of Canada announces \$2.8 million for Trucking Human Resources Canada to help workers and employers in a changing economy, Ministry of Employment and Social Development Canada (Gatineau). 14 June 2018. Access Date: 10 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-28-million-for-trucking-human-resources-canada-to-help-workers-and-employers-in-a-changing-economy.html>.

<sup>1152</sup> Government of Canada announces funding agreements to give Albertans better access to jobs and training, Ministry of Employment and Social Development Canada (Edmonton). 27 June 2018. Access Date: 18 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-funding-agreements-to-give-albertans-better-access-to-jobs-and-training.html>.

<sup>1153</sup> Government of Canada announces funding agreements to give Albertans better access to jobs and training, Ministry of Employment and Social Development Canada (Edmonton). 27 June 2018. Access Date: 18 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-funding-agreements-to-give-albertans-better-access-to-jobs-and-training.html>.

<sup>1154</sup> Government of Canada announces funding agreements to give Albertans better access to jobs and training, Ministry of Employment and Social Development Canada (Edmonton). 27 June 2018. Access Date: 18 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-funding-agreements-to-give-albertans-better-access-to-jobs-and-training.html>.

<sup>1155</sup> Government of Canada announces funding agreements to give Albertans better access to jobs and training, Ministry of Employment and Social Development Canada (Edmonton). 27 June 2018. Access Date: 18 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-funding-agreements-to-give-albertans-better-access-to-jobs-and-training.html>.

<sup>1156</sup> Government of Canada announces agreement to give workers in Northwest Territories tools and training to find and keep good jobs, Ministry of Employment and Social Development Canada (Yellowknife) 27 June 2018, Access Date: 19 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-agreement-to-give-workers-in-northwest-territories-tools-and-training-to-find-and-keep-good-jobs.html>.

Territories over the six years.<sup>1157</sup> This will allow under-represented groups to have access to have upskilling and academic upgrading to adapt to the economy.<sup>1158</sup>

On 16 July 2018, the Minister of Science and Minister of Sport and Persons with Disabilities, Kirsty Duncan, announced that the Government of Canada will invest CAD29.7 million of Collaborative Research and Training Experience grants to provide students with training programs for the job of the new world, along with grants to 18 Canadian research teams to collaborate with global networks.<sup>1159</sup>

On 3 August 2018, the Government of Canada announced that it will provide tools and skills training to workers in Newfoundland and Labrador to create more job opportunities and to help workers thrive in the new world of innovative technology.<sup>1160</sup>

On 3 August 2018, the Government of Canada announced that it will collaborate with small businesses and not-for-profit organizations to offer 1,200 internship positions to post-secondary graduates to help them develop the digital and problem-solving skills needed in the changing world of technology.<sup>1161</sup>

On 21 August 2018, Minister Patty Hajdu announced that the federal government will provide over CAD835,000 to the Cowichan Valley Youth Services Society for its Youth Employment Mentorship Program, where youth will have the opportunity to gain job skills and work experiences.<sup>1162</sup>

On 30 August 2018, Minister Patty Hajdu announced that the government of Canada will invest CAD166,000 to Carpenters Local 1669 Training Centre to upgrade its equipment, such that key groups e.g. women and people with disabilities, can train with up-to-date resources.<sup>1163</sup>

---

<sup>1157</sup> Government of Canada announces agreement to give workers in Northwest Territories tools and training to find and keep good jobs, Ministry of Employment and Social Development Canada (Yellowknife) 27 June 2018. Access Date: 19 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-agreement-to-give-workers-in-northwest-territories-tools-and-training-to-find-and-keep-good-jobs.html>.

<sup>1158</sup> Government of Canada announces agreement to give workers in Northwest Territories tools and training to find and keep good jobs, Ministry of Employment and Social Development Canada (Yellowknife) 27 June 2018. Access Date: 19 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/06/government-of-canada-announces-agreement-to-give-workers-in-northwest-territories-tools-and-training-to-find-and-keep-good-jobs.html>.

<sup>1159</sup> Canadian researchers connect with business and international peers to train next generation of science and engineering leaders, Natural Sciences and Engineering Research Council of Canada (Sherbrooke). 16 July 2018. Access Date: 15 October 2018. [http://www.nserc-crsng.gc.ca/Media-Media/NewsRelease-CommuniqueDePresse\\_eng.asp?ID=996](http://www.nserc-crsng.gc.ca/Media-Media/NewsRelease-CommuniqueDePresse_eng.asp?ID=996).

<sup>1160</sup> Government of Canada announces agreement to give workers of Newfoundland and Labrador the tools they need to find and keep good jobs, Ministry of Employment and Social Development Canada (St. John's). 3 August 2018. Access Date: 19 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/08/government-of-canada-announces-agreement-to-give-workers-of-newfoundland-and-labrador-the-tools-they-need-to-find-and-keep-good-jobs.html>.

<sup>1161</sup> Government of Canada will provide 1,200 paid internships to graduates, Ministry of Innovation, Science and Economic Development Canada (Ottawa). 3 August 2018. Access Date: 15 October 2018. <https://www.canada.ca/en/innovation-science-economic-development/news/2018/08/government-of-canada-will-provide-1200-paid-internships-to-graduates.html>

<sup>1162</sup> Government of Canada provides skills training and job opportunities for young Canadians in Duncan, British Columbia, Ministry of Employment and Social Development Canada (Duncan). 21 August 2018. Access Date: 10 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/08/government-of-canada-provides-skills-training-and-job-opportunities-for-young-canadians-in-duncan-british-columbia.html>.



On 18 September 2018, Minister Patty Hajdu announced that the federal government will subsidize over CAD1.5 million to the Native Education College for the Essential Skills for Aboriginal Business project.<sup>1164</sup> The project aims to increase literacy and employment skills of aboriginal people by providing training models that “combin[e] employability skills, literacy, and essential skills training and workplace simulation activities.”<sup>1165</sup>

On 21 September 2018, the Minister of Employment, Workforce Development and Labor, Patty Hajdu, announced that the government of Canada will subsidize CAD618,000 to the Ontario provincial government to launch the Ontario Electrical League for the Consortia Pilot Project.<sup>1166</sup> The program will provide apprentice training to teach workers in the electrical sector necessary skills in meeting the needs of today’s labour market.<sup>1167</sup>

On 9 October 2018, the Minister of Innovation, Science and Economic Development, Navdeep Bains, announced that the government will invest CAD25 million in the Creative Destruction Lab at the University of Toronto’s Rotman School of Management to help young entrepreneurs venture business investment and opportunity in innovative technology and to help develop women’s leadership and representation in science, technology, engineering, and mathematics fields.<sup>1168</sup>

On 19 October 2018, the Government of Canada announced it will provide up to CAD49.9 million funding to ArcelorMittal Canada Inc, to support up to 4,700 middle-class jobs in Ontario and 1,700 jobs in Quebec by helping the company to modernize its equipment.<sup>1169</sup>

On 25 October 2018, the Government of Canada announced that it will provide a CAD8 million funding to the Niagara Peninsula Aboriginal Area Management Board to facilitate the Government of Canada’s Adult Learning, Literacy and Essential Skills Program and the Skills and Partnership

---

<sup>1163</sup> The Honourable Patty Hajdu announces funding for training equipment to help apprentices in Thunder Bay complete their skills training and be workforce- ready, Ministry of Employment and Social Development Canada (Canada). 30 August 2018. Access Date: 10 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/08/the-honourable-patty-hajdu-announces-funding-for-training-equipment-to-help-apprentices-in-thunder-bay-complete-their-skills-training-and-be-workfo.html>.

<sup>1164</sup> Government of Canada helps Indigenous people in Vancouver get the literacy and essential skills they need to find good jobs, Ministry of Employment and Social Development Canada (Vancouver) 18 September 2018. Access Date: 10 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/09/government-of-canada-helps-indigenous-people-in-vancouver-get-the-literacy-and-essential-skills-they-need-to-find-good-jobs.html>.

<sup>1165</sup> Government of Canada helps Indigenous people in Vancouver get the literacy and essential skills they need to find good jobs, Ministry of Employment and Social Development Canada (Vancouver) 18 September 2018. Access Date: 10 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/09/government-of-canada-helps-indigenous-people-in-vancouver-get-the-literacy-and-essential-skills-they-need-to-find-good-jobs.html>

<sup>1166</sup> Ontario employers get help to hire and train apprentices in the electrical sector with Government of Canada’s support, Ministry of Employment and Social Development Canada (Etobicoke) 21 September 2018. Access Date: 15 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/09/ontario-employers-get-help-to-hire-and-train-apprentices-in-the-electrical-sector-with-government-of-canadas-support.html>

<sup>1167</sup> Ontario employers get help to hire and train apprentices in the electrical sector with Government of Canada’s support, Ministry of Employment and Social Development Canada (Etobicoke) 21 September 2018. Access Date: 15 October 2018. <https://www.canada.ca/en/employment-social-development/news/2018/09/ontario-employers-get-help-to-hire-and-train-apprentices-in-the-electrical-sector-with-government-of-canadas-support.html>

<sup>1168</sup> Government of Canada invests in Creative Destruction Lab at the University of Toronto’s Rotman School of Management, University of Toronto Rotman School of Management (Toronto) 9 October 2018. Access Date: 15 October 2018. [http://www.rotman.utoronto.ca/Connect/MediaCentre/NewsReleases/20181009?fbclid=IwAR2Xk1nLizuOA701aIDe0HHhbp4mDdwwY3j6lzd3Fekl80\\_7-gxTGSICH4Y](http://www.rotman.utoronto.ca/Connect/MediaCentre/NewsReleases/20181009?fbclid=IwAR2Xk1nLizuOA701aIDe0HHhbp4mDdwwY3j6lzd3Fekl80_7-gxTGSICH4Y).

<sup>1169</sup> Government announces support for 6,400 Canadian steel workers in Ontario and Quebec, Ministry of Innovation, Science and Economic Development Canada (Hamilton) 19 October 2018. Access Date: 1 December 2018.

Fund, which help Indigenous youth across southern Ontario to gain work experiences in tourism, hospitality, and the building trades as well as necessary skills and job trainings in these fields.<sup>1170</sup>

On 12 November 2018, the Government of Canada announced funding to the YMCA of Simcoe/Muskoka to facilitate its Youth Quest project that will help 600 young Canadians gain skills and job training through work experience in construction, manufacturing, retail/wholesale, accommodation, and food service, and general office/customer service fields.<sup>1171</sup>

On 28 November 2018, the Government of Canada released its Fall Economic Statement 2018, where it proposed to establish a Social Finance Fund that will help to create more jobs and build a more equal job market in Canada.<sup>1172</sup> The Government of Canada aims to finance CAD755 million over the next 10 years into establishing the Social Finance Fund, that will contribute to helping non-profit organizations and increasing job opportunities among the middle-class.<sup>1173</sup>

On 3 December 2018, the Government of Canada announced funding to the Women Entrepreneurship Knowledge Hub, which “ensur[es] women entrepreneurs and the organizations that support them will have the information they need to increase participation of women in the economy.”<sup>1174</sup> The Minister of Small Business and Export Promotion Mary Ng announced that the Government of Canada will invest nearly CAD9 million over the next three years into the program to facilitate women participation and women entrepreneurship in Canada.<sup>1175</sup>

On 3 December 2018, the Ministry of Innovation, Science and Economic Development announced the Regional Economic Growth through Innovation program, where it will fund Canada’s Regional Development Agencies to fund businesses through development stages and to create an inclusive ecosystem that will help businesses thrive in the changing world of innovative technologies.<sup>1176</sup>

On 3 to 5 December 2018, the Government of Canada announced its agreement with the provincial governments of Nunavut, New Brunswick, and Manitoba to provide funding from the federal

---

<sup>1170</sup> Government of Canada helps over 260 Indigenous youth across southern Ontario region improve job skills and gain work experience, Ministry of Employment and Social Development Canada (Welland) 25 October 2018. 1 December 2018. <https://www.canada.ca/en/employment-social-development/news/2018/10/government-of-canada-helps-over-260-indigenous-youth-across-southern-ontario-region-improve-job-skills-and-gain-work-experience.html>.

<sup>1171</sup> Government of Canada provides skills training and job opportunities for 600 young Canadians in Barrie area, Ministry of Employment and Social Development Canada (Barrie) 12 November 2018. Access Date: 1 December 2018. <https://www.canada.ca/en/employment-social-development/news/2018/11/government-of-canada-provides-skills-training-and-job-opportunities-for-600-young-canadians-in-barrie-area.html>

<sup>1172</sup> Government of Canada announces fund that will have a real impact for the middle class, Ministry of Innovation, Science and Economic Development Canada (Mississauga) 28 November 2018. Access Date: 1 December 2018. <https://www.canada.ca/en/innovation-science-economic-development/news/2018/11/government-of-canada-announces-fund-that-will-have-a-real-impact-for-the-middle-class.html>.

<sup>1173</sup> Government of Canada announces fund that will have a real impact for the middle class, Ministry of Innovation, Science and Economic Development Canada (Mississauga) 28 November 2018. Access Date: 1 December 2018. <https://www.canada.ca/en/innovation-science-economic-development/news/2018/11/government-of-canada-announces-fund-that-will-have-a-real-impact-for-the-middle-class.html>.

<sup>1174</sup> Minister Ng announces funding for research on women entrepreneurship, Ministry of Innovation, Science and Economic Development Canada (Ottawa) 3 December 2018. Access Date: 7 December 2018.

<sup>1175</sup> Minister Ng announces funding for research on women entrepreneurship, Ministry of Innovation, Science and Economic Development Canada (Ottawa) 3 December 2018. Access Date: 7 December 2018. <https://www.canada.ca/en/innovation-science-economic-development/news/2018/11/minister-ng-announces-funding-for-research-on-women-entrepreneurship.html>.

<sup>1176</sup> New regional innovation programming supports business development and growth, Ministry of Innovation, Science and Economic Development Canada (Ottawa) 3 December 2018. Access Date: 7 December 2018. <https://www.canada.ca/en/innovation-science-economic-development/news/2018/12/new-regional-innovation-programming-supports-business-development-and-growth.html>.

government to help increase workers benefit and jobs and skills training to workers, especially minorities such as people with disabilities, women, and Indigenous peoples to stay in the job field and to thrive in their work in the changing world of technology.<sup>1177,1178,1179</sup>

On 6 December 2018, Canada held the G7 Conference on Artificial Intelligence, where Prime Minister Justin Trudeau announced the Government of Canada will invest up to CAD230 million for the AI-Powered Supply Chains Supercluster, which will create more than 16,000 jobs over the next 10 years.<sup>1180</sup>

On 14 December 2018, the Government of Canada announced to fund CAD285,000 to Ironworkers Local 736 for the Welder Training and Testing Capacity Increase project, in order to provide skills trainings and job opportunities for young apprentices in Southern Ontario.<sup>1181</sup>

On 17 December 2018, the Government of Canada announced the Fall Economic Statement 2018, where a Social Finance Fund of CAD755 million was announced to be implemented to “help create jobs, foster economic growth, and help build a more equal and fairer Canada.”<sup>1182</sup>

On 19 December 2018, the Minister of Small Business and Export Promotion, Mary Ng, and the Minister of Women and Gender Equality, Maryam Monsef, met with local women entrepreneurs in Peterborough to advocate the government’s strategy to help female entrepreneurs grow and to highlight the Women Entrepreneurship Strategy.<sup>1183</sup>

---

<sup>1177</sup> Governments of Canada and Nunavut announce agreements to give workers the tools they need to find and keep good jobs, Ministry of Employment and Social Development Canada (Gatineau) 3 December 2018. Access Date: 6 December 2018.

<sup>1178</sup> Governments of Canada and New Brunswick announce agreements to give workers the tools they need to find and keep good jobs, Ministry of Employment and Social Development Canada (Gatineau) 4 December 2018. Access Date: 6 December 2018. <https://www.canada.ca/en/employment-social-development/news/2018/11/governments-of-canada-and-new-brunswick-announce-agreements-to-give-workers-the-tools-they-need-to-find-and-keep-good-jobs.html>.

<sup>1179</sup> Governments of Canada and Manitoba announce agreements to give workers the tools they need to find and keep good jobs, Ministry of Employment and Social Development Canada (Gatineau) 5 December 2018. Access Date: 6 December 2018. <https://www.canada.ca/en/employment-social-development/news/2018/11/governments-of-canada-and-manitoba-announce-agreements-to-give-workers-the-tools-they-need-to-find-and-keep-good-jobs.html>.

<sup>1180</sup> Prime Minister announces investment in artificial intelligence to create over 16,000 jobs for Canadians, Prime Minister’s Office (Montreal) 5 December 2018. Access Date: 7 December 2018. <https://pm.gc.ca/eng/news/2018/12/06/prime-minister-announces-investment-artificial-intelligence-create-over-16000-jobs>.

<sup>1181</sup> Government of Canada funds projet with Ironworkers Local 736 to help apprentices in Southern Ontario, Ministry of Employment and Social Development Canada (Ancaster) 14 December 2018. Access Date: 1 March 2019. <https://www.canada.ca/en/employment-social-development/news/2018/12/government-of-canada-funds-project-with-ironworkers-local-736-to-help-apprentices-in-southern-ontario.html>.

<sup>1182</sup> Government of Canada announces fund that will have a real impact for the middle class in Montreal, Ministry of Employment and Social Development Canada (Montreal) 17 December 2018. Access Date: 1 March 2019. <https://www.canada.ca/en/employment-social-development/news/2018/12/government-of-canada-announces-fund-that-will-have-a-real-impact-for-the-middle-class-in-montreal.html>.

<sup>1183</sup> Minister Ng and Minister Monsef meet with local women entrepreneurs, Ministry of Innovation, Science and Economic Development Canada (Ottawa) 19 December 2018. Access Date: 1 March 2019. <https://www.canada.ca/en/innovation-science-economic-development/news/2018/12/minister-ng-and-minister-monsef-meet-with-local-women-entrepreneurs.html>.

On 18 January 2019, Minister Mary Ng began a four-day tour across Canada to meet with small business owners and entrepreneurs to share the government's strategies in making paths for small businesses to grow and prosper in the changing world of economy.<sup>1184</sup>

On 28 January 2019, the Government of Canada announced the establishment of Clean Technology Stream of the Venture Capital Catalyst Initiative, where CAD50 million funding is invested to venture capital for Canadian clean technology companies to help them grow.<sup>1185</sup>

On 28 January 2019, the Government of Canada announced CAD6.6 million funding to Choices for Youth, where 450 youth in St. John's will benefit and receive skills training, job opportunities, and housing opportunities through this project.<sup>1186</sup>

On 27 February 2019, the Government of Canada announced over CAD1 billion funding towards FedDev Ontario to help local economic growth and facilitate innovation and growth amongst businesses in Southern Ontario.<sup>1187</sup>

On 28 February 2019, the Government of Canada announced CAD950,000 funding towards Atelier spécialisé les Moulins to help young Canadians in Mascouche prosper in the new world of economy by providing skills and job training as well as job opportunities to them.<sup>1188</sup>

On 8 March 2019, the Government of Canada signed the Workforce Development Agreement and the Labour Market Development Agreement with the Saskatchewan government to provide the province nearly CAD500 million over the next six years to help Saskatchewan create training opportunities for people such as to help people with disabilities, launch apprenticeship training, and create Adult Basic Education to help adults gain basic literacy and essential skills.<sup>1189</sup> The funding will

---

<sup>1184</sup> Minister Ng begins tour to highlight Government of Canada's small business tax rate reduction, Ministry of Innovation, Science and Economic Development Canada (Ottawa) 18 January 2019. Access Date: 1 March 2019. <https://www.canada.ca/en/innovation-science-economic-development/news/2019/01/minister-ng-begins-tour-to-highlight-government-of-canadas-small-business-tax-rate-reduction.html>.

<sup>1185</sup> Minister Ng announces investment in venture capital for Canadian clean tech companies, Ministry of Innovation, Science and Economic Development Canada (Ottawa) 28 January 2019. Access Date: 1 March 2019. <https://www.canada.ca/en/innovation-science-economic-development/news/2019/01/minister-ng-announces-investment-in-venture-capital-for-canadian-clean-tech-companies.html>.

<sup>1186</sup> Government of Canada provides skills training and job opportunities for 450 young Canadians in St. John's, Ministry of Employment and Social Development Canada (St. John's) 29 January 2019. Access Date: 1 March 2019. <https://www.canada.ca/en/employment-social-development/news/2019/01/government-of-canada-provides-skills-training-and-job-opportunities-for-450-young-canadians-in-stjohns.html>.

<sup>1187</sup> FedDev Ontario announces new funding and dedicated rural support for a stronger Southern Ontario, Ministry of Innovation, Science and Economic Development (Vars) 27 February 2019. Access Date: 1 March 2019. <https://www.canada.ca/en/economic-development-southern-ontario/news/2019/02/feddev-ontario-announces-new-funding-and-dedicated-rural-support-for-a-stronger-southern-ontario.html>.

<sup>1188</sup> Government of Canada provides skills training and job opportunities for young Canadians in Mascouche, Ministry of Employment and Social Development Canada (Macouche) 28 February 2019. Access Date: 1 March 2019. <https://www.canada.ca/en/employment-social-development/news/2019/02/government-of-canada-provides-skills-training-and-job-opportunities-for-young-canadians-in-mascouche.html>.

<sup>1189</sup> Governments of Canada and Saskatchewan announce agreements to give workers the tools they need to find and keep good jobs, Ministry of Employment and Social Development Canada (Gatineau) 8 March 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/employment-social-development/news/2019/03/governments-of-canada-and-saskatchewan-announce-agreements-to-give-workers-the-tools-they-need-to-find-and-keep-good-jobs.html>.

also help to create labour services such as career counselling and employment services and Rapid Response Teams to help “businesses and workers affected by production slowdowns or layoffs.”<sup>1190</sup>

On 19 March 2019, the Government of Canada released its Budget Plan 2019 with a focus of investing in the middle class.<sup>1191</sup> The Government of Canada will take actions in “helping workers gain new skills with the creation of the new Canada Training Benefits, [m]aking post-secondary education more affordable by lowering interest rates on Canada Student Loans, [p]roviding more on-the-job learning to young Canadians by creating up to 84,000 new student work placements per year by 2023-2024, [e]nhancing support of apprenticeship, [c]reating meaningful opportunities through the Canada Service Corps, [s]upporting Indigenous post-secondary education, [and] creating opportunities for young Canadians to travel, work or study abroad.”<sup>1192</sup>

On 18 April 2019, the Government of Canada announced an investment of CAD41 million to a Waterloo-based not-for-profit organization and three start-up companies to help them with their project of developing products that “integrate quantum, artificial intelligence and machine learning technologies.”<sup>1193</sup> This funding helped to secure 75 jobs while creating up to 167 new skilled jobs.<sup>1194</sup>

On 23 April 2019, the Government of Canada launched the start of Canada Summer Jobs 2019 to create over 70,000 paid work opportunities for Canadian youths.<sup>1195</sup>

On 16 May 2019, the Government of Canada announced the Canada Training Credit to give eligible workers tax credit of a lifetime up to CAD5,000 to pay for their training and tuition cost.<sup>1196</sup> It also announced a new Employment Insurance Training Support Benefit and Employment Insurance

---

<sup>1190</sup> Governments of Canada and Saskatchewan announce agreements to give workers the tools they need to find and keep good jobs, Ministry of Employment and Social Development Canada (Gatineau) 8 March 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/employment-social-development/news/2019/03/governments-of-canada-and-saskatchewan-announce-agreements-to-give-workers-the-tools-they-need-to-find-and-keep-good-jobs.html>.

<sup>1191</sup> Budget Plan 2019, Government of Canada (Ottawa) 19 March 2019. Access Date: 9 June 2019.

<https://www.budget.gc.ca/2019/docs/plan/toc-tdm-en.html>.

<sup>1192</sup> Budget 2019: Helping Canadians Find and Keep Good Jobs, Ministry of Innovation, Science and Economic Development Canada (Mont-Tremblant) 22 March 2019. Access Date: 9 June 2019.

<https://www.budget.gc.ca/2019/docs/plan/toc-tdm-en.html>.

<sup>1193</sup> Government of Canada partners with digital industries to invest in ground-breaking technology and businesses, Ministry of Innovation, Science and Economic Development Canada (Waterloo) 18 April 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/innovation-science-economic-development/news/2019/04/government-of-canada-partners-with-digital-industries-to-invest-in-ground-breaking-technology-and-businesses.html>.

<sup>1194</sup> Government of Canada partners with digital industries to invest in ground-breaking technology and businesses, Ministry of Innovation, Science and Economic Development Canada (Waterloo) 18 April 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/innovation-science-economic-development/news/2019/04/government-of-canada-partners-with-digital-industries-to-invest-in-ground-breaking-technology-and-businesses.html>.

<sup>1195</sup> Canada Summer Jobs 2019 Hiring Season Kicks Off, Ministry of Employment and Social Development Canada (Cape Breton) 23 April 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/employment-social-development/news/2019/04/canada-summer-jobs-2019-hiring-season-kicks-off---over-85000-jobs-available-for-youth-in-canada-on-jobbankcayouth.html>.

<sup>1196</sup> The Canada Training Benefit: Empowering Canada’s workforce to adapt and prepare for the jobs tomorrow, Ministry of Employment and Social Development Canada (Saskatoon) 16 May 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/employment-social-development/news/2019/05/the-canada-training-benefit-empowering-canadas-workforce-to-adapt-and-prepare-for-the-jobs-of-tomorrow0.html>.

Premium Rebate for Small Businesses to help workers on leave to train and employers to offset the EI burden.<sup>1197</sup>

On 17 May 2019, the Government of Canada made CAD236,000 through Digital Literacy Exchange program to help Canadians in low-income households, members of language minority groups, seniors, people with disabilities, and people who have not completed high school to gain basic computer skills.<sup>1198</sup>

On 23 May 2019, the Government of Canada announced a new eight-year project which has close to CAD3.8 million investment to help around 1,200 internationally trained newcomers to have their foreign credentials recognized here in Canada for them to start working.<sup>1199</sup>

Canada has demonstrated its compliance by providing funds to provincial governments and organizations to create skills training programs, creating dialogue among the public and private sector on information regarding government's strategies in helping various demographics to adapt and prosper in the changing world of economy, increasing funding to apprentice programs in various sectors of work, such that various underrepresented groups in the labour market, e.g. women, Indigenous people and those with disabilities, can have the skills and education to adapt and prosper in the changing economy.

Thus, Canada receives a score of +1.

*Analyst: Jijun Meng*

#### **France: +1**

France has fully complied with its commitment to ensure that all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

On 14 June 2018, the Minister of Labour, Muriel Pénicaud unveiled plans for the development of a program to promote innovation amongst vulnerable people in the employment market.<sup>1200</sup> This comes as the next stage in the Skills Investment Plan, which aims to train two million unemployed people over the next five years.<sup>1201</sup> By focusing on developing skills related to innovation and local

---

<sup>1197</sup> The Canada Training Benefit: Empowering Canada's workforce to adapt and prepare for the jobs tomorrow, Ministry of Employment and Social Development Canada (Saskatoon) 16 May 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/employment-social-development/news/2019/05/the-canada-training-benefit-empowering-canadas-workforce-to-adapt-and-prepare-for-the-jobs-of-tomorrow0.html>.

<sup>1198</sup> Government of Canada investing in teaching digital skills to Canadians who need them most, Ministry of Innovation, Science and Economic Development Canada (Westmount) 17 May 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/innovation-science-economic-development/news/2019/05/government-of-canada-investing-in-teaching-digital-skills-to-canadians-who-need-them-most.html>.

<sup>1199</sup> Government of Canada helps 1,200 internationally trained newcomers in the Greater Toronto Area get their skills credentials recognized in Canada, Ministry of Employment and Social Development Canada (Mississauga) 23 May 2019. Access Date: 9 June 2019. <https://www.canada.ca/en/employment-social-development/news/2019/05/government-of-canada-helps-1200-internationally-trained-newcomers-in-the-greater-toronto-area-get-their-skills-credentials-recognized-in-canada.html>.

<sup>1200</sup> 100% inclusion: promouvoir l'innovation sociale, Page officielle du Gouvernement français (Paris) 14 June 2018. Access Date: 10 October 2018. <https://www.gouvernement.fr/argumentaire/100-inclusion-promouvoir-l-innovation-sociale>.

<sup>1201</sup> 100% inclusion: promouvoir l'innovation sociale, Page officielle du Gouvernement français (Paris) 14 June 2018. Access Date: 10 October 2018. <https://www.gouvernement.fr/argumentaire/100-inclusion-promouvoir-l-innovation-sociale>.

start-ups, the Ministry of Labour hopes to provide young people with the skills needed to be competitive in the labour market.<sup>1202</sup>

On 19 June 2018, the National Assembly provisionally adopted a proposed law on the Liberty to Choose One's Professional Future.<sup>1203</sup> The proposal makes explicit reference towards ensuring a developing economy through innovation.<sup>1204</sup> The main focus of the law is that employees will have the capacity to work on international secondments. This fosters greater global sharing of techniques and skills and allows workers to develop their own skills in emerging areas of technology while abroad.<sup>1205</sup>

On 21 June 2018, the France Stratégie (French Strategic Department) published a report on the different mechanisms to bring Blockchain technology to France.<sup>1206</sup> The main recommendations proposed by the working group on Blockchain focus on the need for interdisciplinary research and training development.<sup>1207</sup>

On 21 June 2018, Prime Minister Édouard Philippe announced France's plans to invest in industrial research in technological and economic sectors while visiting the M2P Technological Research Institute.<sup>1208</sup> The plan consists of a commitment of EUR57 billion in areas such as skills training in innovation as well as in alternative energy sources research and industry innovation.<sup>1209</sup> Part of the funding will also go towards technology start-ups to ensure that they have access to the support needed to remain competitive and to grow their "innovation ecosystems."<sup>1210</sup>

On 10 July 2018, Prime Minister Édouard Philippe announced plans to develop multidisciplinary training for students to enhance their expertise in bioproduction and bio-informatics.<sup>1211</sup> He also

---

<sup>1202</sup> 100% inclusion: promouvoir l'innovation sociale, Page officielle du Gouvernement français (Paris) 14 June 2018. Access Date: 10 October 2018. <https://www.gouvernement.fr/argumentaire/100-inclusion-promouvoir-l-innovation-sociale>.

<sup>1203</sup> Le Projet de Loi 'Avenir Professionnel' Adopté par l'Assemblée Nationale, Actualités du droit (Paris) 19 June 2018. Access Date: 10 October 2018. <https://www.actualitesdudroit.fr/browse/social/fonction-rh-et-grh/14269/le-projet-de-loi-avenir-professionnel-adopte-par-l-assemblee-nationale>.

<sup>1204</sup> Le Projet de Loi 'Avenir Professionnel' Adopté par l'Assemblée Nationale, Actualités du droit (Paris) 19 June 2018. Access Date: 10 October 2018. <https://www.actualitesdudroit.fr/browse/social/fonction-rh-et-grh/14269/le-projet-de-loi-avenir-professionnel-adopte-par-l-assemblee-nationale>.

<sup>1205</sup> Le Projet de Loi 'Avenir Professionnel' Adopté par l'Assemblée Nationale, Actualités du droit (Paris) 19 June 2018. Access Date: 10 October 2018. <https://www.actualitesdudroit.fr/browse/social/fonction-rh-et-grh/14269/le-projet-de-loi-avenir-professionnel-adopte-par-l-assemblee-nationale>

<sup>1206</sup> Les Enjeux des Blockchains, France Stratégie (Paris) 21 June 2018. Access Date: 10 October 2018. <http://www.strategie.gouv.fr/publications/enjeux-blockchains>.

<sup>1207</sup> Les Enjeux des Blockchains, France Stratégie (Paris) 21 June 2018. Access Date: 10 October 2018. <http://www.strategie.gouv.fr/publications/enjeux-blockchains>

<sup>1208</sup> L'ambition de la France pour l'investissement et l'innovation, Page officielle du Gouvernement français (Paris) 21 June 2018. Access Date: 10 October 2018. <https://www.gouvernement.fr/partage/10317-notre-ambition-pour-l-investissement-et-l-innovation>.

<sup>1209</sup> L'ambition de la France pour l'investissement et l'innovation, Page officielle du Gouvernement français (Paris) 21 June 2018. Access Date: 10 October 2018. <https://www.gouvernement.fr/partage/10317-notre-ambition-pour-l-investissement-et-l-innovation>.

<sup>1210</sup> L'ambition de la France pour l'investissement et l'innovation, Page officielle du Gouvernement français (Paris) 21 June 2018. Access Date: 10 October 2018. <https://www.gouvernement.fr/partage/10317-notre-ambition-pour-l-investissement-et-l-innovation>.

<sup>1211</sup> Discours devant le Conseil Stratégique des Industries de Santé, Page officielle du Gouvernement français (Paris) 10 July 2018. <https://www.gouvernement.fr/partage/10373-discours-devant-le-conseil-strategique-des-industries-de-sante>

revealed new funding opportunities for biotechnology startups to pursue their research, especially in collaborative settings.<sup>1212</sup>

On 10 July 2018, during the debate on the bill reforming apprenticeship and vocational training in the Senate, Minister of Labour Muriel Pénicaud announced that the government is considering the creation of a long-term unemployment benefit.<sup>1213</sup> This would be complemented by other assistance programs such as potential apprenticeships in developing economic sectors.<sup>1214</sup>

On 1 August 2018, Bruno Le Maire, France's Minister of Economy, met with Luigi Di Maio, Italy's Minister of Economic Development to discuss the industrial cooperation between two countries as well as the strategy of economic development at the bilateral level.<sup>1215</sup> Two leaders agreed that a more ambitious European industrial policy is required to generate more jobs and increase competitiveness in the international field.<sup>1216</sup> They discussed the need for French and Italian industries to implement technologies of the future and bring them to the forefront of innovation.<sup>1217</sup> In the meeting, France and Italy highlighted that they will be working together on key projects like innovative textile, microelectronics as well as artificial intelligence<sup>1218</sup>. Additionally, different financial models for investment have been discussed in order to support the growth of small and medium-sized enterprises.<sup>1219</sup> On 24 September 2018, two Ministers met again at the Friends of Industry Conference in Paris and further discussed the objectives mentioned above.<sup>1220</sup>

---

<sup>1212</sup> Discours devant le Conseil Stratégique des Industries de Santé, Page officielle du Gouvernement français (Paris) 10 July 2018. <https://www.gouvernement.fr/partage/10373-discours-devant-le-conseil-strategique-des-industries-de-sante>.

<sup>1213</sup> Chômage: le gouvernement planche sur la création d'une allocation longue durée, Le Figaro (Paris) 10 July 2018. Access Date: 10 October 2018. <http://www.lefigaro.fr/flash-eco/2018/07/10/97002-20180710FILWWW00187-chomage-le-gouvernement-planche-sur-une-allocation-longue-duree.php>.

<sup>1214</sup> Chômage: le gouvernement planche sur la création d'une allocation longue durée, Le Figaro (Paris) 10 July 2018. Access Date: 10 October 2018. <http://www.lefigaro.fr/flash-eco/2018/07/10/97002-20180710FILWWW00187-chomage-le-gouvernement-planche-sur-une-allocation-longue-duree.php>.

<sup>1215</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1216</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1217</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1218</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1219</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1220</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.



On 1 October 2018, the Minister of Labour, Muriel Pénicaud, announced a plan to facilitate the professional integration of refugees.<sup>1221</sup> The Minister of Labour stated that the initial funding of the program will be EUR15 million and will aim to help 4,000–5,000 refugees by 2019.<sup>1222</sup> The plan aims to ensure the successful transition of migrant refugees into the modern French economy.<sup>1223</sup>

On 2 October 2018, the Ministry of Education and the Ministry of Higher Education, Research and Innovation announced the Year of Chemistry which focuses on a series of events recognized the contributions of chemistry towards societal and economic development.<sup>1224</sup> The program promotes scientific and technical culture to audiences of all ages. There will also be a round table on the links between chemistry, education, research, and industry.<sup>1225</sup>

On 6 October 2018, the Ministry of Education launched the 6th year of Code Week France.<sup>1226</sup> The program consists of six introductory workshops on computer programming offered across 50 schools to help foster the development of digital skills.<sup>1227</sup> This year, the Ministry of Education partnered with several groups such as the League of Education, Columbus and Libraries Without Borders to provide code initiation workshops. Other events were held across the country for young people, parents and teachers alike.<sup>1228</sup>

On 18 October 2018, the Ministry of Education's new platform, [www.monstagedetroisieme.fr](http://www.monstagedetroisieme.fr), went live.<sup>1229</sup> The platform aims to connect students and local companies through a variety of internship

---

<sup>1221</sup> Muriel Pénicaud annonce 15 millions d'euros pour l'insertion professionnelle des réfugiés, Le Figaro (Paris) 1 October 2018. Access Date: 10 October 2018. <http://www.lefigaro.fr/social/2018/10/01/20011-20181001ARTFIG00303-muriel-penicaud-annonce-15-millions-d-euros-pour-l-insertion-professionnelle-des-refugies.php>.

<sup>1222</sup> Muriel Pénicaud annonce 15 millions d'euros pour l'insertion professionnelle des réfugiés, Le Figaro (Paris) 1 October 2018. Access Date: 10 October 2018. <http://www.lefigaro.fr/social/2018/10/01/20011-20181001ARTFIG00303-muriel-penicaud-annonce-15-millions-d-euros-pour-l-insertion-professionnelle-des-refugies.php>.

<sup>1223</sup> Muriel Pénicaud annonce 15 millions d'euros pour l'insertion professionnelle des réfugiés, Le Figaro (Paris) 1 October 2018. Access Date: 10 October 2018. <http://www.lefigaro.fr/social/2018/10/01/20011-20181001ARTFIG00303-muriel-penicaud-annonce-15-millions-d-euros-pour-l-insertion-professionnelle-des-refugies.php>.

<sup>1224</sup> Lancement de l'Année de la chimie de l'école à l'université : Comment la chimie contribue-t-elle à la connaissance, à l'économie et à la société? Ministère de l'Éducation Nationale et de la Jeunesse (Paris) 2 October 2018. Access Date: 10 October 2018. <http://www.education.gouv.fr/cid134649/lancement-de-l-annee-de-la-chimie-de-l-ecole-a-l-universite.html>.

<sup>1225</sup> Lancement de l'Année de la chimie de l'école à l'université : Comment la chimie contribue-t-elle à la connaissance, à l'économie et à la société? Ministère de l'Éducation Nationale et de la Jeunesse (Paris) 2 October 2018. Access Date: 10 October 2018. <http://www.education.gouv.fr/cid134649/lancement-de-l-annee-de-la-chimie-de-l-ecole-a-l-universite.html>.

<sup>1226</sup> Lancement de la 6e édition de la "Code Week" France : deux semaines pour célébrer l'apprentissage du code et la programmation numérique Ministère de l'Éducation Nationale et de la Jeunesse (Paris) 6 October 2018. Access Date: 10 October 2018. <http://www.education.gouv.fr/cid135146/lancement-de-la-6e-edition-de-la-code-week-france.html>.

<sup>1227</sup> Lancement de la 6e édition de la "Code Week" France : deux semaines pour célébrer l'apprentissage du code et la programmation numérique Ministère de l'Éducation Nationale et de la Jeunesse (Paris) 6 October 2018. Access Date: 10 October 2018. <http://www.education.gouv.fr/cid135146/lancement-de-la-6e-edition-de-la-code-week-france.html>.

<sup>1228</sup> Lancement de la 6e édition de la "Code Week" France : deux semaines pour célébrer l'apprentissage du code et la programmation numérique Ministère de l'Éducation Nationale et de la Jeunesse (Paris) 6 October 2018. Access Date: 10 October 2018. <http://www.education.gouv.fr/cid135146/lancement-de-la-6e-edition-de-la-code-week-france.html>.

<sup>1229</sup> Jean-Michel Blanquer et Julien Denormandie appellent les entreprises à se mobiliser pour proposer des stages aux élèves de 3e des quartiers prioritaires, Ministère de l'Éducation Nationale et de la Jeunesse (Paris) 18 November 2018. Access Date: 7 December 2018. <http://www.education.gouv.fr/cid135351/jean-michel-blanquer-et-julien-denormandie-appellent-les-entreprises-a-se-mobiliser-pour-proposer-des-stages-aux-eleves-de-3e-des-quartiers-prioritaires.html>.

schemes to provide preparation for students entering the modern French labour market.<sup>1230</sup> The early provision of internships is enabled by the French government's large-scale mobilization of companies across a variety of fields.<sup>1231</sup>

On 25 October 2018, Prime Minister Édouard Philippe convened the 2nd Interministerial Committee on Disability.<sup>1232</sup> One of the five priorities is to fund start-ups working on technological aids for people with disabilities and employing artificial intelligence in a socially conscious way and thus provide important access to funding and expertise to further foster innovation in this field.<sup>1233</sup>

On 11 November 2018, the French Government launched Paris Digital Week, bringing together academics, industry and civil society representatives to participate in workshops and seminars on developing plans to tackle digital challenges.<sup>1234</sup> Hundreds of innovative projects were presented and special focus was given to developing youth involvement in these areas.<sup>1235</sup> The GovTech summit that took place on November 12 especially worked on developing plans to support the new European ecosystem of innovators and fostered collaboration between government agencies and start-ups.<sup>1236</sup>

On 16 April 2019, the French Government announced "TECH.GOUV," a new program aimed at digitally transforming public services.<sup>1237</sup> The strategy will focus on six different areas: training, inclusion, accessibility, applicability, industry alliances and economic benefit.<sup>1238</sup> The pilot program will include an especial focus on working across the private and public sector to train workers in digital skills and to find new and innovative digital applications.<sup>1239</sup>

---

<sup>1230</sup> Jean-Michel Blanquer et Julien Denormandie appellent les entreprises à se mobiliser pour proposer des stages aux élèves de 3e des quartiers prioritaires, Ministère de l'Éducation Nationale et de la Jeunesse (Paris) 18 November 2018. Access Date: 7 December 2018. <http://www.education.gouv.fr/cid135351/jean-michel-blanquer-et-julien-denormandie-appellent-les-entreprises-a-se-mobiliser-pour-proposer-des-stages-aux-eleves-de-3e-des-quartiers-prioritaires.html>.

<sup>1231</sup> Jean-Michel Blanquer et Julien Denormandie appellent les entreprises à se mobiliser pour proposer des stages aux élèves de 3e des quartiers prioritaires, Ministère de l'Éducation Nationale et de la Jeunesse (Paris) 18 November 2018. Access Date: 7 December 2018. <http://www.education.gouv.fr/cid135351/jean-michel-blanquer-et-julien-denormandie-appellent-les-entreprises-a-se-mobiliser-pour-proposer-des-stages-aux-eleves-de-3e-des-quartiers-prioritaires.html>.

<sup>1232</sup> Les cinq grandes priorités du Comité interministériel du handicap 2018, Page officielle du Gouvernement français (Paris) 24 October 2018. Access Date: 7 December 2018. <https://www.gouvernement.fr/argumentaire/les-cinq-grandes-priorites-du-comite-interministeriel-du-handicap-2018>.

<sup>1233</sup> Les cinq grandes priorités du Comité interministériel du handicap 2018, Page officielle du Gouvernement français (Paris) 24 October 2018. Access Date: 7 December 2018. <https://www.gouvernement.fr/argumentaire/les-cinq-grandes-priorites-du-comite-interministeriel-du-handicap-2018>.

<sup>1234</sup> Paris Digital Week: découvrez le programme, Page officielle du Gouvernement français (Paris) 11 November 2018. Access Date: 7 December 2018.

<sup>1235</sup> Paris Digital Week: découvrez le programme, Page officielle du Gouvernement français (Paris) 11 November 2018. Access Date: 7 December 2018. <https://www.gouvernement.fr/paris-digital-week-decouvrez-le-programme>.

<sup>1236</sup> Paris Digital Week: découvrez le programme, Page officielle du Gouvernement français (Paris) 11 November 2018. Access Date: 7 December 2018. <https://www.gouvernement.fr/paris-digital-week-decouvrez-le-programme>.

<sup>1237</sup> TECH.GOUV : accélérer la transformation numérique du service public, La DINSIC (Paris) 16 April 2019. Access Date: 9 June 2019. <https://www.numerique.gouv.fr/actualites/tech-gouv-accelerer-la-transformation-numerique-du-service-public/>.

<sup>1238</sup> TECH.GOUV : accélérer la transformation numérique du service public, La DINSIC (Paris) 16 April 2019. Access Date: 9 June 2019. <https://www.numerique.gouv.fr/actualites/tech-gouv-accelerer-la-transformation-numerique-du-service-public/>.

<sup>1239</sup> TECH.GOUV : accélérer la transformation numérique du service public, La DINSIC (Paris) 16 April 2019. Access Date: 9 June 2019. <https://www.numerique.gouv.fr/actualites/tech-gouv-accelerer-la-transformation-numerique-du-service-public/>.

On 21 May 2019, a joint initiative from France's governmental Science and Technology Department announced a series of exchange programs for doctoral students and young researchers in the area of artificial intelligence to foster collaboration between French and German laboratories and experts.<sup>1240</sup>

France has demonstrated care to furthering both access to skills and education needed for its labour market in order to prosper in the new age filled emerging technologies. This was seen through programs like the sixth year of Code Week France and plan to facilitate the professional integration of refugees.

Thus, France receives a score of +1.

*Analyst: Ioana Burtea*

### **Germany: +1**

Germany has fully complied with its commitment to ensure that all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

On 12 June 2018, the Federal Ministry of Education and Research held the first symposium of the Cliché-free Initiative in Berlin, where panel sessions and job orientations took place to encourage young women and men to explore their career option.<sup>1241</sup>

On 18 July 2018, the Federal Cabinet of Germany passed a law amendment on creating opportunities for long-term unemployed individuals.<sup>1242</sup> Germany will offer employment assistance on the job for newly employed individuals to get used to the new working environment as part of the program alongside with government subsidy.<sup>1243</sup>

On 10 August 2018, the Federal Ministry of Economic Affairs and Energy announced the German government will increase the subsidy of inter-company vocational training centers to fully digitalize their equipment in order to help prepare SMEs and workers for the digitalized world.<sup>1244</sup> State Secretary Dr. Ulrich Nussbaum mentioned that the nation-wide network of centers would help SMEs and the craft sector "keep pace with changes."<sup>1245</sup>

---

<sup>1240</sup> Appels à projets SST et Inria en IA mobilité et organisation d'événements, Inria (Paris) 25 May 2019. Access Date: 9 June 2019. <https://www.inria.fr/actualite/actualites-inria/appels-a-projets-sst-et-inria-en-ia>.

<sup>1241</sup> Gemeinsam für eine Berufswahl ohne Grenzen, Bundesministerium für Bildung und Forschung (Berlin). 12 June 2018. Access Date: 15 October 2018. <https://www.bmbf.de/de/gemeinsam-fuer-eine-berufswahl-ohne-grenzen-6352.html>.

<sup>1242</sup> Neue Perspektiven und Teilhabechancen durch öffentlich geförderte Arbeit, Bundesministerium für Arbeit und Soziales (Berlin) 18 July 2018. Access Date: 15 October 2018. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2018/teilhabechancengesetz.html>.

<sup>1243</sup> Neue Perspektiven und Teilhabechancen durch öffentlich geförderte Arbeit, Bundesministerium für Arbeit und Soziales (Berlin) 18 July 2018. Access Date: 15 October 2018. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2018/teilhabechancengesetz.html>.

<sup>1244</sup> Higher grants for digitization in advanced training institutions, Federal Ministry for Economic Affairs and Energy (Berlin) 10 August 2018. Access Date: 10 October 2018. <https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2018/20180810-hoehere-zuschuesse-fuer-die-digitalisierung-von-weiterbildungseinrichtungen.html>.

<sup>1245</sup> Higher grants for digitization in advanced training institutions, Federal Ministry for Economic Affairs and Energy (Berlin) 10 August 2018. Access Date: 10 October 2018. <https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2018/20180810-hoehere-zuschuesse-fuer-die-digitalisierung-von-weiterbildungseinrichtungen.html>.

On 22 October 2018, the German Patent and Trade Mark Office along with “SINGA Deutschland,” “LOK StartupCamp” and “Start-Up Your Future” provided a conference on information about the intellectual property to migrants and refugees wishing to start companies in Germany.<sup>1246</sup> The conference shared information on intellectual property to SME entrepreneurs with immigration background and migrants and refugees who wish to become start-up entrepreneurs hoping to engage them in meaningful conversations and spread information for them to achieve success in Germany.<sup>1247</sup>

On 2 October 2018, Germany adopted a new immigration law that allows companies to recruit more skilled foreign workers, stop the priority requirement that insist companies to choose German workers first in the pool of candidates, and encourages foreign graduates and workers with vocational training to come to Germany and gain work experience.<sup>1248</sup>

On 16 November 2018, Germany adopted its Artificial Intelligence Strategy, with the goals of “making Germany and Europe global leaders on the development and use of AI technologies and securing Germany’s competitiveness in the future, safeguarding the responsible development and use of AI which serves the good of society, and integrating AI in society in ethical, legal, cultural and institutional terms in the context of a broad societal dialogue and active political measures.”<sup>1249</sup> The federal government will invest EUR3 billion promote innovation in the private sector by sending AI instructors to SMEs to support enterprises in learning the technology.<sup>1250</sup> The federal government will also “strengthen AI research and education at higher education institutions ... [and] promote the transfer of AI to businesses and society.”<sup>1251</sup>

On 19-20 November 2018, the Federal Ministry of Labor and Social Affairs took the opportunity of Inclusion Days to discuss and facilitate learning among people with disabilities on how digitalization could help them in terms of their work and in their workplace.<sup>1252</sup>

On 26 November 2018, the Federal Minister of Education and Research, Thomas Rachel, launched a support program of the Vocational Training Program to train workers in terms of foreign language skills and other key skills necessary to thrive in the workplace and to allow international participation

---

<sup>1246</sup> The DPMA provides IP information to people with migrant and refugee backgrounds, German Patent and Trade Mark Office (Berlin) 7 December 2018. Access Date: 7 December 2018.

<sup>1247</sup> The DPMA provides IP information to people with migrant and refugee backgrounds, German Patent and Trade Mark Office (Berlin) 7 December 2018. Access Date: 7 December 2018. [https://www.dpma.de/english/our\\_office/publications/guestsatdpma/infoday/index.html](https://www.dpma.de/english/our_office/publications/guestsatdpma/infoday/index.html).

<sup>1248</sup> Germany Agrees on Immigration Law to Tackle Labor Shortages, U.S. News & World Report L.P. (U.S.) 2 October 2018. Access Date: 1 December 2018. <https://www.usnews.com/news/world/articles/2018-10-02/german-parties-agree-on-immigration-law-to-tackle-labor-shortages>.

<sup>1249</sup> Federal Government adopts Artificial Intelligence Strategy, Federal Ministry for Economic Affairs and Energy (Berlin) 16 November 2018. Access Date: 1 December 2018. <https://www.de.digital/DIGITAL/Redaktion/EN/Meldungen/2018/2018-11-16-federal-government-adopts-artificial-intelligence-strategy.html>.

<sup>1250</sup> Federal Government adopts Artificial Intelligence Strategy, Federal Ministry for Economic Affairs and Energy (Berlin) 16 November 2018. Access Date: 1 December 2018. <https://www.de.digital/DIGITAL/Redaktion/EN/Meldungen/2018/2018-11-16-federal-government-adopts-artificial-intelligence-strategy.html>.

<sup>1251</sup> Federal Government adopts Artificial Intelligence Strategy, Federal Ministry for Economic Affairs and Energy (Berlin) 16 November 2018. Access Date: 1 December 2018. <https://www.de.digital/DIGITAL/Redaktion/EN/Meldungen/2018/2018-11-16-federal-government-adopts-artificial-intelligence-strategy.html>.

<sup>1252</sup> “Digitalisierung nutzen, um neue Teilhabechancen zu eröffnen”, Bundesministerium für Arbeit und Soziales (Berlin) 20 November 2018. Access Date: 1 December 2018. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2018/inklusionstage-2018.html>.

in this program.<sup>1253</sup> The federal government will provide funding of EUR3 million in 2019 and more in 2020 and 2021 to support international mobility and more worker participation in the support program.<sup>1254</sup>

On 7 December 2018, the Federal Ministry of Labor and Social Affairs began to receive applications for new projects for the 2019 funding period of the Participation Fund.<sup>1255</sup> Eligible projects include further training for self-employment organizations and work exchange opportunities, where accepted project will receive EUR6,000 per year.<sup>1256</sup>

On 19 December 2018, the Federal Cabinet decided on the new Skilled Labour Strategy, where Germany will aim to secure and expand domestic, as well as international, skilled labor potentials.<sup>1257</sup> The Strategy will allow workers with vocational skills to gain easier access to the German workforce.<sup>1258</sup>

On 13 February 2019, the Federal Ministry of Education launched the MINT education program, where EUR55 million is invested in helping students, youth, and professionals gain more opportunities to explore their interests in the STEM field.<sup>1259</sup>

On 11 February 2019, Minister Altmaier launched the “GO!” Start Up campaign in Saarbrücken to encourage people starting their own businesses.<sup>1260</sup>

On 13 March 2019, the Cabinet passed a law to increase vocational training rate and allowance, to simplify requirements and regulations, and to reduce the administrative burden.<sup>1261</sup>

---

<sup>1253</sup> AusbildungWeltweit: Mehr Mobilität für Auszubildende, Bundesministerium für Bildung und Forschung (Berlin) 26 November 2018. Access Date: 1 December 2018. <https://www.bmbf.de/de/ausbildungweltweit-mehr-mobilitaet-fuer-auszubildende-7413.html>.

<sup>1254</sup> AusbildungWeltweit: Mehr Mobilität für Auszubildende, Bundesministerium für Bildung und Forschung (Berlin) 26 November 2018. Access Date: 1 December 2018. <https://www.bmbf.de/de/ausbildungweltweit-mehr-mobilitaet-fuer-auszubildende-7413.html>.

<sup>1255</sup> Förderbekanntmachung des Bundesministeriums für Arbeit und Soziales, Bundesministerium für Arbeit und Soziales (Berlin) 7 December 2018. Access Date: 7 December 2018. <https://www.bmas.de/DE/Presse/Meldungen/2018/foerderbekanntmachung-des-bundesministeriums-fuer-arbeit-und-soziales.html>.

<sup>1256</sup> Förderbekanntmachung des Bundesministeriums für Arbeit und Soziales, Bundesministerium für Arbeit und Soziales (Berlin) 7 December 2018. Access Date: 7 December 2018. <https://www.bmas.de/DE/Presse/Meldungen/2018/foerderbekanntmachung-des-bundesministeriums-fuer-arbeit-und-soziales.html>.

<sup>1257</sup> Fachkräftestrategie vom Kabinett beschlossen, Bundesministerium für Arbeit und Soziales (Berlin) 19 December 2018. Access Date: 1 March 2019. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2018/fachkraefteeinwanderungsgesetz.html>.

<sup>1258</sup> Minister Altmaier: More growth, prosperity and jobs due to the Skilled Immigration Act, Federal Ministry for Economic Affairs and Energy (Berlin) 19 December 2018. Access Date: 1 March 2019. <https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2018/20181219-altmaier-more-growth-prosperity-and-jobs-due-to-the-skilled-immigration-act.html>.

<sup>1259</sup> Mit MINT in die Zukunft!, Bundesministerium für Bildung und Forschung (Berlin) 13 February 2019. Access Date: 1 March 2019. <https://www.bmbf.de/de/mit-mint-in-die-zukunft-7880.html>.

<sup>1260</sup> Altmaier launches regional conferences in his “GO!” start-up campaign, Federal Ministry for Economic Affairs and Energy (Berlin) 11 February 2019. Access Date: 1 March 2019. <https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2019/20190211-altmaier-launches-regional-conferences-in-his-go-start-up-campaign.html>.

<sup>1261</sup> Höhere Zuschüsse für Auszubildende, Bundesministerium für Arbeit und Soziales (Berlin) 13 March 2019. Access Date: 9 June 2019. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2019/hoehere-zuschuesse-fuer-auszubildende.html>.

On 1 April 2019, the federal government launched the first of a total of six regional conferences on Inclusive Social Space to increase accessibility and engagement into community among people with disabilities.<sup>1262</sup>

On 10 April 2019, the federal government launched an initiative to encourage employers to hire people with disabilities.<sup>1263</sup> Six employment agencies are participating in this initiative to send cover letters for people with disabilities to companies in Germany.<sup>1264</sup>

On 16 May 2019, the State Secretary Dr. Rolf Schmachtenberg signed the German-Bulgarian Work Programme with the Bulgarian Deputy Minister of Labor and Social Policy Zornitsa Rousinova on the future cooperation between two governments.<sup>1265</sup> They agreed on behalf of their governments to integrate unemployed individuals, people with disabilities, and migrant and immigrant workers into the work program.<sup>1266</sup>

On 21 May 2019, the Federal Ministry of Labor and Social Affairs re-launched a website containing information on funding opportunities, vocational rehabilitation, technical aids, and financial services for people with disabilities.<sup>1267</sup>

Germany is providing financial support to allow long-term unemployed individuals and those in certain sectors to have the skills necessary to prosper in the new world of work. Germany is also passing legislation to allow foreign workers and vocational training students to gain work experience in Germany under a selection process without bias. Germany is providing funding for skill training and work experience projects. Therefore, Germany fully complies with the commitment.

Thus, Germany receives a score of +1.

*Analyst: Jijun Meng*

### **Italy: +1**

Italy has fully complied with its commitment to ensure all workers have access to skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

On 23 July 2018, Sant'Anna School Biorobotics Institute researchers have announced their involvement with two projects, funded by Regional Operational Program of the European Regional

---

<sup>1262</sup> Konferenzreihe "Inklusiver Sozialraum" gestartet, Bundesministerium für Arbeit und Soziales (Berlin) 1 April 2019. Access Date: 9 June 2019. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2019/1-regionalkonferenz-mobilitaet-in-einem-inklusive-sozialraum.html>.

<sup>1263</sup> Start der Initiative "Einstellung zählt - Arbeitgeber gewinnen", Bundesministerium für Arbeit und Soziales (Berlin) 10 April 2019. Access Date: 9 June 2019. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2019/start-initiative-einstellung-zaehlt-arbeitgeber-gewinnen.html>.

<sup>1264</sup> Start der Initiative "Einstellung zählt - Arbeitgeber gewinnen", Bundesministerium für Arbeit und Soziales (Berlin) 10 April 2019. Access Date: 9 June 2019. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2019/start-initiative-einstellung-zaehlt-arbeitgeber-gewinnen.html>.

<sup>1265</sup> State Secretary Schmachtenberg meets with Deputy Minister Rousinova, Federal Ministry of Labour and Social Affairs (Berlin) 21 May 2019. Access Date: 9 June 2019. <https://www.bmas.de/EN/Services/Press/recent-publications/2019/german-bulgarian-work-programme-signed.html>.

<sup>1266</sup> State Secretary Schmachtenberg meets with Deputy Minister Rousinova, Federal Ministry of Labour and Social Affairs (Berlin) 21 May 2019. Access Date: 9 June 2019. <https://www.bmas.de/EN/Services/Press/recent-publications/2019/german-bulgarian-work-programme-signed.html>.

<sup>1267</sup> Griese: "Bessere digitale Informationsangebote für Menschen mit Behinderungen", Bundesministerium für Arbeit und Soziales (Berlin) 21 May 2019. Access Date: 9 June 2019. <https://www.bmas.de/DE/Presse/Pressemitteilungen/2019/umfassender-relaunch-von-www-einfach-teilhabende.html>.

Development Fund 2020.<sup>1268</sup> The projects will aim to enhance productivity in the healthcare system through digital technology development and automation research.<sup>1269</sup> The projects Congelamento Robotico Sicuro di sacche di plasma and Central Automated Process for Sterilization Units in a Lean Activity will take place at Sant'Anna School's Competence Centre. Competence centres are also part of the larger national strategy of Industria 4.0.<sup>1270</sup>

On 1 August 2018, Luigi Di Maio, Italy's Minister of Economic Development met with Bruno Le Maire, France's Minister of Economy, to discuss the industrial cooperation between two countries as well as the strategy of economic development at the bilateral level.<sup>1271</sup> Two leaders agreed that a more ambitious European industrial policy is required to generate more jobs and increase competitiveness in the international field.<sup>1272</sup> They discussed the need for French and Italian industries to implement technologies of the future and bring them to the forefront of innovation.<sup>1273</sup> In the meeting, Italy and France highlighted that they will be working together on key projects such as innovative textile, microelectronics as well as artificial intelligence.<sup>1274</sup> Additionally, different financial models for investment have been discussed in order to support the growth of small and medium-sized enterprises (SMEs)s.<sup>1275</sup> On 24 September 2018, two ministers met again at the Friends of Industry Conference in Paris and further discussed the objectives mentioned above.<sup>1276</sup>

---

<sup>1268</sup> Italian National Plan for Industry 4.0, Sant'Anna School of Advanced Studies (Rome) 2 June 2018. Access Date: 16 October 2018. <https://www.santannapisa.it/en/news/italian-national-plan-industry-40-santanna-school-launches-artes-40-competence-centre-focused>.

<sup>1269</sup> Italian National Plan for Industry 4.0, Sant'Anna School of Advanced Studies (Rome) 2 June 2018. Access Date: 16 October 2018. <https://www.santannapisa.it/en/news/italian-national-plan-industry-40-santanna-school-launches-artes-40-competence-centre-focused>.

<sup>1270</sup> Italian National Plan for Industry 4.0, Sant'Anna School of Advanced Studies (Rome) 2 June 2018. Access Date: 16 October 2018. <https://www.santannapisa.it/en/news/italian-national-plan-industry-40-santanna-school-launches-artes-40-competence-centre-focused>.

<sup>1271</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1272</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1273</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1274</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1275</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

<sup>1276</sup> Italy and France, bilateral meeting on economic development and industrial cooperation, Italy Ministry of Economic Development (Rome) 1 August 2018. Access Date: 15 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038466-italy-and-france-bilateral-meeting-on-economic-development-and-industrial-cooperation>.

On 14 September 2018, Italy's Ministry of Economic Development launched a call for applicants to set up a group of experts for the drafting of a national strategy on artificial intelligence (AI).<sup>1277</sup> Luigi Di Maio, the Minister of Economic Development, has announced that the group will be composed by; ten representing enterprises operating in the field of AI; ten representing research centres, academics, think-tanks; ten representing the labour market, the professions, the third sector, the consumers and in general the civil society; as well as the Minister's representatives.<sup>1278</sup> The National Strategy plan will address policies and tools in order to coordinate and strengthen the research in the AI field, attract talents and develop business as well as promote public and private investments in AI.<sup>1279</sup> Once drafted, the package will be submitted to public consultation.<sup>1280</sup>

On 20 September 2018, Italy organized the 26th annual Pontignano Conference, in collaboration with the British Council at the British Embassy in Italy.<sup>1281</sup> The topic of the two-day event was "Bridging the Gaps" and the implications of the technological changes in education, innovation, and business were discussed.<sup>1282</sup> Special Commissioner for the Implementation of the Italian Government Digital Agenda, Diego Piacentini, was a distinguished speaker along with many experts from various fields.<sup>1283</sup> Senior representatives of the London and Rome governments, including the British Deputy Prime Minister David Lidington and the Undersecretary of State at the Presidency of the Council of Ministers Giancarlo Giorgetti were also present at the event. The conference included many workshops, panels, and debates regarding the effects of AI on the economy, definition, and creation of the future of work, ways to bridge together education and workers' skills, as well as innovation investments.<sup>1284</sup>

On 4 October 2018, an award ceremony for the best digital projects developed by high schools in the provinces of Biella and Vercelli was held.<sup>1285</sup> The event was organized by the Institute Eugenio Bona and was part the larger Digital National School Plan.<sup>1286</sup> The reward was a voucher for EUR1500 to spend on school's digital equipment and a voucher of EUR1000 that can be spent on a variety of projects linked to robotics or coding.<sup>1287</sup> The Ministry of Education has launched the plan, to achieve

---

<sup>1277</sup> Artificial intelligence (AI): call for experts, Italy Ministry of Economic Development (Rome) 14 September 2018. Access Date: 10 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038605-artificial-intelligence-ai-call-for-experts>.

<sup>1278</sup> Artificial intelligence (AI): call for experts, Italy Ministry of Economic Development (Rome) 14 September 2018. Access Date: 10 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038605-artificial-intelligence-ai-call-for-experts>.

<sup>1279</sup> Artificial intelligence (AI): call for experts, Italy Ministry of Economic Development (Rome) 14 September 2018. Access Date: 10 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038605-artificial-intelligence-ai-call-for-experts>.

<sup>1280</sup> Artificial intelligence (AI): call for experts, Italy Ministry of Economic Development (Rome) 14 September 2018. Access Date: 10 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/en/202-news-english/2038605-artificial-intelligence-ai-call-for-experts>.

<sup>1281</sup> 26th Pontignano Conference: "Bridging the Gaps", British Embassy (Rome) 19 September 2018. Access Date: 10 October 2018. <https://www.gov.uk/government/news/26th-pontignano-conference-bridging-the-gaps>.

<sup>1282</sup> 26th Pontignano Conference: "Bridging the Gaps", British Embassy (Rome) 19 September 2018. Access Date: 10 October 2018. <https://www.gov.uk/government/news/26th-pontignano-conference-bridging-the-gaps>.

<sup>1283</sup> 26th Pontignano Conference: "Bridging the Gaps", British Embassy (Rome) 19 September 2018. Access Date: 10 October 2018. <https://www.gov.uk/government/news/26th-pontignano-conference-bridging-the-gaps>.

<sup>1284</sup> 26th Pontignano Conference: "Bridging the Gaps", British Embassy (Rome) 19 September 2018. Access Date: 10 October 2018. <https://www.gov.uk/government/news/26th-pontignano-conference-bridging-the-gaps>.

<sup>1285</sup> Digital school, awarded at the Bona schools of Biella and Vercelli, Biella (Rome) 4 October 2018. Access Date: 11 October 2018. <https://biella.diariodelweb.it/biella/articolo/?nid=20181004-529513>.

<sup>1286</sup> Digital school, awarded at the Bona schools of Biella and Vercelli, Biella (Rome) 4 October 2018. Access Date: 11 October 2018. <https://biella.diariodelweb.it/biella/articolo/?nid=20181004-529513>.

<sup>1287</sup> Digital school, awarded at the Bona schools of Biella and Vercelli, Biella (Rome) 4 October 2018. Access Date: 11 October 2018. <https://biella.diariodelweb.it/biella/articolo/?nid=20181004-529513>.



a comprehensive innovation strategy across the country's school system, adopting into the digital age. This plan is one of the pillars of "La Buona Scuola" reform, that was created in 2015, with a vision of increasing the digital education opportunities.<sup>1288</sup> La Buona Scuola reforms are part of the National Business Plan 4.0, also known as the "Industria 4.0."<sup>1289</sup> This is Italy's national strategy for digitizing the economy.<sup>1290</sup> It boosts innovation-driven economic growth through a wide range of policy measures to spur both domestic and international investment.<sup>1291</sup> The cornerstones of the plan include tax incentives for innovative start-ups, research and development expenditures, and patenting procedures as well as super and hyper depreciation policies for investments in selected industrial equipment (such as machinery that can convert information through the Internet of Things).<sup>1292</sup>

On 16 October 2018, the Undersecretary of the Ministry of Economic Development, Claudio Cominardi, stated, "the Employment Centers will again play a key role for citizens and businesses, as is the case in European countries."<sup>1293</sup> In his speech, he also commented, "today is officially the start of a strategic reform for employment and active policies of the country."<sup>1294</sup> Employment Centre plans aim to strengthen the training of workers, the adaptation of facilities and IT equipment, and accelerate the use of new technologies to streamline the processes.<sup>1295</sup>

On 30 November 2018, the National Award for Innovation-PNI was held.<sup>1296</sup> This event is organized by the Association of University Incubators-PNICube, in partnership with Chamber of Commerce, and qualifies as Italy's most famous and widespread business plan competition.<sup>1297</sup> This year's theme was "Destination Impresa 4.0," referring to the concepts of innovation, digitalization and most specifically, the Ministry of Economic Development's National Industry 4.0 Plan.<sup>1298</sup> The

---

<sup>1288</sup> Digital school, awarded at the Bona schools of Biella and Vercelli, Biella (Rome) 4 October 2018. Access Date: 11 October 2018. <https://biella.diariodelweb.it/biella/articolo/?nid=20181004-529513>.

<sup>1289</sup> Incentives to investors: Italy's Industria 4.0, Ministry of Economic Development (Rome). Access Date: 16 October 2018. <https://investorvisa.mise.gov.it/index.php/en/home-en/incentives-to-investors-italy-s-industria-4-0-plan>.

<sup>1290</sup> Incentives to investors: Italy's Industria 4.0, Ministry of Economic Development (Rome). Access Date: 16 October 2018. <https://investorvisa.mise.gov.it/index.php/en/home-en/incentives-to-investors-italy-s-industria-4-0-plan>.

<sup>1291</sup> Incentives to investors: Italy's Industria 4.0, Ministry of Economic Development (Rome). Access Date: 16 October 2018. <https://investorvisa.mise.gov.it/index.php/en/home-en/incentives-to-investors-italy-s-industria-4-0-plan>.

<sup>1292</sup> Incentives to investors: Italy's Industria 4.0, Ministry of Economic Development (Rome). Access Date: 16 October 2018. <https://investorvisa.mise.gov.it/index.php/en/home-en/incentives-to-investors-italy-s-industria-4-0-plan>.

<sup>1293</sup> Employment Centers will once again play a key role for citizens and businesses, Ministry of Labor and Social Policies (Rome), 16 October 2018. Access Date: 10 December 2018. <http://www.lavoro.gov.it/stampa-e-media/Comunicati/Pagine/l-centri-per-l-impiego-torneranno-ad-avere-un-ruolo-chiave-per-i-cittadini-e-per-le-impresе.aspx>.

<sup>1294</sup> Employment Centers will once again play a key role for citizens and businesses, Ministry of Labor and Social Policies (Rome), 16 October 2018. Access Date: 10 December 2018. <http://www.lavoro.gov.it/stampa-e-media/Comunicati/Pagine/l-centri-per-l-impiego-torneranno-ad-avere-un-ruolo-chiave-per-i-cittadini-e-per-le-impresе.aspx>.

<sup>1295</sup> Employment Centers will once again play a key role for citizens and businesses, Ministry of Labor and Social Policies (Rome), 16 October 2018. Access Date: 10 December 2018. <http://www.lavoro.gov.it/stampa-e-media/Comunicati/Pagine/l-centri-per-l-impiego-torneranno-ad-avere-un-ruolo-chiave-per-i-cittadini-e-per-le-impresе.aspx>.

<sup>1296</sup> National Innovation Award 2018, 16th edition now underway, Research Italy (Rome) 25 November 2018. Access Date: 4 December 2018. <https://www.researchitaly.it/en/news/national-innovation-award-2018-16th-edition-now-underway/>.

<sup>1297</sup> National Innovation Award 2018, 16th edition now underway, Research Italy (Rome) 25 November 2018. Access Date: 4 December 2018. <https://www.researchitaly.it/en/news/national-innovation-award-2018-16th-edition-now-underway/>.

<sup>1298</sup> National Award for innovation: Moi wins, startup for Industry 4.0, Economy Up Digital360 (Rome) 30 November 2018. Access Date: 4 December 2018, [https://www.economyup.it/startup/premio-nazionale-innovazione-startupcup/#Premio\\_Nazionale\\_per\\_lInnovazione\\_tutti\\_i\\_premi](https://www.economyup.it/startup/premio-nazionale-innovazione-startupcup/#Premio_Nazionale_per_lInnovazione_tutti_i_premi).

prize for the first place was over EUR1 million and it was awarded to a start-up named MOI.<sup>1299</sup> MOI developed an additive manufacturing technology capable of producing high-performance products in composite material.<sup>1300</sup> Overall, this competition aimed to bring the labour market closer to the world of innovative start-ups, spin-offs, universities, and potential careers paths to implement the skills acquired.<sup>1301</sup>

On 3 December 2018, Italy enriched its Telematic Deposit of contracts with a new feature.<sup>1302</sup> The information technology application will allow corporations to deposit their collective agreements in a few clicks to access the tax credit for training 4.0.<sup>1303</sup> This is part of the wider “National Business Plan 4.0” and is under the 2018 Budget Law; it is planned to promote the technological and digital innovation process of the private sector, focused on human capital.<sup>1304</sup> The tax credit is created to cover expenses incurred in 2018 for workers engaged in training, related to “emerging technologies.”<sup>1305</sup>

On 7 December 2018, a multi-stakeholder G7 Conference on Artificial Intelligence was held in Montreal, promoted as part of the work of the G7 Summit in Charlevoix.<sup>1306</sup> Italian delegation included the Ministry of Economic Development and a group of experts, academics and representatives of the business world and of the Italian startups operating in the sector.<sup>1307</sup> Italy presented a report on the subject “the future of work — skills for the modern economy” during the conference.<sup>1308</sup> Topics discussed in the event consisted of the potential of human and technological

---

<sup>1299</sup> National Innovation Award 2018, 16th edition now underway, Research Italy (Rome) 25 November 2018. Access Date: 4 December 2018. <https://www.researchitaly.it/en/news/national-innovation-award-2018-16th-edition-now-underway/>.

<sup>1300</sup> National Innovation Award 2018, 16th edition now underway, Research Italy (Rome) 25 November 2018. Access Date: 4 December 2018. <https://www.researchitaly.it/en/news/national-innovation-award-2018-16th-edition-now-underway/>.

<sup>1301</sup> National Award for innovation: Moi wins, startup for Industry 4.0, Economy Up Digital360 (Rome) 30 November 2018. Access Date: 4 December 2018, [https://www.economyup.it/startup/premio-nazionale-innovazione-startupcup/#Premio\\_Nazionale\\_per\\_Innovazione\\_tutti\\_i\\_premi](https://www.economyup.it/startup/premio-nazionale-innovazione-startupcup/#Premio_Nazionale_per_Innovazione_tutti_i_premi).

<sup>1302</sup> Tax credit for training 4.0: indications on the deposit of contracts, Ministry of Labor and Social Policies (Rome) 6 December 2018. Access Date: 10 December 2018. <http://www.lavoro.gov.it/notizie/pagine/credito-d-imposta-per-la-formazione-4-0-indicazioni-sul-deposito-dei-contratti.aspx/>.

<sup>1303</sup> Tax credit for training 4.0: indications on the deposit of contracts, Ministry of Labor and Social Policies (Rome) 6 December 2018. Access Date: 10 December 2018. <http://www.lavoro.gov.it/notizie/pagine/credito-d-imposta-per-la-formazione-4-0-indicazioni-sul-deposito-dei-contratti.aspx/>.

<sup>1304</sup> Tax credit for training 4.0: indications on the deposit of contracts, Ministry of Labor and Social Policies (Rome) 6 December 2018. Access Date: 10 December 2018. <http://www.lavoro.gov.it/notizie/pagine/credito-d-imposta-per-la-formazione-4-0-indicazioni-sul-deposito-dei-contratti.aspx/>.

<sup>1305</sup> Tax credit for training 4.0: indications on the deposit of contracts, Ministry of Labor and Social Policies (Rome) 6 December 2018. Access Date: 10 December 2018. <http://www.lavoro.gov.it/notizie/pagine/credito-d-imposta-per-la-formazione-4-0-indicazioni-sul-deposito-dei-contratti.aspx/>.

<sup>1306</sup> G7 Canada on Artificial Intelligence, Ministry of Economic Development (Rome) 7 December 2018. Access Date: 4 December 2018. <https://www.sviluppoeconomico.gov.it/index.php/it/per-i-media/notizie/it/198-notizie-stampa/2038908-g7-canada-su-intelligenza-artificiale>.

<sup>1307</sup> G7 Canada on Artificial Intelligence, Ministry of Economic Development (Rome) 7 December 2018. Access Date: 4 December 2018. <https://www.sviluppoeconomico.gov.it/index.php/it/per-i-media/notizie/it/198-notizie-stampa/2038908-g7-canada-su-intelligenza-artificiale>.

<sup>1308</sup> G7 Canada on Artificial Intelligence, Ministry of Economic Development (Rome) 7 December 2018. Access Date: 4 December 2018. <https://www.sviluppoeconomico.gov.it/index.php/it/per-i-media/notizie/it/198-notizie-stampa/2038908-g7-canada-su-intelligenza-artificiale>.

development related to artificial intelligence and employment opportunities created by new technologies.<sup>1309</sup>

On 27 December 2018, the Ministry of Economic Development elaborated on its national strategy on artificial intelligence and blockchain-related technologies; it completed its selection of high-level experts on the topics.<sup>1310</sup> Minister Luigi Di Maio stated that it is a “fundamental priority for (Italy) to know, deepen and address the issue of artificial intelligence and technologies based on distributed registers and blockchains, as well as increasing public and private investments in this direction.”<sup>1311</sup>

On 21 January 2019, the first meetings for Artificial Intelligence and Blockchain expert groups were held at the Ministry of Economic Development.<sup>1312</sup> Both Working Groups outlined their agendas.<sup>1313</sup> Their plans included enhancing research, bringing the technologies from the laboratory to the market, attracting and favouring qualified investments as well as adjusting education and skills for the labour market.<sup>1314</sup> The next meeting of the expert groups was held on February 8th.<sup>1315</sup>

On 31 January 2019, Italy presented the initiative on artificial intelligence in the United Kingdom.<sup>1316</sup> The Italian delegation, under the leadership of Minister Luigi Di Maio, conducted a series of bilateral meetings with governmental and research organizations operating in the area of artificial intelligence.<sup>1317</sup>

On 8 February 2019, the second meeting of the groups of experts on Blockchain and Artificial Intelligence was held.<sup>1318</sup> Issues discussed included the first technical analysis of the emerging

---

<sup>1309</sup> G7 Canada on Artificial Intelligence, Ministry of Economic Development (Rome) 7 December 2018. Access Date: 4 December 2018. <https://www.sviluppoeconomico.gov.it/index.php/it/per-i-media/notizie/it/198-notizie-stampa/2038908-g7-canada-su-intelligenza-artificiale>.

<sup>1310</sup> Artificial intelligence and blockchain: experts selected, Ministry of Economic Development (Rome) 27 December 2018. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039027-intelligenza-artificiale-e-blockchain-selezionati-gli-esperti>.

<sup>1311</sup> Artificial intelligence and blockchain: experts selected, Ministry of Economic Development (Rome) 27 December 2018. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039027-intelligenza-artificiale-e-blockchain-selezionati-gli-esperti>.

<sup>1312</sup> At the MiSE the groups on Artificial Intelligence and Blockchain took office, Ministry of Economic Development (Rome) 21 January 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039109-al-mise-insediati-i-gruppi-su-intelligenza-artificiale-e-blockchain>.

<sup>1313</sup> At the MiSE the groups on Artificial Intelligence and Blockchain took office, Ministry of Economic Development (Rome) 21 January 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039109-al-mise-insediati-i-gruppi-su-intelligenza-artificiale-e-blockchain>.

<sup>1314</sup> At the MiSE the groups on Artificial Intelligence and Blockchain took office, Ministry of Economic Development (Rome) 21 January 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039109-al-mise-insediati-i-gruppi-su-intelligenza-artificiale-e-blockchain>.

<sup>1315</sup> At the MiSE the groups on Artificial Intelligence and Blockchain took office, Ministry of Economic Development (Rome) 21 January 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039109-al-mise-insediati-i-gruppi-su-intelligenza-artificiale-e-blockchain>.

<sup>1316</sup> Italy presents the initiative on artificial intelligence in the United Kingdom, Ministry of Economic Development (Rome) 31 January 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039157-l-italia-presenta-l-iniziativa-sull-intelligenza-artificiale-nel-regno-unito>.

<sup>1317</sup> Italy presents the initiative on artificial intelligence in the United Kingdom, Ministry of Economic Development (Rome) 31 January 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039157-l-italia-presenta-l-iniziativa-sull-intelligenza-artificiale-nel-regno-unito>.

<sup>1318</sup> Second meeting of AI and blockchain expert groups, Ministry of Economic Development (Rome) 8 February 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039210-seconda-riunione-dei-gruppi-di-esperti-su-ai-e-blockchain>.

technologies' potentials, as well as their applications, impacts and threats.<sup>1319</sup> The working groups were then divided into five subgroups.<sup>1320</sup> The groups established are as listed below:

SG1 - Research, technology transfer and investments

SG2 - Education, competence and lifelong learning

SG3 - Use and exploitation of data

SG4 - Regulatory framework and ethical impacts

SG5 - Strengthening of public administration services<sup>1321</sup>

On 18 February 2019, Minister Di Maio, along with the Prime Minister, announced the launch of the "investment program for the aeronautics sector" at the "Leonardo" factories in Pomigliano.<sup>1322</sup> This program is set to bring over EUR1 billion of investment for the upcoming years; and according to Maio, digitization of processes, enhancement of skills and use of artificial intelligence, will be some of the cornerstones of the industry.<sup>1323</sup> As part of the plan, a training centre will also be launched in the Pomigliano site, which will allow young professionals and researchers to design and build their ideas.<sup>1324</sup> EUR9 million will be dedicated to building this campus and it is expected to bring together the engineers of Leonardo, the researchers of the academic world and also the entrepreneurs of the industry.<sup>1325</sup>

On 4 March 2019, The Minister of Labour and Economic Development, Luigi Di Maio, presented the National Innovation Fund, which is expected to be an important initiative for venture capitalists.<sup>1326</sup> The fund will have a starting budget of EURO1 billion and will support innovative

---

<sup>1319</sup> Second meeting of AI and blockchain expert groups, Ministry of Economic Development (Rome) 8 February 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039210-seconda-riunione-dei-gruppi-di-esperti-su-ai-e-blockchain>.

<sup>1320</sup> Second meeting of AI and blockchain expert groups, Ministry of Economic Development (Rome) 8 February 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039210-seconda-riunione-dei-gruppi-di-esperti-su-ai-e-blockchain>.

<sup>1321</sup> Second meeting of AI and blockchain expert groups, Ministry of Economic Development (Rome) 8 February 2019. Access Date: 1 March 2019. <https://www.mise.gov.it/index.php/it/198-notizie-stampa/2039210-seconda-riunione-dei-gruppi-di-esperti-su-ai-e-blockchain>.

<sup>1322</sup> Minister Di Maio: "Over a billion Euros for the aeronautics sector", Ministry of Labour and Social Policies (Rome) 18 February 2019. Access Date: 1 March 2019. <http://www.lavoro.gov.it/priorita/Pagine/Il-Ministro-Di-Maio-Oltre-un-miliardo-di-euro-per-il-settore-aeronautico.aspx>.

<sup>1323</sup> Minister Di Maio: "Over a billion Euros for the aeronautics sector", Ministry of Labour and Social Policies (Rome) 18 February 2019. Access Date: 1 March 2019. <http://www.lavoro.gov.it/priorita/Pagine/Il-Ministro-Di-Maio-Oltre-un-miliardo-di-euro-per-il-settore-aeronautico.aspx>.

<sup>1324</sup> Minister Di Maio: "Over a billion Euros for the aeronautics sector", Ministry of Labour and Social Policies (Rome) 18 February 2019. Access Date: 1 March 2019. <http://www.lavoro.gov.it/priorita/Pagine/Il-Ministro-Di-Maio-Oltre-un-miliardo-di-euro-per-il-settore-aeronautico.aspx>.

<sup>1325</sup> Minister Di Maio: "Over a billion Euros for the aeronautics sector", Ministry of Labour and Social Policies (Rome) 18 February 2019. Access Date: 1 March 2019. <http://www.lavoro.gov.it/priorita/Pagine/Il-Ministro-Di-Maio-Oltre-un-miliardo-di-euro-per-il-settore-aeronautico.aspx>.

<sup>1326</sup> The National Innovation Fund Unveiled, Ministry of Economic Development (Rome) 5 March 2019. Access Date: 7 June 2019. <https://www.mise.gov.it/index.php/en/news/en/202-news-english/2039363-the-national-innovation-fund-unveiled>.

SMEs in order to prevent their sale off and dispersion of intellectual property, skills and other considered assets.<sup>1327</sup>

On 12 March 2019, Minister Di Maio, announced the government's new project, "incentive.gov.it."<sup>1328</sup> This project is planned to be a centralized tool for entrepreneurs across the country to help them optimize their incentives for their employees, considering their business needs, sectorial norms and growth potentials. The government-recommended incentives will concern start-up, scale-up and technology investments activities.

On 31 May 2019, the International Labour Organization's centenary was celebrated in Rome.<sup>1329</sup> The celebrations opened with a debate on the "Future of Work" and the main themes were transformations of work, technological innovations and demographic changes.<sup>1330</sup> The Italian Undersecretary for Labour and Social Policies, Claudio Cominardi, provided his considerations at the event.<sup>1331</sup> He recalled the steps already taken by the Ministry, in terms of investing in human capital through a variety of social policies. In his speech, he also added; "The progress linked to the diffusion of technologies must not result in a step backwards in terms of dignity, rights and the protection of citizens and workers."<sup>1332</sup>

Italy has ensured all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

Thus, Italy receives a score of +1.

*Analyst: Asli Ersozoglu*

#### **Japan: +1**

Japan has fully complied with its commitment to ensure that all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

---

<sup>1327</sup> The National Innovation Fund Unveiled, Ministry of Economic Development (Rome) 5 March 2019. Access Date: 7 June 2019. <https://www.mise.gov.it/index.php/en/news/en/202-news-english/2039363-the-national-innovation-fund-unveiled>.

<sup>1328</sup> Imprese, Di Maio presents the new site Incentivi.gov, Italian Government Presidency of the Council Ministers (Rome) 12 March 2019. Access Date: 7 June 2019. <http://www.governo.it/it/articolo/impresa-di-maio-presenta-il-nuovo-sito-incentivigov/11106>.

<sup>1329</sup> The President of the Council closes the ceremony for the hundred years of the International Labour Organization, Ministry of Labour and Social Policies (Rome) 31 May 2019. Access Date: 7 June 2019. <https://www.lavoro.gov.it/stampa-e-media/comunicati/pagine/il-presidente-del-consiglio-chiude-la-cerimonia-per-i-cento-anni-dellorganizzazione-internazionale-del-lavoro-oil.aspx/>.

<sup>1330</sup> The President of the Council closes the ceremony for the hundred years of the International Labour Organization, Ministry of Labour and Social Policies (Rome) 31 May 2019. Access Date: 7 June 2019. <https://www.lavoro.gov.it/stampa-e-media/comunicati/pagine/il-presidente-del-consiglio-chiude-la-cerimonia-per-i-cento-anni-dellorganizzazione-internazionale-del-lavoro-oil.aspx/>.

<sup>1331</sup> The President of the Council closes the ceremony for the hundred years of the International Labour Organization, Ministry of Labour and Social Policies (Rome) 31 May 2019. Access Date: 7 June 2019. <https://www.lavoro.gov.it/stampa-e-media/comunicati/pagine/il-presidente-del-consiglio-chiude-la-cerimonia-per-i-cento-anni-dellorganizzazione-internazionale-del-lavoro-oil.aspx/>.

<sup>1332</sup> The President of the Council closes the ceremony for the hundred years of the International Labour Organization, Ministry of Labour and Social Policies (Rome) 31 May 2019. Access Date: 7 June 2019. <https://www.lavoro.gov.it/stampa-e-media/comunicati/pagine/il-presidente-del-consiglio-chiude-la-cerimonia-per-i-cento-anni-dellorganizzazione-internazionale-del-lavoro-oil.aspx/>.

On 13 June 2018, Prime Minister Shinzo Abe's cabinet published a new plan aiming to expand recurrent education by increasing government spending on specialized training schools.<sup>1333</sup> Benefit rates for courses entitled to the general educational training benefits such as information technology skills will increase from 20 percent to 40 percent.<sup>1334</sup> Education programmes specializing in high technology such as biotechnology, robotics, and fine chemicals will receive special funding and minimum lecture time will be shortened.<sup>1335</sup> These changes aim to improve the quality of education and allow a bigger population to have convenient access to education.<sup>1336</sup>

On 15 June 2018, the cabinet creates Basic Policy on Economic and Fiscal Management and Reform to instigate a new wave of “human resources development revolution.”<sup>1337</sup> The policies include the implementation of free higher education, a drastic expansion of recurrent education, and university reform.<sup>1338</sup> These policies aim to equip the population with the necessary skills to adapt to the emerging job market based on high technology.<sup>1339</sup>

On 9 October 2018, the Ministry of Education, Culture, Sports, Science, and Technology announced Doctoral Programme for Data-related Innovation Expert, a new programme aiming to provide financial assistance to competent personnel in the field of high technology, especially data science. Funding for relevant education reaches JPY252 million, an increase from JPY213 million in 2017.<sup>1340</sup> The programme aims to help highly skilled workers prosper at relevant work fields and conduct better research.<sup>1341</sup>

---

<sup>1333</sup> 「人づくり革命 基本構想」 (A Revolution in Human Resources Development Basic Guidelines), Ministry of Health, Labour and Welfare (Tokyo) 13 June 2018. Access Date: 15 October 2018. <https://www.kantei.go.jp/jp/content/000023186.pdf>.

<sup>1334</sup> 「人づくり革命 基本構想」 (A Revolution in Human Resources Development Basic Guidelines), Ministry of Health, Labour and Welfare (Tokyo) 13 June 2018. Access Date: 15 October 2018. <https://www.kantei.go.jp/jp/content/000023186.pdf>.

<sup>1335</sup> 「人づくり革命 基本構想」 (A Revolution in Human Resources Development Basic Guidelines), Ministry of Health, Labour and Welfare (Tokyo) 13 June 2018. Access Date: 15 October 2018. <https://www.kantei.go.jp/jp/content/000023186.pdf>.

<sup>1336</sup> 「人づくり革命 基本構想」 (A Revolution in Human Resources Development Basic Guidelines), Ministry of Health, Labour and Welfare (Tokyo) 13 June 2018. Access Date: 15 October 2018. <https://www.kantei.go.jp/jp/content/000023186.pdf>.

<sup>1337</sup> 「経済財政運営と改革の基本方針 2018」 (Basic Policy on Economic and Fiscal Management and Reform 2018), Cabinet Office (Tokyo) 15 June 2018. Access Date: 18 October 2018. <http://www5.cao.go.jp/keizai-shimon/kaigi/cabinet/2018/decision0615.html>.

<sup>1338</sup> 「経済財政運営と改革の基本方針 2018」 (Basic Policy on Economic and Fiscal Management and Reform 2018), Cabinet Office (Tokyo) 15 June 2018. Access Date: 18 October 2018. <http://www5.cao.go.jp/keizai-shimon/kaigi/cabinet/2018/decision0615.html>.

<sup>1339</sup> 「経済財政運営と改革の基本方針 2018」 (Basic Policy on Economic and Fiscal Management and Reform 2018), Cabinet Office (Tokyo) 15 June 2018. Access Date: 18 October 2018. <http://www5.cao.go.jp/keizai-shimon/kaigi/cabinet/2018/decision0615.html>.

<sup>1340</sup> 「平成 30 年度科学技術人材育成費補助事業」 (2018 Scientific Technology Personal Growth Assistance Programme), Ministry of Education, Culture, Sports, Science and Technology (Tokyo) 9 October 2018. Access Date: 20 October 2018. [http://www.mext.go.jp/a\\_menu/jinzai/data/\\_\\_icsFiles/afieldfile/2018/10/09/1410001\\_001.pdf](http://www.mext.go.jp/a_menu/jinzai/data/__icsFiles/afieldfile/2018/10/09/1410001_001.pdf).

<sup>1341</sup> 「経済財政運営と改革の基本方針 2018」 (Basic Policy on Economic and Fiscal Management and Reform 2018), Cabinet Office (Tokyo) 15 June 2018. Access Date: 18 October 2018. <http://www5.cao.go.jp/keizai-shimon/kaigi/cabinet/2018/decision0615.html>.

On 22 November 2018, the Ministry of Education, Culture, Sports, Science, and Technology held a press conference<sup>1342</sup> answering questions regarding their plan to reduce the cost of higher education announced on 11 September 2017.<sup>1343</sup> The conference aims to clarify confusion about the programme and share with the public about adjustments made before its actual implementation in April 2020.<sup>1344</sup>

On 26 November 2018, the Central Council of Education published Grand Design for Higher Education toward 2040 discussing future improvements in the country's higher education system.<sup>1345</sup> The overall plan takes a series of measures such as increasing investment in higher education as well as diversifying student body, instructors, education management, and both private and public educational institutions.<sup>1346</sup> The plan aims to transform Japanese higher education to a “learners-orientated education” and equip students with “universal knowledge and understanding as well as versatile skills in both humanities and sciences,” and the “capability to think critically” so that students are “capable of surviving the age of unpredictability.”<sup>1347</sup>

On 28 December 2018, the Ministry of Education, Culture, Sports, Science, and Technology passed General Guidelines for the Realisation of the System of Free High Education.<sup>1348</sup> The bill aims to tackle the problem of Japan's shrinking labour in a new world of work by reducing tuition fees and

---

<sup>1342</sup> 「高等教育段階の教育費負担新制度に係る質問と回答」(New System of Reducing the Cost and Burden of Higher Education), Ministry of Education, Culture, Sports, Science and Technology (Tokyo) 22 November 2018. Access Date: 4 December 2018.

[http://www.mext.go.jp/a\\_menu/koutou/hutankeigen/\\_icsFiles/afieldfile/2018/11/22/1411319\\_1.pdf](http://www.mext.go.jp/a_menu/koutou/hutankeigen/_icsFiles/afieldfile/2018/11/22/1411319_1.pdf)

<sup>1343</sup> 「高等教育の負担軽減の具体的方策について」(Concrete Policies of Reducing the Cost and Burden of Higher Education), Ministry of Education, Culture, Sports, Science and Technology (Tokyo) 11 September 2017. Access Date: 4 December 2018.

[http://www.mext.go.jp/a\\_menu/koutou/hutankeigen/\\_icsFiles/afieldfile/2018/11/22/1411267\\_1.pdf](http://www.mext.go.jp/a_menu/koutou/hutankeigen/_icsFiles/afieldfile/2018/11/22/1411267_1.pdf)

<sup>1344</sup> 「高等教育段階の教育費負担新制度に係る質問と回答」(New System of Reducing the Cost and Burden of Higher Education), Ministry of Education, Culture, Sports, Science and Technology (Tokyo) 22 November 2018. Access Date: 4 December 2018.

[http://www.mext.go.jp/a\\_menu/koutou/hutankeigen/\\_icsFiles/afieldfile/2018/11/22/1411319\\_1.pdf](http://www.mext.go.jp/a_menu/koutou/hutankeigen/_icsFiles/afieldfile/2018/11/22/1411319_1.pdf)

<sup>1345</sup> 「2040年に向けた高等教育のク `ラント `テ `サ `イン」(Grand Design for Higher Education toward 2040), Central Council for Education (Tokyo) 26 November 2018. Access Date: 5 December 2018.

[http://www.mext.go.jp/component/b\\_menu/shingi/toushin/\\_icsFiles/afieldfile/2018/11/26/1411360\\_2\\_1.pdf](http://www.mext.go.jp/component/b_menu/shingi/toushin/_icsFiles/afieldfile/2018/11/26/1411360_2_1.pdf)

<sup>1346</sup> 「2040年に向けた高等教育のク `ラント `テ `サ `イン」(Grand Design for Higher Education toward 2040), Central Council for Education (Tokyo) 26 November 2018. Access Date: 5 December 2018.

[http://www.mext.go.jp/component/b\\_menu/shingi/toushin/\\_icsFiles/afieldfile/2018/11/26/1411360\\_2\\_1.pdf](http://www.mext.go.jp/component/b_menu/shingi/toushin/_icsFiles/afieldfile/2018/11/26/1411360_2_1.pdf)

<sup>1347</sup> 「2040年に向けた高等教育のク `ラント `テ `サ `イン」(Grand Design for Higher Education toward 2040), Central Council for Education (Tokyo) 26 November 2018. Access Date: 5 December 2018.

[http://www.mext.go.jp/component/b\\_menu/shingi/toushin/\\_icsFiles/afieldfile/2018/11/26/1411360\\_2\\_1.pdf](http://www.mext.go.jp/component/b_menu/shingi/toushin/_icsFiles/afieldfile/2018/11/26/1411360_2_1.pdf)

<sup>1348</sup> 「高等教育無償化の制度の具体化に向けた方針の概要」(General Guidelines for the Realisation of the System of Free High Education), Ministry of Education, Culture, Sports, Science and Technology (Tokyo) 28 December 2018. Access Date: 1 March 2018.

[http://www.mext.go.jp/a\\_menu/koutou/hutankeigen/detail/\\_icsFiles/afieldfile/2018/12/28/1412286\\_001.pdf](http://www.mext.go.jp/a_menu/koutou/hutankeigen/detail/_icsFiles/afieldfile/2018/12/28/1412286_001.pdf)

offering scholarships to students in universities, short-term universities, and vocational schools.<sup>1349</sup> The bill will come into effect in April 2020.<sup>1350</sup>

On 29 March 2019, Prime Minister Shinzo Abe's cabinet announced "AI Strategy."<sup>1351</sup> This is a strategy corresponding to the concept of Society 5.0, designed to realize a society where artificial intelligence becomes an integral part of the society by contributing to every aspect of human lives.<sup>1352</sup> The strategy also laid out the specific work assigned to each sector of the government and establish moral principles upon which a AI society should function.<sup>1353</sup> In the overview of the strategy, the government pointed out current obstacles to the full realization of AI Society, notably the scarcity of both highly skilled and skilled AI workers, which fell short of the required number of 50,000 and 300,000 respectively.<sup>1354</sup> The overview also set up a goal for national AI education, which demanded an extra 20,000-30,000 highly skilled and 150,000 skilled AI workers to finish training every year to compensate the labour shortage.<sup>1355</sup> Further strategies include inserting basic AI courses into the current curriculums of primary-secondary education, improving the qualities of STEM courses in undergraduate education, and creating stimulus for citizens to study AI by providing greater scholarship.<sup>1356</sup>

On 14 April 2019, Minister of Education, Culture, Sports, Science and Technology Masahiko Shibayama held a press conference where he announced that the specific education goal corresponding to the AI Strategy included providing basic AI knowledge courses to over 1 million children and students in primary-secondary education every year by 2025.<sup>1357</sup>

Japan has demonstrated a high level of care to furthering both access and education for its labour market with a view towards modern technological developments. Prime Minister Shinzo Abe's

---

<sup>1349</sup> 「高等教育無償化の制度の具体化に向けた方針の概要」(General Guidelines for the Realisation of the System of Free High Education), Ministry of Education, Culture, Sports, Science and Technology (Tokyo) 28 December 2018. Access Date: 1 March 2018.

[http://www.mext.go.jp/a\\_menu/koutou/hutankeigen/detail/\\_icsFiles/afieldfile/2018/12/28/1412286\\_001.pdf](http://www.mext.go.jp/a_menu/koutou/hutankeigen/detail/_icsFiles/afieldfile/2018/12/28/1412286_001.pdf).

<sup>1350</sup> 「高等教育無償化の制度の具体化に向けた方針の概要」(General Guidelines for the Realisation of the System of Free High Education), Ministry of Education, Culture, Sports, Science and Technology (Tokyo) 28 December 2018. Access Date: 1 March 2018.

[http://www.mext.go.jp/a\\_menu/koutou/hutankeigen/detail/\\_icsFiles/afieldfile/2018/12/28/1412286\\_001.pdf](http://www.mext.go.jp/a_menu/koutou/hutankeigen/detail/_icsFiles/afieldfile/2018/12/28/1412286_001.pdf).

<sup>1351</sup> 「AI戦略(有識者提案)及び人間中心のAI社会原則(案)について」(AI Strategy and Guidelines for an Human-Centred AI Society), Cabinet Office (Tokyo) 29 March 2019. Access Date: 10 June 2019.

<https://www.kantei.go.jp/jp/singi/tougou-innovation/dai4/siryō1-1.pdf>.

<sup>1352</sup> 「AI戦略(有識者提案)及び人間中心のAI社会原則(案)について」(AI Strategy and Guidelines for an Human-Centred AI Society), Cabinet Office (Tokyo) 29 March 2019. Access Date: 10 June 2019.

<https://www.kantei.go.jp/jp/singi/tougou-innovation/dai4/siryō1-1.pdf>.

<sup>1353</sup> 「AI戦略(有識者提案)及び人間中心のAI社会原則(案)について」(AI Strategy and Guidelines for an Human-Centred AI Society), Cabinet Office (Tokyo) 29 March 2019. Access Date: 10 June 2019.

<https://www.kantei.go.jp/jp/singi/tougou-innovation/dai4/siryō1-1.pdf>.

<sup>1354</sup> 「人工知能(AI)技術戦略」(Artificial Intelligence(AI) Technology Strategy), Ministry of Internal Affairs and Communications (Tokyo) 29 March 2019. Access Date: 10 June 2019.

<https://www8.cao.go.jp/cstp/tyousakai/juyoukadai/14kai/siryō6.pdf>.

<sup>1355</sup> 「人工知能(AI)技術戦略」(Artificial Intelligence(AI) Technology Strategy), Ministry of Internal Affairs and Communications (Tokyo) 29 March 2019. Access Date: 10 June 2019.

<https://www8.cao.go.jp/cstp/tyousakai/juyoukadai/14kai/siryō6.pdf>.

<sup>1356</sup> 「人工知能(AI)技術戦略」(Artificial Intelligence(AI) Technology Strategy), Ministry of Internal Affairs and Communications (Tokyo) 29 March 2019. Access Date: 10 June 2019.

<https://www8.cao.go.jp/cstp/tyousakai/juyoukadai/14kai/siryō6.pdf>.

<sup>1357</sup> 「柴山昌彦文部科学大臣記者会見録」(Minister of Education, Culture, Sports, Science and Technology Masahiko Shibayama's Press Conference) Ministry of Education, Culture, Sports, Science and Technology (Tokyo) 19 April 2019. Access Date: 10 June 2019. [http://www.mext.go.jp/b\\_menu/daijin/detail/1415973.htm](http://www.mext.go.jp/b_menu/daijin/detail/1415973.htm).



cabinet has taken a series of measures to improve both the quality and access to higher education for the people. The cabinet has also been continuously adjusting many of the plans and policies before actual implementations.

Thus, Japan receives a score of +1.

*Analyst: Hiromitsu Higashi*

### **United Kingdom: +1**

The United Kingdom has fully complied with its commitment to ensure that all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

On 13 June 2018, the Department for Digital, Culture, Media & Sport announced the world's first artificial intelligence (AI) talent scheme as major multinational corporations join the government's collaborative program.<sup>1358</sup> Part of the initiative includes the creation of Digital Skills Areas where local businesses partner with leaders in the digital technology field to provide skills training.<sup>1359</sup> Other parts of the plan also include the development of a start-up visa for entrepreneurs with an especial focus on recent graduates.<sup>1360</sup> The government has also invested in a new industrial Masters program to help develop UK's AI future.<sup>1361</sup>

On 26 June 2018, the Department for Digital, Culture, Media & Sport together with the Department for Business, Energy & Industrial Strategy appointed the world-renowned artificial intelligence expert, Dr. Demis Hassabis, as an adviser to the new Office for Artificial Intelligence.<sup>1362</sup> The Digital Secretary, Matt Hancock, also appointed a new chair of the AI Council, a new industry body tasked with increasing growth in the AI sector and promoting its adoption in other sectors.<sup>1363</sup> Commenting on these developments, Mr. Hancock expressed "cutting-edge technology is the basis of the future of

---

<sup>1358</sup> Huge boost to UK's data capability as big business backs world-first AI talent scheme and chair of data ethics and innovation centre is confirmed, Department for Digital, Culture, Media & Sport (London) 13 June 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/huge-boost-to-uks-data-capability-as-big-business-backs-world-first-ai-talent-scheme-and-chair-of-data-ethics-and-innovation-centre-is-confirmed>.

<sup>1359</sup> Huge boost to UK's data capability as big business backs world-first AI talent scheme and chair of data ethics and innovation centre is confirmed, Department for Digital, Culture, Media & Sport (London) 13 June 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/huge-boost-to-uks-data-capability-as-big-business-backs-world-first-ai-talent-scheme-and-chair-of-data-ethics-and-innovation-centre-is-confirmed>.

<sup>1360</sup> Huge boost to UK's data capability as big business backs world-first AI talent scheme and chair of data ethics and innovation centre is confirmed, Department for Digital, Culture, Media & Sport (London) 13 June 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/huge-boost-to-uks-data-capability-as-big-business-backs-world-first-ai-talent-scheme-and-chair-of-data-ethics-and-innovation-centre-is-confirmed>.

<sup>1361</sup> Huge boost to UK's data capability as big business backs world-first AI talent scheme and chair of data ethics and innovation centre is confirmed, Department for Digital, Culture, Media & Sport (London) 13 June 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/huge-boost-to-uks-data-capability-as-big-business-backs-world-first-ai-talent-scheme-and-chair-of-data-ethics-and-innovation-centre-is-confirmed>.

<sup>1362</sup> World-leading expert Demis Hassabis to advise new Government Office for Artificial Intelligence, Department for Digital, Culture, Media & Sport, Department for Business, Energy & Industrial Strategy (London) 26 June 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/world-leading-expert-demis-hassabis-to-advise-new-government-office-for-artificial-intelligence>.

<sup>1363</sup> World-leading expert Demis Hassabis to advise new Government Office for Artificial Intelligence, Department for Digital, Culture, Media & Sport, Department for Business, Energy & Industrial Strategy (London) 26 June 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/world-leading-expert-demis-hassabis-to-advise-new-government-office-for-artificial-intelligence>.

our economy.<sup>1364</sup> Under this Government, investment in the tech sector doubled in the last year, is growing at three times the pace of the rest of the economy, unemployment is at a 40-year low, inequality is falling, and we are seeing the first sustained fall in debt in a generation. We must build on these strengths ... We want to harness the best possible AI leadership to help us seize this opportunity. Demis Hassabis, Tabitha Goldstaub, and Wendy Hall have the expertise and vision to help us make sure the huge benefits of this powerful new technology are available to everyone.”<sup>1365</sup>

On 18 July 2018, the Education Secretary announced a new deal with the West Midlands Combined Authority to boost skills across the West Midlands region.<sup>1366</sup> The deal includes a multi-million investment in local colleges that aims to both improve access to modern equipment and to promote teaching digital skills.<sup>1367</sup> Part of the investment focuses on adult learners while at the same time developing new apprenticeships in priority areas within the digital sector.<sup>1368</sup>

On 30 July 2018, the Department for Transport introduced new plans for the Centre for Connected and Autonomous Vehicles’ Future of Mobility Grand Challenge.<sup>1369</sup> The Challenge aims to reshape the use of transportation in the United Kingdom by providing economic opportunities for British companies and employees.<sup>1370</sup>

On 7 August 2018, Prime Minister Theresa May discussed her plans for developing the labour and technology markets of Scotland while on a visit to Edinburgh.<sup>1371</sup> She announced the opening of the

---

<sup>1364</sup> World-leading expert Demis Hassabis to advise new Government Office for Artificial Intelligence, Department for Digital, Culture, Media & Sport, Department for Business, Energy & Industrial Strategy (London) 26 June 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/world-leading-expert-demis-hassabis-to-advise-new-government-office-for-artificial-intelligence>.

<sup>1365</sup> World-leading expert Demis Hassabis to advise new Government Office for Artificial Intelligence, Department for Digital, Culture, Media & Sport, Department for Business, Energy & Industrial Strategy (London) 26 June 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/world-leading-expert-demis-hassabis-to-advise-new-government-office-for-artificial-intelligence>.

<sup>1366</sup> New multi-million pound deal to boost skills across West Midlands, Department for Education (London) 18 July 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-multi-million-pound-deal-to-boost-skills-across-west-midlands>.

<sup>1367</sup> New multi-million pound deal to boost skills across West Midlands, Department for Education (London) 18 July 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-multi-million-pound-deal-to-boost-skills-across-west-midlands>.

<sup>1368</sup> New multi-million pound deal to boost skills across West Midlands, Department for Education (London) 18 July 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-multi-million-pound-deal-to-boost-skills-across-west-midlands>.

<sup>1369</sup> Government kick-starts work on Future of Mobility Grand Challenge, Department for Transport, Centre for Connected and Autonomous Vehicles (London) 30 July 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/government-kick-starts-work-on-future-of-mobility-grand-challenge>.

<sup>1370</sup> Government kick-starts work on Future of Mobility Grand Challenge, Department for Transport, Centre for Connected and Autonomous, Department for Transport, Centre for Connected and Autonomous (London) 30 July 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/government-kick-starts-work-on-future-of-mobility-grand-challenge>.

<sup>1371</sup> PM remarks at the signing of the Edinburgh and South East Scotland City Deal: 7 August 2018, Prime Minister’s Office, 10 Downing Street (London) 7 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/speeches/pm-remarks-at-the-signing-of-the-edinburgh-and-south-east-scotland-city-deal-7-august-2018>.

Bayes Centre made possible with a new injection of UK Government investment.<sup>1372</sup> The centre will provide shared working spaces for applied data science and artificial intelligence research teams.<sup>1373</sup>

On 7 August, the Department of Education reinforced their commitment to education technology.<sup>1374</sup> While the Department notes the lack of industry participation, they are working with the Chartered College of Teaching, the British Educational Suppliers Association and other partner groups to develop online training packages for teachers on embracing technology.<sup>1375</sup> They are also developing an online portal to provide free software trials for schools and are coaching teachers on their use through a series of regional demonstrator roadshows.<sup>1376</sup>

On 22 August 2018, Her Majesty's Ambassador to Norway, Richard Wood, unveiled new education programs for artificial intelligence while at the Tech City Executive Accelerator Conference.<sup>1377</sup> The Government committed to investing GBP17 million to the development of AI technologies in universities.<sup>1378</sup>

On 27 August 2018, the Department for Digital, culture, Media & Sport announced that over GBP1 million in new funds will be available for initiatives which will help boost the digital skills of underrepresented groups and disabled people.<sup>1379</sup> The program is particularly hoping to provide skills training in digital roles such as data analysts, programmers, cybersecurity specialists, software developers, and marketers.<sup>1380</sup> At the announcement, Minister for Digital Margot James said “[i]t is crucial everyone is able to take advantage of digital technology, whether it is to learn how to use the internet or develop the skills to work in a tech role.”<sup>1381</sup>

---

<sup>1372</sup> PM remarks at the signing of the Edinburgh and South East Scotland City Deal: 7 August 2018, Prime Minister's Office, 10 Downing Street (London) 7 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/speeches/pm-remarks-at-the-signing-of-the-edinburgh-and-south-east-scotland-city-deal-7-august-2018>.

<sup>1373</sup> PM remarks at the signing of the Edinburgh and South East Scotland City Deal: 7 August 2018, Prime Minister's Office, 10 Downing Street (London) 7 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/speeches/pm-remarks-at-the-signing-of-the-edinburgh-and-south-east-scotland-city-deal-7-august-2018>.

<sup>1374</sup> New technology to spearhead classroom revolution, Department for Education (London) 7 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-technology-to-spearhead-classroom-revolution>.

<sup>1375</sup> New technology to spearhead classroom revolution, Department for Education (London) 7 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-technology-to-spearhead-classroom-revolution>.

<sup>1376</sup> New technology to spearhead classroom revolution, Department for Education (London) 7 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-technology-to-spearhead-classroom-revolution>.

<sup>1377</sup> Artificial Intelligence — a collaboration, Foreign & Commonwealth Office (London) 22 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/speeches/artificial-intelligence-a-collaboration>.

<sup>1378</sup> Artificial Intelligence — a collaboration, Foreign & Commonwealth Office (London) 22 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/speeches/artificial-intelligence-a-collaboration>.

<sup>1379</sup> New funds to boost diversity of people working in digital and tech jobs, Department for Digital, Culture, Media & Sport (London) 27 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-funds-to-boost-diversity-of-people-working-in-digital-and-tech-jobs>.

<sup>1380</sup> New funds to boost diversity of people working in digital and tech jobs, Department for Digital, Culture, Media & Sport (London) 27 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-funds-to-boost-diversity-of-people-working-in-digital-and-tech-jobs>.

<sup>1381</sup> New funds to boost diversity of people working in digital and tech jobs, Department for Digital, Culture, Media & Sport (London) 27 August 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-funds-to-boost-diversity-of-people-working-in-digital-and-tech-jobs>.

On 10 September 2018, Innovate UK and UK Research and Innovation introduced the Knowledge Quarter (KQ) Labs programme to provide access to the latest innovations and support to biomedical start-ups.<sup>1382</sup> KQ Labs will offer a 16-week intensive accelerator programme to provide the start-ups with the skills and understanding needed to develop their biomedical proposals and help them move towards commercial launch.<sup>1383</sup>

On 25 September 2018, the Government launched a new strategy to promote innovation and industry-led development of zero-emission vehicles in the UK.<sup>1384</sup> The Office for Low Emission Vehicles will partner with Innovate UK to deliver up to GBP22 million in funding for the program.<sup>1385</sup> The funding will be distributed across 3 different stages of research and development.<sup>1386</sup> The program will largely focus on collaborative projects to foster participation between small UK businesses and other research organizations or third-sector organizations.<sup>1387</sup>

On 1 October 2018, Her Majesty's Land Registry announced a partnership with software company Methods.<sup>1388</sup> The partnership marks the next stage of HM Land Registry's research and development project, Digital Street. The aim of the project is to work with the industry to further public understanding of the use of smart contracts, blockchain, and distributed ledgers in the context of land registration and property buying/selling.<sup>1389</sup>

On 2 October 2018, the Department of Education presented their plan to ensure that technical education will include digital skills training.<sup>1390</sup> GBP38 million in funding have been allocated towards T Levels providers to teach digital skills courses for the first time in 2020.<sup>1391</sup>

On 5 October 2018, the Business Secretary, Greg Clark, awarded GBP10 million to UK regulators to help drive forward innovation in the public sector.<sup>1392</sup> This funding will go towards supporting 15

---

<sup>1382</sup> New support for biomedical start ups, Innovate UK, UK Research and Innovation (London) 10 September 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-support-for-biomedical-start-ups>.

<sup>1383</sup> New support for biomedical start ups, Innovate UK, UK Research and Innovation (London) 10 September 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/new-support-for-biomedical-start-ups>.

<sup>1384</sup> Zero emission vehicles: funding to drive development and adoption, UK Research and Innovation (London) 25 September 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/zero-emission-vehicles-funding-to-drive-development-and-adoption>.

<sup>1385</sup> Zero emission vehicles: funding to drive development and adoption, UK Research and Innovation (London) 25 September 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/zero-emission-vehicles-funding-to-drive-development-and-adoption>.

<sup>1386</sup> Zero emission vehicles: funding to drive development and adoption, UK Research and Innovation (London) 25 September 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/zero-emission-vehicles-funding-to-drive-development-and-adoption>.

<sup>1387</sup> Zero emission vehicles: funding to drive development and adoption, UK Research and Innovation (London) 25 September 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/zero-emission-vehicles-funding-to-drive-development-and-adoption>.

<sup>1388</sup> HM Land Registry to explore the benefits of blockchain, HM Land Registry (London) 1 October 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/hm-land-registry-to-explore-the-benefits-of-blockchain>.

<sup>1389</sup> HM Land Registry to explore the benefits of blockchain, HM Land Registry (London) 1 October 2018. Access Date: October 10 October 2018. <https://www.gov.uk/government/news/hm-land-registry-to-explore-the-benefits-of-blockchain>.

<sup>1390</sup> New education and skills measures announced, Department for Education (London) 2 October 2018. Access Date: 10 October 2018. <https://www.gov.uk/government/news/new-education-and-skills-measures-announced--2>.

<sup>1391</sup> New education and skills measures announced, Department for Education (London) 2 October 2018. Access Date: 10 October 2018. <https://www.gov.uk/government/news/new-education-and-skills-measures-announced--2>.

different projects aimed at improving access to technology within the British modern economic sector.<sup>1393</sup> For instance, GBP700,000 will go to the Solicitors Regulation Authority to enable them to provide support to businesses that will use artificial intelligence (with an especial focus on improving access for small businesses).<sup>1394</sup> There is also an initiative with the Civil Aviation Authority which has received GBP1 million towards bringing people from across the industry to “unblock legislative and regulatory barriers to innovations.”<sup>1395</sup> The Information Commissioner’s Office also received funding for their Regulators’ Business Privacy Innovation Hub which aims to pool experts in the field of regulation to support businesses in the field of information privacy and data protection.<sup>1396</sup>

On 5 October 2018, the Business Secretary Greg Clark awarded GBP10 million to UK regulators to help drive forward innovation in the public sector.<sup>1397</sup> This funding will go towards supporting 15 different projects aimed at improving access to technology within the British modern economic sector.<sup>1398</sup> For instance, GBP700 hundred thousand will go to the Solicitors Regulation Authority to enable them to provide support to businesses that will use artificial intelligence (with an especial focus on improving access for small businesses).<sup>1399</sup> There is also an initiative with the Civil Aviation Authority which has received GBP1 million towards bringing people from across the industry to “unblock legislative and regulatory barriers to innovations.”<sup>1400</sup> The Information Commissioner’s Office also received funding for their Regulators’ Business Privacy Innovation Hub which aims to

---

<sup>1392</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2019. Access Date: October 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1393</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2019. Access Date: October 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1394</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2019. Access Date: October 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1395</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2019. Access Date: October 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1396</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2019. Access Date: October 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1397</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2018. Access Date: 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1398</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2018. Access Date: 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1399</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2018. Access Date: 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1400</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2018. Access Date: 10 October 2018.  
<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

pool experts in the field of regulation to support businesses in the field of information privacy and data protection.<sup>1401</sup>

On 6 November 2018, the Department for Business, Energy & Industrial Strategy, in conjunction with UK Research and Innovation and Innovate UK, announced the launch of five new technology centers that will provide training to healthcare professionals to utilize artificial intelligence advances in the medical field and further grow the UK biotechnology industry.<sup>1402</sup> The program also welcomes support from leading medical companies who will be providing their technical expertise to the project.<sup>1403</sup>

On 7 November 2018, the Department of Education committed GBP84 million to the development of a National Centre for Computing Education.<sup>1404</sup> The centre will focus both on improving teachers' ability to teach computing as well as on improving participation in computer science to prepare students for jobs in emerging computing-related areas.<sup>1405</sup>

On 16 November 2018, the Department for Digital, Culture, Media and Sport created a digital training fund aiming at the charitable sector.<sup>1406</sup> The fund will be used to train workers in the charitable sector on improving their digital skills and using new technologies to achieve their goals.<sup>1407</sup>

On 18 November 2018, the Business Secretary Greg Clark announced the creation of nine creative clusters around the UK.<sup>1408</sup> The programme is led by the Arts and Humanities Research Council which has contributed GBP80 million and will operate in conjunction with 13 local universities and several large corporations.<sup>1409</sup> As the Culture Secretary Jeremy Wright said, “[t]hese partnerships

---

<sup>1401</sup> Corporate Report: Department for Work and Pensions single departmental plan, Department for Work and Pensions (London) 10 October 2018. Access Date: 10 October 2018.

<https://www.gov.uk/government/publications/department-for-work-and-pensions-single-departmental-plan/department-for-work-and-pensions-single-departmental-plan-2018>.

<sup>1402</sup> Artificial Intelligence to help save lives at five new technology centres, Department for Business, Energy & Industrial Strategy (London) 6 November 2018. Access Date: 7 December 2018. <https://www.gov.uk/government/news/artificial-intelligence-to-help-save-lives-at-five-new-technology-centres>.

<sup>1403</sup> Artificial Intelligence to help save lives at five new technology centres, Department for Business, Energy & Industrial Strategy (London) 6 November 2018. Access Date: 7 December 2018. <https://www.gov.uk/government/news/artificial-intelligence-to-help-save-lives-at-five-new-technology-centres>.

<sup>1404</sup> Tech experts to provide National Centre for Computing, Department of Education (London) 7 November 2018. Access date: 7 December 2018. <https://www.gov.uk/government/news/tech-experts-to-provide-national-centre-for-computing-education>.

<sup>1405</sup> Tech experts to provide National Centre for Computing, Department of Education (London) 7 November 2018. Access date: 7 December 2018. <https://www.gov.uk/government/news/tech-experts-to-provide-national-centre-for-computing-education>.

<sup>1406</sup> Government supports charities to go digital, Department for Digital, Culture, Media & Sport, 16 November 2018. Access date: 7 December 2018. <https://www.gov.uk/government/news/government-supports-charities-to-go-digital>.

<sup>1407</sup> Government supports charities to go digital, Department for Digital, Culture, Media & Sport, 16 November 2018. Access date: 7 December 2018. <https://www.gov.uk/government/news/government-supports-charities-to-go-digital>.

<sup>1408</sup> Major new research investment set to provide boost for UK's Creative Industries, Department for Digital, Culture, Media & Sport (London) 13 November 2018. Access Date: 7 December 2018. <https://www.gov.uk/government/news/major-new-research-investment-set-to-provide-boost-for-uks-creative-industries>.

<sup>1409</sup> Major new research investment set to provide boost for UK's Creative Industries, Department for Digital, Culture, Media & Sport (London) 13 November 2018. Access Date: 7 December 2018. <https://www.gov.uk/government/news/major-new-research-investment-set-to-provide-boost-for-uks-creative-industries>.

between business, academia and industry will encourage the use of future technology to develop new products and experiences, and boost employment opportunities across the breadth of the UK.”<sup>1410</sup>

On 30 November 2018, the Lord Chancellor helped launch TheCityUK annual report which included the announcement of GBP3 million of funding for three new research projects to provide greater access to technology to workers in the legal sector.<sup>1411</sup> One of the projects benefitting from this funding is the University of Oxford’s Unlocking the Potential of AI for English Law which aims to develop the legal sector’s understand of the use of artificial intelligence and strengthen the United Kingdom’s reputation as an economic centre for workers in new and emerging technologies.<sup>1412</sup>

On 30 January 2019, Innovate UK and UK Research & Innovation announced a fund of GBP2 million for the purpose of encouraging small businesses to implement new technology and practices.<sup>1413</sup> Funding will be available for initiatives such as supporting greater digitisation or use of artificial intelligence.<sup>1414</sup>

On February 21 2019, the Department for Digital, Culture, Media & Sport announced up to 200 industry-funded AI Masters in a joint initiative between UK universities and technology companies such as DeepMind, QuantumBlack and Cisco, specifically to address the skills gap in this area.<sup>1415</sup> A further 1000 students will have the opportunity to enhance their artificial intelligence skills with new PhD programs at 16 dedicated UK Research and Innovation AI Centres for Doctoral Training.<sup>1416</sup>

On 28 February 2019, the Department for Business, Energy & Industrial Strategy unveiled a GBP10 million fund for the launch of up to 10 new University Enterprise Zones (UEZs) in England.<sup>1417</sup> The UEZs will act as an incubator for small businesses where they can access the university’s expertise and resources to equip them with training and new technology.<sup>1418</sup>

---

<sup>1410</sup> Major new research investment set to provide boost for UK’s Creative Industries, Department for Digital, Culture, Media & Sport (London) 13 November 2018. Access Date: 7 December 2018. <https://www.gov.uk/government/news/major-new-research-investment-set-to-provide-boost-for-uks-creative-industries>.

<sup>1411</sup> Launch of TheCityUK legal services 2018 report: David Gauke speech, Ministry of Justice (London) 30 November 2018. Access Date: 7 December 2018. <https://www.gov.uk/government/speeches/launch-of-thecityuk-legal-services-2018-report-david-gauke-speech>.

<sup>1412</sup> Launch of TheCityUK legal services 2018 report: David Gauke speech, Ministry of Justice (London) 30 November 2018. Access Date: 7 December 2018. <https://www.gov.uk/government/speeches/launch-of-thecityuk-legal-services-2018-report-david-gauke-speech>.

<sup>1413</sup> £2 million investment to help small businesses to grow, Innovate UK (London) 30 January 2019. Access Date: 4 March 2019. <https://www.gov.uk/government/news/2-million-investment-to-help-small-businesses-to-grow>.

<sup>1414</sup> £2 million investment to help small businesses to grow, Innovate UK (London) 30 January 2019. Access Date: 4 March 2019. <https://www.gov.uk/government/news/2-million-investment-to-help-small-businesses-to-grow>.

<sup>1415</sup> Next generation of artificial intelligence talent to be trained at UK universities, Department for Digital, Culture, Media & Sport (London) 21 February 2019. Access Date: 4 March 2019. <https://www.gov.uk/government/news/next-generation-of-artificial-intelligence-talent-to-be-trained-at-uk-universities>.

<sup>1416</sup> Next generation of artificial intelligence talent to be trained at UK universities, Department for Digital, Culture, Media & Sport (London) 21 February 2019. Access Date: 4 March 2019. <https://www.gov.uk/government/news/next-generation-of-artificial-intelligence-talent-to-be-trained-at-uk-universities>.

<sup>1417</sup> New university-business partnerships to boost jobs and local economies, Department for Business, Energy & Industrial Strategy (London) 28 February 2019. Access Date: 4 March 2019. <https://www.gov.uk/government/news/nhsx-new-joint-organisation-for-digital-data-and-technology>.

<sup>1418</sup> New university-business partnerships to boost jobs and local economies, Department for Business, Energy & Industrial Strategy (London) 28 February 2019. Access Date: 4 March 2019. <https://www.gov.uk/government/news/nhsx-new-joint-organisation-for-digital-data-and-technology>.

On 3 April 2019, a coalition of technology companies in conjunction with the Department for Education announced the new “EdTech Strategy” aimed at using technology to boost accessibility in the classroom, improve digital literacy and stimulate industry innovation.<sup>1419</sup>

On 3 June 2019, the Department for Education announced the investment of GBP4.6 million into their EdTech Strategy.<sup>1420</sup> A part of the strategy will also involve giving grants of up to GBP100 000 to EdTech organisations to improve the reach of digital tools in the education sector.<sup>1421</sup>

On 10 June 2019, the Department for Digital, Culture, Media & Sport announced a cash injection of 18.5 million into different government run projects to retrain adults in artificial intelligence and data science.<sup>1422</sup> At the announcement, Business Secretary Greg Clark said that the “new retraining opportunities and scholarships will ensure people from all backgrounds have the opportunity to move into new and exciting careers.”<sup>1423</sup>

The United Kingdom has demonstrated a strong willingness to meet their commitment with numerous initiatives.

Thus, the United Kingdom receives a score of +1.

*Analyst: Ioana Burtea*

### **United States: +1**

The United States has fully complied with its commitment to ensure that all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

On 10 July 2018, U.S. Department of Labor announced a USD47.6 million award of 163 Homeless Veterans’ Reintegration Program, which provides occupation skills training, apprenticeship opportunities and other on job training and assistance. This fund has supported more than 18,000 homeless veterans.<sup>1424</sup>

---

<sup>1419</sup> EdTech Strategy marks 'new era' for schools, Department for Education (London) 3 April 2019. Access Date: 9 June 2019. <https://www.gov.uk/government/news/edtech-strategy-marks-new-era-for-schools>.

<sup>1420</sup> Expert Group launched with £4.6 million investment in EdTech, Department for Education (London) 3 June 2019. Access Date: 9 June 2019. <https://www.gov.uk/government/news/expert-group-launched-with-46-million-investment-in-edtech>.

<sup>1421</sup> Expert Group launched with £4.6 million investment in EdTech, Department for Education (London) 3 June 2019. Access Date: 9 June 2019. <https://www.gov.uk/government/news/expert-group-launched-with-46-million-investment-in-edtech>.

<sup>1422</sup> £18.5 million to boost diversity in AI tech roles and innovation in online training for adults , Department for Digital, Culture, Media & Sport (London) 10 June 2019. Access Date: 10 June 2019. <https://www.gov.uk/government/news/185-million-to-boost-diversity-in-ai-tech-roles-and-innovation-in-online-training-for-adults>.

<sup>1423</sup> £18.5 million to boost diversity in AI tech roles and innovation in online training for adults , Department for Digital, Culture, Media & Sport (London) 10 June 2019. Access Date: 10 June 2019. <https://www.gov.uk/government/news/185-million-to-boost-diversity-in-ai-tech-roles-and-innovation-in-online-training-for-adults>.

<sup>1424</sup> US. Department of Labor Announces Awards of \$47,600,000 in Training Grants to Help Hopeless Veterans Re-enter the Workforce, United States Department of Labor (Washington D.C.) 10 July 2018. <https://www.dol.gov/newsroom/releases/vets/vets20180710>.



On 17 July 2018, U.S. Department of Labor announced the Apprenticeship and Nontraditional Occupation (WANTO) will fund grants to help expand job opportunities for women.<sup>1425</sup> The U.S. Secretary of Women also indicated that it is important for women to get into the apprentice program and maximizing job opportunities in different industries.<sup>1426</sup> According to the Bureau of Labor Statistics reports, women have a lower rate in participating in several industry sectors: manufacturing (29 percent), agriculture (25 percent), transportation and utilities (24 percent), mining (13 percent), and construction (9 percent).<sup>1427</sup> The WANTO programs will be providing opportunities in these areas regarding pre-apprenticeship, apprenticeship, nontraditional skills training, ongoing orientation, support groups and facilitating networks.<sup>1428</sup>

On 19 July 2018, President Donald J. Trumps established the President's National Council for American Worker to provide a forum for the development of a national strategy which could address urgent workforce issues including developing a national campaign; creating a plan for recognizing companies demonstrate excellence in education, training, and workforce investment; expand the number of apprenticeships.<sup>1429</sup>

On 27 July 2018, U.S. Department of Labor announced the creation of the high-quality industry-recognized apprenticeship program as part of the Trump administration's plan in equipping Americans with necessary skills for family-sustaining jobs.<sup>1430</sup> Expanding the apprenticeship model through industry-recognized programs, while retaining the existing Registered Apprenticeship program, will help Americans develop the skills they need for the jobs of today and tomorrow while meeting job creators' needs for skilled labor.<sup>1431</sup> The Training and Employment Notice (TEN) issued by the Department of Labor is a follow-up upon the President's Executive Order Expanding Apprenticeships in America.<sup>1432</sup> The TEN provides information that certifiers will be expected to have in place to establish standards, establish certification intervals determined by industries, evaluate and certify programs focused on outcomes and process, report results, and maintain records. Organizations will be able to seek a determination from the Department that their apprenticeship

---

<sup>1425</sup> US. Department of Labor Announces Grants to Help Woman Enter Apprenticeship, Expand Job opportunities, United States Department of Labor (Washington D.C.) 17 July 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/wb/wb20180717>.

<sup>1426</sup> US. Department of Labor Announces Grants to Help Woman Enter Apprenticeship, Expand Job opportunities, United States Department of Labor (Washington D.C.) 17 July 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/wb/wb20180717>.

<sup>1427</sup> US. Department of Labor Announces Grants to Help Woman Enter Apprenticeship, Expand Job opportunities, United States Department of Labor (Washington D.C.) 17 July 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/wb/wb20180717>.

<sup>1428</sup> US. Department of Labor Announces Grants to Help Woman Enter Apprenticeship, Expand Job opportunities, United States Department of Labor (Washington D.C.) 17 July 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/wb/wb20180717>.

<sup>1429</sup> President Donald J. Trump's Administration Is Taking Action to Equip American Students and Workers with the Skills They Need to Succeed, White house (Washington D.C.) 19 July 2018. Access Date: 10 October 2018. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trumps-administration-taking-action-equip-american-students-workers-skills-need-succeed/>.

<sup>1430</sup> US. Department of labor Announces an Initial Training and Employment Notice to Expand High-Quality Apprenticeship, United States Department of Labor (Washington D.C.) 27 July 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/osec/osec20180727>.

<sup>1431</sup> US. Department of labor Announces an Initial Training and Employment Notice to Expand High-Quality Apprenticeship, United States Department of Labor (Washington D.C.) 27 July 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/osec/osec20180727>.

<sup>1432</sup> US. Department of Labor Announces an Initial Training and Employment Notice to Expand High-Quality Apprenticeship, United States Department of Labor (Washington D.C.) 27 July 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/osec/osec20180727>.

certification practices meet these criteria and ensure that certified programs provide apprentices with a pathway to a family-sustaining career.<sup>1433</sup>

On 30 August 2018, the US Department of Labor announced the launch of a new digital platform, Apprenticeship.gov.<sup>1434</sup> This web portal features an Apprenticeship Finder tool that offers career seekers a platform to search for apprenticeships by city, state, and occupation, as well as connects job seekers to high-skilled, high-paying careers.<sup>1435</sup> The Apprenticeship Finder, a no-cost tool to employers or career seekers, is addressing a need shared by employers who are looking to promote their apprenticeship opportunities and career seekers searching to access them.<sup>1436</sup> The new Apprenticeship Finder tool will not only make it easier for career seekers to find apprenticeship opportunities, but it will also help employers promote apprenticeships across new or non-traditional industries where apprenticeships may be less common.<sup>1437</sup> Additionally, this effort supports President Trump's Executive Order "Expanding Apprenticeships in America" by improving access to apprenticeship opportunities that enable more Americans to obtain relevant skills and high-paying jobs.<sup>1438</sup> Alexander Acosta, U.S. Secretary of Labor, said: "President Trump's Administration is working to ensure the American workforce has the skills to succeed and the opportunities to secure family-sustaining careers."<sup>1439</sup>

On 11 October 2018, the US. Department of Labor's Office of Disability Employment Policy announced the award of a USD1.9 million contract to develop pilot projects focused on apprenticeship opportunities for youth and adults with disabilities in high-growth industries.<sup>1440</sup> It awarded a two-year contract to Social Policy Research Associates Inc. (SPRA) of Oakland, California, to research, develop, test, and evaluate innovative strategies in existing apprenticeship programs that provide skills training to people with disabilities.<sup>1441</sup> Efforts will specifically focus on quality pre-apprenticeship and apprenticeship pilots in high-growth industries such as information technology, healthcare, and emerging sectors.<sup>1442</sup> Furthermore, SPRA will document and share best practices so

---

<sup>1433</sup> US. Department of Labor Announces an Initial Training and Employment Notice to Expand High-Quality Apprenticeship, United States Department of Labor (Washington D.C.) 27 July 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/osec/osec20180727>.

<sup>1434</sup> US. Department of Labor Announces Apprenticeship.gov, United States Department of Labor (Washington D.C.) 30 August 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/eta/eta20180830-0>.

<sup>1435</sup> US. Department of Labor Announces Apprenticeship.gov, United States Department of Labor (Washington D.C.) 30 August 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/eta/eta20180830-0>.

<sup>1436</sup> US. Department of Labor Announces Apprenticeship.gov, United States Department of Labor (Washington D.C.) 30 August 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/eta/eta20180830-0>.

<sup>1437</sup> US. Department of Labor Announces Apprenticeship.gov, United States Department of Labor (Washington D.C.) 30 August 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/eta/eta20180830-0>.

<sup>1438</sup> US. Department of Labor Announces Apprenticeship.gov, United States Department of Labor (Washington D.C.) 30 August 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/eta/eta20180830-0>.

<sup>1439</sup> US. Department of Labor Announces Apprenticeship.gov, United States Department of Labor (Washington D.C.) 30 August 2018. Access Date: 16 October 2018. <https://www.dol.gov/newsroom/releases/eta/eta20180830-0>.

<sup>1440</sup> US. Department of Labor Awards \$ 1.9 Million to Improve Apprenticeship Opportunities for Youth and Adults with Disabilities, Office of Disability Employment Policy (Washington, D.C) 11 October 2018. Access Date: 1 November 2018. <https://www.dol.gov/newsroom/releases/odep/odep20181011>.

<sup>1441</sup> US. Department of Labor Awards \$ 1.9 Million to Improve Apprenticeship Opportunities for Youth and Adults with Disabilities, Office of Disability Employment Policy (Washington, D.C) 11 October 2018. Access Date: 1 November 2018. <https://www.dol.gov/newsroom/releases/odep/odep20181011>.

<sup>1442</sup> US. Department of Labor Awards \$ 1.9 Million to Improve Apprenticeship Opportunities for Youth and Adults with Disabilities, Office of Disability Employment Policy (Washington, D.C) 11 October 2018. Access Date: 1 November 2018. <https://www.dol.gov/newsroom/releases/odep/odep20181011>.

that other apprenticeship efforts may replicate promising approaches.<sup>1443</sup> “Apprenticeships are a proven strategy for connecting job creators with motivated, highly skilled workers, yet people with disabilities are disproportionately underrepresented in apprenticeship programs and in the workforce at large,” said Jennifer Sheehy, Deputy Assistant Secretary of Labor for Disability Employment Policy.<sup>1444</sup> “This project will help us determine ways to ensure people with disabilities acquire the skills and credentials needed to obtain an in-demand position in a high-growth business or industry, where jobs pay family-sustaining wages.”<sup>1445</sup>

On 12 November 2018, U.S. Secretary of Labor Acosta, Alexander Acosta, announced the start of National Apprenticeship Week.<sup>1446</sup> This year’s theme — “Apprenticeships: Creating Tomorrow” — celebrates the impact apprenticeship programs have in helping Americans learn skills for jobs in growing industries.<sup>1447</sup> “President Trump’s Administration is committed to expanding apprenticeships and workforce investment across all industries. Apprenticeship is a proven way to help Americans learn the skills they need for good, safe, family-sustaining jobs,” said Secretary Acosta.<sup>1448</sup> “National Apprenticeship Week provides an opportunity to showcase how businesses, labor, educational institutions, trade and industry groups, and public officials across the nation are expanding apprenticeships to develop a skilled, dedicated workforce.”<sup>1449</sup>

On 4 December 2018, the White House announced that President Donald J. Trump is releasing a plan to strengthen education in science, technology, engineering and mathematics (STEM).<sup>1450</sup> According to the White House, the President’s plan seeks to ensure all Americans have access to quality STEM education and safeguard America’s place as the global leader in STEM innovation and employment.<sup>1451</sup> The Administration’s goals include building a strong foundation of STEM literacy, increasing diversity in STEM careers, and preparing the STEM workforce of the future.<sup>1452</sup> The plan

---

<sup>1443</sup> US. Department of Labor Awards \$ 1.9 Million to Improve Apprenticeship Opportunities for Youth and Adults with Disabilities, Office of Disability Employment Policy (Washington, D.C) 11 October 2018. Access Date: 1 November 2018. <https://www.dol.gov/newsroom/releases/odep/odep20181011>.

<sup>1444</sup> US. Department of Labor Awards \$ 1.9 Million to Improve Apprenticeship Opportunities for Youth and Adults with Disabilities, Office of Disability Employment Policy (Washington, D.C) 11 October 2018. Access Date: 1 November 2018. <https://www.dol.gov/newsroom/releases/odep/odep20181011>.

<sup>1445</sup> US. Department of Labor Awards \$ 1.9 Million to Improve Apprenticeship Opportunities for Youth and Adults with Disabilities, Office of Disability Employment Policy (Washington, D.C) 11 October 2018. Access Date: 1 November 2018. <https://www.dol.gov/newsroom/releases/odep/odep20181011>.

<sup>1446</sup> U.S. Secretary of labor Acosta Announces Start of National Apprenticeship Week, U.S Department of Labor (Washington, D.C) 12 November 2018. Access Date: 30 November 2018. <https://www.dol.gov/newsroom/releases/osec/osec20181112>.

<sup>1447</sup> U.S. Secretary of labor Acosta Announces Start of National Apprenticeship Week, U.S Department of Labor (Washington, D.C) 12 November 2018. Access Date: 30 November 2018. <https://www.dol.gov/newsroom/releases/osec/osec20181112>.

<sup>1448</sup> U.S. Secretary of labor Acosta Announces Start of National Apprenticeship Week, U.S Department of Labor (Washington, D.C) 12 November 2018. Access Date: 30 November 2018. <https://www.dol.gov/newsroom/releases/osec/osec20181112>.

<sup>1449</sup> U.S. Secretary of labor Acosta Announces Start of National Apprenticeship Week, U.S Department of Labor (Washington, D.C) 12 November 2018. Access Date: 30 November 2018. <https://www.dol.gov/newsroom/releases/osec/osec20181112>.

<sup>1450</sup> President Donald J. Trump is Working to Ensure All Americans have Access to STEM Education (Washington, D.C) 4 December 2018. Access Date: 3 December 2018. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-is-working-to-ensure-all-americans-have-access-to-stem-education/>.

<sup>1451</sup> President Donald J. Trump is Working to Ensure All Americans have Access to STEM Education (Washington, D.C) 4 December 2018. Access Date: 3 December 2018. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-is-working-to-ensure-all-americans-have-access-to-stem-education/>.

<sup>1452</sup> President Donald J. Trump is Working to Ensure All Americans have Access to STEM Education (Washington, D.C) 4 December 2018. Access Date: 3 December 2018. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-is-working-to-ensure-all-americans-have-access-to-stem-education/>.

laid out key pathways to achieve the goals of “developing and enriching strategic STEM partnerships”; “engaging students where disciplines converge”; and “advancing computational thinking as a critical skill for America’s future workforce.”<sup>1453</sup>

On 21 December 2018, U.S. Secretary of Labor Alexander Acosta and Idaho Governor C. L. “Butch” Otter announced the Job Corps Demonstration Project that assumes operational control of a Job Corps center and the responsibility for providing skills instruction to Job Corps students.<sup>1454</sup> The Idaho JOBCorps model will effectively be leveraging existing resources and programs to better serve Idaho youth in getting the education and training they need in high-demand fields.<sup>1455</sup>

On 11 February 2019, the White House announced the Executive Order on Maintaining American Leadership in Artificial Intelligence.<sup>1456</sup> The executive order demonstrated that the United States must train current and future generations of American workers with the skills to develop and apply AI technologies to prepare them for today’s economy and jobs of the future.<sup>1457</sup> The objective also included training the next generation of American AI researchers and users through apprenticeships; skills programs; and education in STEM, with an emphasis on computer science, to ensure that American workers, including Federal workers, are capable of taking full advantage of the opportunities of AI.<sup>1458</sup>

On 13 February 2019, Commerce Secretary Wilbur Ross and President Donald Trump’s daughter and adviser Ivanka Trump announced the creation of the American Workforce Policy Advisory Board.<sup>1459</sup> The board aims to “ensure inclusive growth” and provides all Americans with “the skills and opportunity to secure good paying jobs and successfully navigate technological disruptions and the rapidly changing nature of work.”<sup>1460</sup> The White House said 200 companies and associations have signed the administration’s Pledge to America’s Workers, promising to create more than 6.5 million education, training and skill-building opportunities over the next five years.<sup>1461</sup> The board will be asked to help the council develop a national campaign to promote education and training,

---

<sup>1453</sup> President Donald J. Trump is Working to Ensure All Americans have Access to STEM Education (Washington, D.C) 4 December 2018. Access Date: 3 December 2018. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-is-working-to-ensure-all-americans-have-access-to-stem-education/>.

<sup>1454</sup> U.S. Department of Labour Provides Idaho Flexibility to Better Serve Job Corps Student, U.S. Department of Labor (Washington, D.C) 21 December 2018. Access Date: 30 December 2018. <https://www.dol.gov/newsroom/releases/eta/eta20181221-1>

<sup>1455</sup> U.S. Department of Labour Provides Idaho Flexibility to Better Serve Job Corps Student, U.S. Department of Labor (Washington, D.C) 21 December 2018. Access Date: 30 December 2018. <https://www.dol.gov/newsroom/releases/eta/eta20181221-1>.

<sup>1456</sup> Executive Order on Maintaining American Leadership in Artificial Intelligence, The White House (Washington, D.C) 11 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence/>

<sup>1457</sup> Executive Order on Maintaining American Leadership in Artificial Intelligence, The White House (Washington, D.C) 11 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence/>.

<sup>1458</sup> Executive Order on Maintaining American Leadership in Artificial Intelligence, The White House (Washington, D.C) 11 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence/>.

<sup>1459</sup> Bloomberg: “Wilbur Ross, Ivanka Trump Introduce Workforce Advisory Board”, The White House (Washington, D.C) 13 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/briefings-statements/icymi-bloomberg-wilbur-ross-ivanka-trump-introduce-workforce-advisory-board/>.

<sup>1460</sup> Bloomberg: “Wilbur Ross, Ivanka Trump Introduce Workforce Advisory Board”, The White House (Washington, D.C) 13 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/briefings-statements/icymi-bloomberg-wilbur-ross-ivanka-trump-introduce-workforce-advisory-board/>.

<sup>1461</sup> Bloomberg: “Wilbur Ross, Ivanka Trump Introduce Workforce Advisory Board”, The White House (Washington, D.C) 13 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/briefings-statements/icymi-bloomberg-wilbur-ross-ivanka-trump-introduce-workforce-advisory-board/>.

recommend ways to improve labor market data, increase private sector investments in job learning and better identify companies' needs in hiring.<sup>1462</sup>

On 21 February 2019, the Trump administration announced pro-growth economic agenda is creating more economic prosperity and opportunity for all Americans.<sup>1463</sup> Through deregulation, tax reform, and job training, President Trump is creating a better climate for minority-owned businesses and workers.<sup>1464</sup> The Administration's Pledge to America's Workers has secured private sector commitments to provide 6.5 million training and education opportunities for American workers.<sup>1465</sup>

On 25 February 2019, the U.S. Secretary of Labor Alexander Acosta and Hubertus Heil, the Minister of Labor and Social Affairs of the Federal Republic of Germany, signed a Joint Declaration of Intent underlining the value of cooperation in various areas of international labor policy and practice between the two countries.<sup>1466</sup> The declaration will facilitate cooperation in supporting international initiatives and sharing of lessons related to apprenticeships, youth employment, and the future of work; relevant global initiatives; and furthering efforts to advance women's economic empowerment, in line with the United States' new Women's Global Development and Prosperity Initiative.<sup>1467</sup>

On 11 March 2019, the U.S. Department of Labor released the President's Budget.<sup>1468</sup> The highlight of the labor budget includes developing a skilled workforce by investing \$160 million in apprenticeships to fill family-sustaining careers and creating new opportunities in industries where apprenticeship is underutilized.<sup>1469</sup> The Department also seeks to continue modernizing programs such as Job Corps to better serve Americans.<sup>1470</sup>

On 27 March 2019, the U.S. Department of Labor's Veterans' Employment and Training Service announced the availability of approximately \$13.5 million in Homeless Veterans' Reintegration Program (HVRP) grants.<sup>1471</sup> HVRP provide services to support homeless veterans in reintegrating

---

<sup>1462</sup> Bloomberg: "Wilbur Ross, Ivanka Trump Introduce Workforce Advisory Board", The White House (Washington, D.C) 13 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/briefings-statements/icymi-bloomberg-wilbur-ross-ivanka-trump-introduce-workforce-advisory-board/>.

<sup>1463</sup> President Donald J. Trump is Working to Expand Opportunity and Prosperity for African Americans, The White House (Washington, D.C) 21 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-working-expand-opportunity-prosperity-african-americans/>.

<sup>1464</sup> President Donald J. Trump is Working to Expand Opportunity and Prosperity for African Americans, The White House (Washington, D.C) 21 February 2019. Access Date: 27 February 2019. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-working-expand-opportunity-prosperity-african-americans/>.

<sup>1465</sup> President Donald J. Trump is Working to Expand Opportunity and Prosperity for African Americans, The White House (Washington, D.C) 21 February 2019. Access Date: 27 February 2019, <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-working-expand-opportunity-prosperity-african-americans/>.

<sup>1466</sup> United States, German Sign Joint Declaration of Joint on Labor Cooperation, The White House (Washington, D.C) 25 February 2019. Access Date: 27 February 2019. <https://www.dol.gov/newsroom/releases/osec/osec20190225>.

<sup>1467</sup> United States, German Sign Joint Declaration of Joint on Labor Cooperation, U.S. Department of Labor (Washington, D.C) 25 February 2019. Access Date: 27 February 2019. <https://www.dol.gov/newsroom/releases/osec/osec20190225>.

<sup>1468</sup> President's 2020 Budget expands opportunities for America's workforce, U.S. Department of Labor (Washington, D.C) 11 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/osec/osec20190311>.

<sup>1469</sup> President's 2020 Budget expands opportunities for America's workforce, U.S. Department of Labor (Washington, D.C) 11 March 2019. Access Date: 03 June 2019, <https://www.dol.gov/newsroom/releases/osec/osec20190311>.

<sup>1470</sup> President's 2020 Budget expands opportunities for America's workforce, U.S. Department of Labor (Washington, D.C) 11 March 2019. Access Date: 03 June 2019, <https://www.dol.gov/newsroom/releases/osec/osec20190311>.

<sup>1471</sup> U.S. Department of Labour announces the availability of \$ 13.5 million in grants to help homeless veterans re-enter workforce, U.S. Department of Labor (Washington, D.C) 27 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/vets/vets20190327>.

into labor force with meaningful employments.<sup>1472</sup> The program provides job training, counseling, and placement services, including job readiness, literacy, and skills training, to aid in the reintegration of homeless veterans into the labor force.<sup>1473</sup>

On 28 March 2019, the U.S. Department of Labor's office announces four apprenticeship inclusion model sites to expand career pathways for people with disabilities.<sup>1474</sup> The four organizations participating in the AIM initiative pilot are Amazon, Microsoft, the Healthcare Career Advancement Program, and the Industrial Manufacturing Technician Apprenticeship program.<sup>1475</sup> During a two-year period, these organizations will pilot inclusive apprenticeship programs to provide access to apprenticeship opportunities for youth and adults with disabilities.<sup>1476</sup>

On 22 April 2019, the U.S. Department of Labor announced the availability of approximately \$2 million in funds for the first year of a cooperative agreement for an employer-focused disability policy development and technical assistance centre.<sup>1477</sup> The new centre will conduct research, engage with business community; identify effective policies and practices; and provide resources, technical assistance and training.<sup>1478</sup>

On 1 May 2019, the U.S. Department of Labor announced a new Job Corps demonstration project which is committed to helping young individuals from disadvantaged backgrounds receive high-quality vocational and academic instruction opportunities.<sup>1479</sup> The program will provide skills instruction and career pathway, and allow eligible students to earn academic credits at eligible colleges and universities.<sup>1480</sup> Grantees will use the grant funds to pay for the tuition of the Job Corps Scholars, hire personal and career counselors, and hire employment counselors.<sup>1481</sup>

On 24 May 2019, the U.S. Department of Labor accepted a letter from the U.S. Department of Agriculture (USDA) stating the USDA's Forest service will withdraw from operating Job Corps

---

<sup>1472</sup> U.S. Department of Labour announces the availability of \$ 13.5 million in grants to help homeless veterans re-enter workforce, U.S. Department of Labor (Washington, D.C) 27 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/vets/vets20190327>.

<sup>1473</sup> U.S. Department of Labour announces the availability of \$ 13.5 million in grants to help homeless veterans re-enter workforce, U.S. Department of Labor (Washington, D.C) 27 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/vets/vets20190327>.

<sup>1474</sup> U.S Department of Labor announces four apprenticeship inclusion model sites to expand career pathways for people with disabilities, U.S. Department of Labor (Washington, D.C) 28 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/odep/odep20190328>.

<sup>1475</sup> U.S Department of Labor announces four apprenticeship inclusion model sites to expand career pathways for people with disabilities, U.S. Department of Labor (Washington, D.C) 28 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/odep/odep20190328>.

<sup>1476</sup> U.S Department of Labor announces four apprenticeship inclusion model sites to expand career pathways for people with disabilities, U.S. Department of Labor (Washington, D.C) 28 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/odep/odep20190328>.

<sup>1477</sup> U.S Department of Labor announces four apprenticeship inclusion model sites to expand career pathways for people with disabilities, U.S. Department of Labor (Washington, D.C) 28 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/odep/odep20190328>.

<sup>1478</sup> U.S Department of Labor announces four apprenticeship inclusion model sites to expand career pathways for people with disabilities, U.S. Department of Labor (Washington, D.C) 28 March 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/odep/odep20190328>.

<sup>1479</sup> U.S. Department of Labor announces job corps scholars grant program, U.S. Department of Labor (Washington, D.C) 1 May 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/eta/eta20190501>.

<sup>1480</sup> U.S. Department of Labor announces job corps scholars grant program, U.S. Department of Labor (Washington, D.C) 1 May 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/eta/eta20190501>.

<sup>1481</sup> U.S. Department of Labor announces job corps scholars grant program, U.S. Department of Labor (Washington, D.C) 1 May 2019. Access Date: 03 June 2019. <https://www.dol.gov/newsroom/releases/eta/eta20190501>.

conservation Center.<sup>1482</sup> This action creates an opportunity to serve a greater number of students at a higher performing centres.<sup>1483</sup> The department promises that they will increase student access to job corps centre with highest sustained student performance outcomes.<sup>1484</sup>

The United States has established funds for different groups, e.g., veterans, women and the disabled, to ensure that all workers have access to resources that would help them adapt in the new world. Industry-recognized apprenticeship programmes, as well as tools that help workers find apprenticeships, have been developed to ensure all workers will have family-sustaining career, and thus prosper in the new economy.

Thus, the United States receives a score of +1.

*Analyst: Ruohan Mu*

### **European Union: +1**

The European Union has fully complied with its commitment to ensure all workers have access to skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

On 13 June 2018, the European Commission updated its program for addressing and developing the skills of migrants.<sup>1485</sup> Its upgraded online tool allows third-country nationals to access online courses designed to develop both language and digital fluency, with the objective of supporting their integration into the skilled labour market.<sup>1486</sup>

On 7 July 2018, the European Commission published its Employment and Social Developments review, which calls on member countries to prevent early school leaving and promote skill-intensive education programs in order to reduce unemployment and prepare youth for the new world of work.<sup>1487</sup>

On 16 July 2018, the European Parliament Committee on Employment and Social Affairs (EMPL) published the results of a study into the potential use of the European Fund for Strategic Investment to finance skill development programs.<sup>1488</sup> The report outlines that the programs EMPL intends to create will encourage lifelong learning, including both academic and vocational training for all

---

<sup>1482</sup> U.S. Department of Labour job corps announcement, U.S. Department of Labor (Washington, D.C) 24 May 2019. Access Date: 03 June 2019, <https://www.dol.gov/newsroom/releases/eta/eta20190524>

<sup>1483</sup> U.S. Department of Labour job corps announcement, U.S. Department of Labor (Washington, D.C) 24 May 2019. Access Date: 03 June 2019, <https://www.dol.gov/newsroom/releases/eta/eta20190524>

<sup>1484</sup> U.S. Department of Labour job corps announcement, U.S. Department of Labor (Washington, D.C) 24 May 2019. Access Date: 03 June 2019, <https://www.dol.gov/newsroom/releases/eta/eta20190524>

<sup>1485</sup> EU Skills Profile Tool for Third Country Nationals gets Another Upgrade. European Commission (Brussels) 13 June 2018. Access Date: 24 October 2018.

<http://ec.europa.eu/social/main.jsp?langId=en&catId=1146&newsId=9125&furtherNews=yes>.

<sup>1486</sup> EU Skills Profile Tool for Third Country Nationals gets Another Upgrade. European Commission (Brussels) 13 June 2018. Access Date: 24 October 2018.

<http://ec.europa.eu/social/main.jsp?langId=en&catId=1146&newsId=9125&furtherNews=yes>.

<sup>1487</sup> Employment and Social Developments in Europe 2018. European Commission (Brussels) 7 July 2018. Access Date: 24 October 2018. <http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8110>.

<sup>1488</sup> Skills Development: The Potential of the European Fund for Strategic Investments. Policy Department for Economic, Scientific and Quality of Life Policies (Brussels) 16 July 2018. Access Date: 24 October 2018.

[http://www.europarl.europa.eu/RegData/etudes/STUD/2018/626053/IPOL\\_STU\(2018\)626053\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/626053/IPOL_STU(2018)626053_EN.pdf).

ages.<sup>1489</sup> It highlights the success of member nations such as Finland at utilizing government funds to implement successful academic and vocational training programs.<sup>1490</sup>

On 6 August 2018, the European Commission published its findings on a study about adult skills and learning.<sup>1491</sup> It calls for European workplaces to establish skill-building programs for adults with existing medium level skills to improve their digital literacy to higher levels in an attempt to protect them from potential job replacement led by artificial intelligence and automation.<sup>1492</sup>

On 10 October 2018, the EMPL approved new rules for emerging employment types such as short-term, intermittent and on-demand.<sup>1493</sup> With the rise of new “unpredictable” jobs such as ride-sharing, these rules ensure that workers of any kind share the same basic rights, including mandatory job training that should be provided free of charge by the employer during working hours.<sup>1494</sup>

On 11 October 2018, the European Commission published an evaluation of its online classification system European Skills Competencies, Qualifications, and Occupations (ESCO).<sup>1495</sup> It found that in 2018, ESCO was successful in matching skill levels to jobs, thus preventing the issue of over-qualification, as well as providing training opportunities to increase skill levels in order to match people to more jobs.<sup>1496</sup>

On 30 October 2018, the European Commission published the October 2018 issue of its quarterly magazine “The Social Agenda.”<sup>1497</sup> The issue of the publication focuses on the future of work and addresses growing automation by calling upon all member states to provide investments that will allow women, minorities, and low-income households to have equal access to advanced educational opportunities to prepare them for a digitalized world of work.<sup>1498</sup>

---

<sup>1489</sup>Skills Development: The Potential of the European Fund for Strategic Investments. Policy Department for Economic, Scientific and Quality of Life Policies (Brussels) 16 July 2018. Access Date: 24 October 2018.

[http://www.europarl.europa.eu/RegData/etudes/STUD/2018/626053/IPOL\\_STU\(2018\)626053\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/626053/IPOL_STU(2018)626053_EN.pdf).

<sup>1490</sup>Skills Development: The Potential of the European Fund for Strategic Investments. Policy Department for Economic, Scientific and Quality of Life Policies (Brussels) 16 July 2018. Access Date: 24 October 2018.

[http://www.europarl.europa.eu/RegData/etudes/STUD/2018/626053/IPOL\\_STU\(2018\)626053\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/626053/IPOL_STU(2018)626053_EN.pdf).

<sup>1491</sup>Promoting Adult Learning in the Workplace. European Commission (Brussels) 6 August 2018. Access Date: 24 October 2018. <http://ec.europa.eu/social/main.jsp?langId=en&catId=1146&newsId=9169&furtherNews=yes>.

<sup>1492</sup>Promoting Adult Learning in the Workplace. European Commission (Brussels) 6 August 2018. Access Date: 24 October 2018. <http://ec.europa.eu/social/main.jsp?langId=en&catId=1146&newsId=9169&furtherNews=yes>.

<sup>1493</sup>Gig Economy: Employment Committee MEPs Want to Boost Workers’ Rights. European Parliament Committee on Employment and Social Affairs (Brussels) 10 October 2018. Access Date: 24 October 2018.

<http://www.europarl.europa.eu/news/en/press-room/20181017IPR16398/gig-economy-employment-committee-meps-want-to-boost-workers-rights>.

<sup>1494</sup>Gig Economy: Employment Committee MEPs Want to Boost Workers’ Rights. European Parliament Committee on Employment and Social Affairs (Brussels) 10 October 2018. Access Date: 24 October 2018.

<http://www.europarl.europa.eu/news/en/press-room/20181017IPR16398/gig-economy-employment-committee-meps-want-to-boost-workers-rights>.

<sup>1495</sup>ESCO One Year On: Major Uptake by Public and Private Organisations Shows its Added Value. European Commission (Brussels) 11 October 2018. Access Date: 24 October 2018.

<http://ec.europa.eu/social/main.jsp?langId=en&catId=1146&newsId=9212&furtherNews=yes>.

<sup>1496</sup>ESCO One Year On: Major Uptake by Public and Private Organisations Shows its Added Value. European Commission (Brussels) 11 October 2018. Access Date: 24 October 2018.

<http://ec.europa.eu/social/main.jsp?langId=en&catId=1146&newsId=9212&furtherNews=yes>.

<sup>1497</sup>Social Agenda 53 — The future of work. European Commission (Brussels) 30 October 2018. Access Date: 26 November 2018. <https://ec.europa.eu/social/main.jsp?catId=737&langId=en&pubId=8150&furtherPubs=yes>.

<sup>1498</sup>Social Agenda 53 — The future of work. European Commission (Brussels) 30 October 2018. Access Date: 26 November 2018. <https://ec.europa.eu/social/main.jsp?catId=737&langId=en&pubId=8150&furtherPubs=yes>.



On 5 November 2018, the European Commission and the Austrian Presidency organized over one thousand events which took place in various locations across Europe to allow youth, education providers, businesses, trade unions, and the public to participate in vocational skills training programs.<sup>1499</sup>

On 20 November 2018, the European Investment Bank and Spanish bank Bankia drafted a EUR50 million plan to encourage small and medium businesses to hire unemployed Spanish youth.<sup>1500</sup> The plan will also assist youth in developing valuable skills for a new world of work and will include assets for future extension to businesses outside of Spain.<sup>1501</sup>

On 26 November 2018, the EMPL revised its draft report for the European Globalization Adjustment Fund (EGF) for the period of 2021-2027.<sup>1502</sup> EGF, set by the European Union in 2006, is designed to give support to workers made redundant by new technologies and the changing world of work, including those affected by job outsourcing as a result of globalization.<sup>1503</sup> The revision of EGF aims to provide more effective interventions and financially support displaced workers and local economies affected by global changes in labour and employment.<sup>1504</sup>

On 6 December 2018, the EMPL reviewed the proposal for the European Social Fund Plus (ESF+), a long-term EU budget 2021-2027 presented by the European Commission in May 2018.<sup>1505</sup> ESF+ will allow the EU and its Member States to provide more integrated and targeted support in response to the social and labour market challenges that people in Europe face today.<sup>1506</sup> The amendment of the ESF+ proposal included a 19 percent increase in funding aimed to directly benefit youth and long-term unemployed workers through education and training programs that encourage lifelong learning.<sup>1507</sup>

On 19 December 2019, the European Commission released two reports on the ways in which skills development through continued education and traineeships can promote youth entry into new and

---

<sup>1499</sup> Vocational Education and Training at the heart of Europe: Launch of third European Vocational Skills Week. European Commission (Brussels) 5 November 2018. Access Date: 26 November 2018.

<https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9230&furtherNews=yes>.

<sup>1500</sup> Juncker Plan: €50 million to support youth employment in Spain. European Commission (Brussels) 20 November 2018. Access Date: 26 November 2018.

<https://ec.europa.eu/social/main.jsp?catId=89&langId=en&newsId=9249&furtherNews=yes>.

<sup>1501</sup> Juncker Plan: €50 million to support youth employment in Spain. European Commission (Brussels) 20 November 2018. Access Date: 26 November 2018.

<https://ec.europa.eu/social/main.jsp?catId=89&langId=en&newsId=9249&furtherNews=yes>.

<sup>1502</sup> Committee vote: European Globalisation Adjustment Fund (EGF). European Parliament Committee on Employment and Social Affairs (Brussels) 26 November 2018. Access Date: 26 November 2018.

[http://www.emeeeting.europarl.europa.eu/committees/agenda/201811/EMPL/EMPL\(2018\)1127\\_1P/sitt-8840604](http://www.emeeeting.europarl.europa.eu/committees/agenda/201811/EMPL/EMPL(2018)1127_1P/sitt-8840604).

<sup>1503</sup> Committee vote: European Globalisation Adjustment Fund (EGF). European Parliament Committee on Employment and Social Affairs (Brussels) 26 November 2018. Access Date: 26 November 2018.

[http://www.emeeeting.europarl.europa.eu/committees/agenda/201811/EMPL/EMPL\(2018\)1127\\_1P/sitt-8840604](http://www.emeeeting.europarl.europa.eu/committees/agenda/201811/EMPL/EMPL(2018)1127_1P/sitt-8840604).

<sup>1504</sup> Committee vote: European Globalisation Adjustment Fund (EGF). European Parliament Committee on Employment and Social Affairs (Brussels) 26 November 2018. Access Date: 26 November 2018.

[http://www.emeeeting.europarl.europa.eu/committees/agenda/201811/EMPL/EMPL\(2018\)1127\\_1P/sitt-8840604](http://www.emeeeting.europarl.europa.eu/committees/agenda/201811/EMPL/EMPL(2018)1127_1P/sitt-8840604).

<sup>1505</sup> Committee vote: European Social Fund +. European Parliament Committee on Employment and Social Affairs (Brussels) 6 December 2018. Access Date: 6 December 2018.

[http://www.emeeeting.europarl.europa.eu/committees/agenda/201812/EMPL/EMPL\(2018\)1203\\_1/sitt-9168934](http://www.emeeeting.europarl.europa.eu/committees/agenda/201812/EMPL/EMPL(2018)1203_1/sitt-9168934).

<sup>1506</sup> EU budget: a new European Social Fund Plus. European Commission (Brussels) 30 May 2018. Access Date: 15 February 2019.

<sup>1507</sup> Committee vote: European Social Fund +. European Parliament Committee on Employment and Social Affairs (Brussels) 6 December 2018. Access Date: 6 December 2018.

[http://www.emeeeting.europarl.europa.eu/committees/agenda/201812/EMPL/EMPL\(2018\)1203\\_1/sitt-9168934](http://www.emeeeting.europarl.europa.eu/committees/agenda/201812/EMPL/EMPL(2018)1203_1/sitt-9168934).

changing forms of employment.<sup>1508</sup> The reports recommend the prevention of early leaving from education and training, and the provision of more meaningful and well-structured traineeships to increase the likelihood of successful integration into a new world of work.<sup>1509</sup>

On 16 January 2019, the European Parliament voted in favour of updating the EGF.<sup>1510</sup> The update will broaden the fund's scope to offer assistance in case of major job restructuring events linked to digitalization, automation and the transition to a low-carbon economy, lower the threshold for minimum job losses from 500 to 200, and speed up the application procedure.<sup>1511</sup>

On 31 January 2019, members of the European Parliament voted in favour of a new process for registering .eu Internet domains.<sup>1512</sup> Acknowledging the changing needs of businesses in a digitalized world, the goal of the new regulation is to relax the current eligibility criteria for registration of the .eu domain so that the benefits reach as many people as possible, especially young people, small and medium-sized enterprises and non-governmental organizations<sup>1513</sup>.

On 4 February 2019, the European Commission launched four new partnerships under the Blueprint for Sectoral Cooperation project.<sup>1514</sup> The new partnerships will mobilize over 90 partners from 14 countries in emerging sectors or sectors, which are experiencing significant restructuring, to analyze skill mismatches and trends.<sup>1515</sup> Building on the skills intelligence, the projects will develop comprehensive sectoral skills strategies and transnational vocational and training solutions.<sup>1516</sup>

On 7 February 2019, the European Commission, the European Parliament and the Council reached an agreement on a proposal to create more transparent and predictable working conditions for 200 million workers, especially those in non-standard forms of employment.<sup>1517</sup> Under the agreement, 3

---

<sup>1508</sup> Youth Guarantee reports on continued education and traineeships to promote labour market inclusion for young people released. European Commission (Brussels). 19 December 2018. Access Date: 1 March 2019.

<https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9272&furtherNews=yes>

<sup>1509</sup> Youth Guarantee reports on continued education and traineeships to promote labour market inclusion for young people released (Brussels). 19 December 2018. Access Date: 1 March 2019.

<https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9272&furtherNews=yes>

<sup>1510</sup> European Globalisation Adjustment Fund: helping redundant workers. European Parliament (Brussels) 16 January 2019. Access Date: 1 March 2019.

<http://www.europarl.europa.eu/news/en/headlines/society/20181211STO21522/european-globalisation-adjustment-fund-helping-redundant-workers>.

<sup>1511</sup> European Globalisation Adjustment Fund: helping redundant workers. European Parliament (Brussels) 16 January 2019. Access Date: 1 March 2019.

<http://www.europarl.europa.eu/news/en/headlines/society/20181211STO21522/european-globalisation-adjustment-fund-helping-redundant-workers>.

<sup>1512</sup> New rules to make it easier to register .eu domain. European Parliament (Brussels) 31 January 2019. Access Date: 1 March 2019. <http://www.europarl.europa.eu/news/en/headlines/economy/20190123STO24110/new-rules-to-make-it-easier-to-register-eu-domain>.

<sup>1513</sup> New rules to make it easier to register .eu domain European Parliament (Brussels) 31 January 2019. Access Date: 1 March 2019. <http://www.europarl.europa.eu/news/en/headlines/economy/20190123STO24110/new-rules-to-make-it-easier-to-register-eu-domain>.

<sup>1514</sup> The second wave of Blueprint projects kicked off. European Commission (Brussels) 19 December 2018. Access Date: 1 March 2019. <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9294&furtherNews=yes>.

<sup>1515</sup> The second wave of Blueprint projects kicked off. European Commission (Brussels) 19 December 2018. Access Date: 1 March 2019. <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9294&furtherNews=yes>.

<sup>1516</sup> The second wave of Blueprint projects kicked off. European Commission (Brussels) 19 December 2018. Access Date: 1 March 2019. <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9294&furtherNews=yes>.

<sup>1517</sup> Transparent and predictable working conditions: Commission welcomes provisional agreement. European Parliament Committee on Employment and Social Affairs (Brussels) 7 February 2019. Access Date: 1 March 2019.

<https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9297&furtherNews=yes>.

million previously uncovered workers in new forms of work such as zero-hour contracts will now be covered.<sup>1518</sup>

On 26 February 2019, the European Parliament Committee on Culture and Education voted in favour of a new and revised education and training program for 2021-2027.<sup>1519</sup> Members voted to triple the budget of the existing program to create centres of vocational excellence, e-learning opportunities and international centres, which help provide quality vocational training to ensure Europeans can develop skills useful for new and changing sectors as a result of new technologies.<sup>1520</sup>

On 19 March 2019, the EMPL reached an agreement with the European Commission on social rights and benefits for mobile workers.<sup>1521</sup> The new benefits will apply universally to cross-border workers as well as workers who have recently moved between member countries regardless of nationality, ensuring fair access to unemployment insurance and other forms of social security<sup>1522</sup>.

On 21 March 2019, the European Union, together with the Organization of Economic Cooperation and Development (OECD), presented a list of policy directions for European countries in response to the changing world of work.<sup>1523</sup> Specifically, the OECD released its Policy Responses to New Forms of Work report, which presents a snapshot of policy directions taken by European countries in response to growing diversity in forms of employment. The report encourages European countries to ensure better working conditions, social protection coverage and more opportunities for collective bargaining in forms of work which diverge from standard employment contracts.<sup>1524</sup>

On 26 March 2019, the European Commission published its first quarterly 2019 Employment and Social Development Review.<sup>1525</sup> It found that in January 2019, the number of people employed exceeded 240 million, giving the European Union its highest employment rate since 2008.<sup>1526</sup> It also

---

<sup>1518</sup> Transparent and predictable working conditions: Commission welcomes provisional agreement. European Parliament Committee on Employment and Social Affairs (Brussels) 7 February 2019. Access Date: 1 March 2019. <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9297&furtherNews=yes>.

<sup>1519</sup> The future of Erasmus+: more opportunities. European Parliament (Brussels) 26 February 2019. Access Date: 1 March 2019. <http://www.europarl.europa.eu/news/en/headlines/society/20190222STO28402/the-future-of-erasmus-more-opportunities>.

<sup>1520</sup> The future of Erasmus+: more opportunities. European Parliament (Brussels) 26 February 2019. Access Date: 1 March 2019. <http://www.europarl.europa.eu/news/en/headlines/society/20190222STO28402/the-future-of-erasmus-more-opportunities>.

<sup>1521</sup> Fairer and clearer rules on social benefits for EU mobile workers agreed. European Parliament Committee on Employment and Social Affairs (Brussels) 19 March 2019. Access Date: 1 June 2019. <http://www.europarl.europa.eu/news/en/press-room/20190312IPR31161/fairer-and-clearer-rules-on-social-benefits-for-eu-mobile-workers-agreed>

<sup>1522</sup> Fairer and clearer rules on social benefits for EU mobile workers agreed. European Parliament Committee on Employment and Social Affairs (Brussels) 19 March 2019. Access Date: 1 June 2019. <http://www.europarl.europa.eu/news/en/press-room/20190312IPR31161/fairer-and-clearer-rules-on-social-benefits-for-eu-mobile-workers-agreed>

<sup>1523</sup> Future of work: New OECD report presents recent policy responses to new forms of work. European Commission (Brussels) 21 March 2019. Access Date: 1 June 2019. <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9325&furtherNews=yes>

<sup>1524</sup> Future of work: New OECD report presents recent policy responses to new forms of work. European Commission (Brussels) 21 March 2019. Access Date: 1 June 2019. <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9325&furtherNews=yes>

<sup>1525</sup> Employment and social developments in Europe: Record number of people in employment, but more investment in skills needed. European Commission (Brussels) 26 March 2019. Access Date: 1 June 2019. <https://ec.europa.eu/social/main.jsp?langId=en&catId=791&furtherNews=yes&newsId=9330>.

<sup>1526</sup> Employment and social developments in Europe: Record number of people in employment, but more investment in skills needed. European Commission (Brussels) 26 March 2019. Access Date: 1 June 2019. <https://ec.europa.eu/social/main.jsp?langId=en&catId=791&furtherNews=yes&newsId=9330>.

determined that permanent work is on the rise, resulting in improving financial situations in European households. The European Commission suggests investment in skills training should be furthered to encourage continued future economic growth and employment.<sup>1527</sup>

On 4 April 2019, the European Parliament adopted measures to support new forms of flexible work for parents and carers.<sup>1528</sup> The new rules will allow working parents and carers to request adjustments to their working patterns, including remote or flexible schedules where feasible, allowing more Europeans to join and participate in the workforce as well as maintain and upgrade their skills.<sup>1529</sup>

On 12 April 2019, the European Commission announced a commitment to work with Turkey and the Balkan countries on issues relating to labour and employment to ensure their successful accession to the European Union.<sup>1530</sup> The commission will provide recommendations and aid to address structural weaknesses in the education system, ensuring that youth enter the new and changing world of work with the appropriate skills and training.<sup>1531</sup>

On 14 April 2019, the European Commission approved a EUR9.2 billion investment in digital skills and infrastructure to ensure European workers have the skills necessary to combat the challenges of a digital and changing world of work.<sup>1532</sup> The investment will ensure widespread access to digital technologies and create training programs for artificial intelligence, supercomputing, and cyber security.<sup>1533</sup>

On 24 May 2019, the European Parliament Committee on Employment and Social Affairs completed its research into the state of adult learning and vocational training in the European Union.<sup>1534</sup> The final report calls for partnership between member states with well-established and successful training programs and those needing improvement to ensure all Europeans have equal opportunities to pursue lifelong learning and skill-building.<sup>1535</sup>

---

<sup>1527</sup> Employment and social developments in Europe: Record number of people in employment, but more investment in skills needed. European Commission (Brussels) 26 March 2019. Access Date: 1 June 2019.

<https://ec.europa.eu/social/main.jsp?langId=en&catId=791&furtherNews=yes&newsId=9330>.

<sup>1528</sup> MEPs adopted measures to reconcile work and family life. European Parliament Committee on Employment and Social Affairs (Brussels) 4 April 2019. Access Date: 4 June 2019. <http://www.europarl.europa.eu/news/en/press-room/20190402IPR34670/meps-adopted-measures-to-reconcile-work-and-family-life>.

<sup>1529</sup> MEPs adopted measures to reconcile work and family life. European Parliament Committee on Employment and Social Affairs (Brussels) 4 April 2019. Access Date: 4 June 2019. <http://www.europarl.europa.eu/news/en/press-room/20190402IPR34670/meps-adopted-measures-to-reconcile-work-and-family-life>.

<sup>1530</sup> Commission works with the Western Balkans and Turkey to boost competitiveness, long-term growth and job creation. European Commission (Brussels) 12 April 2019. Access Date: 1 June 2019.

<https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9350&furtherNews=yes>.

<sup>1531</sup> Commission works with the Western Balkans and Turkey to boost competitiveness, long-term growth and job creation. European Commission (Brussels) 12 April 2019. Access Date: 1 June 2019.

<https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9350&furtherNews=yes>.

<sup>1532</sup> EU plans to invest €9.2 billion in key digital technologies. European Parliament (Brussels) 4 April 2019. Access Date: 4 June 2019. <http://www.europarl.europa.eu/news/en/headlines/economy/20190410STO36624/eu-plans-to-invest-EU9-2-billion-in-key-digital-technologies>.

<sup>1533</sup> EU plans to invest €9.2 billion in key digital technologies. European Parliament (Brussels) 4 April 2019. Access Date: 4 June 2019. <http://www.europarl.europa.eu/news/en/headlines/economy/20190410STO36624/eu-plans-to-invest-EU9-2-billion-in-key-digital-technologies>.

<sup>1534</sup> Adult Learning policy and provision in the Member States of the EU. European Parliament Committee on Employment and Social Affairs (Brussels) 24 May 2019. Access Date: 4 June 2019.

<https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8215&furtherPubs=yes>.

<sup>1535</sup> Adult Learning policy and provision in the Member States of the EU. European Parliament Committee on Employment and Social Affairs (Brussels) 24 May 2019. Access Date: 4 June 2019.

<https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8215&furtherPubs=yes>.

The European Union has ensured all workers have access to the skills and education necessary to adapt and prosper in the new world of work brought by innovation through emerging technologies.

Thus, the European Union receives a score of +1.

*Analyst: Kathryn Mullins*