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# JOBS IN 2028

## HOW WILL CHANGING LABOUR MARKETS AFFECT IMMIGRANT INTEGRATION IN EUROPE?

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Integration Futures Working Group



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By Meghan Benton and Liam Patuzzi  
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For more on the Integration Futures Working Group, visit: [www.migrationpolicy.org/programs/integration-futures-working-group](http://www.migrationpolicy.org/programs/integration-futures-working-group).

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## EXECUTIVE SUMMARY

European labour markets are changing, with advancements in computing power, artificial intelligence, and robotics likely to transform the character and, perhaps, the number of jobs available. Growth sectors, such as digital technology and caring professions, are predicted to see rising labour shortages. Meanwhile, at the lower-skilled end of the labour market, digital platforms are driving the growth of the gig economy by connecting workers with customers for small pieces of freelance work. A range of apps, websites, and databases now enable individuals to sell their skills and services in diverse sectors, from handy man services (Task Rabbit) and food delivery (Deliveroo) to cleaning (Handy) and babysitting (Bubble). Many economists predict that the future labour market will be highly polarised, with a gulf between desirable, skilled employment and more precarious, low-skilled jobs. Against the backdrop of an ageing European population and budget tightening, these shifts will pose major challenges for labour regulations, education systems, employment services, and—although less commonly noted—for immigrant integration policy.

The implications of this shifting labour-market landscape for the integration of immigrants into European societies and economies are considerable. Looming labour-market changes could further complicate—or potentially alleviate—existing challenges in what is a highly complex policy area. Newcomers, especially those who arrive through family or humanitarian channels, have long struggled to find work commensurate with their skills and experience, and the 2015–16 migration and refugee crisis exacerbated many of these problems. Among the barriers immigrants may face when seeking stable jobs are difficulties transferring skills and credentials to a European context, precarious legal status (with greater numbers of newcomers living in legal limbo), and limited education and work experience. Governments across the continent are also grappling with how to help vulnerable, traumatised, or unskilled migrants find their footing in increasingly unstable and knowledge-driven labour markets.

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The price of not acting is high. At the minimum, it could significantly increase structural unemployment and intergenerational worklessness. At the extreme, it could drive social exclusion on a much larger scale or a dramatic expansion of the informal economy. While much is unknown about exactly how work will change in the coming decade, economic and social analysis offers four plausible scenarios for Europe in 2028:<sup>1</sup>

1. ***Extreme polarisation and rising inequalities of all stripes.*** In the worst-case scenario, a dramatic decline in low- and middle-skilled jobs receives little government preparation. More people are exposed to unstable or exploitative work conditions as untraditional work relationships become increasingly common (e.g., employee-sharing, job-sharing, zero-hour contracts, and remote work). Declining tax revenue and the growing cost of pensions leave little scope for investments in education and other social services, creating a vicious cycle in which even fewer people hold the mix of higher-level skills most in demand. Many immigrants are in poverty and/or at risk of exploitation. Illegal employment practices and the informal economy balloon.

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1 These scenarios were developed with the following conditions in mind: a mid- to large-sized Western European country with a continental welfare-state model, a solid middle class, a diversified (but slow-growth) economy based on services and industry with a backbone of small and medium-sized enterprises (SMEs), a well-developed digital infrastructure, a highly regulated labour market based on clearly defined professions and collective agreements, a workforce that cuts across all skill levels, and a considerable number of immigrants. These scenarios are, by necessity, somewhat simplified, but the dynamics they highlight can be useful in exploring slightly different contexts as well.

2. ***Slow transformation.*** New technologies that automate and digitise work create a smaller impact than anticipated. Digitisation eliminates some jobs but creates others. Meanwhile, gig-economy jobs reach a natural ceiling. Governments implement small changes: extending labour regulations and social protections to new forms of flexible work and shifting education systems to nurture soft and digital skills. Nonetheless, there is some growth in the informal economy and the number of migrants in precarious and exploitative positions.
3. ***Government-driven digital utopia.*** In the most proactive policy scenario, governments take a strategic role in planning for (and capitalising on) technological change. Cross-governmental task forces work with nongovernmental partners to transform education, social, and infrastructure policies and maximise the positive impact of digital technologies. Contingent and flexible workers enjoy labour protections and social-security coverage. A minimum basic income cushions periods of unemployment for those whose skills are in lower demand. It also helps those with creative business ideas or the desire to care for others leave their jobs to pursue these alternative means of contributing to society. Employment and career services are attuned to the needs of people who are seeking to apply their skills across occupational, geographical, or cultural borders.
4. ***Community-led entrepreneurialism.*** In the most optimistic laissez-faire scenario, the threat of unemployment (and the decline of traditional professional profiles) forces large portions of the population to explore new livelihood options. Online technologies and platforms make it easier and cheaper for microentrepreneurs to find a customer base for their products and services. Educational institutions and professional bodies see a decline in their authority as employers increasingly trust crowd-based and peer-to-peer tools to verify the skills of potential hires (e.g., LinkedIn and websites for demonstrating skills in practice, such as GitHub and Credly). The entrepreneurial boom enables some migrants and refugees to thrive, with previous cohorts supporting new arrivals and civil-society organisations offering microfinance grants to newcomers. However, with limited guidance, the failure rate of new businesses is high and many migrants remain at risk of poverty and social exclusion.

These scenarios, meant not as predictions but as tools to explore different policy strategies, indicate that policymakers could take several approaches to keep ahead of these trends—and to shift the needle away from the most negative and towards the most positive outcomes. A common thread running throughout these scenarios is that efforts to ready all workers for changing labour markets are similar to those needed to help newly arrived immigrants enter work. Integration policymakers thus have much to teach employment policymakers, and vice versa. For instance, as many more workers find themselves having to retrain and update their skills to remain in demand, well-functioning skills recognition systems (a long-standing integration challenge) will be needed to help employees translate their know-how across borders of all kinds: occupational, sectoral, and geographical. Alternative opportunities to contribute, such as volunteering, could become more critical to preventing social isolation for vulnerable groups that rely on social assistance. In stretched sectors such as elder care, governments could encourage volunteering as an alternative source of social value against the backdrop of an ageing population and under-resourced welfare systems.

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If more workers are employed on flexible contracts or through online platforms, countries will need to equip them with both the skills to navigate the challenges of living on a fluctuating income and working in a more solitary environment. New systems—such as special work protections tailored to untraditional employment situations—will also need to be implemented to protect them against loss of income. Finally, the promotion of lifelong learning and metaskills (such as learning how to learn) will have to be at the heart of any future workforce strategy. As governments position themselves to capitalise on labour-market change, strong foresight and strategy *in government*, alongside crossportfolio cooperation, will be needed to ensure these changes will be a windfall rather than a blight for immigrant and native-born workers alike.

# I. INTRODUCTION

Work is a key pillar of society. For individuals, it fosters economic self-reliance, creates social contacts, develops skills, and generates a sense of self-worth and of belonging to a community. For societies, it drives economic growth, produces wealth, and sustains the services that enable communities to function. Amid unprecedented levels of immigration to Europe that have fuelled fears of change and social disruption, governments frequently point to labour-market integration policy as the compass they will use to navigate the historic challenge ahead: to ensure that newcomers with a wide variety of national, cultural, and socioeconomic backgrounds find their place in European societies.

Migrants have long faced barriers to successful labour-market integration in Europe. These range from limited host-country language proficiency and a paucity of local networks to difficulties in having their skills recognised and overcoming employer discrimination.<sup>2</sup> Many of these obstacles were exacerbated by the 2015–16 migration and refugee crisis. The sharp increase in newcomers also brought new challenges, from an expanding number of people unable to access employment and social supports due to a lack of legal status (e.g., those who are awaiting adjudication of their asylum claims, or who have had asylum claims rejected but remain in the host country) to bottlenecks in education and employment services. Failure to address these barriers will have immediate effects, such as a swelling unemployment rate and a surge in public spending, but it could also have long-term ramifications, from intergenerational joblessness to social exclusion and marginalisation, and even a rise in crime and extremism. At the same time, high unemployment and the resulting loss of tax revenues could put European public budgets and welfare states under further strain. In light of the dramatic and still reverberating consequences of the economic crisis that began in the late 2000s, this is a risk that Europe can ill afford. A courageous approach to economic integration is needed.

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Added to these immigration-related challenges is a threatening unknown: disruptive labour-market change. Digital technologies are already transforming the nature (and perhaps also the number) of jobs on offer. But it is a matter of fierce debate exactly how worried societies ought to be about digitisation and automation. According to some estimates, a large volume of jobs (increasingly middle- as well as low-skilled jobs) are at risk.<sup>3</sup> Yet other commentators point to previous moments in history where predictions by economists about the impact of technology on jobs were not borne out.<sup>4</sup> What is clear is that much of the growth in future jobs will require a higher level of skills (and especially digital skills), making it likely that the future labour market will leave more migrants and disadvantaged native-born workers behind. The gig economy, which has boomed as online platforms such as Uber, TaskRabbit, and Upwork connect workers with customers for small pieces of freelance work, is already showing how migrants can end up with a raw deal as many struggle to piece together enough to subsist.

2 For an overview, see Demetrios G. Papademetriou and Meghan Benton, *Towards a Whole-of-Society Approach to Receiving and Settling Newcomers in Europe* (Washington, DC: Migration Policy Institute, 2016), [www.migrationpolicy.org/research/towards-whole-society-approach-receiving-and-settling-newcomers-europe](http://www.migrationpolicy.org/research/towards-whole-society-approach-receiving-and-settling-newcomers-europe).

3 Daron Acemoglu and David H. Autor, 'Skills, Tasks, and Technologies: Implications for Employment and Earnings' in *Handbook of Labor Economics*, ed. David Card and Orley Ashenfelter (Amsterdam: Elsevier, 2011); Carl Benedikt Frey and Michael A. Osborne, *The Future of Employment: How Susceptible Are Jobs to Computerisation?* (Oxford: Oxford Martin School, 2013), [www.oxfordmartin.ox.ac.uk/downloads/academic/The\\_Future\\_of\\_Employment.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf).

4 Melanie Arntz, Terry Gregory, and Ulrich Zierahn, 'The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis' (Social, Employment, and Migration Working Papers no. 189, Organisation for Economic Cooperation and Development Publishing, Paris, 2016), [www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries\\_5jlz9h56dvq7-en](http://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries_5jlz9h56dvq7-en).

For investments in immigrant labour-market integration to be effective in the long term, it is essential that policymakers pay attention to these dramatic shifts as they transform the world of work and the types and quality of future jobs. Understanding the intersection between work and integration is important to policymakers across portfolios, from those that pay the bills to those responsible for social cohesion. This report systematically unpacks the implications of labour-market change for the social and economic integration of immigrants in Europe, as well as the interactions between these policy areas. It identifies key trends in the digitisation of work, shifting demographics, globalisation, and cultural change. Against this backdrop, it then sketches four possible scenarios for how these forces may affect jobs; labour-market, education, and social policies; and migrant integration. It concludes by drawing out some of the key policy lessons and promising approaches for policymakers seeking to get ahead of the curve.

## II. KEY TRENDS AFFECTING WORK AND IMMIGRANT INTEGRATION

Foreign-born residents of Europe often encounter challenges in finding work, and they are disproportionately represented in low-skilled sectors characterised by lower job security and poorer working conditions.<sup>5</sup> Looking ahead, the overarching labour-market trends described in this section will affect all workers but are likely to have a particularly strong impact on immigrants and refugees, some in positive and others in negative ways.

### A. Digitisation

New digital technologies are already transforming the world of work. Fast-paced developments in computing power, artificial intelligence, and robotics are changing how work is conceived and organised, redefining its tasks as well as the relationships and skills needed to carry them out.<sup>6</sup>

5 Immigrants are over-represented in low-skilled jobs and more likely to be unemployed. According to the most recent estimates from 2014, which predate the European migration crisis, 22 per cent of first-generation migrants in work are in the lowest-skilled jobs ('elementary occupations') compared to 8 per cent of the native born (calculation based on data for 21 of 28 EU Member States as the others lacked complete data). See Eurostat, 'Employees by Migration Status, Educational Attainment Level, Occupation and Working Time [lfsq\_14leeow]', updated 3 June 2016, [http://ec.europa.eu/eurostat/web/products-datasets/-/lfsq\\_14leeow](http://ec.europa.eu/eurostat/web/products-datasets/-/lfsq_14leeow). The employment rate for foreign nationals in Europe during the penultimate quarter of 2017 was 63 per cent (compared to 69 per cent for the native born), but this gap was much greater in some countries, such as Sweden (which had a 18-point gap) and France and the Netherlands (each with a 14-point gap). See Eurostat, 'Employment Rates by Sex, Age and Citizenship (%) [lfsq\_ergan]', updated 24 March 2018, [http://ec.europa.eu/eurostat/web/products-datasets/-/lfsq\\_ergan](http://ec.europa.eu/eurostat/web/products-datasets/-/lfsq_ergan).

6 In the next five to ten years, increases in computer processing power, in the number of connected devices, and in the types of tasks that can be automated are all likely. In line with Moore's law (which predicts that computing power will double every two years), semiconductors and microchips are likely to be extremely cheap by 2025. Combined with universal network availability, greater bandwidth, and capacity for huge data management and storage, all businesses will then have powerful analytics at their disposal. Similarly, Cisco Internet Business Solutions Group (IBSG) estimates that by 2020 there will be 50 billion connected devices worldwide, equivalent to 6.6 per person. See Dave Evans, 'The Internet of Things: How the Next Evolution of the Internet Is Changing Everything' (white paper, Cisco IBSG, n.p., April 2011), [www.cisco.com/web/about/ac79/docs/jinnov/IoT\\_IBSG\\_0411FINAL.pdf](http://www.cisco.com/web/about/ac79/docs/jinnov/IoT_IBSG_0411FINAL.pdf). And computers such as those developed by Google's DeepMind are already able to take on intellectual and emotional tasks. See David Silver, et al., 'Mastering the Game of Go with Deep Neural Networks and Tree Search', *Nature* 529 (January 2016): 484–89, <https://storage.googleapis.com/deepmind-media/alphago/AlphaGoNaturePaper.pdf>.



Amidst this change, jobs may be eliminated or at least transformed. It is a matter of debate how many jobs are at risk, and projections differ across countries. According to famous estimates by economists Carl Benedikt Frey and Michael Osborne, almost half of all jobs in the United States<sup>7</sup> (and more than one-third of those in the United Kingdom)<sup>8</sup> are at risk of automation or digitisation. By contrast, a study published by the Organisation for Economic Cooperation and Development (OECD) estimated that only 9 per cent of jobs were at risk on average across OECD countries.<sup>9</sup> Workers are also likely to be affected differently depending on their industry, sector, and specific occupation. The World Economic Forum calculated a worldwide net loss of 5.1 million jobs in middle-skilled occupations, particularly in the office and administrative work sector.<sup>10</sup> A PricewaterhouseCoopers report also found significant sectoral variation, with wholesale and retail jobs—sectors that are large employers of migrants in many countries—likely to be heavily affected.<sup>11</sup> What makes it especially difficult to predict the impact of automation and digitisation is the fact that the new technologies driving these trends not only replace specific tasks or jobs, they enable organisations to rethink entire business models.<sup>12</sup>

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At the same time, the penetration of high-tech across economic sectors is creating new work opportunities, especially in knowledge-intensive areas. A 2015 study by empirica predicted that by 2020 the European labour market would be able to absorb 756,000 additional information and communications technology (ICT) workers, and that ‘e-leader’ jobs (those held by professionals with both ICT and management skills) will grow at a pace of more than 4.6 per cent annually until 2020; such positions are of particular importance as organisations adapt to technological advances such as Big Data and the Internet of Things.<sup>13</sup> Other forecasts for Europe predict job growth in the services sector and in nonroutine occupations that are at low risk of automation, such as child and elder care and social work.<sup>14</sup> In short, workers in occupations that are likely to be augmented rather than replaced by technology will count amongst the winners in the future world of work. It is also likely that many jobs will be created just as other disappear—however, thus far, there has been little focus among researchers or policymakers on how to help disadvantaged workers weather the shifting occupational and sectoral breakdown of European economies.

7 Frey and Osborne, *The Future of Employment*.

8 Carl Benedikt Frey and Michael A. Osborne, *London Futures—Agiletown: The Relentless March of Technology and London’s Response* (London: Deloitte, 2014), 7, <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/uk-futures/london-futures-agiletown.pdf>.

9 Arntz, Gregory, and Zierahn, ‘The Risk of Automation for Jobs in OECD Countries’. The difference between the Frey and Osborne study and the Organisation for Economic Cooperation and Development (OECD) one can be explained by methodology. Frey and Osborne estimate risk of automation by occupation; their estimate of 47 per cent is comprised of all occupations with more than a 70 per cent probability of being computerised. By comparison, the OECD argues that automation targets specific tasks not occupations as a whole. While occupations are likely to change as specific tasks are automated, very few occupations will be completely automated since even ‘high-risk’ occupations generally contain some tasks that will be difficult to automate.

10 Till Alexander Leopold, Vesselina Ratcheva, and Saadia Zahidi, *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution* (Geneva: World Economic Forum, 2016), 13, [www3.weforum.org/docs/WEF\\_Future\\_of\\_Jobs.pdf](http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf).

11 Richard Berriman and John Hawksworth, ‘Will Robots Steal our Jobs? The Potential Impact of Automation on the UK and Other Major Economies’, in *UK Economic Outlook* (London: PricewaterhouseCoopers, 2017), 34, [www.pwc.co.uk/economic-services/ukeyo/pwc-uk-economic-outlook-full-report-march-2017-v2.pdf](http://www.pwc.co.uk/economic-services/ukeyo/pwc-uk-economic-outlook-full-report-march-2017-v2.pdf).

12 For instance, consider the way that airline ticketing and check-in is now almost entirely digitised, or the way that digital banking has changed the character and form of bank customer service jobs. Thinking about what processes can be automated fails to capture these broader changes to workflow and process.

13 Tobias Hüsing, Werner B. Korte, and Eriona Dashja, ‘e-Skills in Europe: Trends and Forecasts for the European ICT Professional and Digital Leadership Labour Markets (2015-2020)’ (working paper, empirica, Bonn, November 2015), 22–33, [http://eskills-lead.eu/fileadmin/lead/brochure-lead/working\\_paper\\_-\\_supply\\_demand\\_forecast\\_2015\\_a.pdf](http://eskills-lead.eu/fileadmin/lead/brochure-lead/working_paper_-_supply_demand_forecast_2015_a.pdf).

14 European Commission, European Political Strategy Centre, ‘The Future of Work: Skills and Resilience for a World of Change’ (strategic notes issue 13, European Commission, Brussels, 10 June, 2016), 4–5, [http://ec.europa.eu/epsr/publications/strategic-notes/future-work\\_en](http://ec.europa.eu/epsr/publications/strategic-notes/future-work_en).

A related megatrend is the rise of the so-called gig economy. In many societies, an increasing number of workers no longer hold long-term jobs with a clear career ladder; instead, their relationship to a company is more flexible, having been hired as an independent contractor or consultant to complete a particular task or for a finite period of time.<sup>15</sup> By enabling employers to split up larger tasks and outsource them to a virtual crowd of on-demand freelance workers,<sup>16</sup> online platforms have redefined the way some types of work are organised, distributed, and performed. Examples range from transport platforms, such as Uber and Lyft, to freelancing platforms for higher-skilled work, including administration and web development (as facilitated by Upwork and Gigster, for example).

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Gig-economy jobs bring both benefits and challenges for workers. Benefits include autonomy, flexibility, and alternative pathways to employment for those who may have experienced difficulties finding work (including migrants and other workers who face discrimination).<sup>17</sup> Disadvantages include the flipside of this same flexibility—a level of career insecurity that makes it hard for people to plan their lives. Surveys of gig-economy workers point to a higher prevalence of income volatility and related challenges, such as difficulties saving or planning ahead financially and a greater reliance on payday loans that often come with high interest rates and fees.<sup>18</sup> Commentators disagree about the size of the gig economy and its potential for future growth,<sup>19</sup> though most do agree it is growing.<sup>20</sup> Moreover, the expansion of the ‘gig’ model into higher-skilled employment (for instance, through ‘Heal’ and ‘Sherpaa’, which have been called ‘the Uber for doctors’<sup>21</sup>) could fuel a broader shift towards flexible employment in a wider range of industries.

The rise of flexible and precarious work also extends far beyond the gig economy. This trend can be seen in the shift towards zero-hour contracts, temporary work, and flexible labour as the traditional employer-employee paradigm gives way to more flexible and short-term work relationships.<sup>22</sup> Although ‘standard’ contracts are still the norm, the balance is shifting, especially for certain age groups and sectors. For instance, the share of employment relationships in the European Union that are based on full-time permanent contracts

15 Gerald Friedman, ‘Workers without Employers: Shadow Corporations and the Rise of the Gig Economy’, *Review of Keynesian Economics* 2, no. 2 (April 2014): 171.

16 Eurofound, *New Forms of Employment* (Luxembourg: Publications Office of the European Union, 2015), 107–10, [www.eurofound.europa.eu/sites/default/files/ef\\_publication/field\\_ef\\_document/ef1461en.pdf](http://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1461en.pdf).

17 European Commission, European Political Strategy Centre, ‘The Future of Work’.

18 Diana Farrell and Fiona Greig, *Paychecks, Paydays, and the Online Platform Economy: Big Data on Income Volatility* (Washington, DC: JP Morgan Chase Institute, 2016), [www.jpmorganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf](http://www.jpmorganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf).

19 According to a 2016 estimate, the gig economy only makes up around 0.5 per cent of the U.S. labour market—the national economy in which this branch of economic activity is perhaps most developed. See Lawrence F. Katz and Alan B. Krueger, ‘The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015’ (Working Paper no. 22667, National Bureau of Economic Research, September 2016), [www.nber.org/papers/w22667](http://www.nber.org/papers/w22667).

20 In 2015, the estimated gross revenue from collaborative platforms in the European Union was 28 billion euros, almost double the amount for the previous year. See Marion Schmid-Drüner, ‘The Situation of Workers in the Collaborative Economy’ (working paper PE 587.316, European Parliament, Directorate-General for Internal Policies, Brussels, October 2016), 1, [www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL\\_IDA\(2016\)587316\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL_IDA(2016)587316_EN.pdf).

21 This expansion has not, however, been an entirely smooth one. One doctor who experimented with running a similar online-platform-driven house-call practice claims the model is time inefficient and has no potential to scale. See Jay Parkinson, ‘This Whole “Uber for Doctor House Calls” Idea is Basically Doomed’, *Quartz*, 2 January 2016, <https://qz.com/581151/an-uber-for-doctor-house-calls-will-inevitably-go-down-in-flames/>. Nonetheless, analyses of the online platform economy estimate that a large share of the sector’s growth is in high-skilled gig occupations. See University of Oxford, iLabour Project, ‘The Online Labour Index’, accessed 9 March 2018, <http://ilabour.oii.ox.ac.uk/online-labour-index/>.

22 International Labour Organisation (ILO), *Non-Standard Employment around the World: Understanding Challenges, Shaping Prospects* (Geneva: ILO, 2016), [www.ilo.org/global/publications/books/WCMS\\_534326/lang--en/index.htm](http://www.ilo.org/global/publications/books/WCMS_534326/lang--en/index.htm).

decreased from 62 per cent in 2003 to 59 per cent in 2016.<sup>23</sup> While more short-term/temporary arrangements bring certain benefits to employers, such as lower transaction costs and increased efficiency, they carry risks such as increased job insecurity and weakened workers' protections. There is also a risk that the rise of gig work could interact with other forms of vulnerability, such as the well-documented vulnerability of domestic workers (especially migrants) to exploitation.<sup>24</sup>

## B. Demographics

European countries are also feeling the effects of ageing populations, mainly due to increasing longevity and sustained low birth rates.<sup>25</sup> This trend has worrying economic and social implications. Skill shortages are emerging for certain professions, such as medical doctors, nurses, and midwives; science, technology, engineering, and mathematics (STEM) professionals; and teachers.<sup>26</sup> With a shrinking workforce relative to an increasing number of retirees, dependency ratios have also grown,<sup>27</sup> threatening the sustainability of pension and welfare systems. Although east-to-west intra-EU movements have largely mitigated the socioeconomic effects of an ageing population thus far, Eastern European countries are likely to experience demographic challenges of their own in the near future (see Figure 1). For example, it is estimated that Poland's median age will be 51 by 2050, among the highest in the European Union.<sup>28</sup> Moreover, large-scale emigration of young people from Eastern Europe has accentuated adverse demographic trends, slowing down growth and income convergence in Eastern European economies.<sup>29</sup>

23 Andrea Broughton, Martha Green, and Catherine Rickard, *Precarious Employment in Europe: Patterns, Trends and Policy Strategies* (Brussels: European Parliament, 2016), 11, [www.europarl.europa.eu/RegData/etudes/STUD/2016/587285/IPOL\\_STU\(2016\)587285\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/587285/IPOL_STU(2016)587285_EN.pdf).

24 For instance, a report from 2016 examined how domestic work platforms exacerbate the exploitation of domestic workers, and especially migrant domestic workers, including by enabling discrimination based on national origins. See Abigail Hunt and Fortunate Machingura, 'A Good Gig? The Rise of On-Demand Domestic Work' (working paper no. 7, Overseas Development Institute, London, December 2016), [www.odi.org/sites/odi.org.uk/files/resource-documents/11155.pdf](http://www.odi.org/sites/odi.org.uk/files/resource-documents/11155.pdf).

25 In the decade between 2006 and 2016, the EU-28 population of adults ages 65 and over increased by 2.4 percentage points, and this trend is expected to continue in the coming decades. By 2080, the 65+ population is expected to account for 29.1 per cent of the EU population, compared to 19.2 per cent in 2016. See Eurostat, 'Statistics Explained: Population Structure and Ageing', updated 20 July 2017, [http://ec.europa.eu/eurostat/statistics-explained/index.php/Population\\_structure\\_and\\_ageing](http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing).

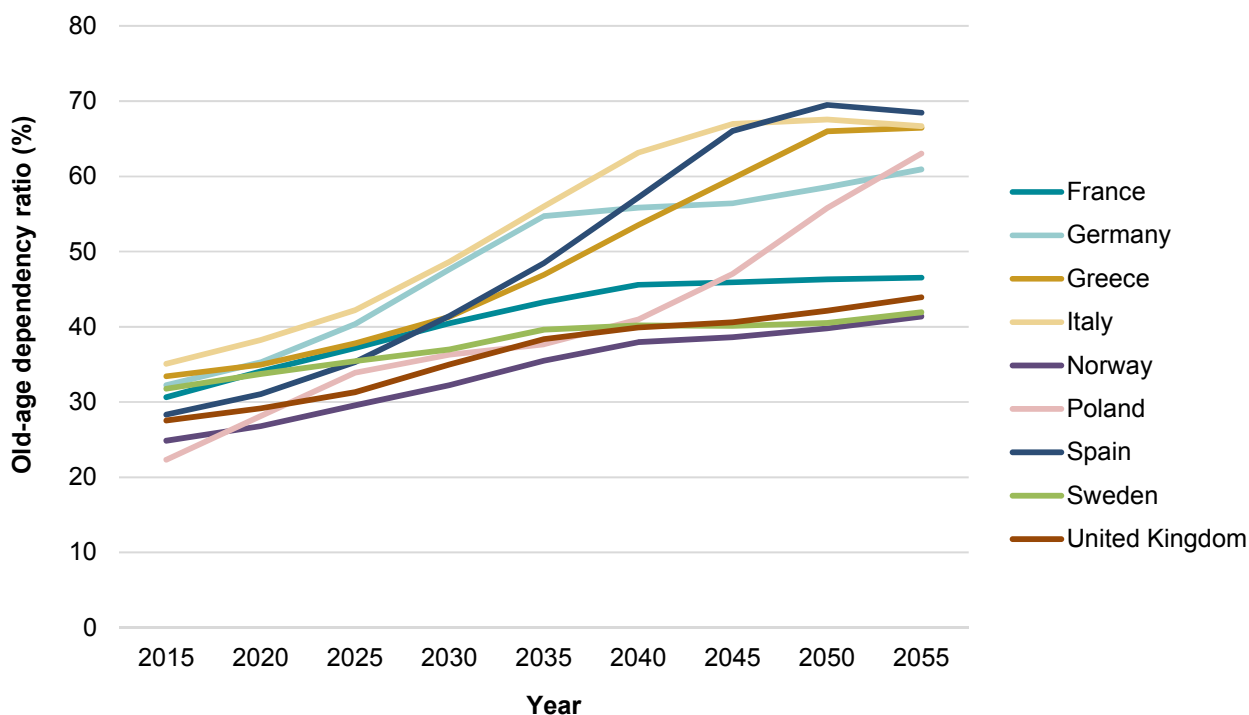
26 European Centre for the Development of Vocational Training, 'Skill Shortages in Europe: Which Occupations are in Demand – and Why', updated 25 October 2016, [www.cedefop.europa.eu/en/news-and-press/news/skill-shortages-europe-which-occupations-are-demand-and-why](http://www.cedefop.europa.eu/en/news-and-press/news/skill-shortages-europe-which-occupations-are-demand-and-why).

27 Forecasts point to a steady decline of the working-age population through 2050. And the old-age dependency ratio in the EU-28 is projected to almost double between 2016 and 2080 (from 29.3 per cent to 52.3 per cent). See *ibid.*

28 Xavier Devictor, 'Poland: Aging and the Economy', The World Bank, 14 June 2012, [www.worldbank.org/en/news/opinion/2012/06/14/poland-aging-and-the-economy](http://www.worldbank.org/en/news/opinion/2012/06/14/poland-aging-and-the-economy).

29 Ruben Atoyan et al., 'Emigration and Its Economic Impact on Eastern Europe' (staff discussion note 16/07, International Monetary Fund, Washington, DC, July 2016), [www.imf.org/external/pubs/ft/sdn/2016/sdn1607.pdf](http://www.imf.org/external/pubs/ft/sdn/2016/sdn1607.pdf).

**Figure 1. Projected old-age dependency ratios, select European countries, 2015–55**



*Note:* Old-age dependency ratios measure the proportion of people age 65 in a population relative to those ages 15 to 64. *Sources:* Authors' calculations using data from United Nations Department of Economic and Social Affairs (UN DESA), Population Division, 'Population Aged 65+ (Both Sexes Combined) by Country or Area 1950-2100 (Thousands)' (dataset, July 2015); UN DESA, Population Division, 'Population Aged 15-64 (Both Sexes Combined) by Country or Area, 1950-2100 (Thousands)' (dataset, July 2015).

Some European governments and EU institutions have taken steps to encourage groups underrepresented in the labour force, such as women,<sup>30</sup> elderly people, and immigrants, to seek employment.<sup>31</sup> In theory, this could lead to a greater diversity of work arrangements, including more that are flexible and suited to different ages and needs. However, it could also increase competition in certain occupations and sectors, especially at lower skill levels.

30 Increasing the labour-force participation of women is paramount to meeting the Europe 2020 target of having 75 per cent of all working-age adults employed by 2020, as repeatedly stressed by the European Commission. See European Commission, 'European Semester Thematic Factsheet: Labour Force Participation of Women' (fact sheet, European Commission, Brussels, 14 November 2016), [https://ec.europa.eu/info/sites/info/files/european-semester-thematic-factsheet\\_labour-force-participation-women\\_en.pdf](https://ec.europa.eu/info/sites/info/files/european-semester-thematic-factsheet_labour-force-participation-women_en.pdf). The labour-force participation of women has gradually increased across most advanced European economies since the 1980s, but significant differences exist between countries. The rate of this increase has also slowed somewhat over time, from approximately 12 percentage points in the 1980s and 7 percentage points in the 1990s to 6 percentage points in the 2000s. See Lone Christiansen et al., 'Individual Choice or Policies? Drivers of Female Employment in Europe' (working paper 16/49, International Monetary Fund, Washington, DC, March 2016), 10–11, [www.imf.org/external/pubs/ft/wp/2016/wp1649.pdf](http://www.imf.org/external/pubs/ft/wp/2016/wp1649.pdf).

31 One example is Germany's 2011 strategy to secure skilled personnel, devised by the Ministry of Labour and Social Affairs. It consists of five pillars, ranging from the increased activation of older and unemployed people to better labour-market integration of immigrants. See German Federal Ministry for Labour and Social Affairs (BMAS), *Fachkräftesicherung: Ziele und Maßnahmen der Bundesregierung* (Berlin: BMAS, 2011), [www.bmas.de/SharedDocs/Downloads/DE/fachkraeftesicherung-ziele-massnahmen.pdf?\\_\\_blob=publicationFile](http://www.bmas.de/SharedDocs/Downloads/DE/fachkraeftesicherung-ziele-massnahmen.pdf?__blob=publicationFile).

Other commentators have argued that the major challenge of an ageing population will be paying for social care, since most countries stand to be responsible for a large and growing share of people living with long-term conditions and complex needs.<sup>32</sup> As a result, it is likely that many communities will have to rely more on informal forms of elder and disability care (e.g., care provided by family members or volunteers).<sup>33</sup> Policy-makers are thus facing a dual challenge: expanding the share of the population in full, paid employment and tapping into the potential of informal caregiving. These two objectives, however, may not be compatible. An increase in the labour-force participation of women and older people, combined with the rise of smaller family units, is reducing the traditional pool of informal carers.<sup>34</sup>

While migration does not represent a solution to the problems associated with an ageing population in the long term, it can help mitigate the short-term effects of this trend and buy some time. According to Eurostat projections from 2010, in a no-migration scenario the EU labour force would shrink by 96 million people by 2060, compared to a dip of ‘only’ 42 million people in a baseline scenario in which migration does occur at a rate similar to that of 2010.<sup>35</sup> However, this will only be the case if migrants are able to join the workforce; if they are stuck in economic inactivity, the pressure on the productive population will become even less sustainable—making the dependency ratio worse, rather than better. And from an integration-policy perspective, even those unable to work in traditional jobs will need opportunities to meaningfully contribute and engage with the wider society, whether by offering informal care, volunteering, or some other means.

### C. Globalisation and migration

European labour markets are not only deeply interconnected with one another, they are also intrinsically tied to the global economy. New information, communication, and transportation technologies have lowered the costs of doing business internationally and dramatically increased the pace of crossborder transactions. However, these interdependencies have not benefitted everyone. They have also created widening domestic inequalities even at a time when global inequalities are shrinking.<sup>36</sup>

Because they are tied into global value chains, businesses are exposed to volatile markets and international competition. To be able to respond rapidly to unpredictable fluctuations, employers value workforce flexibility—the ability to hire and dismiss workers as demand dictates.<sup>37</sup> At the same time, the role of European workers in the global division of labour is constantly being renegotiated; a number of economic activities (especially un- and low-skilled jobs) are increasingly being relocated to other world regions, while European countries solidify their position as knowledge economies. Demand for foreign workers, whether intercompany transfers, high-skilled workers, or foreign entrepreneurs, is therefore likely to endure.

32 Halima Khan, *Five Hours a Day: Systematic Innovation for an Aging Population* (London: Nesta, 2013), [www.nesta.org.uk/report/five-hours-a-day/](http://www.nesta.org.uk/report/five-hours-a-day/).

33 Informal care already makes up the majority of care for persons over age 50 in most European countries. See Debbie Verbeek-Oudijk, Isolde Woittiez, Evelien Eggink, and Lisa Putman, *Who Cares in Europe? A Comparison of Long-Term Care for the Over-50s in Sixteen European Countries* (The Hague: The Netherlands Institute for Social Research, 2014), [www.scp.nl/english/Publications/Publications\\_by\\_year/Publications\\_2014/Who\\_cares\\_in\\_Europe](http://www.scp.nl/english/Publications/Publications_by_year/Publications_2014/Who_cares_in_Europe). Widespread cutbacks in the provision of publicly funded care are likely to increase the demand for informal care. See Marjolein L. Broese van Groenou and Alice De Boer, ‘Providing Informal Care in a Changing Society’, *European Journal of Ageing* 13, no. 3 (2016): 271–79, <https://link.springer.com/article/10.1007/s10433-016-0370-7>.

34 Emily M. Agree and Karen Glaser, ‘Demography of Informal Caregiving’, in *International Handbook of Population Aging*, ed. Peter Uhlenberg (New York: Springer, 2009).

35 Jörg Peschner, ‘The EU’s Growth Potential Vis-à-Vis a Shrinking Workforce’ (presentation slides, European Commission, Brussels, 24 February 2014), [www.oecd.org/els/mig/Peschner.pdf](http://www.oecd.org/els/mig/Peschner.pdf).

36 *The Economist*, ‘Globalisation Has Marginalised Many Regions in the Rich World’, *The Economist*, 21 October 2017, [www.economist.com/news/briefing/21730406-what-can-be-done-help-them-globalisation-has-marginalised-many-regions-rich-world](http://www.economist.com/news/briefing/21730406-what-can-be-done-help-them-globalisation-has-marginalised-many-regions-rich-world).

37 Future of Work Institute, *The Benefits of Flexible Working Arrangements: A Future of Work Report* (London: Hot Spots Movement, 2012), 9–10, [www.bc.edu/content/dam/files/centers/cwf/individuals/pdf/benefitsCEOFlex.pdf](http://www.bc.edu/content/dam/files/centers/cwf/individuals/pdf/benefitsCEOFlex.pdf).

Another visible consequence of globalisation—and one the 2015–16 refugee crisis once again brought to the fore—is the large flow of migrants across international borders. While it is admittedly very hard to make predictions about future migration to Europe,<sup>38</sup> particularly unmanaged migration, it is likely that immigration pressures will remain strong. For one thing, some of its main underlying causes (political instability in neighbouring states as well as huge inequalities in economic opportunities and standards of living) are not going to be resolved in the short term. On top of this, political agreements and policy measures that aim to decrease inflows have mostly worked as temporary stop-gaps, with migration flows quick to adapt to changing conditions.<sup>39</sup>

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The growth of mixed flows of migration to Europe—complex, unmanaged movements of people that include asylum seekers as well as migrants hoping to find jobs or reunite with family members—has already led to an increase in the number of newcomers without a legal right to remain in Europe.<sup>40</sup> As only a small portion of these migrants decide to leave their host country voluntarily, and even fewer get deported, the consequence is a rise in the number of migrants in a precarious situation, often subject to restrictions on their use of public services and barred from accessing to the labour market. This group of people—de facto a part of the host-country society—is drawn into irregular work and vulnerable to exploitative practices, risking the creation of a disenfranchised underclass in the heart of Europe.

## D. Culture and values

The trends outlined so far all contribute to the growing diversity of lifestyles in Europe and beyond. Digital technologies are blurring the boundaries between private, public, and professional life, and people are seeking greater autonomy in how they organise their working and free time. For example, according to one survey, ‘millennials’ (people born between roughly 1977 and 1997) expect to have a better work-life balance and more job satisfaction than their parents. Many also expect to change jobs more frequently, with 91 per cent reporting they expect to stay in a job for fewer than three years.<sup>41</sup>

The increasing labour-market participation of women, changing gender roles (including in terms of parenting), and the rising share of workers with care responsibilities for an ageing and/or infirm relative have led to greater diversity of needs and preferences when it comes to balancing work and family responsibilities. Recent immigration flows, and the cultural and religious diversity they bring, also suggest that lifestyles in European societies will become even more heterogeneous in decades to come.

38 Global Migration Data Analysis Centre, ‘Migration Forecasting: Beyond the Limits of Uncertainty’ (data briefing issue no. 6, Global Migration Data Analysis Centre, Berlin, November 2016), [https://gmdac.iom.int/sites/default/files/gmdac\\_data\\_briefing\\_series\\_issue\\_6.pdf](https://gmdac.iom.int/sites/default/files/gmdac_data_briefing_series_issue_6.pdf).

39 Kathleen Newland with Elizabeth Collett, Kate Hooper, and Sarah Flamm, *All at Sea: The Policy Challenges of Rescue, Interception, and Long-Term Response to Maritime Migration* (Washington, DC: Migration Policy Institute, 2016).

40 A 2016 study from the European Migration Network (EMN) pointed out that, while the proportion of first-instance negative asylum decisions decreased between 2010 and 2015 (largely due to the arrival of large numbers of Syrian asylum seekers, who have had high recognition rates), the absolute number of rejections increased from 191,000 in 2011 to 209,000 in 2014 and further to 296,000 in 2015. See EMN, *The Return of Rejected Asylum Seekers: Challenges and Good Practices* (Brussels: European Commission, Directorate-General for Migration and Home Affairs, 2016), 2, [https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/european\\_migration\\_network/reports/docs/emn-studies/emn-studies-00\\_synthesis\\_report\\_rejected\\_asylum\\_seekers\\_2016.pdf](https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/european_migration_network/reports/docs/emn-studies/emn-studies-00_synthesis_report_rejected_asylum_seekers_2016.pdf).

41 Data from the Future Workplace Multiple Generations @ Work survey, cited in Jeanne Meister, ‘The Future of Work: Job Hopping is the “New Normal” for Millennials’, *Forbes*, 14 August 2012, [www.forbes.com/sites/jeannemeister/2012/08/14/the-future-of-work-job-hopping-is-the-new-normal-for-millennials/](http://www.forbes.com/sites/jeannemeister/2012/08/14/the-future-of-work-job-hopping-is-the-new-normal-for-millennials/).

At the same time, widening socioeconomic gaps and the concentration of financial and political clout in older generations have exacerbated age-based social divides in several parts of Europe. Especially in crisis-ridden countries (e.g., Greece, Italy, and Spain), many younger workers face limited opportunities to get their foot on the career ladder, and some have found themselves excluded from the labour market entirely.<sup>42</sup> This sense of an age divide is amplified by the rapid pace of technological progress, with older and younger generations differing in both communication styles and in how they engage with the world. Digital technologies have encouraged hyperconnectivity, in some ways replacing traditional communities with new group identities: people can interact with peers who share their preferences, worldviews, interests, and values across the world, but they may be less likely to know their neighbours.<sup>43</sup> Flexible work arrangements—such as remote and freelance work—are well suited to accommodating different preferences in time management, geographical mobility, and social interactions, and they are thus likely to grow exponentially in coming decades.

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In sum, the world of work is expected to become more heterogeneous at the same time as the European workforce becomes more diverse with respect to gender, age, cultural background, and individual preferences. As the four megatrends described in this section interact, European societies are likely to experience the following key labour-market changes:<sup>44</sup>

- **The legal organisation of work.** The employer-employee relationship dominates at present, but self-employed, freelance, and other less conventional forms of work (e.g., job sharing, employee sharing, casual work, portfolio work, and crowd employment) are likely to expand.
- **The duration of employment relationships.** In the past, most employees held one job with one employer for a relatively long time. In the future, short-term posts and multiple job changes (both chosen and forced) are likely to become more common.
- **The location and rhythm of work.** Most work takes place in an office (or other physical workplace) and to a rhythm dictated by the employer. In the future, jobs will be less tied to a single place, giving employees greater autonomy to decide the location. Virtual collaboration will increasingly replace conventional team meetings.
- **Time of professional education.** Presently, education mostly happens in a concentrated period before a person enters the labour market. In the future, lifelong learning will become more important, as frequent job changes will require constant adaptation and acquisition of new skills. Workers will also have a greater responsibility to decide the time and content of this new learning as they move through their careers.

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42 Katrin Oesingmann, 'Youth Unemployment in Europe', *ifo DICE report* 1/2017, no. 15 (March 2017), [www.cesifo-group.de/DocDL/dice-report-2017-1-oesingmann-march.pdf](http://www.cesifo-group.de/DocDL/dice-report-2017-1-oesingmann-march.pdf).

43 UK Government Office for Science, *Future Identities* (London: UK Government Office for Science, 2013), 8, [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/273968/13-524-future-identities-changing-identities-summary.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/273968/13-524-future-identities-changing-identities-summary.pdf).

44 See Cornelia Daheim and Ole Wintermann, *2050: Die Zukunft der Arbeit* (Gütersloh, Germany: Bertelsmann Stiftung, 2016), 16, [www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/BST\\_Delphi\\_Studie\\_2016.pdf](http://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/BST_Delphi_Studie_2016.pdf).

- **Form of professional education.** Education, at present, tends to take place in a particular setting as well as at a particular time. It is also organised around certified diplomas issued by recognised institutions. In the future, both the ‘when’ and ‘where’ of professional education will become more flexible and certification will increasingly occur through peer review processes.
- **Demands for new skills.** A degree of ICT competence will be essential for all workers—and in many industries, it already is. As the traditional hierarchical employment relationship gives way to more autonomous forms of work, entrepreneurial and self-management skills will also become essential. Metaskills, such as ‘learning to learn’, are likely to take on new importance as technical expertise changes rapidly in growth sectors such as software development.<sup>45</sup> Finally, the development of soft skills such as creativity and critical thinking will put workers in good stead as they are difficult (if not impossible) to automate.<sup>46</sup>

### III. LABOUR-MARKET SCENARIOS: 2028

It is unclear exactly how, to what degree, and at what pace these intersecting trends will reshape European labour markets. However, setting out how some of these trends may play out along different dimensions can help policymakers prioritise resources today. Developing alternative future scenarios is a technique commonly used in the field of foresight or futures studies to help decisionmakers plan for different eventualities, while acknowledging knowledge constraints. With a huge variety of factors and variables at play, analysis must draw from different disciplines (sociology, psychology, engineering and technology, and political science) and consider different units of analysis (individual, national, regional, and global). And developments in the world of work are hardly predetermined: they are shaped (and can be reshaped) by human choices and policy decisions.

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While a host of predictions exist about future labour-market changes, none has systematically mapped how these trends may interact with migrant integration. This section presents four broad scenarios that may unfold in Europe over the next decade; these are sketched out in Table 1 and examined in more depth in the subsections that follow. Although these scenarios were developed based on certain generalised characteristics of a Western European welfare state,<sup>47</sup> the dynamics they highlight hold important questions and policy implications for a wide variety of societies.

45 For a more in-depth discussion of this argument—and of the opportunities the tech industry holds for refugees—see Ben Mason, *Tech Jobs for Refugees: Assessing the Potential of Coding Schools for Refugee Integration in Germany* (Brussels: Migration Policy Institute Europe, forthcoming).

46 Hasan Bakhshi, Carl Benedikt Frey, and Michael Osborne, *Creativity vs. Robots: The Creative Economy and the Future of Employment* (London: Nesta, 2015), [www.nesta.org.uk/report/creativity-vs-robots/](http://www.nesta.org.uk/report/creativity-vs-robots/).

47 These general characteristics include: a mid- to large-sized Western European country with a continental welfare-state model, a solid middle class, a diversified (but slow-growth) economy based on services and industry with a backbone of small and medium-sized enterprises (SMEs). It has a well-developed digital infrastructure, a highly regulated labour market based on clearly defined professions and collective agreements, a workforce that cuts across all skill levels, and a considerable number of immigrants.



**Table 1. Four possible scenarios for European societies in 2028**

	Technological change	Labour markets and welfare	Education, health, and social services	Immigrant integration
<b>Scenario 1</b> <i>Digitisation causes extreme job polarisation and rising inequalities</i>	Hollowing out of low- and middle-skilled sectors leads to more competition for low-skilled jobs and the rise of flexible gig work.	Rising unemployment and atypical employment relationships lead to a loss of tax revenue and, as a result, to reductions in welfare and pension budgets.	Public services and education systems are caught on the back foot and are slow to adapt, which puts service providers under severe strain.	The number of people with irregular status grows, and many are forced into the shadow or gig economy. Labour standards are eroded, exploitation is rife, and anti-immigrant sentiment prevalent.
<b>Scenario 2</b> <i>Slow transformation as automation and digitisation create a smaller than anticipated impact</i>	New technologies do not have the anticipated effects; digital-platform jobs reach a natural ceiling and employer-employee relationships persist. Governments 'luck out', despite limited planning.	Governments work with social partners to extend labour regulations and social protection to new and more flexible forms of work, including self-employment and on-demand work.	Some aspects of education systems are adapted, including greater emphasis on soft and digital skills. But adult education systems do not change to reflect new realities (e.g., needs for retraining and second-chance opportunities).	Barriers to work persist and limited efforts are made to tackle 'brain waste' among skilled newcomers. Growth is seen in the number of failed asylum seekers and irregular migrants, and in the informal economy.
<b>Scenario 3</b> <i>A government-driven digital utopia</i>	New technologies eliminate some jobs but create others. Governments work with private-sector, nonprofit, and research partners to harness digitisation in education, social policy, and infrastructure, creating a race to the top in digital technologies.	Technology boosts competitiveness and productivity, and employment rates surge. Extra tax revenue is funnelled into education systems and used to fund a minimum basic income to cushion those unable to find work; these measures encourage risk-taking and entrepreneurship.	Schooling focuses on metaskills (learning to learn, creativity, and problem-solving). Personalised learning helps children from disadvantaged backgrounds catch up. State-funded lifelong-learning opportunities help people retrain, and responsive employment services offer quality advice.	Immigrants plug gaps in skills and experience while on the job, taking advantage of innovative methods of skills assessment and training. Very low-skilled immigrants can rely on the basic income to survive but are encouraged to volunteer in their communities.
<b>Scenario 4</b> <i>Community-led entrepreneurialism</i>	Many jobs are replaced by machines or moved to other countries where labour costs and protections are lower. The threat of unemployment encourages large swathes of the population to set up businesses, ushering in an age of entrepreneurial and freelance activity.	Public budgets suffer a loss of tax revenue. Public spending decreases across multiple areas, from welfare to public libraries. Some of these gaps are plugged by social enterprises. To encourage economic activity, governments drastically cut red tape for entrepreneurship.	Educational institutions and professional bodies see their authority decline as employers turn to crowd-based and peer-to-peer tools to verify the skills/ experience of potential hires.	The entrepreneurial boom makes it easier for immigrants to become economically active. Digital platforms offer opportunities for disadvantaged workers to increase their income through casual and contingent work. But the risk of social exclusion and poverty increases among those who cannot find work.

These scenarios, which are provocative rather than predictive, beg important questions about the kind of world European policymakers and members of the public want to live in—or avoid living in. They also suggest certain next steps that need to be taken and key decisions that need to be made for this world to materialise.

## *Scenario 1. Extreme job polarisation, rising inequality*

In this extreme scenario, advancements in robotics and artificial intelligence produce machines able to perform highly complex cognitive tasks by 2028. Digitisation and automation dismantle large numbers of jobs, particularly in low- and middle-skilled sectors. These disruptive changes catch policymakers unprepared, leading to massive unemployment, a declining middle class, rising income inequality, and—against the backdrop of an increasing number of people with precarious immigration status—a fast-growing informal economy.

For displaced workers in mid-level jobs, upskilling to high-skilled occupations proves difficult. As a consequence, the lower-skilled segment of the employment market becomes more crowded and competitive at a time when many of these jobs have been relocated to other countries where the prevailing wage and production costs are lower. To encourage job creation and combat rising unemployment, governments permit a wider range of flexible contracts. Low- and middle-skilled jobs that are not easily exportable (e.g., social and care professions) see atypical work relationships expand, but these are not adequately covered by labour and social protections.

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*Flexible, informal gig work may be available and accessible, but it is also unreliable and unstable.*

At the high-skilled end of the labour market, things look somewhat more positive. Technological change ushers in a new wave of knowledge-intensive, creative jobs.<sup>48</sup> People who are well educated, have a mastery of digital skills, and can quickly adapt in a volatile labour market are presented with highly profitable work opportunities. But even for these high-skilled workers, flexibility and precariousness become the norm; many young people find it necessary to piece together careers from a combination of multiple short-term contracts and remote work.<sup>49</sup>

The loss of tax revenues and social contributions—caused by growing unemployment and atypical employment relationships that are poorly regulated and taxed—strain public budgets. Welfare benefits and pensions must be drastically reduced, and a growing number of elderly people cannot afford to retire. As some older people remain in work for longer, competition for low-skilled jobs in particular further intensifies. Those who cannot stay in employment due to the infirmities of old age will largely have to rely on informal care.

Migrants are among the primary losers in this scenario. Flexible, informal gig work may be available and accessible, but it is also unreliable and unstable, with only minimal benefits and labour protection. Many are at risk of poverty and/or exploitation by unscrupulous employers. Harsh competition for low-skilled positions feeds anti-immigrant rhetoric and discrimination. To earn a living, many migrants are forced into the shadow economy, often organised along ethnic/national lines, contributing further to public backlash and marginalisa-

48 For instance, experts predict that many future jobs in high-income countries will be characterised by innovation, coping with complex information and decision-making amidst uncertainty, and interpersonal interactions. See Werner Eichhorst, 'Labor Market Institutions and the Future of Work: Good Jobs for All?' (IZA Policy Paper No. 122, Institute of Labour Economics, Bonn, Germany, January 2017), 6, <http://ftp.iza.org/pp122.pdf>.

49 For a commentary on how the gig economy is influencing scientific research, see Roberta Kwok, 'Flexible Working: Science in the Gig Economy', *Nature* 550 (2017): 419–21, [www.nature.com/nature/journal/v550/n7676/full/nj7676-419a.html](http://www.nature.com/nature/journal/v550/n7676/full/nj7676-419a.html).

tion. Against the backdrop of eroding safety nets and public services, they fall back on solidarity networks within their communities. Neighbourhoods—as well as schooling, health care, and other services—are increasingly segregated. As a consequence, younger generations lack bridging social capital (relationships with people different from them) and host-country language skills.

Efforts to improve skills-recognition systems, which would enable immigrant workers to have the credentials and expertise they earned abroad recognised more easily by host-country employers, are neglected. This is due in part to ever tighter public budgets and under-resourced public education systems. The growing polarisation of the labour market also reduces incentives to seek recognition for credentials needed for a dwindling number of mid-skilled professions, while the rapid evolution of technology (and associated changes to curricula and in-demand skills) make the outcome of recognition procedures uncertain and quickly outdated.

The shrinking workforce, combined with an education system that fails to keep pace with changing labour-market needs, leads to skill gaps in certain knowledge-intensive occupations. Some of these shortages are filled via targeted immigration schemes for high-skilled workers, but governments lack the political capital to invest in forward-looking selection systems because of greater competition for jobs and resentment towards foreign workers; as a result, the skilled-immigration policies on the books are generally ill-suited to bringing in the entrepreneurs or workers that would most benefit high-growth sectors.

For irregular migrants, the situation is markedly worse. With labour protections weakened or non-existent in many sectors (and fear of employer retaliation, detention, or deportation high), they are routinely exploited and have few outlets to report unfair treatment. This fuels a perception among majority populations that migrants are undercutting wages and dragging down labour standards. Many migrants face social stigma in addition to labour-market barriers, and they are unable to offer a leg up to their children. This creates a cycle of intergenerational disadvantage. As segregation and precarious work arrangements undermine a broader sense of social and political community, ethnic feelings of belonging and religious sentiment become more important to many people.

## *Scenario 2. Slow transformation*

In a second, slightly less dramatic scenario, new technologies automate certain tasks but do not lead to the same level of extensive job loss. Education bodies proactively adapt to changing skill requirements (and to the need to foster soft skills). A tax on robotic work softens the pace of transformation and puts some financial resources at governments' disposal to design policies to help workers weather change, including investments in education and labour-market policy.

The more modest pace and scale of change allows government and its social partners to progressively extend labour regulations and social protection to new and more flexible forms of work, including self-employment and on-demand work. While this leads to better protection of atypical workers, it also makes them more costly and therefore less attractive to companies. The gig economy reaches a natural ceiling once efforts by digital platforms to expand into health and elder care cause a series of high-profile disasters, forcing them to scale back their operations to their original models.<sup>50</sup> And while some high-skilled fields, such as medicine and scientific research, experiment with splitting jobs into 'gigs', this proves inefficient and costly. Competition for high-value workers becomes so fierce that employers reward loyalty more than ever.<sup>51</sup>

50 Commenting on the aforementioned 'Uber for Doctors' model, one pioneer of this movement claimed it was ill-suited to care work because economies of scale were impossible. See Parkinson, 'This Whole "Uber for Doctor House Calls" Idea is Basically Doomed'.

51 Eichhorst, 'Labor Market Institutions and the Future of Work', 9.

However, with no proactive strategy to maximise the benefits of digitisation, many areas of the economy miss the boat. This leads to less growth and a dip in tax revenues, undermining national competitiveness. In turn, the government responds by making unemployment and subsistence benefits more conditional on job-seeking and/or participation in training; but without consultation with private-sector stakeholders, these activities are backward- rather than forward-facing and encourage people to train for jobs that presently exist but are rapidly disappearing, rather than those that will exist in the future.

Meanwhile, employers prize skills such as digital competence, self-management, resilience and adaptability, and entrepreneurialism. Some education systems begin to adjust to this new reality, expanding the use of digital technologies in the classroom and nurturing cognitive and creative skills. However, troubling gaps persist between children with and without a migrant background, and many culturally and linguistically diverse children do not have access to more forward-looking programmes. Adult education systems remain underdeveloped, with lifelong learning accessible only to those whose initial training took place in the domestic education system. Employment and career-advice services are not well attuned to newcomers or career-changers seeking a second chance to enter a new sector of the labour market.

Since the dominant form of work relationships does not change, migrants face the same barriers to work as ever. These are reinforced by the limitations of the public education system when confronted with new levels of student diversity; with schools unprepared to serve newcomers with different levels of prior education, host-country language proficiency, and support needs, a disproportionate share of migrant-background students are left without fundamental abilities such as digital proficiency. Workplaces become more diverse, but immigrants who arrive with credentials or work experience earned abroad are generally employed below their level of qualification and have fewer chances for career progression. Within this generally bleak picture, there are some good practices: for instance, anonymous CVs and recruitment processes that cut down on employer discrimination become the norm.

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*Since the dominant form of work relationships does not change, migrants face the same barriers to work as ever.*

Public investments in systems to improve the economic integration of un- or underemployed persons, including migrants, are significant. Yet, as with adult education more broadly, many of these programmes focus on skills that are becoming obsolete, and governments fail to see the desired returns on their investments. To respond to the growing diversity of their clientele, public employment services become more personalised and sensitive to cultural needs (for instance, women can request female caseworkers). But their approach is still predominantly reactive rather than preventive; they intervene in situations of unemployment, but do not offer adequate ongoing support to people in employment. In short, they are a poor fit for a labour market in which people must continually update their skills. They also lack the buy-in of employers, who generally use other channels to recruit high-value candidates.

The time it takes to process asylum claims decreases significantly, due to the hiring of more staff and streamlining of procedures. As waiting times get shorter, the restrictions on asylum seekers' access to work that were suspended in many European countries during the 2015–16 crisis are reinstated. Asylum seekers whose applications are rejected generally turn to the informal economy for work, rendering them vulnerable to exploitation. Meanwhile, underemployment is rife among those granted refugee status and other migrants with legal status. While governments make significant investments in tools for assessing formal and informal skills, these processes are costly and slow. Rigidly defined occupational profiles mean that, in practice, newly arrived immigrants are forced to retrain completely rather than plug gaps in their existing skills and experience before re-entering their profession.

### *Scenario 3. Government-driven digital utopia*

In the third labour-market scenario, all aspects of work are transformed by technology—but with fewer dire consequences. While many jobs disappear, others are created. Cultural norms shift away from traditional work settings, and public policies (such as investments in lifelong learning and a safety net for workers unable to attain a threshold of income) enable people to take greater risks and/or juggle multiple projects and freelance opportunities. This flexibility lubricates the labour market, and employment gaps begin to disappear between disadvantaged groups (such as minorities or women) and their counterparts.

Government is a major driver of these advances—but often through innovative partnerships with others. Thanks to large public investments in foresight teams and frequent consultations with social partners and other experts (researchers, social innovators, education providers, business incubators, and migrant and community associations), government economic policies reap the benefits of changes in the global economy. Rather than passively enduring or reactively coping with digitisation, government, business, and other partners proactively lead the charge, using digital technologies to transform education, social, and infrastructure policies.<sup>52</sup> In turn, technology boosts competitiveness and productivity, and employment rates surge. A replenished public purse enables the government to invest more comprehensively in education.

Digital technologies usher in an era of more flexible employment practices (e.g., job sharing, employee sharing) and more diverse working relationships, which are helpful in accommodating diverse and changing values among workers. Many people are involved in multiple projects or scale their responsibilities up or down from year to year depending on their family or other commitments. This flexibility is buttressed by legal and institutional reforms that ensure contingent workers enjoy labour protections and social-security coverage. Employers focus on addressing stress and the negative sociopsychological consequences of excessive work hours, mobile working, and constant pressure to be on call.<sup>53</sup> However, greater flexibility also means that more organisations contract out for certain tasks instead of developing the skills in-house. As employers retain only a small core workforce, labour-market segmentation increases. A minimum basic income (set at a higher rate than social assistance) cushions workers during periods of unemployment, while helping those with business ideas take risks.

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*Rather than passively enduring or reactively coping with digitisation, government, business, and other partners proactively lead the charge.*

Education is at the heart of these shifts. Policymakers restructure education systems from start to finish, focusing curricula on metaskills (including learning to learn, resilience, entrepreneurialism, and problem-solving). Schools take a personalised approach to teaching that emphasises individual strengths and adapts to different learning needs/styles and, for newcomers, extent of prior education. Education and training systems are more accessible to people in work, offering opportunities for them to retrain or upskill midcareer, and they harness the latest virtual and/or blended learning tools. Cross-governmental task forces ensure that education, employment, and integration services are all equipped to serve a diverse population, including migrants.

A more fluid and continuous approach to education and training helps immigrants bridge skill gaps and adapt to host-country labour markets. Employers recognise the opportunities of combining work and learning, enabling newcomers to strike a balance between fast entry to work and steady career progression—and, as a result, real prospects for social mobility. In close cooperation with businesses, the government creates more sophisticated and precise tools to assess skills using digital technologies and simulators. While the creation of

52 This has been characterised as ‘accelerated digitalisation’ by the German Federal Ministry of Labour and Social Affairs. See BMAS, ‘Work 4.0’ (white paper, BMAS, Berlin, March 2017), [www.bmas.de/SharedDocs/Downloads/EN/PDF-Publikationen/a883-white-paper.pdf;jsessionid=4D8AF3E3426B002A8047B6E61DFCC02?\\_blob=publicationFile&v=3](http://www.bmas.de/SharedDocs/Downloads/EN/PDF-Publikationen/a883-white-paper.pdf;jsessionid=4D8AF3E3426B002A8047B6E61DFCC02?_blob=publicationFile&v=3).  
 53 Eichhorst, ‘Labor Market Institutions and the Future of Work’, 16.

quality systems is expensive, the costs of scaling them up are relatively contained, thanks to this reliance on digital technologies.

Economically inactive individuals who are farthest from entering the labour market (e.g., native- and foreign-born persons with few in-demand skills) are nonetheless able to live a dignified life with state support (minimum income). The social security system seeks to encourage active participation in society through other means, offering income top-ups for those who volunteer, provide community support, or participate in training. Groups at risk of marginalisation thus acquire precious social and cultural capital as well as language skills; this fosters a feeling of belonging and empowerment, and increases the chances of intergenerational mobility.

Unauthorised migrants and rejected asylum seekers are excluded from the basic income scheme and only receive a low subsistence allowance; the government and its social partners consider this necessary to guarantee the financial and political sustainability of the welfare state. Nonetheless, those in irregular work under exploitative conditions are encouraged to seek counselling and help through a system of incentives. Although irregular migrants cannot officially be union members, trade unions counsel them with regard to exploitative practices, which undercut labour standards and wages for all workers. Eventually, more robust labour enforcement reduces incentives for employers to hire unauthorised immigrant workers, and the government creates some pathways through which these immigrants can apply to legalise their status, breaking the cycle of precarity.

#### *Scenario 4. Community-led entrepreneurialism*

In this laissez-faire scenario, many jobs are replaced by machines or moved to other countries with lower labour costs and protections. Public budgets suffer declining tax revenues, depleting funds for welfare and public service. But the threat of unemployment (and decline of traditional professional profiles) has an unexpected positive effect: large portions of the population get creative and find alternative means of subsistence. Entrepreneurial and freelance activity blossoms. Faced with limited funds and out of policy ideas, the government responds by cutting red tape for such activities. However, they also cut business supports (e.g., public start-up grants), which stifles innovation in some sectors.

The government's retreat from core services such as adult education, public libraries, and neighbourhood parks opens several market niches that are filled by small private providers. At the same time, online technologies and platforms make it easier and cheaper for microentrepreneurs to find a customer base for their products and services.<sup>54</sup> Online platforms also offer increased opportunities for cooperative work through which people can build teams and put their skills and experience to use. Digital work marketplaces inject new transparency in labour markets and enable inactive, unemployed, or part-time workers to increase their income through casual and contingent work.<sup>55</sup> Self-employment replaces full-time employment within an organisation as the predominant form of work. Besides protecting a displaced workforce from losing their livelihood, this surge in independent work helps reduce inequality to a certain extent; in this crowd-based model of capitalism, large parts of the workforce transition from labour providers to capital owners.<sup>56</sup>

With the decline of traditional professions, the authority of educational institutions, professional bodies, and the state in certifying professional competences fades. Employers and employees alike come to prefer peer-reviewed forms of certification and skills recognition as the boundaries between formal credentials and informal

54 For instance, Arun Sundararajan argues that 'platforms with robust digital trust systems that match demand for services with suppliers could stimulate a self-employed and entrepreneurial population, empower it to reach global markets, and raise its standard of living by building individual capital.' See Arun Sundararajan, 'The Future of Work', *Finance and Development* 54, no. 2 (June 2017): 6–11, [www.imf.org/external/pubs/ft/fandd/2017/06/sundararajan.htm](http://www.imf.org/external/pubs/ft/fandd/2017/06/sundararajan.htm).

55 James Maniyaka et al., *Connecting Talent with Opportunity in the Digital Age* (N.p.: McKinsey and Company, 2015), [www.mckinsey.com/global-themes/employment-and-growth/connecting-talent-with-opportunity-in-the-digital-age](http://www.mckinsey.com/global-themes/employment-and-growth/connecting-talent-with-opportunity-in-the-digital-age).

56 Ibid.

competence dissolve. For instance, credentials are more commonly verified by crowd-sourced and blockchain technologies (such as recommendations on LinkedIn, databases of expertise verified by colleagues and peers, and websites that enable professionals to demonstrate skills, such as GitHub, Kaggle, or Credly).<sup>57</sup> This shift benefits newcomers who can translate and demonstrate the relevance of their skills more easily than in the past.

Like many other goods that were traditionally public services, employment support becomes more market- and community-led. The government still sets the legal framework and provides oversight as well as (limited) funding, but services are provided by private entities. Citizens are issued with vouchers to purchase the services that best suit their need. This approach is partly the outcome of a tight public budget, but it also aims to meet the needs of a superdiverse population through services that are more individualised and tailored to the needs of clients. Public schooling is pared down to cover basic knowledge (with a focus on digital and entrepreneurial skills); outside of these basics, people increasingly find their educational opportunities online.

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*The government still sets the legal framework and provides oversight as well as (limited) funding, but services are provided by private entities.*

There are benefits and drawbacks to this entrepreneurial boom when it comes to immigrant economic and social integration. Some low-skilled migrants are able to profit from this shift, provided that education systems help them acquire the right skills (e.g., digital, entrepreneurial) to engage in the type of economic activities that now fuel the economy. But labour rights and social protection are limited, leaving some vulnerable to exploitation, especially within small businesses, which are not well regulated. The limited social safety net also means that some newcomers who are unable to access venture funding or piece together enough work through digital platforms to earn a stable income quickly fall into poverty. Although civil-society organisations have begun issuing set-up grants to newly resettled refugees, with limited counselling and self-employment support the failure rate of such ventures is high.

## IV. POLICY IMPLICATIONS

The future of European labour markets is uncertain and, as these scenarios illustrate, highly variable across a range of factors and outcomes. Policymakers should be wary of predictions that imply that the extent of automation and nature of labour-market changes are predetermined. However, as is also clear from these scenarios, immigrant integration will be heavily affected by broader economic and employment trends. By the same token, challenges immigrants currently face in terms of labour-market integration will likely become more common among other groups. As more workers, native and foreign born, are displaced by technology or outsourcing, many will be forced to find ways to translate their skills and competences across fields or retrain for new occupations.

Immigration and asylum trends, integration policy, and labour markets will become even more deeply intertwined. Policymakers responsible for one area may hold the key to policy goals in another. For instance, levels of automation may depend on decisions made by employers about whether to invest in productivity-boosting technology, but such investments may not be deemed necessary if low-skilled migrants provide an alternative

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<sup>57</sup> GitHub is a web-based repository where software developers can post code they have written. As a recruiting tool, some tech companies review an individual's code posted on GitHub rather than a formal CV listing skills, qualifications, and experience. Kaggle is platform for data-science and machine-learning competitions. Credly is an online provider of digital credentials, allowing people to showcase their 'badges' representing verified achievements. For a broader discussion of how digital technologies are changing the way that employers verify skills, see Beth Simone Noveck, *Smarter State: The Technologies of Expertise and Future of Governing* (Cambridge, MA: Harvard University Press, 2015).

means of lowering labour costs. Equally, trends in virtual work (and education) may mean people do not have to move internationally to take advantage of economic opportunities, affecting both individuals' migration decisions and government decisions about selective immigration systems. And, of course, immigration and integration policies are often inseparable, since policies to limit the number of newcomers (such as the 2016 Swedish policy to grant temporary, rather than permanent, protection status)<sup>58</sup> can delay the labour-market integration of those who have already arrived, while generous integration policies can act as a pull factor for future flows.<sup>59</sup>

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*Policymakers may come to realise that strengthening adult education, skills mapping, and the quality of employment advice will help both newcomers and native-born workers.*

One common thread in each of the scenarios above is that the challenges of a changing labour market mirror in many ways those posed by immigrant integration. These include needing to find ways to support people displaced (by technology or location) in retraining; to understand and verify competences across occupational, cultural, or geographical borders; and to balance creating incentives to enter work with support for those who are unable to do so. As such 'niche' integration questions enter the mainstream, policymakers may come to realise that strengthening adult education, skills mapping, and the quality of employment advice will help both newcomers and native-born workers weather future labour demands. Employment policymakers have much to learn from integration policymakers, and vice versa.

This section sets out some of the most promising policy levers and governance structures that can be used to capitalise on these interdependencies and support cross-governmental planning. While broader integration policies (e.g., adult education, language training) and employment efforts (e.g., to address skills mismatch) are all part of the picture, this section focuses specifically on emerging innovations that solve problems at the intersection of the future of work and immigrant integration.

## *A. Supporting early access to work for newcomers*

As careers become more fragmented, and new jobs are created and destroyed, policymakers' decisions about investments in labour-market integration may become more complicated. One of the existing conundrums in integration policy is whether to support early access to work for newcomers (risking potential 'brain waste' among skilled newcomers)<sup>60</sup> or to invest in their training (at the expense of delayed entry to work). Policymakers currently grapple with the question of whether to invest in training asylum seekers who, if their claims

58 For a discussion of this and related developments in Sweden, see Susan Fratzke, *Weathering Crisis, Forging Ahead: Swedish Asylum and Integration Policy* (Washington, DC: Migration Policy Institute, 2017), [www.migrationpolicy.org/research/weathering-crisis-forging-ahead-swedish-asylum-and-integration-policy](http://www.migrationpolicy.org/research/weathering-crisis-forging-ahead-swedish-asylum-and-integration-policy).

59 Decisions to grant temporary status to newcomers can trigger a vicious circle, because language barriers can delay access to work and thus access to permanent residence status. Delays in allowing asylum seekers to access employment can also have a knock-on effect on their subsequent chances to find work, as employers may be unsure what their legal situation is. Another example is the way low wages can hinder other aspects of integration, such as the establishment of a stable home life, as in countries where low earners are not allowed to bring family members to join them (e.g., the Czech Republic and United Kingdom). These issues were discussed in the Migration Policy Institute (MPI) Europe-hosted Integration Futures Working Group meeting entitled Economic and Social Integration in a Changing World of Work, held in Barcelona on 18 September 2017. See also Demetrios G. Papademetriou, Meghan Benton, and Natalia Banulescu-Bogdan, *Rebuilding after Crisis: Embedding Refugee Integration in Migration Management Systems* (Washington, DC: MPI, 2017), [www.migrationpolicy.org/research/rebuilding-after-crisis-embedding-refugee-integration-migration-management-systems](http://www.migrationpolicy.org/research/rebuilding-after-crisis-embedding-refugee-integration-migration-management-systems).

60 The expression 'brain waste' refers to the underuse of foreign professionals' skills in receiving country labour markets, resulting in their un- or underemployment. See Madeleine Sumption, *Tackling Brain Waste: Strategies to Improve the Recognition of Immigrants' Foreign Qualifications* (Washington, DC: MPI, 2013), [www.migrationpolicy.org/research/tackling-brain-waste-strategies-improve-recognition-immigrants-foreign-qualifications](http://www.migrationpolicy.org/research/tackling-brain-waste-strategies-improve-recognition-immigrants-foreign-qualifications).



are rejected, may later leave the country; this question will be further complicated by labour-market change, as decisionmakers must also weigh the risk of training people for jobs that may cease to exist. Upfront investments are costly but are made under the assumption that they will pay off in the long term—something that is by no means clear as labour markets evolve. Moreover, the rise of flexible work and the increased importance of soft skills will make it even harder for governments to make decisions about skills and training, since employers increasingly make hiring decisions based on intangible qualities rather than solely on technical know-how.

While policymakers must still decide the point in the immigration/asylum trajectory at which to grant labour-market access, when it comes to economic integration, three main approaches can improve access to work for newcomers: matching them with available jobs, improving credential-recognition systems, and fast-track training programmes.

## 1. Innovations in matching jobseekers with jobs

Tools for matching jobseekers with jobs more efficiently can help immigrants overcome some common barriers, such as employer discrimination and lack of professional networks. They can also show new arrivals that opportunities exist in different regions and encourage internal mobility. Given the risk of rising structural unemployment, as described in the 2028 scenarios, efficient job-matching may become even more important in the coming decade.

Jobseekers may not always live where jobs suited to them most readily exist—a geographical mismatch that can arise for a number of reasons. These include an aversion to applying for jobs far away, limited information about jobs in other locations, and restrictions on newcomers' residence options (these may be of a legal nature, as is the case for asylum seekers in Germany, or they may be due to housing discrimination). Since newly arrived immigrants and refugees often choose to settle where they have friends or family, this may or may not be an optimal decision in terms of economic opportunities. And refugees who are dispersed throughout the country based on factors including where the cost of living is lower may end up in rural areas that offer fewer employment options and have more limited public transport to locations where jobs are more plentiful.<sup>61</sup>

Encouraging internal mobility can stimulate people living in regions with few jobs (whether native or foreign born) to move to places with more economic opportunities. In one example of this, the Austrian Federal Economic Chamber, the public employment service, and the Federal Ministries of Economic Affairs and Labour run Project B Mobile, an initiative in which young refugees are trained in Vienna and then sent to participate in apprenticeships in federal states in the west of the country, where there are skill shortages (e.g., for bricklayers and chefs).<sup>62</sup> In theory, immigrants and refugees are more willing and able to move for a position than native-born jobseekers, so immigration may in help alleviate some spatial mismatches between where jobs exist and where workers live.<sup>63</sup>

61 In addition to lower housing costs, rationale for dispersal policies may also include a more equitable distribution across municipalities of the costs of receiving refugees. See Anna Piil Damm and Michael Rosholm, 'Employment Effects of Spatial Dispersal of Refugees' (CReAM Discussion Paper No. 05/06, University College London, Centre for Research and Analysis of Migration, London, August 2005), [www.cream-migration.org/publ\\_uploads/CDP\\_05\\_06.pdf](http://www.cream-migration.org/publ_uploads/CDP_05_06.pdf).

62 Wirtschaftskammer Österreich and Arbeitsmarktservice Wien, 'b.mobile—Fachkräftepotenzial nutzen' (fact sheet, Wirtschaftskammer Österreich and Arbeitsmarktservice Wien, Vienna, June 2017, [www.wko.at/site/fachkraeftepotenzial/b.mobile-Deutsch-06.2017.pdf](http://www.wko.at/site/fachkraeftepotenzial/b.mobile-Deutsch-06.2017.pdf)).

63 Matthias Schündeln, 'Are Immigrants More Mobile Than Natives? Evidence from Germany' (IZA Discussion Paper No. 3226, Institute of Labour Economics, Bonn, December 2007), [www.econstor.eu/bitstream/10419/34735/1/559459157.pdf](http://www.econstor.eu/bitstream/10419/34735/1/559459157.pdf).

An alternative approach is to move jobs to where people are. This solution is still largely theoretical, but some early efforts have begun to test it out. The nongovernmental organisation (NGO) NaTakallam uses Skype to virtually pair up displaced Syrians in countries of first asylum with Arabic language learners around the world for paid Arabic practice sessions.<sup>64</sup> Similarly, the online portal RefugeesWork enables refugees to find and perform IT jobs remotely.<sup>65</sup> In Europe, remote work could create additional opportunities for those living outside of economic centres and unable to relocate for work, as well as for those struggling to balance multiple responsibilities, such as caring for a family member, participating in professional training, and navigating time-consuming administrative procedures to secure residence status. However, these improvements may come at the cost of social isolation or slower social integration, since they deprive immigrant workers of some of the main contributors to local integration: physical workplaces and relationships with colleagues. Moreover, these tools are only suitable for certain industries, and arguably only for certain workers who are especially self-reliant and digitally savvy.

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*Remote work could create additional opportunities for those living outside of economic centres and unable to relocate for work, as well as for those struggling to balance multiple responsibilities.*

Another approach is to improve the efficiency with which employers and jobseekers are matched. For example, the U.S.-based tech start-up Talent Sonar is trying to remove bias of all kinds from hiring practices by requiring employers to rank the competencies they view as most important and then showing them anonymised resumes ranked according to these criteria.<sup>66</sup> Recent initiatives in Europe also show how online technologies can make refugees' skills more directly visible to employers; in the Netherlands, cooperation between companies, government actors, NGOs, and education providers has led to the creation of the Refugee Talent Hub, a digital matching portal for refugees that also offers training opportunities, mentoring, and access to professional networks and social contacts.<sup>67</sup> And in France, Action Emploi Réfugiés has created a similar matching database, while also offering refugees a platform to exchange experiences and work-related advice.<sup>68</sup>

While these programmes are fledgling, they point to a potential need for greater creativity and flexibility in mainstream employment and integration services. For instance, the success of Action Emploi Réfugiés—which has connected 150 refugees to jobs in the last year—stems from matching refugees with jobs in high-growth areas.<sup>69</sup> Many of these jobs are temporary or seen as low prestige and, as a result, would not be given serious thought by official employment services. By looking beyond traditional models of work, the programme has created numerous stepping stones into work for newcomers who might have otherwise faced hurdles such as limited professional networks and information about opportunities.<sup>70</sup>

64 NaTakallam, 'Our Story', accessed 12 March 2018, <https://natakallam.com/about/>.

65 Refugees Work, 'Remote IT Jobs', accessed 10 September 2017, [www.refugeeswork.com/en/info](http://www.refugeeswork.com/en/info).

66 James Surowiecki, 'Valley Boys', *The New Yorker*, 24 November 2014, [www.newyorker.com/magazine/2014/11/24/valley-boys](http://www.newyorker.com/magazine/2014/11/24/valley-boys). Talent Sonar was previously known as Unitive.

67 Refugee Talent Hub, 'Home', accessed 20 September 2018, <https://refugeetalenthub.com/>.

68 Action Emploi Réfugiés, 'Une Plate-forme de Rapprochement Entre Réfugiés et Employeurs en France', accessed 4 September 2017, [www.actionemploirefugies.com/](http://www.actionemploirefugies.com/).

69 Liam Patuzzi and Alexandra Embiricos, *Social Innovation for Refugee Inclusion Conference Report: Maintaining Momentum and Creating Lasting Change* (Brussels: MPI Europe, 2018), [www.migrationpolicy.org/research/social-innovation-refugee-inclusion-conference-report](http://www.migrationpolicy.org/research/social-innovation-refugee-inclusion-conference-report).

70 Ibid.

## 2. Investing in skills recognition and training

Recent years have brought much greater awareness among policymakers of the complexity of skills recognition processes. Newcomers (and especially newly arrived refugees) may not possess proof of their qualifications or may have been forced to drop out of education early, but nonetheless possess some level of training or skills gained through work. These challenges compound existing credential-recognition problems, such as the difficulties of recognising qualifications earned abroad that do not perfectly align with host-country education systems.

The 2015–16 crisis provided fertile ground for experimentation and innovation in this arena, and a host of innovations emerged that include practical skills assessments by panels of experts,<sup>71</sup> evaluations of on-the-job problem-solving,<sup>72</sup> and simulation activities<sup>73</sup> to prove competence in the absence of formal, documented qualifications (and even, in some cases, without host-country language proficiency). But such models are still very cost- and time-intensive.<sup>74</sup>

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*A host of innovations emerged that include practical skills assessments by panels of experts, evaluations of on-the-job problem-solving, and simulation activities.*

Digital technologies hold some promise for mapping competences in a more flexible and granular manner. In Germany, the Bertelsmann Stiftung and the Federal Employment Agency are developing computer-based competence tests for 30 professions, in close cooperation with industry experts and employer representatives.<sup>75</sup> Another initiative, Skilllab, is developing a mobile application and user-friendly, multilingual platform that will help newly arrived refugees log their competences and match these with European vocational standards.<sup>76</sup> For now, these tools are mostly meant to be used in the initial mapping of newcomers' skills and not to replace formal credential recognition, but their low cost and huge potential to be scaled up is likely to make them attractive for other populations facing similar challenges.

These innovations are happening at the same time as shifts in the ways European societies understand competence. Online platforms are making it possible to crowdsource or verify some skills through personal contacts (e.g., through peer-to-peer assessment mechanisms). The 'skill endorsement' feature on the social network

71 As set out in Article 14 of Germany's 2012 *Federal Recognition Act*, workers in some occupations who lack written proof of their foreign professional qualifications can provide evidence of their skills through a 'qualification analysis', which may consist of work samples, professional interviews, or presentations. In 2015, the German Ministry of Education and Research launched the project 'Prototyping Transfer' to improve the quality and increase the number of qualification analyses. See German Federal Institute for Vocational Education and Training, 'Recognition of Professional Qualifications by Way of Qualification Analysis', accessed 26 March 2018, [www.bibb.de/en/26147.php](http://www.bibb.de/en/26147.php).

72 For instance, the Supporting Immigrants in Higher Education in Finland project includes a work-based module in which high-skilled immigrant participants are presented with a series of practical challenges similar to those they might face in the workplace as a way of allowing them to demonstrate skills acquired through previous education and employment. See Metropolia University of Applied Sciences, 'Recognition of Competences for Highly Educated Immigrants at Metropolia to be Integrated into Work-Based Projects' (news release, 29 September 2016), [www.metropolia.fi/en/about-us/news-and-events/?tx\\_ttnews%5Btt\\_news%5D=5625&cHash=7453c872cd7713c419f6b34c1e3d0736](http://www.metropolia.fi/en/about-us/news-and-events/?tx_ttnews%5Btt_news%5D=5625&cHash=7453c872cd7713c419f6b34c1e3d0736).

73 Bryce Loo, *Recognizing Refugee Qualifications: Practical Tips for Credential Assessment* (New York: World Education Services, 2016), <https://globaltalentidaho.org/wp-content/uploads/2017/05/Recognizing-Refugee-Credentials-Practical-Tips-for-Credential-Assessment.pdf>.

74 Maria Vincenza Desiderio, *Integrating Refugees into Host Country Labor Markets: Challenges and Policy Options* (Washington, DC: MPI, 2016), [www.migrationpolicy.org/research/integrating-refugees-host-country-labor-markets-challenges-and-policy-options](http://www.migrationpolicy.org/research/integrating-refugees-host-country-labor-markets-challenges-and-policy-options).

75 Bertelsmann Stiftung, 'Berufliche Kompetenzen Erkennen', accessed 11 September 2017, [www.bertelsmann-stiftung.de/de/unsere-projekte/berufliche-kompetenzen-erkennen/projektbeschreibung/](http://www.bertelsmann-stiftung.de/de/unsere-projekte/berufliche-kompetenzen-erkennen/projektbeschreibung/).

76 Skilllab will help refugees create a detailed log of the ways they have used skills in work settings to build a richer picture of their competences. Author interview with Ulrich Scharf, Managing Director and Founder, Skilllab, Washington, DC, 14 March 2018; Skilllab, 'Skilllab—Pathways to Employment', accessed 27 March 2018, <https://skilllab.io/>.

LinkedIn, which allows professionals to endorse the skills of people with whom they have worked, is an early indication of what this could ultimately look like. Meanwhile, open digital badges, such as those launched in 2011 by Mozilla and the MacArthur Foundation,<sup>77</sup> offer people a way to have their skills assessed and capabilities publicly displayed that is independent from traditional credentialing authorities. Compared to the official credentialing procedures currently used in European countries, this innovative approach may be better suited to recording the skills of people who have not followed traditional education pathways and to verifying metaskills that will be in demand in changing labour markets. While these types of tools have yet to become a gamechanger for credential recognition, which remains a largely government-driven exercise, their potential benefits as alternatives or supplements to formal credential-recognition systems merit greater research.

### 3. ‘Fast tracks’ in high-growth sectors

In booming industries, there is promise in initiatives that rapidly assess the existing competences of newcomers or that help them complete training to meet heightened labour demand. One area that has attracted much attention in recent years is coding schools for refugees. Numerous initiatives of this type exist, with many clustered in Berlin and increasingly spreading to other tech hubs such as Amsterdam. One such example is the ReDI School, which combines training in software development with support for the development of soft skills such as problem-solving and resilience.<sup>78</sup> Similarly, Sweden’s Fast Tracks—professional pathways that aim to shorten the time between arrival and work—were developed in 2015 in consultation with social partners to help newly arrived migrants enter shortage occupations such as pharmacists, nurses, construction engineers, butchers, and chefs.<sup>79</sup> These pathways offer newcomers a chance to have their skills evaluated even where their formal qualifications are not directly equivalent to those in Sweden. Depending on the needs of the individual, a fast track can also include supports such as (vocational) language training, mentoring, and work placement assistance.

Importantly, rapid training for high-growth sectors applies not only to high-skilled, high-tech sectors. As European populations age, migrants may become an important resource in areas such as elder and social care. One promising example is Migrants’ Help Association of Hungary (MigHelp), which helps refugees and other migrants acquire skills that are in demand locally, including child and elder care, digital skills, and English language proficiency. Relationships with employers are at the heart of this strategic approach; MigHelp offers Hungarian language courses to help newcomers address language barriers with Hungarian employers and engages international organisations that may be open to hiring them for their English and digital skills. It also takes a holistic approach to addressing barriers not directly related to work.<sup>80</sup>

77 Open Badges, ‘Discover Open Badges’, accessed 4 September 2017, <https://openbadges.org/>. See also Serge Ravet, ‘Open Badges: Recognising Informal Learning’, European Commission, Electronic Platform for Adult Learning in Europe, 17 July 2017, <https://ec.europa.eu/epale/en/blog/open-badges-recognising-informal-learning>.

78 Training refugees can have spillover effects beyond their immediate work opportunities; for instance, five graduates of ReDI have set up social start-ups. Besides conveying specific technical and soft skills, the value of ReDI’s approach lies in leveraging refugee’s potential for co-creation, turning them into innovative agents of change and inclusion for their communities. Comments made by Mireia Nadal Chiva, Head of Community Development, ReDI School for Digital Integration, during an Integration Futures Working Group meeting entitled Economic and Social Integration in a Changing World of Work, MPI Europe, Barcelona, 18 September 2017.

79 Government Offices of Sweden, ‘Fast Track—A Quicker Introduction of Newly Arrived Immigrants’, updated 10 June 2016, [www.government.se/articles/2015/12/fast-track---a-quicker-introduction-of-newly-arrived-immigrants/](http://www.government.se/articles/2015/12/fast-track---a-quicker-introduction-of-newly-arrived-immigrants/).

80 It was recently discovered that nonhumanitarian migrants had higher success rates in this programme than refugees. On exploring the factors behind this, programme staff discovered that one aspect was that nonhumanitarian migrants found it easier to get driving licenses, which expanded the jobs available to them. Thus, by looking behind these topline figures, it became clear that refugee participants were facing additional challenges and that addressing them would be needed to improve their outcomes. Comments made by James Peter, President, Migrants’ Help Association of Hungary (MigHelp) during an Integration Futures Working Group meeting entitled Economic and Social Integration in a Changing World of Work, MPI Europe, Barcelona, 18 September 2017.

## B. Supporting those farthest from the labour market

The newcomers who arrived during the 2015–16 crisis include a sizeable number with low levels of education, a lack of (transferable) professional skills, or who have experienced severe trauma. Many will find it difficult to enter regular employment in highly formalised European labour markets. It is therefore crucial for policymakers to identify and support them in accessing other meaningful ways to engage with and contribute to the communities in which they now live. This demands a more creative approach to thinking about ‘work’—one that goes beyond the job/no-job binary. Moreover, many governments will have to confront rising numbers of people without legal status or a right to work. In facing these challenges, policy options include:

### 1. Incentivising alternative forms of ‘work’

Realistically, not everyone will be able to enter work, as it is traditionally conceived of—especially if automation and digitisation result in the larger-scale labour-market transformations set out in some of the 2028 scenarios discussed above. Yet without work, vulnerable groups of newcomers may be cut off from an important source of social interaction that can improve integration outcomes. Volunteering may be an alternative for some, as it offers a way to get an initial foothold in the labour market by building local work experience, making social contacts, and strengthening a sense of self-worth. Some initiatives are exploring ways to use volunteering to plug labour gaps in sectors that are growing and over-stretched, such as elder care.<sup>81</sup>

Some countries have taken steps to promote volunteering or work experience on a larger scale. In 2017, Austria adopted the *Integration Year Act*, which requires newly arrived refugees to volunteer with a charity for one year—a requirement that aims to provide humanitarian migrants with low-threshold opportunities to participate in the Austrian society, improve their language proficiency, and learn professional skills in order to bring them closer to entry into the labour market.<sup>82</sup> Similarly, Germany has created ‘one-euro jobs’ for refugees (usually, activities of public interest), comparable to similar measures for social-assistance recipients, which allow participants to earn some money to supplement their social benefits (also known as ‘workfare’). However, initial evidence on this German approach to refugee labour-market integration has been mixed.<sup>83</sup> Moreover, studies have shown that when programmes make continued receipt of benefits conditional on participation, this can disproportionately disadvantage vulnerable groups, such as single parents or refugees suffering trauma, who may respond less ‘rationally’ to such consequences; instead, they may enter a spiral of

81 Presentation by Kerstin Carlsson on the project Step by Step during the conference Social Innovation for Refugee Inclusion: Maintaining Momentum and Creating Lasting Change, MPI Europe, Brussels, 17 November 2017; Patuzzi and Embiricos, *Social Innovation for Refugee Inclusion Conference Report*.

82 Austrian Federal Ministry for Europe, Integration, and Foreign Affairs, ‘Integration Law Approved by Austrian Council of Ministers’ (press release, Vienna, 28 March 2017), [www.bmeia.gv.at/en/the-ministry/press/announcements/2017/03/integration-law-approved-by-austrian-council-of-ministers/](http://www.bmeia.gv.at/en/the-ministry/press/announcements/2017/03/integration-law-approved-by-austrian-council-of-ministers/). While the *Integration Year Act* has been mostly welcomed by charitable organisations, some aspects have been criticised (e.g., vague regulations concerning remuneration or specification of suitable activities). See European Union Agency for Fundamental Rights (FRA), *Monthly Data Collection on the Migration Situation in the EU—July 2017 Monthly Report* (Vienna: FRA, 2017), [http://fra.europa.eu/sites/default/files/fra\\_uploads/fra-2017-july-monthly-migration-report\\_en.pdf](http://fra.europa.eu/sites/default/files/fra_uploads/fra-2017-july-monthly-migration-report_en.pdf).

83 Deutsche Welle, ‘“One-Euro Job” Program for Refugees off to a Slow Start in Germany’, Deutsche Welle 12 February 2016, [www.dw.com/en/one-euro-job-program-for-refugees-off-to-a-slow-start-in-germany/a-36618371](http://www.dw.com/en/one-euro-job-program-for-refugees-off-to-a-slow-start-in-germany/a-36618371). These one-euro jobs, which have existed in other forms since the early 2000s, have a poor reputation. And according to one government representative, employer demand for refugee workers under the scheme has been more muted than anticipated and the results have been disappointing (the programmes tend to be costly and very few people have entered work as a result). Comments made by Marius Dietrich, Desk Officer, Office of the Federal Government Commissioner for Migration, Refugees, and Integration, Federal Chancellery, Germany, during an Integration Futures Working Group meeting entitled Economic and Social Integration in a Changing World of Work, MPI Europe, Barcelona, 18 September 2017.

poverty.<sup>84</sup> Policymakers designing such programmes must therefore walk a fine line between encouraging volunteering or other work alternatives and demanding participation of newcomers who may simply be unable to engage.

One of the big policy questions is whether volunteering could be an *alternative* to work, rather than a stepping stone into employment. For some economists who predict that jobs will disappear on a large scale, volunteering would be a worthy alternative that holds social value for those unable to find work through traditional pathways.<sup>85</sup> This option is also supported by advocates of an unconditional minimum basic income, a safety-net model that is being contemplated as a possible alternative to help welfare states weather labour-market change, with trials underway nationwide in Finland, in the Canadian province of Ontario, and locally in Barcelona, Spain, and Utrecht, the Netherlands.<sup>86</sup> Moreover, online ‘timebanking’ approaches—systems that allow community members to exchange services, using time units as a currency, and that can strengthening social networks—could represent the first steps into an era in which community-led support networks complement more traditional public services in sectors such as elder and social care.<sup>87</sup>

While the extent to which automation will reshape the labour market remains to be seen, proactively finding ways to leverage volunteering could be a win-win for migrant integration. Done well, it promises to both shield vulnerable groups against social isolation and to create alternatives for newcomers who (at least initially) depend on public funds to contribute to the broader society. Yet there is an important debate about the extent to which volunteers should be used to supplement public services; some critics worry that these initiatives may be used to justify or cover for austerity cuts.<sup>88</sup> But as countries face rising (and potentially unaffordable) pressures from ageing populations and changing labour markets, thinking creatively about ways to sustain welfare budgets is a must.

## 2. Creating incentives (and opportunities) for people to regularise their status

The rising number of immigrants with precarious residence status in some European countries adds new urgency to the problem of irregular work. A burgeoning shadow economy, in which labour-standards violations are common and employers shirk their tax obligations, harms national economies, depletes public budgets, and undercuts the regular workforce. Critically, it also runs counter to the social integration of immigrant workers: a lack of rights and protections, exploitative work conditions, and fears of detection all contribute to social marginalisation and vulnerability. As explored in the 2028 scenarios, a growing informal economy and population of workers without legal status could lead to deleterious economic and social effects.

Cutting the amount of time asylum seekers must wait to access the labour market—as many European countries have done in the past few years—is an important step in the right direction, as is establishing counselling

84 Julia Griggs and Martin Evans, *A Review of Benefit Sanctions* (York: Joseph Rowntree Foundation, 2010), [www.jrf.org.uk/report/review-benefit-sanctions](http://www.jrf.org.uk/report/review-benefit-sanctions). Vulnerable groups may find it difficult to fulfil conditionality requirements or may trigger sanctions because they do not understand how the system works or what is required of them.

85 Darrell M. West, *What Happens if Robots Take the Jobs? The Impact of Emerging Technologies on Employment and Public Policy* (Washington, DC: Brookings Institution, 2015), [www.brookings.edu/wp-content/uploads/2016/06/robotwork.pdf](http://www.brookings.edu/wp-content/uploads/2016/06/robotwork.pdf); Matteo Mascolo, ‘Skills-Based Volunteering Can Make You Thrive in the Age of Robots. Here’s How’, World Economic Forum, 31 October 2017, [www.weforum.org/agenda/2017/10/volunteer-your-skills-boost-your-career/](http://www.weforum.org/agenda/2017/10/volunteer-your-skills-boost-your-career/).

86 Kate McFarland, ‘Existing and Upcoming BI-Related Experiments’, *Basic Income News*, 19 October 2017, <http://basicincome.org/news/2017/10/overview-of-current-basic-income-related-experiments-october-2017/>.

87 Timebanking UK, ‘About TBUK’, accessed 11 September 2017, [www.timebanking.org/about-tbuk/](http://www.timebanking.org/about-tbuk/).

88 See, for instance, criticisms of former UK Prime Minister David Cameron’s idea of the ‘Big Society’, which proposed encouraging voluntary organisations to engage more heavily with public services. This was widely perceived as an excuse for retrenchment. See Anna Coote, *Cutting It: The ‘Big Society’ and the New Austerity* (London: New Economics Foundation, 2010), [http://b3cdn.net/nefoundation/fe562b1ef767dac0af\\_g0m6iykyd.pdf](http://b3cdn.net/nefoundation/fe562b1ef767dac0af_g0m6iykyd.pdf).

centres for unauthorised workers.<sup>89</sup> More creative and pragmatic approaches have emerged at the grassroots level. The Alencop project in Barcelona, created by the charity Labcoop and the Barcelona City Council, has found an original way to turn irregular work into an empowering job complete with rights and protections. The project brought together about 30 young sub-Saharan migrants who used to work informally, collecting scrap metal off the streets of Barcelona, and helped them organise as a cooperative doing essentially the same work: collecting unwanted objects free of charge from households and processing them into new products. In addition to turning this work into a more formal, dignified job, the project has also enabled the participating workers to regularise their legal status.<sup>90</sup>

### *C. Helping workers build resilience and negotiate change*

Because the labour market of the future will require workers to possess skills such as critical thinking, complex problem-solving, and self-motivation to learn,<sup>91</sup> it is important to nurture these foundational skills. Such abilities will not only form the basis of a career arc, they will also enable individuals to orient themselves in a world of near-infinite information and rapid change. For newcomers, this means that digital skills are more important than ever, with integration-related informational materials and learning opportunities increasingly being made accessible online.

Several initiatives across Europe focus on the digital-skills-building aspect of this equation. In Italy and Spain, the Microsoft-funded RefuGIS project has helped hundreds of refugees acquire basic digital skills with the aim of improving their employability and helping them navigate the integration process.<sup>92</sup> The ‘social learning’ model adopted by the project (with school pupils teaching young refugees these basic IT skills) also contributed to fostering intercultural ties and mutual understanding.

As work models grow more heterogeneous, it is particularly important that continuing education becomes more accessible to those in self-employment, atypical employment relationships, and unemployment, including many migrants and refugees. In January 2017, the French government took an interesting step in this direction by introducing Personal Activity Accounts.<sup>93</sup> Through these accounts, workers acquire entitlements to training over the course of their career, which they can use as suits their professional needs and goals; these entitlements are not lost if they change their employment situation, and the system allows the public employment services to direct training funds towards less-skilled workers and those currently seeking work.<sup>94</sup> One of the strengths of this approach is that it is proactive (reaching people in employment) rather than reactive, as is the case of many programmes that focus on responding to unemployment. Although the reform has been criticised by some for its lack of ambition (in the view of some trade unions, it falls short of reducing inequalities between workers who are unemployed, employed, and self-employed), it may provide a blueprint for a more holistic approach to continuous learning.<sup>95</sup>

89 EFFAT, ‘Austria: New UNDOK Contact Point for Undocumented Workers’, accessed 11 September 2017, [www.precarious-work.eu/en/what-did-trade-unions-do/austria-new-undok-contact-point-undocumented-workers](http://www.precarious-work.eu/en/what-did-trade-unions-do/austria-new-undok-contact-point-undocumented-workers).

90 Barcelona City Council, ‘BCN Intercultural Action’, accessed 11 September 2017, <http://ajuntament.barcelona.cat/bcnacciointercultural/en/noticia/the-alencop-cooperative-a-social-initiative-to-collect-scrap-from-homes>.

91 Thor Berger and Carl Benedikt Frey, *Digitalization, Jobs, and Convergence in Europe: Strategies for Closing the Skills Gap* (Oxford: Oxford Martin School, 2016), 21, [www.oxfordmartin.ox.ac.uk/downloads/reports/SCALE\\_Digitalisation\\_Final.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/reports/SCALE_Digitalisation_Final.pdf).

92 Microsoft, ‘Technology Transforms Migrants’ Lives in Italy’, Microsoft News Centre Europe, 27 June 2017, <https://news.microsoft.com/europe/2017/06/27/technology-transforms-the-lives-of-migrants-in-italy/>.

93 European Commission, Electronic Platform for Adult Learning in Europe, ‘The Personal Activity Account Comes into Force in France’, updated 17 February 2017, <https://ec.europa.eu/epale/en/content/personal-activity-account-comes-force-france>.

94 European Trade Union Institute, ‘France: Entry into Force of the Personal Activity Account’, updated 15 February 2017, [www.etui.org/ReformsWatch/France/France-entry-into-force-of-the-Personal-Activity-Account](http://www.etui.org/ReformsWatch/France/France-entry-into-force-of-the-Personal-Activity-Account).

95 Ibid.

Moreover, in the context of growing flexible and precarious work, it will become increasingly urgent that workers receive training to help them plan a career amidst uncertainty, maintain a steady income, save for retirement, and make optimal financial decisions. Although nascent, new initiatives to protect freelancers and gig-economy workers may merit greater investment and study by governments. For instance, among the existing services that offer freelance workers payment protection and other services, SMART EU now has 90,000 members in Belgium (and more in another eight European countries). This social enterprise offers a mutualised salary guarantee fund, meaning it pays its users within a few days of their work, regardless of when the client pays, thus ensuring they have a reliable cashflow.<sup>96</sup>

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*Although nascent, new initiatives to protect freelancers and gig-economy workers may merit greater investment and study by governments.*

Another possible approach is working with digital platforms to ensure they offer some type of professional training for their workers. The transport platform Lyft recently announced it is working with the education company Guild, which partners with employers to offer working adults online courses from more than 80 universities and other learning providers, to give drivers access to tuition discounts and financial aid.<sup>97</sup> There is also an emerging market of independent training companies that advise drivers on how to make a living through Uber or Lyft, pointing to a gap in the way these firms currently support their drivers. Governments could work with the corporate social responsibility teams of such job platforms, many of which have already been active in supporting refugees, to help them develop more responsible hiring and training practices that support the career paths and broader integration outcomes of a wider set of workers.

## *D. Innovations in governance*

Lastly, it is important to improve policymaker foresight and cross-portfolio cooperation within governments. Long-term strategic reflection can be particularly difficult at a time of unending crises, whether real or perceived, as they tend to narrow governments' focus to solving immediate issues and surviving the next election. The rapid pace of change, however, magnifies the pitfalls of this short-sighted approach: recovering lost ground will be far more difficult and costly than planning ahead. As the 2028 scenarios show, the future of work is a cross-cutting issue, with implications for economic, housing, education, family, and social policy. An inclusive and participatory dialogue—one that involves nongovernmental partners such as employers, unions, the nonprofit sector, innovative start-ups, and migrant associations—is vital.

Thus far, dialogue on the intersection between integration and employment has been limited. In Germany, the Federal Ministry of Labour and Social Affairs (BMAS) launched a broad dialogue on the future of work in 2015, candidly acknowledging in a green paper that it could not singlehandedly address the many policy implications of these transformations.<sup>98</sup> The ensuing dialogue, which involved academics and practitioners as well as the broader public, culminated in the late 2016 publication of a white paper entitled *Work 4.0*, summarising various viewpoints and recommendations.<sup>99</sup> But although this paper pointed to a need to address the underrepresentation of women, older people, and migrants in the labour force in order to fill skills shortages, it did not systematically think through the implications of labour-market change for immigrant integration.

96 Kevin Stark, 'How the European Social Enterprise Smart Is Creating a Safety Net for Freelancers', Shareable, 4 December 2017, [www.shareable.net/blog/how-the-european-social-enterprise-smart-is-creating-a-safety-net-for-freelancers](http://www.shareable.net/blog/how-the-european-social-enterprise-smart-is-creating-a-safety-net-for-freelancers).

97 Lyft, 'Lyft x Guild: Supporting Drivers' Education', updated 11 December 2017, <https://blog.lyft.com/posts/2017/12/8/lyft-guild-supporting-drivers-education>.

98 BMAS, 'Work 4.0' (green paper, BMAS, Berlin, April 2015), 85, [www.bmas.de/SharedDocs/Downloads/DE/PDF-Publikationen/arbeiten-4-0-green-paper.pdf;jsessionid=D4DE56A47BDBD8FE2303F8C991961EDE?blob=publicationFile&v=2](http://www.bmas.de/SharedDocs/Downloads/DE/PDF-Publikationen/arbeiten-4-0-green-paper.pdf;jsessionid=D4DE56A47BDBD8FE2303F8C991961EDE?blob=publicationFile&v=2).

99 Ibid.



Another sorely needed element at this policy juncture is better data collection and needs analysis. In the United States, the 2017 edition of the U.S. Department of Labor’s Current Population Survey included a Contingent Worker Supplement, the first since 2005;<sup>100</sup> this made it possible to compare the share and number of immigrant workers among all nonstandard workers (i.e., those performing work on a contingent or temporary basis) for the first time since the boom in online job platforms, allowing analysts to determine how much of a role immigrants are playing in this sector. Conducting a similar survey in Europe could help policymakers diagnose potential immigration and integration challenges.

## V. CONCLUSIONS AND RECOMMENDATIONS

As European economies change in the coming years, the labour-market situation many migrants and refugees currently find themselves in will likely become a familiar one to a wider segment of the working population. And while this discussion has largely focused on newcomers and the measures that can be used to support their labour-market integration, it is important not to lose sight of the overall goal: reforming employment services to better serve diverse working populations—whether this means workers displaced by technology or outsourcing, women and older workers, migrants and the native born.

To support policymakers as they weigh the innovations and approaches outlined in this report, there will be a need to commission research into short-term jobs and flexible work—whether along the lines of the Contingent Worker Survey reintroduced in the United States or longitudinal studies of the career trajectories of these workers. Currently, evidence is scarce on who is employed in flexible work (especially through online platforms), despite anecdotal evidence and a widespread public perception that immigrants are overrepresented in gig-economy work.

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*Governments will need to adapt to, rather than fight, these trends.*

Better information would help governments craft a more nuanced, data-driven strategy for dealing with these trends. Many gig-economy workers have taken up this type of work by choice and have willingly sacrificed employment rights for increased flexibility or autonomy; others have taken such jobs when faced with few other, more traditional options. Governments will need to adapt to, rather than fight, these trends. This may mean finding a delicate balance between loosening regulations in some contexts while ensuring that workers in these industries nonetheless have opportunities to improve their skills, are covered by standard labour protections, and can attain a minimal level of income. Seeking out a better understanding of the integration challenges posed by flexible work could enable governments to proactively plug gaps by, for instance, supporting training on digital and financial inclusion, labour and tax law, or managing the risks of a fluctuating income.

The common challenges that cut across employment and integration policies also point to the need for greater coordination on these issues. In addition to strengthening cooperation internally, governments will need to work with private companies—especially tech companies—to encourage them to play a role in preventing social and economic marginalisation, whether through language training or support for opportunities to build interpersonal ties and social capital. Many such firms have corporate social responsibility arms that were mobilised in response to the refugee crisis; better outreach to these bodies could persuade them to devote some of this energy to the less trendy but potentially more seismic challenge of integration.

<sup>100</sup> As of March 2018, the findings of this supplement had not yet been published. For more information, see U.S. Department of Labor, ‘Labor Force Characteristics’, updated 26 March 2018, [www.bls.gov/cps/lfcharacteristics.htm](http://www.bls.gov/cps/lfcharacteristics.htm).

## WORKS CITED

- Acemoglu, Daron and David H. Autor. 2011. Skills, Tasks, and Technologies: Implications for Employment and Earnings. In *Handbook of Labor Economics*, ed. David Card and Orley Ashenfelter. Amsterdam: Elsevier.
- Action Emploi Réfugiés. N.d. Une Plate-forme de Rapprochement Entre Réfugiés et Employeurs en France. Accessed 4 September 2017. [www.actionemploirefugies.com/](http://www.actionemploirefugies.com/).
- Agree, Emily M. and Karen Glaser. 2009. Demography of Informal Caregiving. In *International Handbook of Population Aging*, ed. Peter Uhlenberg. New York: Springer.
- Arntz, Melanie, Terry Gregory, and Ulrich Zierahn. 2016. The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis. Social, Employment, and Migration Working Papers no. 189, Organisation for Economic Cooperation and Development Publishing, Paris. [www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries\\_5jlz9h56dvq7-en](http://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries_5jlz9h56dvq7-en).
- Atoyán, Ruben, Lone Christiansen, Allan Dizioli, Christian Ebeke, Nadeem Ilahi, Anna Ilyina, Gil Mehrez, Haonan Qu, Faezeh Raei, Alaina Rhee, and Daria Zakharova. 2016. Emigration and Its Economic Impact on Eastern Europe. Staff discussion note 16/07, International Monetary Fund, Washington, DC, July 2016. [www.imf.org/external/pubs/ft/sdn/2016/sdn1607.pdf](http://www.imf.org/external/pubs/ft/sdn/2016/sdn1607.pdf).
- Austrian Federal Ministry for Europe, Integration, and Foreign Affairs. 2017. Integration Law Approved by Austrian Council of Ministers. Press release, Vienna, 28 March 2017. [www.bmeia.gv.at/en/the-ministry/press-announcements/2017/03/integration-law-approved-by-austrian-council-of-ministers/](http://www.bmeia.gv.at/en/the-ministry/press-announcements/2017/03/integration-law-approved-by-austrian-council-of-ministers/).
- Bakhshi, Hasan, Carl Benedikt Frey, and Michael Osborne. 2015. *Creativity vs. Robots: The Creative Economy and the Future of Employment*. London: Nesta. [www.nesta.org.uk/report/creativity-vs-robots/](http://www.nesta.org.uk/report/creativity-vs-robots/).
- Barcelona City Council. N.d. BCN Intercultural Action. Accessed 11 September 2017. <http://ajuntament.barcelona.cat/bcnacciointercultural/en/noticia/the-alencop-cooperative-a-social-initiative-to-collect-scrap-from-homes>.
- Berger, Thor and Carl Benedikt Frey. 2016. *Digitalization, Jobs, and Convergence in Europe: Strategies for Closing the Skills Gap*. Oxford: Oxford Martin School. [www.oxfordmartin.ox.ac.uk/downloads/reports/SCALE\\_Digitalisation\\_Final.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/reports/SCALE_Digitalisation_Final.pdf).
- Berriman, Richard and John Hawksworth. 2017. Will Robots Steal our Jobs? The Potential Impact of Automation on the UK and Other Major Economies. In *UK Economic Outlook*. London: PricewaterhouseCoopers. [www.pwc.co.uk/economic-services/ukey/pwc-uk-economic-outlook-full-report-march-2017-v2.pdf](http://www.pwc.co.uk/economic-services/ukey/pwc-uk-economic-outlook-full-report-march-2017-v2.pdf).
- Bertelsmann Stiftung. N.d. Berufliche Kompetenzen Erkennen. Accessed 11 September 2017. [www.bertelsmann-stiftung.de/de/unsere-projekte/berufliche-kompetenzen-erkennen/projektbeschreibung/](http://www.bertelsmann-stiftung.de/de/unsere-projekte/berufliche-kompetenzen-erkennen/projektbeschreibung/).
- Broese van Groenou, Marjolein L. and Alice De Boer. 2016. Providing Informal Care in a Changing Society. *European Journal of Ageing* 13 (3): 271–79. <https://link.springer.com/article/10.1007/s10433-016-0370-7>.
- Broughton, Andrea, Martha Green, and Catherine Rickard. 2016. *Precarious Employment in Europe: Patterns, Trends and Policy Strategies*. Brussels: European Parliament. [www.europarl.europa.eu/RegData/etudes/STUD/2016/587285/IPOL\\_STU\(2016\)587285\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/587285/IPOL_STU(2016)587285_EN.pdf).
- Carlsson, Kerstin. 2017. Presentation on the Step by Step project during the conference Social Innovation for Refugee Inclusion: Maintaining Momentum and Creating Lasting Change, Migration Policy Institute Europe, Brussels, 17 November 2017.
- Chiva, Mireia Nadal. 2017. Comments by Head of Community Development, ReDI School for Digital Integration, during an Integration Futures Working Group meeting entitled Economic and Social Integration in a Changing World of Work, MPI Europe, Barcelona, 18 September 2017.
- Christiansen, Lone, Huidan Lin, Joana Pereira, Petia Topalova, and Rima Turk. 2016. Individual Choice or Policies? Drivers of Female Employment in Europe. Working paper 16/49, International Monetary Fund, Washington, DC, March 2016. [www.imf.org/external/pubs/ft/wp/2016/wp1649.pdf](http://www.imf.org/external/pubs/ft/wp/2016/wp1649.pdf).

- Coote, Anna. 2010. *Cutting It: The 'Big Society' and the New Austerity*. London: New Economics Foundation. [http://b3cdn.net/nefoundation/fe562b1ef767dac0af\\_g0m6iykyd.pdf](http://b3cdn.net/nefoundation/fe562b1ef767dac0af_g0m6iykyd.pdf).
- Daheim, Cornelia and Ole Wintermann. 2016. *2050: Die Zukunft der Arbeit*. Gütersloh, Germany: Bertelsmann Stiftung. [www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/BST\\_Delphi\\_Studie\\_2016.pdf](http://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/BST_Delphi_Studie_2016.pdf).
- Damm, Anna Piil and Michael Rosholm. 2005. Employment Effects of Spatial Dispersal of Refugees. CReAM Discussion Paper No. 05/06, University College London, Centre for Research and Analysis of Migration, London, August 2005. [www.cream-migration.org/publ\\_uploads/CDP\\_05\\_06.pdf](http://www.cream-migration.org/publ_uploads/CDP_05_06.pdf).
- Desiderio, Maria Vincenza. 2016. *Integrating Refugees into Host Country Labor Markets: Challenges and Policy Options*. Washington, DC: Migration Policy Institute. [www.migrationpolicy.org/research/integrating-refugees-host-country-labor-markets-challenges-and-policy-options](http://www.migrationpolicy.org/research/integrating-refugees-host-country-labor-markets-challenges-and-policy-options).
- Deutsche Welle. 2016. 'One-Euro Job' Program for Refugees off to a Slow Start in Germany. Deutsche Welle, 12 February 2016. [www.dw.com/en/one-euro-job-program-for-refugees-off-to-a-slow-start-in-germany/a-36618371](http://www.dw.com/en/one-euro-job-program-for-refugees-off-to-a-slow-start-in-germany/a-36618371).
- Devictor, Xavier. 2012. Poland: Aging and the Economy. The World Bank, 14 June 2012. [www.worldbank.org/en/news/opinion/2012/06/14/poland-aging-and-the-economy](http://www.worldbank.org/en/news/opinion/2012/06/14/poland-aging-and-the-economy).
- Dietrich, Marius. 2017. Comments by Desk Officer at the Office of the Federal Government Commissioner for Migration, Refugees, and Integration, Federal Chancellery, Germany, during an Integration Futures Working Group meeting entitled Economic and Social Integration in a Changing World of Work, Migration Policy Institute Europe, Barcelona, 18 September 2017.
- Economist, The*. 2017. Globalisation Has Marginalised Many Regions in the Rich World. *The Economist*, 21 October 2017. [www.economist.com/news/briefing/21730406-what-can-be-done-help-them-globalisation-has-marginalised-many-regions-rich-world](http://www.economist.com/news/briefing/21730406-what-can-be-done-help-them-globalisation-has-marginalised-many-regions-rich-world).
- EFFAT. N.d. Austria: New UNDOK Contact Point for Undocumented Workers. Accessed 11 September 2017. [www.precarious-work.eu/en/what-did-trade-unions-do/austria-new-undok-contact-point-undocumented-workers](http://www.precarious-work.eu/en/what-did-trade-unions-do/austria-new-undok-contact-point-undocumented-workers).
- Eichhorst, Werner. 2017. Labor Market Institutions and the Future of Work: Good Jobs for All? IZA Policy Paper No. 122, Institute of Labour Economics, Bonn, Germany, January 2017. <http://ftp.iza.org/pp122.pdf>.
- Eurofound. 2015. *New Forms of Employment*. Luxembourg: Publications Office of the European Union. [www.eurofound.europa.eu/sites/default/files/ef\\_publication/field\\_ef\\_document/ef1461en.pdf](http://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1461en.pdf).
- European Centre for the Development of Vocational Training. 2016. Skill Shortages in Europe: Which Occupations are in Demand – and Why. Updated 25 October 2016. [www.cedefop.europa.eu/en/news-and-press/news/skill-shortages-europe-which-occupations-are-demand-and-why](http://www.cedefop.europa.eu/en/news-and-press/news/skill-shortages-europe-which-occupations-are-demand-and-why).
- European Commission. 2016. European Semester Thematic Factsheet: Labour Force Participation of Women. Fact sheet, European Commission, Brussels, 14 November 2016. [https://ec.europa.eu/info/sites/info/files/european-semester\\_thematic-factsheet\\_labour-force-participation-women\\_en.pdf](https://ec.europa.eu/info/sites/info/files/european-semester_thematic-factsheet_labour-force-participation-women_en.pdf).
- European Commission, Electronic Platform for Adult Learning in Europe. 2017. The Personal Activity Account Comes into Force in France. Updated 17 February 2017. <https://ec.europa.eu/epale/en/content/personal-activity-account-comes-force-france>.
- European Commission, European Political Strategy Centre. 2016. The Future of Work: Skills and Resilience for a World of Change. Strategic Notes Issue 13, European Commission, Brussels, 10 June 2016. [http://ec.europa.eu/epsc/publications/strategic-notes/future-work\\_en](http://ec.europa.eu/epsc/publications/strategic-notes/future-work_en).
- European Migration Network (EMN). 2016. *The Return of Rejected Asylum Seekers: Challenges and Good Practices*. Brussels: European Commission, Directorate-General for Migration and Home Affairs. [https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/european\\_migration\\_network/reports/docs/emn-studies/emn-studies-00\\_synthesis\\_report\\_rejected\\_asylum\\_seekers\\_2016.pdf](https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/networks/european_migration_network/reports/docs/emn-studies/emn-studies-00_synthesis_report_rejected_asylum_seekers_2016.pdf).
- European Trade Union Institute. 2017. France: Entry into Force of the Personal Activity Account. Updated 15 February 2017. [www.etui.org/ReformsWatch/France/France-entry-into-force-of-the-Personal-Activity-Account](http://www.etui.org/ReformsWatch/France/France-entry-into-force-of-the-Personal-Activity-Account).

- European Union Agency for Fundamental Rights (FRA). 2017. *Monthly Data Collection on the Migration Situation in the EU—July 2017 Monthly Report*. Vienna: FRA. [http://fra.europa.eu/sites/default/files/fra\\_uploads/fra-2017-july-monthly-migration-report\\_en.pdf](http://fra.europa.eu/sites/default/files/fra_uploads/fra-2017-july-monthly-migration-report_en.pdf).
- Eurostat. 2016. Employees by Migration Status, Educational Attainment Level, Occupation and Working Time [lfsq\_14leeow]. Updated 3 June 2016. [http://ec.europa.eu/eurostat/web/products-datasets/-/lfsq\\_14leeow](http://ec.europa.eu/eurostat/web/products-datasets/-/lfsq_14leeow).
- . 2017. Statistics Explained: Population Structure and Ageing. Updated 20 July 2017. [http://ec.europa.eu/eurostat/statistics-explained/index.php/Population\\_structure\\_and\\_ageing](http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing).
- . 2018. Employment Rates by Sex, Age and Citizenship (%), 2017Q3 [lfsq\_ergan]. Updated 24 March 2018. [http://ec.europa.eu/eurostat/web/products-datasets/-/lfsq\\_ergan](http://ec.europa.eu/eurostat/web/products-datasets/-/lfsq_ergan).
- Evans, Dave. 2011. *The Internet of Things: How the Next Evolution of the Internet Is Changing Everything*. White paper, Cisco Internet Business Solutions Group, n.p., April 2011. [www.cisco.com/web/about/ac79/docs/innov/IoT\\_IBSG\\_0411FINAL.pdf](http://www.cisco.com/web/about/ac79/docs/innov/IoT_IBSG_0411FINAL.pdf).
- Farrell, Diana and Fiona Greig. 2016. *Paychecks, Paydays, and the Online Platform Economy: Big Data on Income Volatility*. Washington, DC: JP Morgan Chase Institute. [www.jpmorganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf](http://www.jpmorganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf).
- Fratzke, Susan. 2017. *Weathering Crisis, Forging Ahead: Swedish Asylum and Integration Policy*. Washington, DC: Migration Policy Institute. [www.migrationpolicy.org/research/weathering-crisis-forging-ahead-swedish-asylum-and-integration-policy](http://www.migrationpolicy.org/research/weathering-crisis-forging-ahead-swedish-asylum-and-integration-policy).
- Frey, Carl Benedikt and Michael A. Osborne. 2013. *The Future of Employment: How Susceptible Are Jobs to Computerisation?* Oxford: Oxford Martin School. [www.oxfordmartin.ox.ac.uk/downloads/academic/The\\_Future\\_of\\_Employment.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf).
- . 2014. *London Futures—Agile town: The Relentless March of Technology and London's Response*. London: Deloitte. <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/uk-futures/london-futures-agile-town.pdf>.
- Friedman, Gerald. 2014. Workers without Employers: Shadow Corporations and the Rise of the Gig Economy. *Review of Keynesian Economics* 2 (2): 171–88.
- Future of Work Institute. 2012. *The Benefits of Flexible Working Arrangements: A Future of Work Report*. London: Hot Spots Movement. [www.bc.edu/content/dam/files/centers/cwf/individuals/pdf/benefitsCEOFlex.pdf](http://www.bc.edu/content/dam/files/centers/cwf/individuals/pdf/benefitsCEOFlex.pdf).
- German Federal Institute for Vocational Education and Training. N.d. Recognition of Professional Qualifications by Way of Qualification Analysis. Accessed 26 March 2018. [www.bibb.de/en/26147.php](http://www.bibb.de/en/26147.php).
- German Federal Ministry for Labour and Social Affairs (BMAS). 2011. *Fachkräftesicherung: Ziele und Maßnahmen der Bundesregierung*. Berlin: BMAS. [www.bmas.de/SharedDocs/Downloads/DE/fachkraeft-esicherung-ziele-massnahmen.pdf?\\_\\_blob=publicationFile](http://www.bmas.de/SharedDocs/Downloads/DE/fachkraeft-esicherung-ziele-massnahmen.pdf?__blob=publicationFile).
- . 2015. Work 4.0. Green paper, BMAS, Berlin, April 2015. [www.bmas.de/SharedDocs/Downloads/DE/PDF-Publikationen/arbeiten-4-0-green-paper.pdf;jsessionid=D4DE56A47BDBD8FE2303F8C991961EDE?\\_\\_blob=publicationFile&v=2](http://www.bmas.de/SharedDocs/Downloads/DE/PDF-Publikationen/arbeiten-4-0-green-paper.pdf;jsessionid=D4DE56A47BDBD8FE2303F8C991961EDE?__blob=publicationFile&v=2).
- . 2017. Work 4.0. White paper, BMAS, Berlin, March 2017. [www.bmas.de/SharedDocs/Downloads/EN/PDF-Publikationen/a883-white-paper.pdf;jsessionid=4D8AF3E3426B002A8047B6E61DFCC02?\\_\\_blob=publicationFile&v=3](http://www.bmas.de/SharedDocs/Downloads/EN/PDF-Publikationen/a883-white-paper.pdf;jsessionid=4D8AF3E3426B002A8047B6E61DFCC02?__blob=publicationFile&v=3).
- Global Migration Data Analysis Centre. 2016. Migration Forecasting: Beyond the Limits of Uncertainty. Data Briefing Issue No. 6, Global Migration Data Analysis Centre, Berlin, November 2016. [https://gmdac.iom.int/sites/default/files/gmdac\\_data\\_briefing\\_series\\_issue\\_6.pdf](https://gmdac.iom.int/sites/default/files/gmdac_data_briefing_series_issue_6.pdf).
- Government Offices of Sweden. 2016. Fast Track—A Quicker Introduction of Newly Arrived Immigrants. Updated 10 June 2016. [www.government.se/articles/2015/12/fast-track---a-quicker-introduction-of-newly-arrived-immigrants/](http://www.government.se/articles/2015/12/fast-track---a-quicker-introduction-of-newly-arrived-immigrants/).

- Griggs, Julia and Martin Evans. 2010. *A Review of Benefit Sanctions*. York: Joseph Rowntree Foundation. [www.jrf.org.uk/report/review-benefit-sanctions](http://www.jrf.org.uk/report/review-benefit-sanctions).
- Hunt, Abigail and Fortunate Machingura. 2016. A Good Gig? The Rise of On-Demand Domestic Work. Working paper no. 7, Overseas Development Institute, London, December 2016. [www.odi.org/sites/odi.org.uk/files/resource-documents/11155.pdf](http://www.odi.org/sites/odi.org.uk/files/resource-documents/11155.pdf).
- Hüsing, Tobias, Werner B. Korte, and Eriona Dashja. 2015. e-Skills in Europe: Trends and Forecasts for the European ICT Professional and Digital Leadership Labour Markets (2015–2020). Working paper, empirica, Bonn, November 2015. [http://eskills-lead.eu/fileadmin/lead/brochure-lead/working\\_paper\\_-\\_supply\\_demand\\_forecast\\_2015\\_a.pdf](http://eskills-lead.eu/fileadmin/lead/brochure-lead/working_paper_-_supply_demand_forecast_2015_a.pdf).
- International Labour Organisation (ILO). 2016. *Non-Standard Employment around the World: Understanding Challenges, Shaping Prospects*. Geneva: ILO. [www.ilo.org/global/publications/books/WCMS\\_534326/lang--en/index.htm](http://www.ilo.org/global/publications/books/WCMS_534326/lang--en/index.htm).
- Katz, Lawrence F. and Alan B. Krueger. 2016. The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015. Working paper no. 22667, National Bureau of Economic Research, September 2016. [www.nber.org/papers/w22667](http://www.nber.org/papers/w22667).
- Khan, Halima. 2013. *Five Hours a Day: Systematic Innovation for an Aging Population*. London: Nesta. [www.nesta.org.uk/report/five-hours-a-day/](http://www.nesta.org.uk/report/five-hours-a-day/).
- Kwok, Roberta. 2017. Flexible Working: Science in the Gig Economy. *Nature* 550: 419–21. [www.nature.com/nature/journal/v550/n7676/full/nj7676-419a.html](http://www.nature.com/nature/journal/v550/n7676/full/nj7676-419a.html).
- Leopold, Till Alexander, Vesselina Ratcheva, and Saadia Zahidi. 2016. *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*. Geneva: World Economic Forum. [www3.weforum.org/docs/WEF\\_Future\\_of\\_Jobs.pdf](http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf).
- Loo, Bryce. 2016. *Recognizing Refugee Qualifications: Practical Tips for Credential Assessment* New York: World Education Services. <https://globaltalentidaho.org/wp-content/uploads/2017/05/Recognizing-Refugee-Credentials-Practical-Tips-for-Credential-Assessment.pdf>.
- Lyft. 2017. Lyft x Guild: Supporting Drivers' Education. Updated 11 December 2017. <https://blog.lyft.com/posts/2017/12/8/lyft-guild-supporting-drivers-education>.
- Maniyaka, James, Susan Lund, Kelsey Robinson, John Valentino, and Richard Dobbs. 2015. *Connecting Talent with Opportunity in the Digital Age*. N.p.: McKinsey and Company. [www.mckinsey.com/global-themes/employment-and-growth/connecting-talent-with-opportunity-in-the-digital-age](http://www.mckinsey.com/global-themes/employment-and-growth/connecting-talent-with-opportunity-in-the-digital-age).
- Mascolo, Matteo. 2017. Skills-Based Volunteering Can Make You Thrive in the Age of Robots. Here's How. World Economic Forum, 31 October 2017. [www.weforum.org/agenda/2017/10/volunteer-your-skills-boost-your-career/](http://www.weforum.org/agenda/2017/10/volunteer-your-skills-boost-your-career/).
- Mason, Ben. Forthcoming. *Tech Jobs for Refugees: Assessing the Potential of Coding Schools for Refugee Integration in Germany*. Brussels: Migration Policy Institute Europe.
- McFarland, Kate. 2017. Existing and Upcoming BI-Related Experiments. Basic Income News, 19 October 2017. <http://basicincome.org/news/2017/10/overview-of-current-basic-income-related-experiments-october-2017/>.
- Meister, Jeanne. 2012. The Future of Work: Job Hopping is the 'New Normal' for Millennials. *Forbes*, 14 August 2012. [www.forbes.com/sites/jeannemeister/2012/08/14/the-future-of-work-job-hopping-is-the-new-normal-for-millennials/](http://www.forbes.com/sites/jeannemeister/2012/08/14/the-future-of-work-job-hopping-is-the-new-normal-for-millennials/).
- Metropolia University of Applied Sciences. 2016. Recognition of Competences for Highly Educated Immigrants at Metropolia to be Integrated into Work-Based Projects. News release, 29 September 2016. [www.metropolia.fi/en/about-us/news-and-events/?tx\\_tnews%5Btt\\_news%5D=5625&cHash=7453c872cd7713c419f6b34c1e3d0736](http://www.metropolia.fi/en/about-us/news-and-events/?tx_tnews%5Btt_news%5D=5625&cHash=7453c872cd7713c419f6b34c1e3d0736).
- Microsoft. 2017. Technology Transforms Migrants' Lives in Italy. Microsoft News Centre Europe, 27 June 2017. <https://news.microsoft.com/europe/2017/06/27/technology-transforms-the-lives-of-migrants-in-italy/>.

- NaTakallam. N.d. Our Story. Accessed 12 March 2018. <https://natakallam.com/about/>.
- Newland, Kathleen with Elizabeth Collett, Kate Hooper, and Sarah Flamm. 2016. *All at Sea: The Policy Challenges of Rescue, Interception, and Long-Term Response to Maritime Migration*. Washington, DC: Migration Policy Institute.
- Noveck, Beth Simone. 2015. *Smart Citizens, Smarter State: The Technologies of Expertise and Future of Governing*. Cambridge, MA: Harvard University Press.
- Oesingmann, Katrin. 2017. Youth Unemployment in Europe. *ifo DICE report* 1/2017 (15). [www.cesifo-group.de/DocDL/dice-report-2017-1-oesingmann-march.pdf](http://www.cesifo-group.de/DocDL/dice-report-2017-1-oesingmann-march.pdf).
- Open Badges. N.d. Discover Open Badges. Accessed 4 September 2017. <https://openbadges.org/>.
- Papademetriou, Demetrios G. and Meghan Benton. 2016. *Towards a Whole-of-Society Approach to Receiving and Settling Newcomers in Europe*. Washington, DC: Migration Policy Institute. [www.migrationpolicy.org/research/towards-whole-society-approach-receiving-and-settling-newcomers-europe](http://www.migrationpolicy.org/research/towards-whole-society-approach-receiving-and-settling-newcomers-europe).
- Papademetriou, Demetrios G., Meghan Benton, and Natalia Banulescu-Bogdan. 2017. *Rebuilding after Crisis: Embedding Refugee Integration in Migration Management Systems*. Washington, DC: Migration Policy Institute. [www.migrationpolicy.org/research/rebuilding-after-crisis-embedding-refugee-integration-migration-management-systems](http://www.migrationpolicy.org/research/rebuilding-after-crisis-embedding-refugee-integration-migration-management-systems).
- Parkinson, Jay. 2016. This Whole ‘Uber for Doctor House Calls’ Idea is Basically Doomed. *Quartz*, 2 January 2016. <https://qz.com/581151/an-uber-for-doctor-house-calls-will-inevitably-go-down-in-flames/>.
- Patuzzi, Liam and Alexandra Embiricos. 2018. *Social Innovation for Refugee Inclusion Conference Report: Maintaining Momentum and Creating Lasting Change*. Brussels: Migration Policy Institute Europe. [www.migrationpolicy.org/research/social-innovation-refugee-inclusion-conference-report](http://www.migrationpolicy.org/research/social-innovation-refugee-inclusion-conference-report).
- Peschner, Jörg. 2014. The EU’s Growth Potential Vis-à-Vis a Shrinking Workforce. Presentation slides, European Commission, Brussels, 24 February 2014. [www.oecd.org/els/mig/Peschner.pdf](http://www.oecd.org/els/mig/Peschner.pdf).
- Peter, James. 2017. Comments made by the President of Migrants’ Help Association of Hungary (MigHelp) during an Integration Futures Working Group meeting entitled Economic and Social Integration in a Changing World of Work, MPI Europe, Barcelona, 18 September 2017.
- Ravet, Serge. 2017. Open Badges: Recognising Informal Learning. European Commission, Electronic Platform for Adult Learning in Europe, 17 July 2017. <https://ec.europa.eu/epale/en/blog/open-badges-recognising-informal-learning>.
- Refugee Talent Hub. N.d. Home. Accessed 20 September 2018. <https://refugeetalenthub.com/>.
- Refugees Work. N.d. Remote IT Jobs. Accessed 10 September 2017. [www.refugeeswork.com/en/info](http://www.refugeeswork.com/en/info).
- Scharf, Ulrich. 2018. Author interview with the Managing Director and Founder of Skilllab, Washington, DC, 14 March 2018.
- Schmid-Drüner, Marion. 2016. The Situation of Workers in the Collaborative Economy. Working paper PE 587.316, European Parliament, Directorate General for Internal Policies, Brussels, October 2016. [www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL\\_IDA\(2016\)587316\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL_IDA(2016)587316_EN.pdf).
- Schündeln, Matthias. 2007. Are Immigrants More Mobile than Natives? Evidence from Germany. IZA Discussion Paper No. 3226, Institute of Labour Economics, Bonn, December 2007. [www.econstor.eu/bitstream/10419/34735/1/559459157.pdf](http://www.econstor.eu/bitstream/10419/34735/1/559459157.pdf).
- Silver, David, Aja Huang, Chris J. Maddison, Arthur Guez, Laurent Sifre, George van den Driessche, Julian Schrittwieser, Ioannis Antonoglou, Veda Panneershelvam, Marc Lanctot, Sander Dieleman, Dominik Grewe, John Nham, Nal Kalchbrenner, Ilya Sutskever, Timothy Lillicrap, Madeleine Leach, Koray Kavukcuoglu, Thore Graepel, and Demis Hassabis. 2016. Mastering the Game of Go with Deep Neural Networks and Tree Search. *Nature* 529: 484–89. <https://storage.googleapis.com/deepmind-media/alphago/AlphaGoNaturePaper.pdf>.
- Skilllab. N.d. Skilllab—Pathways to Employment. Accessed 27 March 2018. <https://skilllab.io/>.

- Stark, Kevin. 2017. How the European Social Enterprise Smart Is Creating a Safety Net for Freelancers. Shareable, 4 December 2017. [www.shareable.net/blog/how-the-european-social-enterprise-smart-is-creating-a-safety-net-for-freelancers](http://www.shareable.net/blog/how-the-european-social-enterprise-smart-is-creating-a-safety-net-for-freelancers).
- Sumption, Madeleine. 2013. *Tackling Brain Waste: Strategies to Improve the Recognition of Immigrants' Foreign Qualifications*. Washington, DC: Migration Policy Institute. [www.migrationpolicy.org/research/tackling-brain-waste-strategies-improve-recognition-immigrants-foreign-qualifications](http://www.migrationpolicy.org/research/tackling-brain-waste-strategies-improve-recognition-immigrants-foreign-qualifications).
- Sundararajan, Arun. 2017. The Future of Work. *Finance and Development* 54 (2): 6-11. [www.imf.org/external/pubs/ft/fandd/2017/06/sundararajan.htm](http://www.imf.org/external/pubs/ft/fandd/2017/06/sundararajan.htm).
- Surowiecki, James. 2014. Valley Boys. *The New Yorker*, 24 November 2014. [www.newyorker.com/magazine/2014/11/24/valley-boys](http://www.newyorker.com/magazine/2014/11/24/valley-boys).
- Timebanking UK. N.d. About TBUK. Accessed 11 September 2017. [www.timebanking.org/about-tbuk/](http://www.timebanking.org/about-tbuk/).
- UK Government Office for Science. 2013. *Future Identities*. London: UK Government Office for Science. [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/273968/13-524-future-identities-changing-identities-summary.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/273968/13-524-future-identities-changing-identities-summary.pdf).
- United Nations Department of Economic and Social Affairs (UN DESA), Population Division. 2015. Population Aged 15-64 (Both Sexes Combined) by Country or Area, 1950-2100 (Thousands). Dataset, July 2015.
- . 2015. Population Aged 65+ (Both Sexes Combined) by Country or Area 1950-2100 (Thousands). Dataset, July 2015.
- University of Oxford, iLabour Project. N.d. The Online Labour Index. Accessed 9 March 2018. <http://ilabour.oii.ox.ac.uk/online-labour-index/>.
- U.S. Department of Labor. 2018. Labor Force Characteristics. Updated 26 March 2018. [www.bls.gov/cps/lfcharacteristics.htm](http://www.bls.gov/cps/lfcharacteristics.htm).
- Verbeek-Oudijk, Debbie, Isolde Woittiez, Evelien Eggink, and Lisa Putman. 2014. *Who Cares in Europe? A Comparison of Long-Term Care for the Over-50s in Sixteen European Countries*. The Hague: The Netherlands Institute for Social Research. [www.scp.nl/english/Publications/Publications\\_by\\_year/Publications\\_2014/Who\\_cares\\_in\\_Europe](http://www.scp.nl/english/Publications/Publications_by_year/Publications_2014/Who_cares_in_Europe).
- West, Darrell M. 2015. *What Happens if Robots Take the Jobs? The Impact of Emerging Technologies on Employment and Public Policy*. Washington, DC: Brookings Institution. [www.brookings.edu/wp-content/uploads/2016/06/robotwork.pdf](http://www.brookings.edu/wp-content/uploads/2016/06/robotwork.pdf).
- Wirtschaftskammer Österreich and Arbeitsmarktservice Wien. 2017. b.mobile—Fachkräftepotenzial nutzen. Fact sheet, Wirtschaftskammer Österreich and Arbeitsmarktservice Wien, Vienna, June 2017. [www.wko.at/site/fachkraeftepotenzial/b.mobile-Deutsch-06.2017.pdf](http://www.wko.at/site/fachkraeftepotenzial/b.mobile-Deutsch-06.2017.pdf).

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**Meghan Benton** is a Senior Policy Analyst and Assistant Director for Research for the International Programme at the Migration Policy Institute (MPI). She is also a Non-resident Fellow with MPI Europe. Her areas of expertise include immigrant integration (especially labour-market integration and integration at the local level), free movement and Brexit, and the role of technological and social innovation in responses to the refugee and migration crisis in Europe.

Dr. Benton previously was a Senior Researcher at Nesta, the United Kingdom’s innovation body, where she led projects on digital government and the future of local public services. Prior to joining Nesta, she was a policy analyst at MPI from 2012 to 2015, where she co-led an MPI-International Labour Organisation six-country project on pathways to skilled work for newly arrived immigrants in Europe. She also worked on Project UPSTREAM, a four-country project on mainstreaming immigrant integration in the European Union. Previously, she worked for the Constitution Unit at University College London and the Institute for Public Policy Research.

Dr. Benton received her PhD in political science from University College London in 2010, where her PhD research focused on citizenship and the rights of noncitizens. She also holds a master’s degree in legal and political theory (with distinction) from University College London, and a bachelor’s degree in philosophy and literature from Warwick University.



**Liam Patuzzi** is a Project Officer and Analyst at ebb—Entwicklungsgesellschaft für berufliche Bildung (Agency for the Development of Professional Education) in Berlin, a consultancy in the area of integration, labour-market, and education policy. He was previously an Associate Policy Analyst at MPI Europe, where he focused on the labour-market integration of immigrants, recognition of foreign credentials, refugee integration, and labour-migration management.

Before joining MPI Europe, Mr. Patuzzi was a Project Manager at ebb in Cologne, Germany. There, he supported the national coordination of Network IQ, a large governmental programme aimed at advancing the validation of migrants’ professional qualifications and improving their participation in the German labour market.

Mr. Patuzzi holds a joint master’s degree in social sciences, with a focus on globalisation and migration, from the University of Freiburg, Germany and the University of KwaZulu-Natal, South Africa. He completed his bachelor’s degree in philosophy at Ca’ Foscari University in Venice, Italy.





**Migration Policy Institute Europe**, established in Brussels in 2011, is a non-profit, independent research institute that aims to provide a better understanding of migration in Europe and thus promote effective policymaking. Building upon the experience and resources of the Migration Policy Institute, which operates internationally, MPI Europe provides authoritative research and practical policy design to governmental and nongovernmental stakeholders who seek more effective management of immigration, immigrant integration, and asylum systems as well as successful outcomes for newcomers, families of immigrant background, and receiving communities throughout Europe. MPI Europe also provides a forum for the exchange of information on migration and immigrant integration practices within the European Union and Europe more generally.

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