WHAT COMES AFTER?

BEYOND4.0 supports an inclusive European future via examining the impact of Industrie4.0 and the Digital disruption on the future of jobs, business models and welfare.

POLICY BRIEF

December 2019, Policy Brief #1

Background to the Policy Briefs of BEYOND4.0

With the BEYOND4.0 project, our project consortium provides advice for policymakers and stakeholders on the impact, challenges and opportunities of the new digital technologies in relation to the future of work and welfare. In the coming months and years, at least eight short Policy Briefs will be drawn up for each key policy area that the project examines: Industrie4.0, the Platform Economy, the new labour market, digital skills, taxation in the age of robots, and welfare and the universal basic income. Each Brief will include specific proposals for policy change in that area. Other likely topics in the Briefs are lessons learned from previous technological revolutions, regional responses and business strategies for the digital revolution, and, finally, a summary of the main conclusions of the BEYOND4.0 project. The Policy Briefs will also form the basis for the toolbook for a European strategy for tackling the social transformation brought about by the technological transformation.

Each Brief will be publicly available. The Policy Briefs are primarily, although not exclusively, addressed to policymakers. This first Policy Brief provides a general introduction to the policy challenge faced by the EU and the contribution that BEYOND4.0 will make in the development of policy thinking.

What is the challenge for policy makers to guide the Digital transformation?

Managing digital revolutions …

The digital revolution is disrupting our economies and societies. BEYOND4.0 focuses on a range of possible consequences of the digital revolution, many of which are already familiar concerns to policymakers: high unemployment, job and social polarization, problematic skills development, and a rise in populist politics. With these predicted negative consequences, it is not surprising that quick solutions are being offered as remedies: a Universal Basic Income, taxing the robots, investing in Smart Industry. The solutions are attractive because of their simplicity and apparent decisiveness. It is here however that the real challenge lies, for these remedies are often offered without a robust evidence

base about the nature and extent of digital disruption. How many will still exist once that evidence base is developed is a moot point.

BEYOND4.0 will provide that evidence base, and with it, BEYOND4.0 will deepen our understanding about the risks associated with the digital revolution, but also identify the opportunities arising from that revolution. In our first report, "Guidance paper on key concepts, issues and developments" (http://beyond4-0.eu/publications), we developed our conceptual framework for this analysis, adopting a non-technologically-deterministic position that recognised the need for a new socio-technical approach to understanding the introduction, implementation and outcomes of the digital revolution. It also scoped out our areas of investigation: digitisation's impact on the labour market, workplace skill development and utlisations, entrepreneurial business ecosystems, regional economies' development, the represenative organisations of labour and the impcat on welfare and social security. Our data examination focuses on both the immediate development and long-term trends at national, regional, sector and firm levels. We learn from experiments. And, most importantly we will develop policy recommendations to help deliver an inclusive Europe.

... requires thinking beyond quick fixes ...

When developing these recommendations, BEYOND4.0 focuses on those measures that have the greatest impact. We are ambitious for what BEYOND4.0 can and needs to achieve. Whilst we acknowledge that the devil is often in the detail, we want to shape the bigger picture. We want to see broad coherence between measures. This coherence is necessary to help policymakers move in the right direction. To do so, we place ourselves in the position of policymakers and examine their needs, options and challenges. We understand the temptation to look for quick fixes but warn against it. For example, BEYOND4.0 will focus on the relationship between our proposed measures and desired behaviour in companies. A succesful digital revolution will only be realised if companies invest in it and implement the technologies. Through our research, we want to encourage these companies to choose opportunities that offer a joint optimisation of economic and social goals. The question then is: what helps?

... and thus aims at the behaviour of companies ...

BEYOND4.0 outlines the field of solutions but also dares to choose. Our guiding principle in choosing solutions is the extent to which solutions contribute to what are called 'high road' strategies of companies. What do we mean by that? To start with, these are strategies that are not easy to achieve. But they are also strategies with a high reward for companies – not only for shareholders but for every stakeholder within the company. This means that not only the management but also the employees benefit from digitisation.

Several definitions of 'high road' exist. Sometimes companies that opt for the high road enable specific 'bottom-up' employee participation. Such practices are of course important, but 'voice' is not the distinguishing criterion. What we mean by high road strategies are those strategies by which companies focus on the issue of value-generated distribution. It is about sharing the benefits of the digital revolution. Ensuring that the benefits of digitalisation are distributed to all will help ensure income growth, and with that growth will come increased purchasing power in society. As we explained in our first report, fears of mass unemployment during the micro-chip revolution of the 1970s failed to materialise because the resulting increase in demand driven by cheapened production resulted in more, not less, work.

Not obvious? No, certainly not. Most companies are prepared to give employees a 'voice' but not on the distribution of the benefits. Improving immediate material circumstances can be good at an

individual level. However, in the long run without shared material improvements, everyone's willingness to participate in change decreases as trust and legitimacy diminishes. A rising tide must lift all boats, if not we are to sink. The challenge is developing and achieving this type of high road strategy in companies. The first step has to be initiating a conversation in the public sphere, and amongst policymakers and business stakeholders about how to maximize these benefits to be distributed.

... with distribution of the benefits as the focus...

Perhaps it is not immediately visible, but the starting point for that conversation about pursuing what we mean by a high road strategy has to be an acceptance of digitalisation. That is, we are not arguing against digitisation. Instead, the high road is about determining which behaviour of companies offers the best opportunity to reduce the risks, for example of jobless growth, and to increase the opportunities of, for example, inclusivity. Unfortunately, we know only too well that 'market forces' do not automatically provide optimal answers. The 'low road' is not only the low cost strategy but also the low-benefit strategy.

High road companies are therefore companies that get that conversation going. Importantly, they are not necessarily companies in high-value adding, high-wage sectors. Even in these sectors, it is not self-evident that the benefits, in terms of jobs for example, can be calculated. Logically therefore all companies, regardless of sector and levels of profitability (i.e., fair income growth distribution), are to be the focus.

... supported with open programme management

If the behaviour of companies needs to be changed, then triggering this change requires responding to a broad set of measures that involve a wide range of stakeholders, both inside and outside the companies. That means:

- Giving a voice to workers and their representatives in decision-making processes.

- Creating a spread of ideas: it is first about the money but then about the means of production. The discussion should subsequently be channelled to how best to deal with this digital technology. This requires knowledge of how the technology can be used optimally.

Policymakers could consider doing even more

- Policymakers doing more is important to correct the picture of what is possible with the digital revolution:

    - It is important to note that BEYOND4.0 is not just against technology; technology is no more than a means to an end. Technology is precisely the means to achieve higher productivity and more benefits.

    - Developing and exploiting the opportunities offered by technology depends on the involvement of all employees, at every level.

- This is a discussion about the distribution of productivity gains. Once that is clear, a discussion can start about how to implement workplace innovation using digital technology.

- The disadvantages of low-cost strategies should also be recognised and emphasized in policy.

- This approach requires the involvement of a broad coalition of stakeholders (including employers and trade unions) aimed at 'open programming' to make these high-road strategies possible.

BEYOND 4.0's first year … and looking ahead

Looking back …

In January 2019 BEYOND4.0 started its journey with a three-day Kick-off Meeting in Leiden, the Netherlands, and hometown of the project coordinator TNO. The project partners introduced their teams and presented their ideas for the implementation of the work in the coming years. Twenty-eight researchers from nine institutions particpated in the meeting. During the meeting we visited the IT-company *DECOS*, a 'paperless' software company that strives to maximise self-management among its staff.

In the period February-May 2019 we launched our website www.beyond4-0.eu, where you can subscribe to BEYOND4.0's newsletter. Working relationships were established with two sister projects of the same H2020 call. *Technequality* will study how technological innovations will impact social inequality and labour market outcomes, while *Plus* will investigate how technology affects workers and the labour process in the platform economy of urban areas in a selection of European cities.

The first BEYOND4.0 Summer School was held in June in the Basque country in Spain under the title "Work and Welfare in the Digital Age: what we know and what we need to know". The regional government of Gipuzkoa was our host. The Summer School was carried out in cooperation with the Belgian strategic basic project *Paradigms 4.0*. The Summer School brought together experienced and young researchers sharing a common interest in investigating the impact of the digital transformation and identifying policy options that support succesful transformation. The Summer School also helped the BEYOND4.0 project map out future detailed directions in terms of the scope and focus of its research.

Several deliverables were produced in the second half of 2019, including the "Guidance paper on key concepts, issues and developments" (http://beyond4-0.eu/publications). This framework document describes the concepts, issues and developments that underlie the BEYOND 4.0 project and outlines how the research team will execute its statistical, case study and historical research.

… looking ahead …

To a larger audience's relevance, the big picture that BEYOND4.0 aims to address is the reduction of poverty and equality and an increase in decent work within the digital era. These are major policy concerns for the EU for linked instrumental and political reasons. Instrumentally, the EU needs to develop an evidenced-based alternative to claims of a workless or at least jobless future. Politically, the EU project is currently being challenged, with many of its citizens worried about being 'left behind' as the EU recovers from the global financial crisis.

In the coming months BEYOND4.0's journey continues. We have started creating databases for the research. We have selected six EU regions (Oulu and Salo in Finland, Sofia in Bulgaria, Düsseldorf and Dortmund in Germany, Zuidoost-Noord-Brabant in the Netherlands, the Basque country in Spain and the West Midlands in the United Kingdom) where BEYOND4.0 will investigate incumbent and emerging business ecosystems in specific industries that have adopted digital technologies. In each of these

regions we will examine selected companies and work with relevant stakeholders behind the digital transformation. Our approach is inclusive in practice, not just aspiration. Our ecosystems analysis will involve company visits, regional workshops and meetings at national and EU level. If you want to join, contact us.

Ultimately, BEYOND4.0 wants to identify and promote evidence-based ideas for how poverty can be reduced and more equality and decent work can be achieved in the digital age. We believe that these aims are shared by the public – and voters. The EU also considers these topics to be important policy issues for political as well as more practical reasons. A practical reason is that the EU needs to have a picture of what an unemployed future would mean, socially and economically.

How to conduct the dialogue with the Beyond4.0 team?

The Beyond4.0 team will continue its work steadily in the coming years. We want to involve in the conversation anyone and everyone who wants to (help) address and mitigate the risks of the future. Beyond4.0 has a social media presence. You can find us on twitter (@beyond4_0) and LinkedIn and on our website (www.beyond4-0.eu). We already have more than 8800 followers on these media, so enough contacts discussion to start. Of course, the Beyond4.0 team disseminates its work through a range of other activities and events. Our website tells you what and where. You can also find our addresses in the digital space. You are an email away from being part of the conversation on how to improve our digital future.

Project Identity

Project name	Inclusive Futures for Europe BEYOND the impacts of Industrie 4.0 and Digital Disruption — BEYOND4.0
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	Nederlandse Organisatie Voor Toegepast Natuurwetenschappelijk Onderzoek TNO, Netherlands
	Technische Universität Dortmund, Sozialforschungsstelle Dortmund (sfs) (TUDO), Germany
	UCL Institute for Innovation and Public Purpose (IIPP), London, UK
	University of Helsinki, Finland
	University of the Basque Country - Sinnergiak Social Innovation, Basque Country - Spain

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