

Shaping the future of work

A faith based contribution to the ILO Centenary Initiative

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Outline of presentation

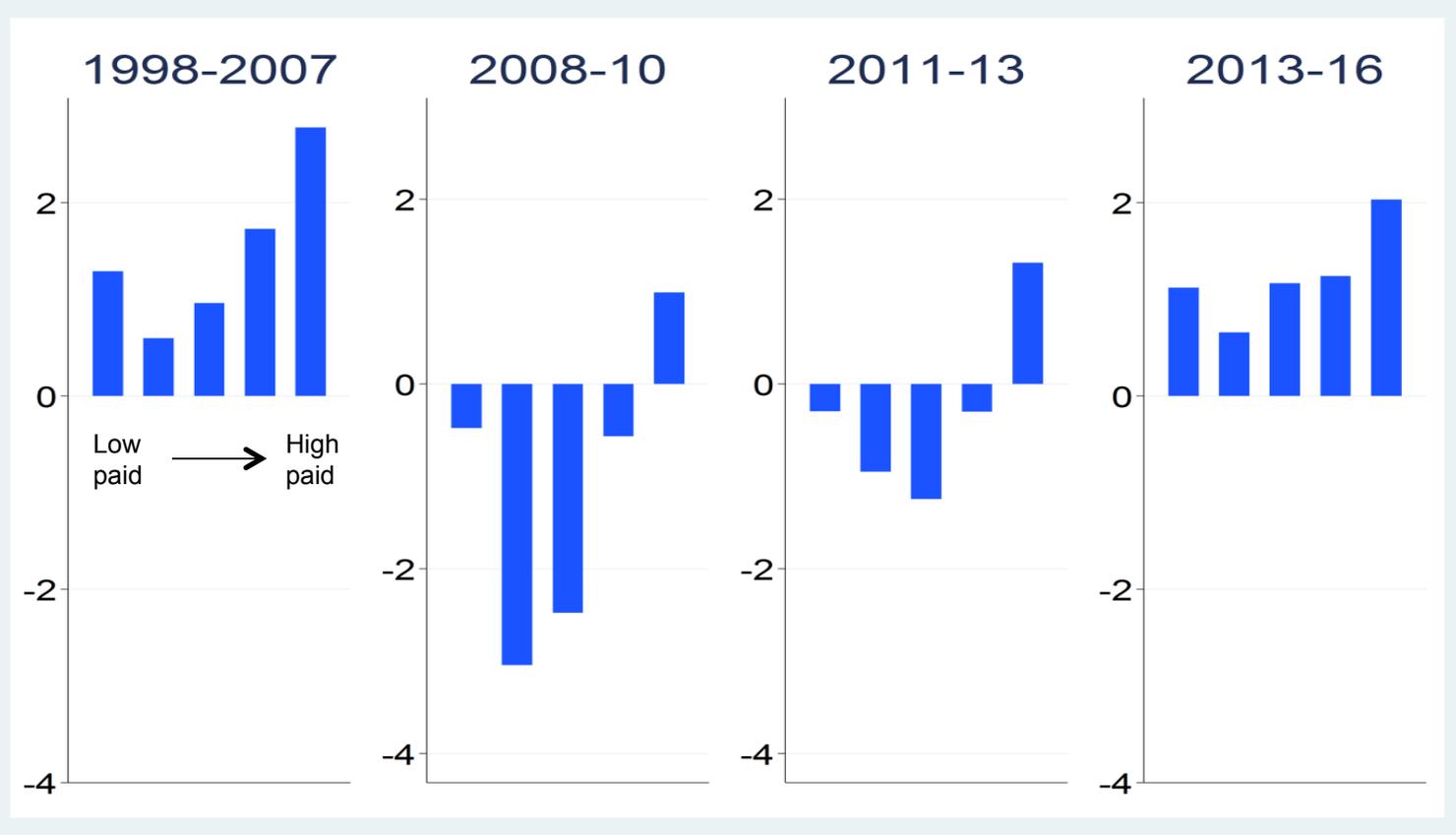
1. How is employment changing?
2. What is the digital revolution?
3. How is it predicted to affect work and employment?

How is employment changing?

EU-28	2018, %	change 2008-18, ppts
Employment rate (20-64)	73.2	+2.7
Gender employment gap (15+)	8.0	-2.5
Part-time share of employment (15+)	20.3	+2.1
Older worker (>=55 yrs) share (15+)	19.4	+5.7
Graduate share (15+)	34.9	+9.3
Services share (15+)	71.4	+4.2

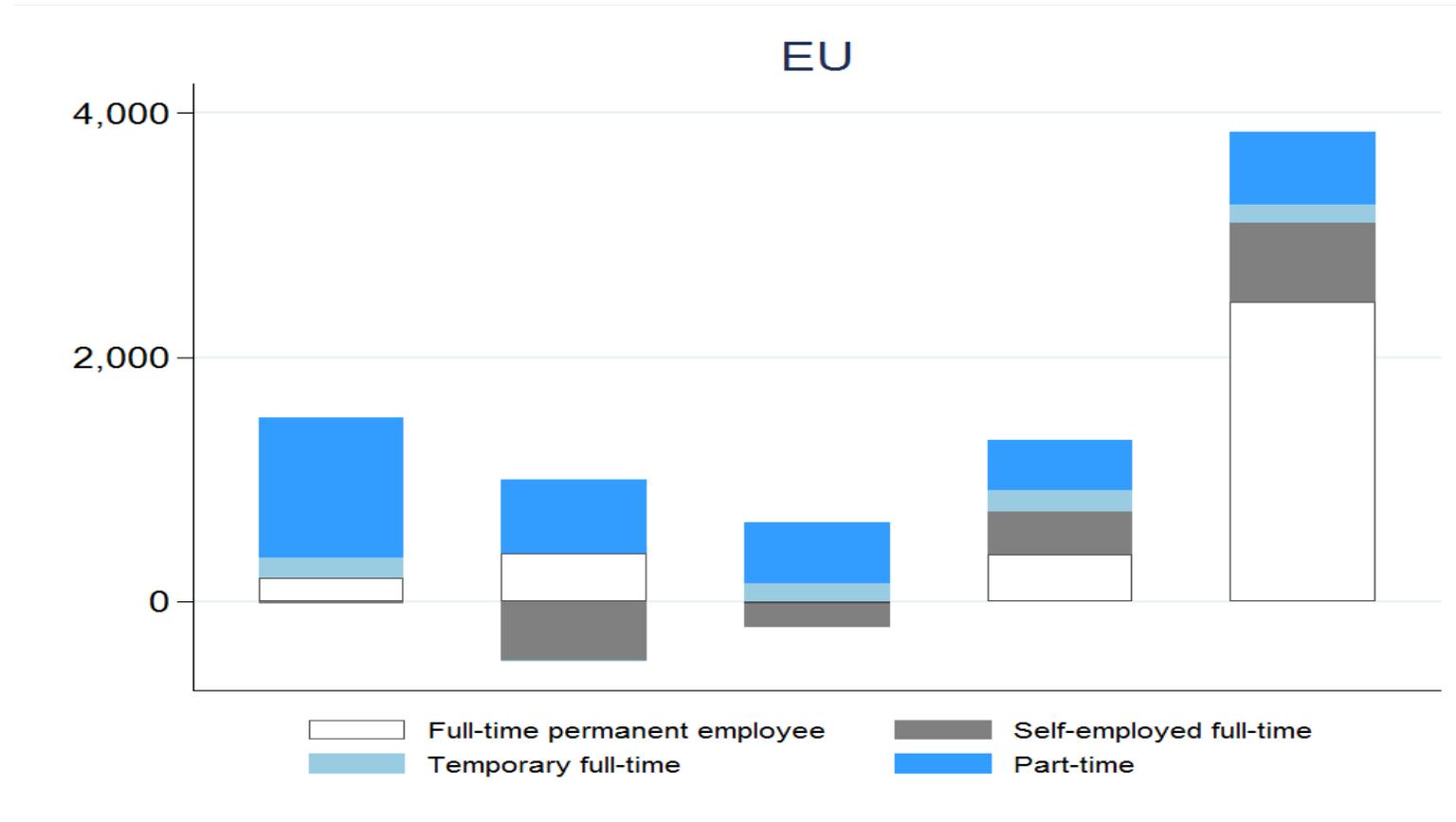
Source: Eurostat / EU labour force survey, author's calculations

Employment shifts (%pa), EU by job-wage quintile



Source: Eurofound. European Jobs Monitor annual report 2017

Growth of atypical employment, 2011-16



Source: Eurofound. European Jobs Monitor annual report 2017

The digital revolution

- “a general acceleration in the pace of technological change in the economy, driven by a massive expansion of our capacity to store, process and communicate information using electronic devices”
- Core inventions: microprocessor, networking/internet, artificial intelligence / self-learning algorithms

Some predictions

- Differing assessments of the likely impacts of the digital revolution
 - the ‘second machine age’ (Brynjolfsson/McAfee, 2014)
 - Digital Revolution as the trigger of an evolutionary leap in humankind equivalent to the appearance of the Homo Sapiens (Kurzweil, 2005; Harari, 2016) ... or
 - ‘a peripheral set of innovations mostly relevant for leisure industries’ (Gordon, 2016)
- And impact on employment
 - Technological displacement – 47% US employment automatable via computerisation, Frey/Osborne (2013) within ‘a decade or two’
 - More recent, more modest estimates – 9-14% ‘of jobs in OECD countries are highly automatable’. OECD (2018), Arntz et al, (2016)
 - Above assessments based on a technical, ‘tasks’ approach – where occupations / jobs / work are decomposed into sets of discrete tasks

Will the digital revolution reduce employment?

1. In any previous tech revolution, the jobs destroyed were more than matched by those created in new and growing occupations and jobs.
 2. Because specific tasks are technically capable of being replaced does not mean that people doing them will lose their jobs. They may just be reassigned to new duties – high street banks employ similar levels of staff now as before the introduction of ATMs.
 3. Many jobs are restricted to those with qualifications, subject to occupational licensing, including many very high paid jobs. Increasing specialisation implies greater regulatory, administrative and technical overhead – more jobs, not less jobs.
 4. Technically, computers are probably better now than radiologists with 12+ years of professional training at detecting cancer in a diagnostic scan. Will radiologists become superfluous? Or will they just become better, more accurate, more productive in their principal tasks?
- Is this time different?
 - **Employment and volume of hours worked** in EU and USA in 2018 higher than it has ever been
 - Unemployment rate in some larger developed countries (DE, USA) at lowest level in a generation
 - More jobs than people ...

Will the digital revolution reduce employment? (contd)

- Hard to automate tasks, the three ‘hard boundaries’:
 - Tasks requiring perception / manipulation, especially in unstructured environments,
 - Tasks requiring creative thinking, new ideas
 - Tasks requiring sociability, interactive communication
- All socio-technical transformations revolve around new “general purpose technologies” – steam, electricity, digital communication.
- But humans are still the most evolved, adaptive general purpose technology of them all....



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Conditions

The tripartite EU Agency providing knowledge to assist in the development of better social, employment and work-related policies

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Thank you for your attention!

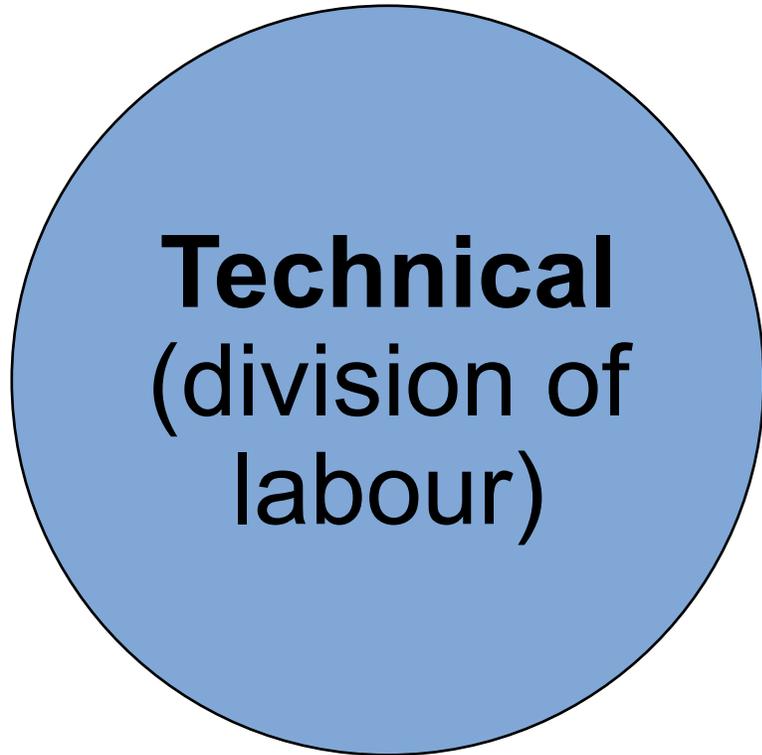
eurofound.link/digitalage

Eurofound's ongoing work on Digital Age and work

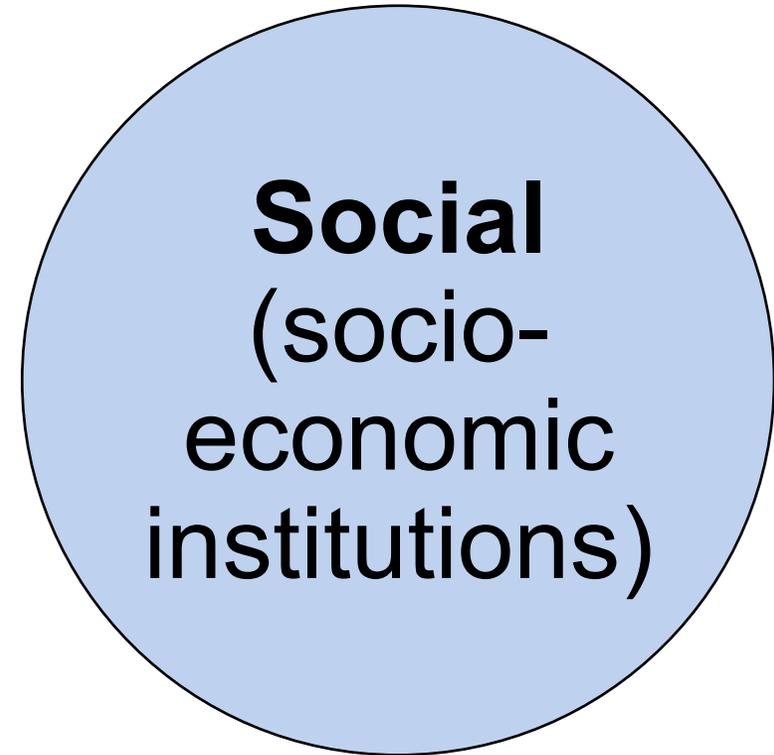
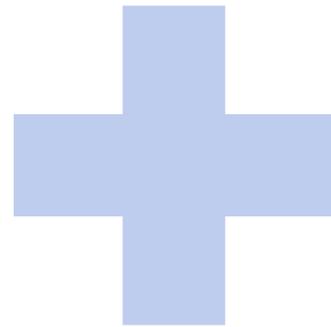
- One of two major areas of transversal research in Eurofound's 2017-20 work programme
- Builds on previous work on new forms of employment
- Concentrates on three areas of innovation likely to have the biggest impact on work and employment:
 - **Digitisation**
 - **Automation**
 - **Platforms**



Human input in production process



= Separation and allocation of tasks to different persons cooperating in an economic process



= Social coordination supports the functioning of economic processes by providing stability and by dealing with their external effects

Four key attributes of digital technologies with transformative potential for economic activity



Flexibilisation of production

Fast and pervasive information availability

Emergence of digital goods with low or zero marginal costs

Strong network effects