

Using the Same Digital Tools Does Not Mean Doing the Same Work

What workers across the EU-27 say about their digital device use, their routines, and how much say they have over their own day

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The Issue

Europe measures its digital progress by counting things: broadband coverage, firms that have bought software, and workers with digital skills. The EU's Digital Decade targets are built on such counts. They tell us whether the technology has arrived. They say almost nothing about what happens once it does, but reveal much less about how they are organised within everyday work.

That gap matters, because the same level of digital use is embedded in very different jobs. In one, a screen frees a worker to decide what to do and when. In another, it sets the pace, logs every step and leaves little room to depart from the script. Both count as “digital use”, but they represent different forms of workplace transformation.

KEY FINDINGS

- **Similar digital use can mask different work organisation:** Two groups of countries are 1 percentage point apart in intensive digital use (46.5% and 47.5% of workers) but 11.6 points apart in repetitive work (43.4% and 55.0%).
- **Lower digital use coincides with more constrained work:** In the third group only 31.6% use digital devices intensively and 38.1% never use them. Yet 63.0% do highly repetitive work and just 19.3% have real say over their tasks.
- **Digital intensity is linked to stronger sectoral wage positions:** A 10 percentage-point higher share of intensive digital users is associated with roughly 2–3% higher relative sectoral wages, with the association strongest in Routine-Constrained systems.
- **Repetition task structures are linked to weaker relative pay:** Within the same sector, higher task repetitiveness is associated with lower relative pay in both the Routine-Constrained and Standardised Digital systems.

What We Did

In 2022, the EU Labour Force Survey ad hoc Job Skills Module collected worker-reported information on how work is actually performed across all 27 member states. We focus on three dimensions: digital-device use, task repetitiveness, and workers' discretion over what they do and in what order. This worker-level perspective goes beyond what firms buy or adopt and allows us to examine part of the skill and organisational environment in which digital tools are used.

We grouped countries by those answers using k-means clustering; three labour-market clusters emerge, and we call them *work systems*. We then stepped back from the worker-level view and examined how these work systems are reflected in the broader structure of employment and pay, using sectoral employment data from the EU-LFS (2022) and sectoral hourly wages from the Structure of Earnings Survey (2018), covering 438 country–sector observations. Because the data are cross-sectional and come from different reference years, the results show which patterns move together across countries and sectors, not which one causes the other.

The same intensity of digital use may correspond to very different jobs. How work is organised is part of the digital transformation.

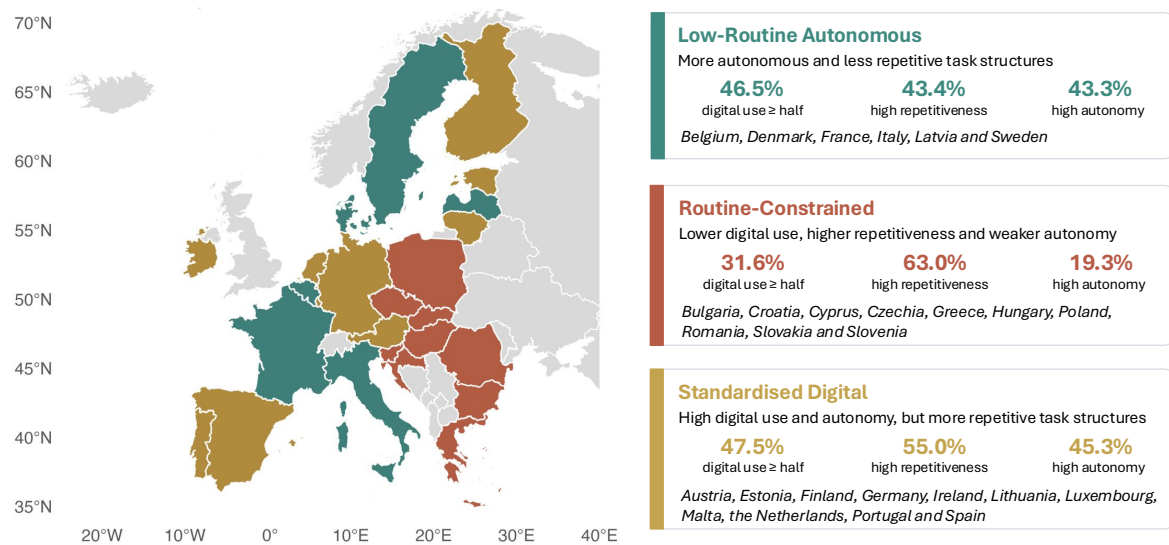


Figure 1: Three ways Europe organises digital work. “Digital use” means using a digital device for at least half of working time; “high repetitiveness” means performing tasks repetitively to a large or very large extent; and “high autonomy” means having substantial discretion over what tasks are done or the order in which they are performed.. Clusters from the EU-LFS Job Skills Module, 2022.

What We Found

Figure 1 shows the three work systems. Two of them look like almost identical if we look only at digital/use intensity. In the **Low-Routine Autonomous** group (Belgium, Denmark, France, Italy, Latvia and Sweden), **46.5%** of workers use a digital device for at least half the working day. In the **Standardised Digital** group (Germany, the Netherlands, Spain, Austria and seven others), it is **47.5%**. One percentage point apart.

Look at how these jobs are organised, and the resemblance falls apart. Highly repetitive work covers **43.4%** of workers in the first group and **55.0%** in the second: a gap of **11.6 percentage points**. Similar digital intensity, different task environments.

The third system, **Routine-Constrained**, mostly Central and Eastern Europe, breaks the pattern the other way: the least intensive digital use (**31.6%**, with **38.1%** using no device at all), the most repetitive work (**63.0%**) and the fewest workers who decide their own tasks (**19.3%**). Less digital use, higher repetitiveness and weaker autonomy.

The wage picture adds another evidence. A 10 percentage-point higher share of intensive digital users is associated with roughly 2–3% higher relative sectoral wages, most strongly where intensive digital use is least common. Task structure matters as well: the relationship between repetitiveness and relative wages is more

negative in the two more repetitive work systems. Together, these results suggest that sectoral wage patterns are associated not only with digital intensity, but also with the task structures in which digital technologies are embedded.

Where Do These Differences Show Up?

In some sectors, digital technology comes with the job; in others, how deeply it is integrated varies much more across countries. The largest differences appear in traditional and organisationally diverse sectors, where technology use is less built into the nature of the job and the extent of digital integration varies more across firms and countries.

Manufacturing is the clearest case. It accounts for roughly 18–19% of employment in Routine-Constrained systems, compared with about 12–13% in the other two profiles, and these systems are also more dominated by small and medium-sized firms. This stronger manufacturing concentration is not associated with a stronger relative wage position. The ranking of sectors is broadly similar across work systems: finance and ICT stand around 0.2–0.5 log points above national averages, while accommodation and food services fall to around 0.4 log points below. What differs most is the spread: sectoral wage dispersion is widest in Routine-Constrained systems (Figure 2, overleaf).

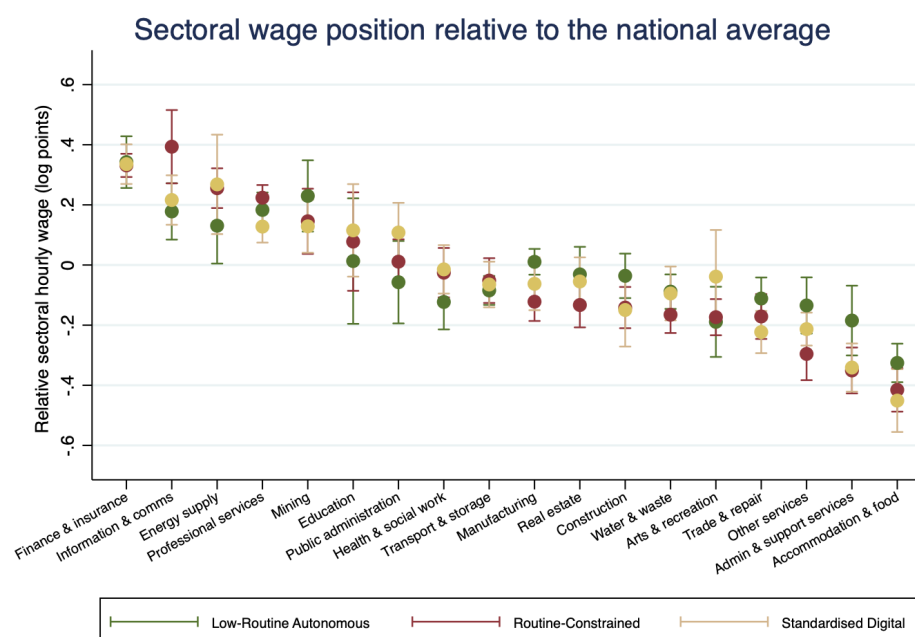


Figure 2: What each sector pays, compared with its own country's average. The ranking of sectors is similar across work systems; the distance between the best- and worst-paying is not. Structure of Earnings Survey, 2018.

Policy Implications

1. Measure the Job, Not Only the Equipment

To reveal differences among countries and the bottlenecks holding back development, statistics need to go beyond equipment measures such as broadband maps and adoption rates. Add questions about the work itself: how repetitive is it, and how much does the worker decide? Two countries can score the same on every current indicator and still give their workers very different jobs.

2. Pay for the Reorganisation, Not Just the Hardware

Buying the software is only the first step. The gains come from what a firm does next: redesigning workflows, upgrading tasks, training the people who use the tools. R&D policy should support the reorganisation and operation of digital tools, not only the installation of hardware.

3. Support Digital Upgrading in Smaller Firms

The wide differences prevail in traditional industries, manufacturing above all, where smaller firms often lack the financial and managerial capacity to use digital tools productively. Industrial policy should support the transition of small firms into medium-sized enterprises with the capacity to make digital tools pay off.

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