Digital Skills & Jobs Platform

“The wind of change”: is skill-based recruitment in the digital economy on the rise?

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Subtitle

For many years, the degree from a higher learning institution served as the standard ticket into a career in the field of technology, indicating that the individual was capable of thinking, studying, and achieving. However, this is no longer the case. In the ICT industry throughout Europe, a growing number of companies no longer care so much about where and whether or not the individual has been studying but rather, simply about what they can actually do and whether they can prove it. Are they on the right track? This essay seeks to find an answer to this question.

Summary

Europe is short of digital talent. The EU employs only about half the Information and Communication Technology (ICT) specialists it has promised to reach by 2030, most firms that try to hire them struggle, and the skills employers need are changing faster than education can keep up. Skill-based hiring (judging people on what they can do rather than on the degree they hold) is increasingly offered as the fix: a way to widen the talent pool, hire faster and open digital careers to capable people without a conventional qualification.

However, the truth is far more complicated than portrayed in the media. While many organisations claim to be looking for skills in their recruiting practices, very few have changed much in this respect. The following pages will take into account the pros and cons of skill-based recruiting within the ICT sector, and try to figure out what this holds for the future of jobs in Europe.

Keywords

digital skills · skill-based recruiting · ICT recruitment · digital jobs · future of work

About the author

Dr İbrahim Akben Assoc. Prof. is an innovator researcher whose main areas of interest are digital transformation, sustainability and future of work. After his education in the field of business administration and international logistics, Dr. Akben has been interested in the effect of changes and innovations brought about by technological advancements on organisations, workforce and individuals.

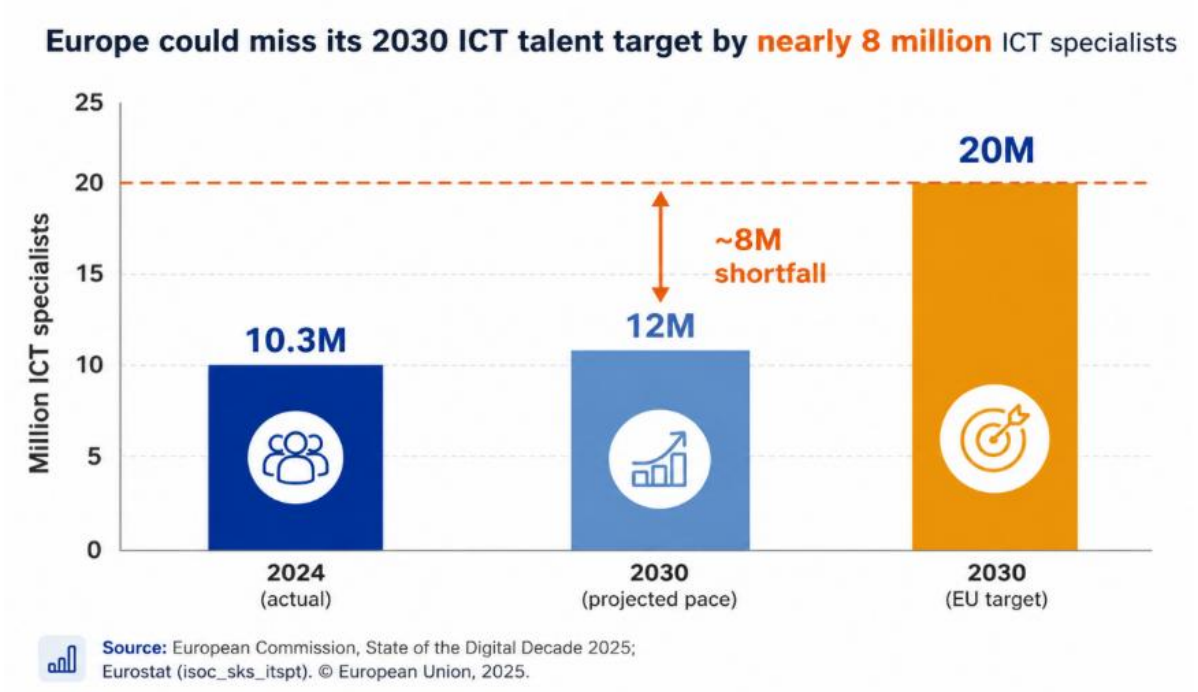
His research interests revolve around the influence of artificial intelligence, digitalisation, industry 4.0, etc., on organisations, individuals and societies as well. His research questions revolve around one major inquiry: How do individuals/organisations cope with technological advancement in a way that creates innovation, inclusivity and sustainability? Over the years, Dr Akben has taken part in a variety of national and international research and innovation projects, collaborating with universities, industry partners, public institutions, and civil society organisations. He also serves as an external evaluator for several European research and innovation programmes and is a member of the European Parliament's Academic and Scientific Expert Pool, contributing his expertise to research, innovation, and policy-related activities at the European level. His current interests include digital skills, lifelong learning, workforce development, and the changing relationship between education, skills, and employment. Through his research and international engagement, he aims to help policymakers, organisations, and individuals better understand and respond to the opportunities and challenges of Europe's digital transformation.

What makes hiring in the digital economy different now

A new revolution is quietly taking place in the way that Europe's tech professionals are recruited. The old formula of going straight from an educational background through a graduate program and finally into a job is becoming less prominent by the day. This is not necessarily because the formula no longer works - but because there is a new normal for many jobs in the digital industry. Companies are increasingly asking candidates not where they have been and what they have studied, but what they can actually do.

Skill-based or skills-first hiring is not simply a phenomenon emerging out of the blue, but rather a necessary step taken in response to real-world problems. The EU has set itself the goal of employing 20 million ICT specialists by 2030 under the Digital Decade Policy Programme. But progress remains insufficient. In 2024, an estimated 10.3 million (barely half the target) ICT experts worked in Europe, with the figure is projected to reach only around 12 million by the end of the decade (State of the Digital Decade 2025; State of the Digital Decade 2026, Eurostat, 2025). Despite a range of efforts, included targeted funding under the Digital Europe Programme, the number of ICT specialists in employment stood at approximately 10.5 million, i.e. *just above* the target. Basic digital skills attainment remains equally patchy: in 2025, 60% of European citizens had them, with the figure expected to reach only 68% by 2030, and 80% by 2037 (European Commission, 2026).

Figure 1. The EU's ICT Specialists Gap



The result is a chronic mismatch between the talent employers need and the talent they can find through conventional channels. When the supply of credentialed graduates cannot keep pace with demand, the rational employer response is to broaden the definition of *"qualified"*. The question is whether that broadening is genuine,

and which parts of the ICT sector it is reshaping.

Skill-based recruitment

Definition and current trends

Skill-based recruitment is based on a basic principle that assesses an individual based on their capabilities rather than on paper certificates. A certificate, in essence, only becomes a proxy for something more - it becomes a proxy for *your capability of doing the job*. The skills-based recruitment process attempts to quantify your capability by conducting practical assessments, work-based sample assessments, problem-solving, coding challenges, project assessments, etc.

This new concept has garnered considerable attention. By 2025 a large majority of employers reported prioritising skills over formal qualifications, and the technology sector led the way. LinkedIn's Economic Graph estimates that adopting a skills-first approach would expand the average EU member state's talent pool more than sixfold, while most recruiters concede they screen out capable candidates simply for lacking conventional credentials (LinkedIn Economic Graph, 2023). Industry analysts increasingly characterise the sector's recruitment culture as "skills-first", and the World Economic Forum reports that employers expect to widen recruitment around current, demonstrable capabilities rather than static qualifications (World Economic Forum, 2025).

Yet, there is an important caveat hiding behind the enthusiasm. Research by Harvard Business School and the Burning Glass Institute found a large gap between what firms say and what they do: although the overwhelming majority announce launching skills-based policies, the change reached fewer than one in 700 actual hires in the roles studied (Sigelman et al., 2024). Removing an educational qualification requirement from the job advertisement is unlikely to change who is shortlisted and who gets recruited. The "say-do" gap is one of the key characteristics of the era we live in. Therefore, a healthy skepticism should be applied to media reports of success in recruiting without college degrees.

Degree-based vs skill-based hiring in ICT

Degree-based and skill-based approaches to hiring are not opposite ends of the spectrum. Both try to answer the same questions – whether this person will perform well at this job.

Pros of degree-based hiring

Degree-based hiring filters candidates based on formal education. One advantage of the approach is the ease and efficiency of screening. An educational qualification proves that someone was willing to learn continuously, that he had strong theoretical background, and was capable of successfully completing a rigorous study program. The process is simple and universal. Yet, degree-based hiring looks like a poor choice in ICT industry due to several weaknesses.

Reasons for the growing importance of skill-based recruiting

Skill-based hiring reverses this logic. Skills are evaluated, irrespective of how the candidate acquired them. The strengths include access to a broader talent pool, improved compatibility of skills with the role, increased speed of recruitment, and a better chance for self-taught experts, career changers, and bootcamp students. The benefits can also be tangible – as reported by McKinsey, hiring based on skills is almost five times more likely to predict employee performance compared to hiring based on education, and nearly twice more predictive than hiring based

on experience. Additionally, companies implementing the skill-based approach see higher retention rates among employees without degrees (McKinsey & Company, 2022; Sigelman et al., 2024).

The drawbacks of skill-based hiring cannot be ignored either. High-quality skills assessment is time- and resource-intensive. Poor quality skills assessments would just replace one unreliable criterion for selection by another. Verifying the authenticity of credentials and portfolios is difficult enough, and the emergence of generative AI only adds to the problem by facilitating forgery. Finally, a myopic focus solely on testable skills could mean neglecting broader competencies, such as deep knowledge of the field, adaptability, judgement, etc. developed during longer studies and becoming increasingly relevant as technologies evolve.

This should not be taken as mere corporate propaganda either. There is substantial empirical evidence showing that skill-based hiring approaches may indeed result in better talent matching and greater inclusivity in industries with persistent skills shortages (Sigelman et al., 2024; World Economic Forum, 2025). Personnel selection research spanning decades also proves that tests assessing work samples and competency are among the most accurate predictors of performance in the job, while exam scores are often a poor indicator of job-relevant skills, with grade inflation further reducing their utility (Schmidt & Hunter, 1998; Van Iddekinge et al., 2024).

On the other hand, personnel selection research cautions against discarding college degrees. Graduate-level studies remain positively associated with a higher probability of employment and earning higher salaries since employers interpret a degree as reliable evidence of job-specific skills and desirable traits such as perseverance and collaboration (Neugebauer et al., 2026). In summary, available evidence confirms a need for balance.

Conclusion: Degree-based hiring is neither disappearing nor declining dramatically but ceasing to be the dominant method in the ICT sector.

Table 1. Recruiting by qualifications vs skills in the ICT sector

Dimension	Degree-based hiring	Skill-based hiring
Primary signal	Formal qualification (proxy for ability)	Demonstrated competence (direct evidence)
Talent pool	Narrower (degree holders)	Wider (any route to skill)
Speed of screening	Fast, low cost	Slower to design, higher upfront cost
Currency in fast-moving tech	Risk of outdated curricula	Reflects current capability
Inclusion potential	Tends to entrench access gaps	Can widen access if assessments are fair
Main risk	Excludes capable non-graduates	Signal noise; verification and bias challenges

Source: *Author's synthesis of State of the Digital Decade 2025, Eurostat (2025), World Economic Forum (2025), LinkedIn Economic Graph (2023), and McKinsey & Company (2022). Reproduction authorised with proper citation.*

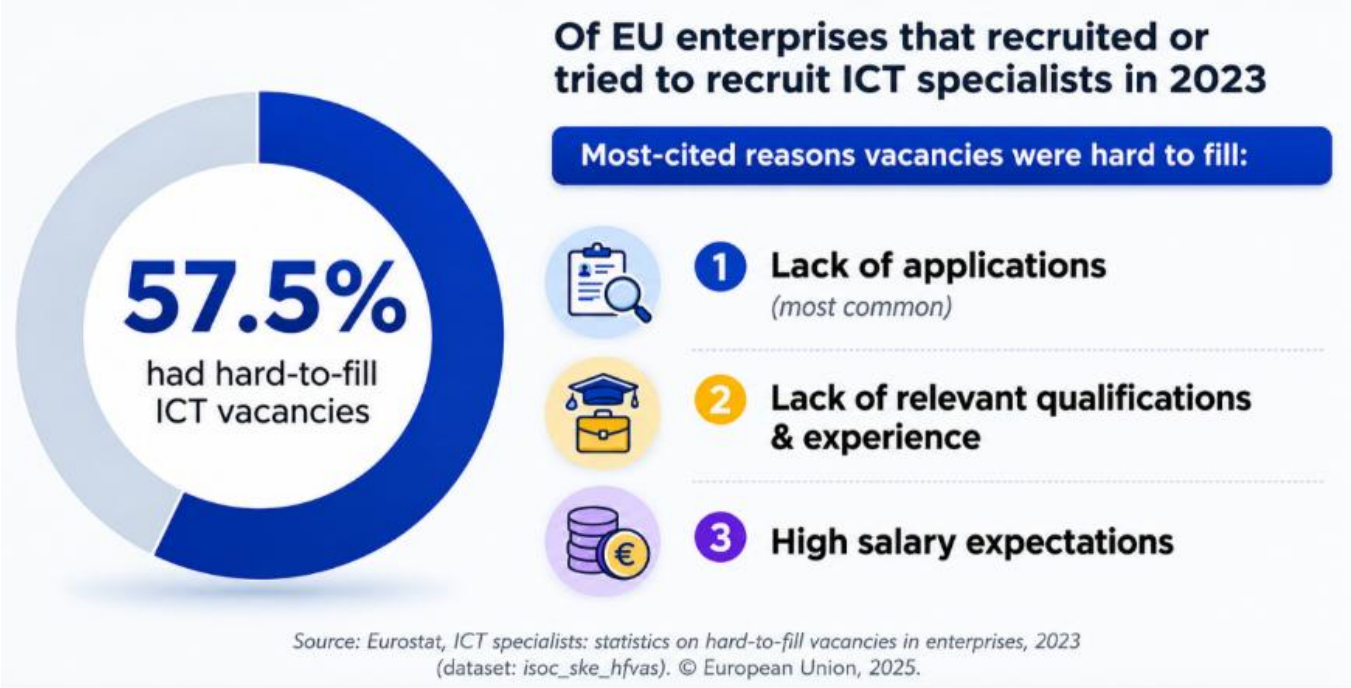
Reasons for employers changing their recruiting practices

Skills gaps, digitisation, and the AI catalyst

The most significant determinant driving skill-oriented recruiting in ICT is the gap in availability. Over half (57.5%) of organisations in the European Union that attempted to recruit ICT professionals in 2023 experienced difficulties with hiring for these roles (Eurostat, 2025).

Big businesses feel it the most intensely, and the percentage of organisations struggling to recruit skilled technicians has increased considerably in the last 10 years. Amongst reasons for this shortfall, cited by organisations, are lack of candidates, absence of adequate qualifications and experience, and unattainable salary expectations. The last two are especially relevant to a focus on skills - if organisations are unable to find **enough qualified candidates,** then they either need to change their recruitment strategy – or make do without recruits.

Figure 2. Why is recruiting for ICT jobs such a difficult task?



It's not just scarcity; it's the speed at which skill requirements evolve. The World Economic Forum's *Future of Jobs Report 2025* found that employers expect 39% of workers' core skills to be transformed or outdated by 2030, with technological skills (AI and big data, networks and cybersecurity, and general technological literacy) growing in importance faster than any other category (World Economic Forum, 2025). When the half-life of a skill is measured in a handful of years, a qualification earned a decade ago tells an employer less and less.

Then there is artificial intelligence itself, which is reshaping ICT roles from the inside. As AI tools automate routine coding and analysis, employers increasingly value problem-framing, system design, judgement and the ability to work alongside intelligent tools: capabilities demonstrated through work, not certified by a diploma. Tellingly, the proportion of AI-exposed jobs that require a degree has been falling, from 66% in 2019 to 59% in 2024 (PwC,

2025). Global technology employers including IBM, through its long-running "new collar" approach, and Google have removed degree requirements from many roles and now recruit on demonstrated skill, training new hires in-house where needed (Thier, 2022).

Implications for employees and learners

This transition is positive for job seekers overall, although it alters their homework requirements. A university degree is still valuable, not least because of the breadth and depth that it offers and its applicability to some positions which still require it. However, it is far from the only relevant credential, which is becoming something job seekers must prove in addition to having.

Industry certifications, coding bootcamps, and micro-credentials

There are several paths to follow when looking for work in ICT. Industry certifications, awarded by companies like AWS, Microsoft, Cisco, CompTIA, and Google, serve as valuable credentials in areas like cloud computing, networking, and cybersecurity. Bootcamps that focus on teaching skills relevant to the job market can turn someone with little programming experience into qualified developer within just a few months. More and more employers also consider the recognition of digital badges and micro-credentials, which serve as evidence that an employee completed a short course in a specific skill.

The importance of portfolios

Another powerful component of any application in ICT may be a portfolio, rather than a certification. Github repositories, deployed applications, participation in open-source development, as well as examples of designs prepared in the process of education, can all provide the same evidence of one's capabilities as industry certifications.

Lifelong learning as the key to career success

All of this rests on lifelong learning. In the context of a constantly-evolving environment, where the lifespan of skills in use becomes shorter every year, being able to acquire new competences becomes more important than ever before, while curiosity and motivation to keep developing become increasingly high-priority characteristics in job candidates (World Economic Forum, 2025). For a learner, this means building a career around the acquisition of various skills on regular basis, rather than earning a degree once and using it forever.

Digital skills policy, inclusion and workforce development

The policy of Europe has, in a sense, prepared itself for this transition and is now working towards giving it structure, quality, and trust. There are three clear ways in which this has been done.

Firstly, there have been the micro-credentials. The Council of the EU passed a recommendation in June 2022 regarding the development of a European approach towards micro-credentials that can support lifelong learning and employability. This recommendation establishes a common definition of micro-credentials, common standards, and quality principles so that the short-term, focused courses can be validated consistently irrespective of institution, sector, and geographical location. This is necessary because the key problem with the skills-first market is the signal problem: without consistent standards, any certificate only has as much credibility as its issuing authority. Common standards are precisely what turn a chaotic patchwork of badges into a functioning currency.

Second, a skills-first strategy at the heart of competitiveness policy. In March 2025 the European Commission launched the Union of Skills, a flagship initiative explicitly promoting a "skills-first mindset" to tackle shortages and

strengthen competitiveness. It is accompanied by a skills-portability initiative built on digital credentials, four new Advanced Digital Skills Academies in AI, quantum, virtual worlds and semiconductors, and a STEM Education Strategic Plan aiming to draw more women into technical fields. The Digital Europe Programme has invested more than €294 million in skilling, upskilling and reskilling in areas such as AI, data science, cloud and cybersecurity.

Third, inclusion. This is where skill-based hiring offers its most compelling social promise. If capability rather than credential becomes the test, a clearer route opens for talented people currently locked out of digital careers: those without the means to complete a degree, career-changers, people in regions with weaker higher-education provision, and the many women under-represented in the field (women account for only around one-fifth of ICT specialists in the EU) - see European Commission, 2025; Eurostat, 2025. Industry evidence that skills-based methods can widen candidate diversity supports this hope.

The risks are equally real, and policy must manage them. A skills-first market without robust quality assurance can be gamed; verification systems must keep pace with AI-enabled fraud; and there is a danger of simply shifting the burden of training from employers and institutions onto individuals, who may lack the time or money to keep reskilling. In other words, inclusion is an output of the model, not an input: it requires that the assessment process and qualifications be genuinely inclusive.

Conclusion: what will ICT hiring look like in the future?

It is correct to say that skill-based hiring is becoming increasingly common in ICTs. However, it should be emphasized that this trend is moving away from pure skill-based selection towards a skills-first strategy. Although degrees are no longer seen as a necessary tool for entering the ICT world, they do not disappear entirely from the scene; rather, there is developing a blended approach where demonstrated abilities, confirmed by means of assessments, certifications, and portfolios are used along with formal education to show ability.

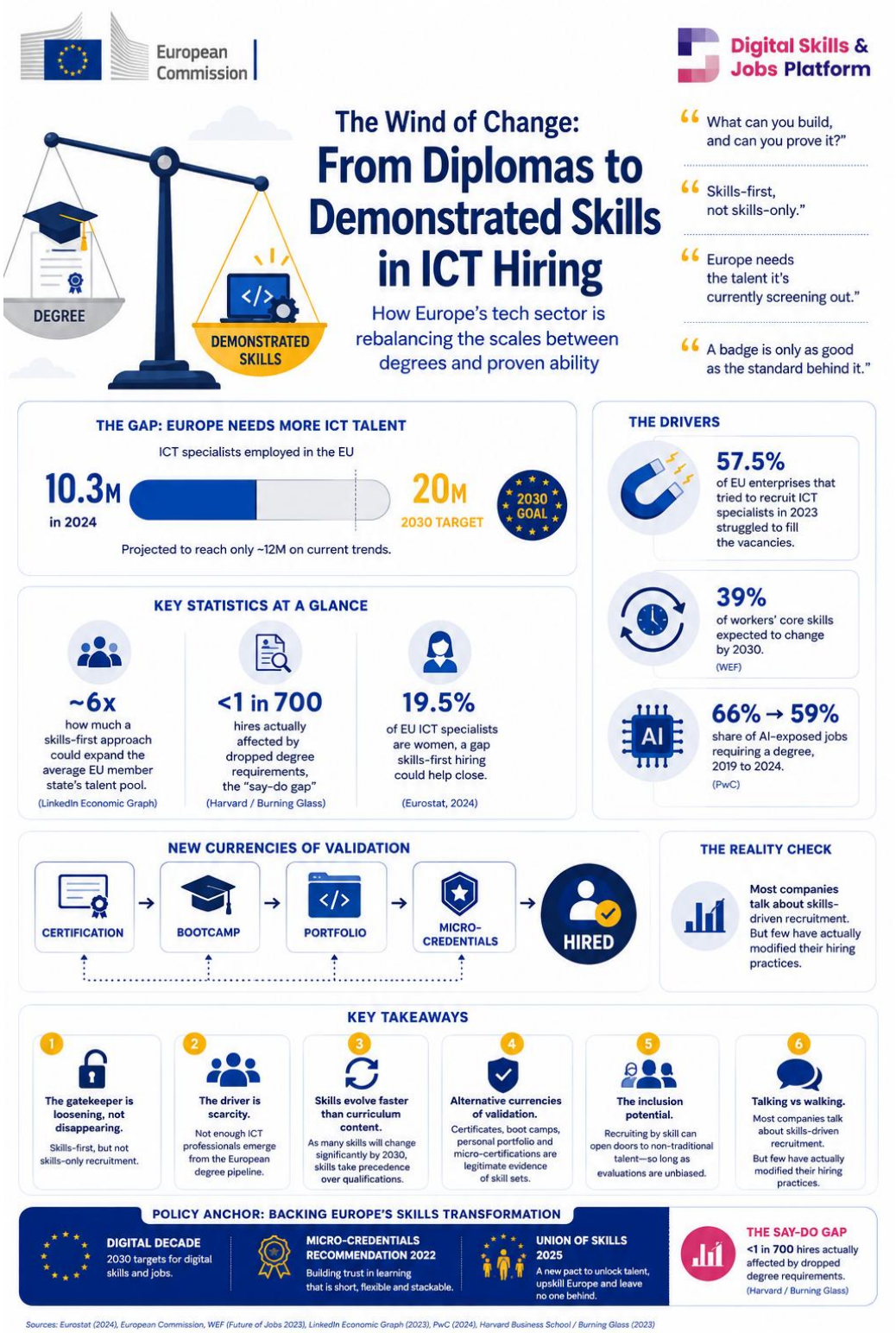
For Europe, the situation is particularly acute. Given the current failure to meet its Digital Decade goal of training 20 million specialists and the inability of the vast majority of recruiting agencies to adequately fill ICT jobs, Europe cannot afford to overlook talents who gained skills through alternative routes. Skill-based hiring, supported by common standards for micro-credentials and a coordinated skills strategy, is one of the more promising levers available to close the gap, and to do so inclusively.

Yet the say-do gap is also a cautionary tale. It is much easier to say one will adopt a skills-first approach than it is to reform systems of assessment, selection, and progression on that basis. The heavy lifting lies ahead in the hands of those responsible for delivering this shift. These include employers who have to implement robust assessments, universities adapting to the modular age, the government developing the framework of trust, and learners themselves, who must embrace lifelong learning. The results could mean that more people than ever before will benefit from this wave of change.

Table 2. EU Skills Policy Recommendations

Policies for Europe
1. **Expand micro-credentials.** Enhance their recognition through the 2022 Council Recommendation and Europass such that they are trusted and portable internationally. 2. **Align training with demand.** Support the partnership between companies and education providers based on the Union of Skills and the Advanced Digital Skills Academies in order to ensure that courses respond to genuine labour market demands. 3. **Protect credential integrity.** Fund quality assurance mechanisms for digital credentials because the advent of generative artificial intelligence has made it easier to forge credentials. 4. **Expand inclusion routes.** Offer opportunities for individuals who have no prospect of accessing an ICT career via the traditional path of university degrees – including women, mid-career individuals and those living furthest away from that pathway. By doing so, the winds of change will transform into favourable winds of progress for all concerned.

Figure 3. The Wind of Change: From Diplomas to Demonstrated Skills in ICT hiring



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