People, Culture and Skills as the Real Enablers of Industry 5.0

Insights from the BRIDGES / EUWIN Webinar, 27th February 2026

The February BRIDGES/EUWIN webinar explored a central but often underplayed question in digital transformation: *what actually makes advanced technologies deliver value in practice?* Drawing on longitudinal evidence from Irish and European manufacturing, Gareth Clarke of InnoGlobal argued that **people, culture and skills** are not supporting factors but the *primary enabling technologies* of Industry 5.0.

From Technology-Led Change to Human-Centric Transformation

Industry 5.0 places human centricity, sustainability and resilience at the heart of innovation. Yet, as the webinar discussion revealed, many organisations still approach digitalisation as a technology-first exercise. Clarke's presentation challenged this assumption using data from a **Digital Maturity and Sustainability Assessment (DMSA)** developed with the Irish Industry 5.0 Lighthouse Network and supported by the IDA.

The assessment framework examines over **70 Industry 5.0 concepts and technologies** across three dimensions: the **primary value chain**, the **secondary value chain** (including people, culture and skills), and **sustainability**. Participating companies assess both their current maturity and their future ambitions, enabling benchmarking across peers and the creation of evidence-based transformation roadmaps.

What the Data Shows: Culture as a Force Multiplier

Results from the initial 2021 assessment and a follow-up review in 2024 provided a rare longitudinal view of transformation outcomes. While progress was observed across all dimensions, a striking pattern emerged:

- Improvements in **people management, culture and skills** were consistently associated with **disproportionately higher gains** in the primary value chain, where productivity and competitiveness are realised.
- Even relatively modest advances in the secondary value chain acted as a **force multiplier**, amplifying the impact of investments in automation, data integration and advanced manufacturing technologies.

In contrast, organisations that focused narrowly on efficiency or technology deployment without investing in workforce engagement and capability building achieved weaker and less sustainable results. Clarke emphasised that this finding is **data-driven**, not aspirational: the evidence shows that digital transformation succeeds when people are actively enabled to shape and use new systems.

Digital Champions, Engagement and Organisational Learning

One of the clearest indicators of success identified in the assessment was the **appointment of digital champions and dedicated cross-functional teams**. Sites that embedded responsibility for digital and sustainability initiatives within their workforce—rather than treating them as external or IT-led projects—achieved higher levels of adoption and performance improvement.

This aligns closely with Industry 5.0 principles of human centricity. Engagement was strongest where employees perceived themselves as stakeholders in change, rather than passive recipients of new technologies. Tiered lean management systems, site-wide roadmaps and continuous learning environments all contributed to sustained progress.

Job Quality: An Important Challenge Raised in Discussion

The webinar discussion extended the analysis beyond productivity to **job quality**, prompted by questions from participants including Frank Pot. While the DMSA captures workforce engagement, skills development and empowerment across multiple dimensions, job quality is not currently represented as a single explicit metric.

The discussion highlighted the importance of distinguishing between *job satisfaction* and *objective job quality*. Participants noted that advanced digital systems can coexist with highly fragmented or repetitive work if human-centric design is neglected. Autonomy, task variety, learning opportunities and meaningful participation were identified as critical dimensions that merit greater visibility in future assessment frameworks.

Clarke acknowledged this as a valuable direction for further development, suggesting that existing indicators within the assessment could be combined to create a clearer picture of job quality aligned with established European research traditions.

Skills Intelligence and "Community-in-the-Loop" AI

A second major theme of the webinar was the **Skills for Energy Intensive Industries (Skills4EII)** initiative and InnoGlobal's work on an **Agentic AI Skills Intelligence Tool**. This system ingests diverse data sources—industry reports, labour market signals and expert input—to map emerging skills, transformed roles and cross-sectoral skill migration.

Crucially, Clarke stressed that the system is designed with **human and community validation at multiple stages**. Rather than relying solely on automated outputs, industry experts and stakeholder networks participate in validating both inputs and findings. This "community-in-the-loop" approach reflects the same human-centric principles identified as critical to successful technological change more broadly.

Barriers to Human-Centric Transformation

When asked about obstacles, Clarke pointed to several recurring challenges. Cultural change requires sustained commitment from leadership and is often perceived as costly compared to short-term efficiency gains. Resistance to change remains common, particularly when technologies are introduced without meaningful workforce involvement.

Partial or isolated interventions were identified as especially problematic. As Peter Totterdill observed during the discussion, changes introduced in one part of an organisation can be undermined by "organisational antibodies" elsewhere if transformation is not systemic.

Implications for Industry 5.0 Practice and Policy

The webinar reinforced a central lesson for Industry 5.0: **technology does not transform organisations—people do**. Data integration, automation and AI deliver value only when embedded within cultures that support learning, participation and shared purpose.

For practitioners, the message is clear: investment in people, culture and skills is not a soft add-on but a strategic lever for competitiveness. For policymakers and networks such as BRIDGES and EUWIN, the findings underline the importance of supporting **collaborative, evidence-based and human-centric approaches** to innovation across Europe.

As the series of BRIDGES/EUWIN webinars continues, this session offered a compelling demonstration that Industry 5.0 is not simply about smarter machines—but about **smarter, more empowered organisations**.