

The Human Side of the Upgrade: Turning AI into Better Work

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Lessons from Booth Welsh on combining smarter technology with stronger people, cultures and leadership.

The pace of technological change is no longer the only challenge facing organisations. The more difficult question is whether their habits, skills, structures and leadership can evolve quickly enough to use new technology well. That was the central message of a BRIDGES/EUWIN webinar featuring Martin Welsh, Aimee Doole and Andy Brittan from the Scottish engineering services company Booth Welsh. Their experience offers a practical Industry 5.0 case study: artificial intelligence creates value when it augments human capability, improves judgement and releases people from repetitive work – not when it is treated as a stand-alone technical project.

Technology is accelerating faster than organisations

Booth Welsh described a world in which the interval between major technological shifts is shrinking dramatically. AI is becoming cheaper, more capable and more accessible, while companies are simultaneously asking for services involving cybersecurity, the Internet of Things, digital twins, asset management and digitalisation. Yet widespread access does not guarantee useful adoption. Many pilots fail to produce a measurable return because the technology is introduced faster than people can change their working practices or leaders can redesign the organisation around it.

Culture is part of the AI infrastructure

Booth Welsh's response has been to give culture and technology equal weight. Its transition to employee ownership reinforced a values framework built around collaboration, ambition, resilience, empowerment and stewardship. These values are being used as practical design principles for AI: multidisciplinary teams

experiment together; ambition is balanced by realistic limits; resilient infrastructure and cybersecurity reduce risk; employees are given opportunities to learn; and stewardship guides responsible use, knowledge sharing and accountability. The wider lesson is clear: an AI policy is necessary, but behaviour, trust and participation determine whether it works.

AI should strengthen judgement, not replace it

A recurring theme was the move from simply prompting AI for answers to allowing AI to prompt people with better questions. Used in this “Socratic” way, it can test assumptions, expose blind spots and encourage users to consider alternative perspectives. Booth Welsh combines this approach with tools that help employees understand their personality, strengths and preferred working styles. The purpose is not to outsource judgement, but to make judgement more reflective. Curiosity, empathy, critical thinking, creativity and the ability to collaborate remain essential – and require deliberate practice as routine analysis becomes increasingly automated.

Start with real work, not fashionable technology

The company’s examples showed three complementary forms of AI. Predictive tools are being explored to forecast energy demand from monitoring data. Generative AI is used to produce consistent training content through an in-house digital presenter, and to compare technical documents so engineers can identify discrepancies earlier. Agentic AI is beginning to automate recurring workflows: one agent scans for relevant technology developments and posts a structured digest to Teams; another extracts equipment information from engineering diagrams so specialists can verify a prepared dataset instead of building it manually. In each case, the principle is “engineer first”: automation removes administrative effort while professional oversight remains in control.

Jobs will change - and learning must change with them

Booth Welsh is mapping the knowledge, skills and behaviours required across its job families and beginning to assess each role’s exposure to AI. Its stated intention is to upskill people as tasks change rather than use AI as a route to job loss. Recruitment is also becoming more values-based: polished applications are less informative when candidates can generate them easily, so curiosity, judgement, authenticity and learning potential matter more. At the same time, companies must avoid

eliminating the entry-level work through which people traditionally learned their professions. The better alternative is to automate repetition while giving junior employees earlier access to project work, mentoring and cross-functional rotations. This also creates two-way learning between AI-confident recruits and experienced specialists, while helping organisations capture knowledge before senior employees retire.

Practical steps for companies

- 1. Define the purpose before choosing the tool.** Identify operational pain points, decision bottlenecks and repetitive tasks where AI could improve quality, speed or resilience.
- 2. Create clear guardrails.** Publish approved tools and rules covering confidential data, cybersecurity, human review, accountability and the use of personal devices.
- 3. Build a cross-functional adoption group.** Include operational specialists, technology, HR and employee representatives so that experiments reflect real work and workforce concerns.
- 4. Run small, measurable pilots.** Establish a baseline and track time saved, error reduction, service quality, user experience and business value before scaling.
- 5. Keep a person accountable.** Treat AI outputs as material for professional judgement. Define who checks, approves and can challenge each automated result.
- 6. Invest in human capabilities.** Develop critical thinking, self-awareness, collaboration, empathy, creativity and question-formulation alongside technical AI literacy.
- 7. Map roles and redesign learning.** Examine which tasks will change, identify future skill needs and protect pathways through which junior staff gain experience.
- 8. Encourage safe experimentation and shared learning.** Use workshops, lunch-and-learns, demonstrations and communities of practice to spread useful applications and surface concerns.
- 9. Plan for agents as part of the operating model.** Give each agent a defined purpose, owner, permissions, data boundary, review cycle and retirement process.

10. Review continuously. Survey employees, monitor adoption and risk, update policies and stop initiatives that do not create demonstrable value.

From automation to augmentation

The webinar's most important message was not that every company should adopt AI as quickly as possible. It was that organisations should become better at shaping technology around meaningful work. Companies that combine practical experimentation with strong values, employee involvement, explicit governance and sustained investment in learning are more likely to turn AI from a source of anxiety into a tool for better decisions, richer jobs and stronger collaboration. That is the human side of the upgrade – and the foundation for a genuinely people-centred Industry 5.0.

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