

IET Skills for a Digital Future Survey

Examining the digital skills challenges engineering firms are facing

The Institution of Engineering and Technology (IET) carries out an annual skills survey of engineering employers in the UK. Our latest report* highlights the need to look further into digital skills. We asked employers about the skills challenges they are currently facing, how they are addressing these challenges, and what they need to do to adapt for the future.

This flyer presents the key facts and themes from the survey.

Advanced digital technology – current state of affairs

- 47%** of employers have staff that regularly use robotic/automated equipment
- 45%** of employers have staff that regularly use software/equipment that uses AI/machine learning
- 32%** of employers have staff that regularly use virtual/mixed reality

Economic consequences

Among those employers reporting a digital skills gap in their current workforce

- 49%** say it harms productivity
- 35%** say it restricts growth
- 35%** say it harms innovation
- 29%** say it reduces ability to deliver contracts

Skills gaps

- 54%** of employers report a technical skills gap in the external labour market
- 42%** of these employers specify a specialist digital or IT skills gap
- 47%** of employers report a technical skills gap within their current workforce
- 45%** of these employers specify a specialist digital or IT skills gap
- 48%** of those reporting a skills gap cite the professional level (HND+)
- 46%** of those reporting a skills gap cite the technician level
- 47%** of those reporting a skills gap cite the operative level

Addressing technical skills shortages

- 46%** of employers report a skills gap cite the technical level
- 48%** of employers prefer to train current employees rather than recruit more technicians (29%) to address this gap
- 63%** of employers are more likely to think on-the-job training is effective for addressing skills shortages than formal qualifications (35%) or e-learning (21%)
- 44%** of employers give their employees digital skills training
- 58%** of large companies are more than twice as likely as SMEs (27%) to give their employees digital skills training
- 59%** of employers think skills training is best done 'in-house' or by professional training bodies (53%) than in universities (29%)

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Industry trends

AI skills will be increasingly important of employers think its important their engineers understand AI by 2027, compared to 24% who think it's important now

31% of employers say AI/machine learning skills will be important to sector growth in the next five years

Among those that expect AI to be important for them, 50% say they don't have the necessary skills

48% reporting an AI skills gap say the shortage is at degree/professional level

32% reporting an AI skills gap say the shortage is at the technician level

46% say that senior management at their company does not understand AI

among other important areas engineers will be expected to understand in 2027

- 43% cloud computing
- 39% machine learning
- 37% data security/privacy

Most employers think that senior management doesn't understand other emerging technologies such as

- 51% extended reality
- 55% the metaverse
- 54% quantum engineering/computing

Digital strategy

51% of employers have a digital skills strategy

92% of those with a digital skills strategy need additional skills to deliver the strategy – across innovation, agile-thinking, and management skills

Despite this skills gap 47% of those with a digital skills strategy plan to deliver the strategy within the next two years

Government action

78% of employers support at least one government action that could help them meet their digital skills needs

58% of employers approve government support for reskilling existing employees:

40% support grants/loans for training programmes/reskilling

39% support more support to train/reskill in priority areas

39% support more funding for apprenticeships

33% support careers advice in schools/colleges

25% support easier visas to bring-in skilled workers

For further information and to read our full survey, visit theiet.org/skills

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