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

**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

**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

**Addressing technical skills shortages**
- 46% of employers report a skills gap cited 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%)

Read our full survey at theiet.org/skills
IET Skills for a Digital Future Survey

Industry trends

- **AI skills will be increasingly important**: 36% of employers say it's 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**.

- **43% cloud computing, 39% machine learning, 37% data security/privacy** among other important areas engineers will be expected to understand in 2027.

- **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](http://theiet.org/skills)

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