

Tomorrow's engineers must lead a retrofit revolution, says BESA

4 years ago



More young people should be inspired to take up careers in the built environment to make it more sustainable and resilient to climate change, according to the [Building Engineering Services Association \(BESA\)](#).

As part of the 10th annual [Tomorrow's Engineers Week](#) (#TEWeek22), the Association urged young people to consider being part of the 'retrofit revolution' that seeks to address the over 40% of global carbon emissions that come from buildings and infrastructure.

The 'Future Minds Broadcast' that forms the centrepiece of the campaign encourages students to consider engineering opportunities in entertainment, sport, technology, and the environment – and BESA believes that refurbishing, improving, and re-purposing buildings using the latest digital technology and low carbon techniques is one of the best ways for a young person to help the environment.

Students are also being asked to vote for the best idea put forward during the Week, making it vital that buildings were given a high profile, according to BESA.

"Building engineering has always struggled to promote itself ahead of more glamorous technical professions – particularly among young people," said BESA President Rab Fletcher.

"However, there does seem to be growing awareness about the role of the built environment in equipping us for climate change and tackling the energy crisis, so we need to grasp this opportunity to inspire young people to consider careers in our sector."

Inspire

He said there were “decades of work ahead” to make the UK’s 28 million homes more energy efficient and that was the kind of challenge the government, educators, employers, and individual engineers should use to inspire a new generation of engineers.

[BESA’s recent National Conference](#) featured several debates about the need to improve diversity of skills and how the industry could appeal to a younger audience. Speakers pointed out that clients, planners, and developers were all calling for the industry to make existing buildings perform better rather than build new ones to help minimise both operational and embodied carbon.

“Our industry is going to be all about retrofitting and re-purposing buildings in the coming years,” said Frances Brown, associate director of Hoare Lea. “That means we need the skills to carry out continuous improvement work.”

One expert panel agreed that the next generation of engineers would need strong digital skills and that automation would play an increasingly important role in making design and construction processes more effective. The industry would need to get younger but also more gender and ethnically diverse, speakers added.

“A new generation of women are showing interest in careers where they can influence climate change so need to be directed our way,” said former Graduate of the Year Lucy Sherburn of Fairheat.

“We need to point out that we are saving the planet...while many other careers are not.”

Alexandra Knight, founder of the diversity initiative STEMazing, urged BESA delegates to promote engineering careers in their local schools. She added that stereotypes needed to be challenged more aggressively including suggestions that STEM (science, technology, engineering, and maths) careers are not for women and that “you have to be amazing at Maths”.

Karen Perry, from air conditioning company Daikin UK, said: “STEMazing helps to put female faces from our sector in front of children. The days of girls doing sewing and cooking at school while boys do technical things are over.”

BESA pointed out that there are a wide range of apprenticeships available in the building engineering sector for potential entrants of any age that could open up exciting careers for people from any background.

“You really can make a huge difference to the planet and your local community by working in building engineering services,” said Rab Fletcher. “It might not always look the most glamorous from the outside, but we work with the latest technologies to make a direct impact on reducing both the causes and the impacts of climate change.”

For more information about careers in the built environment and training opportunities go to: www.theBESA.com/academy