Bridging the gap

An innovative new alliance is set to strengthen the voice of Europe’s engineers while deepening engagement with policymakers, industry and academia. Colin Mackay reports.

A n innovative new alliance is set to strengthen the voice of Europe’s engineers while better engaging with policymakers, industry and academia. This was the key message at the recent Engineers Europe Advisory Group (EEAG) launch event in Brussels.

Jóse Viera, President of FEANI, Europe’s largest federation of engineers, explained that the motivation behind the Advisory Group was to allow the engineering community to have a wider impact on society. The primary objective was to provide a unified voice for engineers on a European level. However, to do so effectively, “The input of other stakeholders will be essential. This is why we have invested considerable time and effort in preparing the setup of the Group.”

Key priorities for the group include greater cooperation with employer organisations; enhancing the status of engineers and ensuring sufficient engineers to meet future demand and to actively explore the implications of digitalisation for engineering.

During a panel discussion on the future of work, industrial competitiveness and the challenges of an ageing workforce, European Commission DG for Education, Youth, Sport and Culture, Themis Christophidou explained that “the ever-increasing use of technology demands ever-stronger digital skills”. These, she believed, were the new literacy and were essential in maintaining European competitiveness. Although the demand for STEM (Science, Technology, Engineering and Mathematics) skills was immense, not enough people were choosing to study them. “Digital talent is essential; we need to assess whether the quality and nature of education is delivering what we need”.

Explaining the logic behind EEAG, Dirk Bochar, FEANI Secretary General, expressed his hopes that the initiative would address those issues currently facing the engineering profession. It was FEANI’s mission, explained Bochar, to build bridges between stakeholders in academia and industry. Having so many diverse groups sign the Advisory Group’s ‘Letter of Intent’ he explained, sent an important signal of Europe’s commitment to achieving these common objectives.

Working together, the Advisory Group will develop a work programme to address the challenges posed by digitalisation, including how best to promote the study of STEM subjects, bridging the digital skills gap and ensuring the appropriate education providers. It would also consider the inevitable ethical implications of digitalisation.

Bochar offered the metaphor of EEAG as a vehicle capable of bridging these existing gaps. It was analogous to a sustainable vehicle
that would advance the common needs of a consortium of core stakeholders - students, academics, professionals, business representatives and policymakers. “Think of it as a bicycle. FEANI will provide the chain and gears and the stakeholders will provide the power that turns the pedals.” Together, this would provide the impetus for the Group. From an industry association perspective, Jan Pie, Secretary General of ASD, which represents Europe’s aeronautics, space, defence and security sector, stressed the key enabling role that engineers play for its member companies. They are essential in delivering the skills and R&D that make the European aerospace sector such a success; for this reason he said, ASD was already committed to signing the Letter of Intent.

Veronique Willems, Secretary General of UEAPME, the European Association of Craft, Small and Medium-sized Enterprises, said she saw a large overlap between engineers and SMEs. “Many engineers become entrepreneurs, and many SMEs increasingly seek engineering expertise.” They shared similar challenges; adapting to the digital transformation was one, as was the growing difficulty in accessing and recruiting suitably skilled and talented staff.

During the panel discussion on digitalisation, Ralph Appel, CEO of VDI and Vice-President of FEANI, noted that the shift to digital had been ongoing for many years. However, the rate of change was accelerating and Europe urgently needed to keep pace.

Frederik Schulze-Spüntrup, Deputy Secretary General of the European Young Engineers, said that his – and the subsequent – generation of newly-qualified engineers had grown up digitally native. This presented a potential for symbiosis; he explained “We learn at university, but when we get a job, it becomes in part our role to show earlier generations how to make the best of digital technology.”

Mike Murphy, Director of Academic Affairs, Digital and Learning Transformation, Dublin Institute of Technology and SEFI President, highlighted one of the challenges of engineering education and wondered whether it needed a rethink. Nowadays, “so much content was being forced into courses at the expense of time to reflect that there was a lack of time to reflect and consider how the various components fitted together.”

Kasia Jurczak, a member of Employment Commissioner Marianne Thyssen’s Cabinet, explained how they were working to identify the skills needed to help the transition to more digital working. She also suggested that the engineering sector had much to offer and should pitch its potential better. Cecilia Bonefeld-Dahl, Director-General of DIGITALEUROPE, argued that the digital revolution was fundamentally changing business models; Europe risked being left behind. The real future of competition lay in data engineering. “We need to make data engineers, not just product engineers. Data is gold, and we need the expertise to extract the maximum value.”

The event concluded with the formal signing of the Letter of Intent and the unveiling of a visual identity for the Advisory Group. ★