OTE SPEAKERS
DISCUSSIONS

editor, Times Higher Education (moderator)

executive director, Campaign for Science and Engineering

chief executive, National Centre for Universities and Business

head, College of Science and Engineering, University of Edinburgh

vice-dean (mission), Faculty of Engineering Sciences, UCL

Sarah Main said the current government's industrial strategy, which plans to see an increase in R&D investment from 1.7 per cent to 2.4 per cent of GDP, could have a transformative effect, as long as international research partnerships are not stymied by Brexit. "Our partnerships, our collaborative structures, with Europe and the rest of the world, are critical," she said.

Joe Marshall echoed her sentiments and cautioned that the "fantastic rallying cry" of the government's 2.4 per cent R&D investment target was threatened by uncertainty over the UK's place in the world.

shared across the UK, and universities and industry should enhance lifelong learning opportunities and "work in partnership to develop that future skills talent pipeline".

Dave Robertson spoke of the changes affecting science and research, noting growing disparities in the capabilities, reputation and investment potential of universities. Large institutions now formed "clusters" around common areas of interest, such as data science. The scale involved in research areas such as precision medicine demanded that they took an international approach, with "regional populations too small to answer the research questions we are trying to answer for rare diseases".

"It would be tragic if we lost the ability in

said Jeremy Watson. The UK must look to encourage international fellowships and continue to be "globally engaged" in its research strategy to compete, he added.

Times Higher Education (moderator)

vice-president (international) and associate provost (academic partnerships), Imperial College London

associate vice-president for internationalisation, University of Manchester

Can a university be considered world class without having a substantial percentage of international academics and students? The data, said Phil Baty, suggests not. "There really is a sense that these top universities across the world are all very international, in particular in their collaboration with universities across borders." Citing Imperial College London as the most international university in the UK, Mr Baty quoted its president, Alice Gast, on campus internationalism: "As you build a team, you bring together diverse people to provide the most effective views. Individuals brought up in different educational systems, with exposure to different societies and markets, approach problems differently."

believer that diversity of thought leads to diversity of innovation and research breakthroughs". She has witnessed this

in her own laboratory, where she is the only British academic. Universities, she said, should look beyond the established elite and would be "foolish" to overlook the opportunities for research collaborations with sub-Saharan Africa. The universities that will thrive, she said, will be those "bold enough to truly internationalise but also bring that learning back to operate on a national and local context."

Stephen Flint agreed that universities must be better at communicating what they do to their local communities. He described

Luke Georghiou began by referencing the government's industrial strategy. "If you look at all the things it is trying to do, they are what we are about," he said. "We are 23 per cent of the country's R&D activity. We are almost the sole source of new talent."

Professor Georghiou said that business engagement should not compromise research excellence and that universities must engage all sizes of corporations. He lauded the growing power of institutes, describing them as "siege engines that can really connect and deal with larger-scale, more complex issues." The Graphene Engineering Innovation Centre, in central Manchester, he said, was an example of the university in partnership with public and private sectors, creating a state-of-the-art research facility on an industry scale.

deputy president and deputy vice-chancellor, University of Manchester (moderator)
regius professor of computer science, University of Southampton
collaboration director, UK R&D Centre, Huawei Technologies
deputy director, Strategy Unit, UK Research and Innovation

"The world is changing and it's not going to go back to the way it was," said Wendy Hall, but universities will stand the test of time because they are built to evolve.

"There's plenty of room for a diverse ecosystem in higher education, she said,

describing a global higher education marketplace in which much of the research potential is shifting towards Asia.

"That's really where my attention is focused these days, because I see huge investment," she explained.

UK institutions have to stay relevant to answer new global challenges – and

intelligence, where universities cannot compete with technology giants on salary, she added.

Alex Marsh referenced the industry-university model mentioned earlier by Professor Georghiou.

Dr Marsh said that assembling small

goal can stimulate collaboration between higher education and industry.

"We identify a small number of opportunities," he explained.

"We make a bet on those, and then we gather together the complementary areas of research expertise across multiple disciplines, complemented with business leadership and expertise."

Again, Brexit was unavoidable in imagining any future. Michael Hill-King noted that the UK wins 21 per cent of European Research Council funding.

"How are we going to replace that 21 per cent of the entire ERC budget just by ourselves?" he asked.

As for chronic skills shortages in tech industries, this was an issue he felt would take many years to address through education and training alone.

"The other way is to attract talent," he said. "And this goes back to one of the other themes we were talking about today, which is science without borders."