

The All Party Parliamentary Engineering Group

12 June 2018

The Year of Engineering

Discussion over lunch in the Cholmondeley Room, House of Lords

Chair – Professor the Lord Broers

Speakers:

- Stephen Metcalfe MP, Government Envoy for the Year of Engineering
 - Chi Onwurah MP, Shadow Minister for Industrial Strategy
 - Oxana Grigoryeva, Business Development Manager, Robert Bosch Limited
 - Ruby Holmes, Assembly and Manufacturing Leadership Development Trainee, Rolls Royce
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Introduction

Lord Broers, Chairman of the group, began by thanking everyone for attending, then introduced the four speakers.

Stephen Metcalfe MP

Stephen Metcalfe started his career in the printing industry, which he loved because of the daily sense of achievement he experienced. He moved into the Science and Technology Committee within government which involved promoting and supporting all things scientific.

His role as Government Envoy for the Year of Engineering involves visiting schools and colleges. The campaign aims at achieving 1 million interactions between scientists and students (aged between 7 and 16 years).

It is actively trying to fight against the stereotypes of engineers and highlight the range of skills and talents required to be successful within the industry.

Every year the sector falls short by around 20,000 people entering the industry, but continues to contribute £486 billion to the economy every year. 91% of the industry is male, and 94% is white – Stephen believes this has to change.

If young people are looking for a job which is well-paid, has high satisfaction and is exciting, then Stephen Metcalfe says that engineering is for them.

Chi Onwurah MP

Chi Onwurah was the first African woman to win a parliamentary seat and she has always wanted to go into science or engineering. She grew up in the North East where engineering was very visible, from great bridges, ships, steel – she attributes this to part of what inspired her career path.

During her industrial career Chi Onwurah developed technology used in satellites and she worked around the world on challenging projects. Chi Onwurah had a hand in building the first GSM (Global

System for Mobile Communication) network in Nigeria which provided telecommunications to millions.

Chi Onwurah believes she uses her engineering background every day as a member of parliament, and that engineering aids politicians to make informed choices.

Engineering needs to reflect the wide diversity and culture of society. If young people do not like the direction of the future the engineering allows them the opportunity to change and shape it.

Oxana Grigoryeva

Bosch takes creating cleaner air into consideration and in order to help the environment Bosch tries its best to recycle as many materials as possible to avoid unnecessary environmental damage.

Oxana Grigoryeva believes that the impact on the environment we are making is huge, so industry needs to adapt to the changes as well and try to make the world a better and more comfortable place.

On mobility, Oxana Grigoryeva draws a parallel with a situation London faced 100 years ago (because of the amount of horses, their use and how it affected the environment). Transport always creates problems, however the problems we are facing now (with cars, air-pollution and traffic that they create) are a bit more complex and it's essential to solve them.

She highlighted the importance of the connection between 3 elements: person, vehicle, city. As well as about the opportunities that Bosch provides for young people/students.

Since August 2016, Bosch's 'MOVE UK' project has studied Automated Driving Systems (ADS) in real-life conditions, with the aim of accelerating the development, production and deployment of driverless systems through connected validation and big data analysis.

Ruby Holmes

Ruby Holmes joined Rolls Royce in 2012 after her GCSEs on an engineering apprenticeship – she'd enjoyed maths and science at school, particularly physics.

At school she noticed a strong emphasis on attending university to obtain a degree, but she didn't know what job she would get with a maths or physics degree.

Ruby Holmes' mother was the person who encouraged her to apply to Rolls Royce for an apprenticeship and she now works on complex engine technologies.

Ruby Holmes was nominated for the Leadership Development Scheme which started at the beginning of 2017 and is taking part in placements with Rolls Royce across the country.

Ruby Holmes is currently in her 3rd placement in logistics and then will move into her 4th placement as a production leader working with submarines. She hopes to one day be a factory manager.