

# The All-Party Parliamentary Engineering Group

28th November 2018

## The Year of the Engineer 2018

*Report of the discussion held on the 28<sup>th</sup> of November in the Cholmondeley Room, House of Lords*

**Chair** – Professor the Lord Broers

### **Speakers:**

- Stephen Metcalfe MP - Government Envoy for the Year of Engineering,
  - Hamse Hassan - Trainee Technician at AECOM
  - Laura Reardon - Senior Safety Consultant at Atkins SNC-Lavalin
  - Professor the Lord Mair
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Lord Broers, Chairman of the group, began by thanking everyone for attending, then introduced the speakers and discussed the importance of engineering as a whole, as well as getting more young people into the profession.

He then introduced our first speaker Hamse Hassan, a trainee technician at AECOM.

### **Hamse Hassan**

Hamse Hassan described his role as a transport apprentice at AECOM and how he had not taken the traditional route to becoming an engineer. He highlighted the importance of apprenticeships in encouraging those who perhaps don't want to go to university, to still get into the engineering industry.

After having done maths and further maths at school, Hamse worked as a baggage handler at Luton airport, it was during this time he realised he wanted to work in engineer having seen the major redevelopment work at the airport.

At this point he described how he applied for AECOM's apprenticeship scheme. This allowed him to get his university degree over 5 years by attending one day a week, whilst getting practical experience at AECOM.

Hamse described his delight at being able to work on major projects at Luton airport, where he used to work as a baggage handler, and that the projects he was working on would enable the airport to double its number of passengers over the next 25 years.

## Stephen Metcalfe MP

Stephen Metcalfe introduced himself and what his role as Government envoy for the Year of Engineering, involved in promoting the engineering to young people and that he was delighted to see so many young aspiring engineers in attendance today. 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).

Stephen Metcalfe pointed out that too often in secondary education the E in STEM is too often forgotten. He argued that although a focus on Science, Technology and Maths subjects were a good thing, secondary education has a role to play in educating young people of the importance of engineering and the role STM have in engineering, so that we get more young prospective engineers studying mechanical, aeronautical, chemical, electrical, civil etc. engineering.

This is what the year of engineering is about, and the aims of the Year of Engineering is to:

- Change the perception of the industry, that this is no longer about hard hats and tool belts but about a extremely wide variety of different work and options.
- Inspiring the next generation of engineers.
- Improving pathways into higher education and from higher education into the profession.

Stephen Metcalfe outlined the reason for the promoting engineering and that currently the UK is falling short by 20,000 engineers a year. The key to reversing this is the governments industrial strategy, which will have major engineering projects at its heart and Stephen Metcalfe stated that there “has never been a better time to get involved in the industry” and that the UK has been since the industrial revolution and will continue to be a leader in the field.

## Laura Reardon

Laura Reardon introduced her career path, which she stated as opposed to Hamse, as much more conventional although she said she never envisaged when she was applying to university that she would be working in railway engineering as she is now.

She explained the variety of different activities that are involved in her job as a railway engineer, and echoed the message of Stephen Metcalfe, that this is not just a hard hat and tool belt job, discussing the varied nature of her work from desk work to work out on the lines.

Laura Reardon went on to discuss the great satisfaction that seeing her hard work materialise into something truly tangible and that her work is readily applicable to millions of people that use the public transport network. Those people are reliant on the “*infrastructure I developed*”.

Laura Reardon at which point discussed the major benefits of working as an engineer. As “engineering is everywhere” us there is a continual need for more engineers. As an engineer you have permanent job security as its transferrable to a number of other fields, which makes it future proof.

## **Lord Mair**

Lord Mair started his speech of by stating that the term engineering is often misleading and a barrier to entry for young people, he argues that in effect engineering is just the application of science.

Lord Mair went onto outline his own career in the field, one of main advantages of which he described as being the vast opportunities to travel as engineering is a “*truly global industry*”.

Lord Mair as a specialist in feats of engineering underground, then discussed one of the major projects of his career which was the construction of Westminster underground station. He noted that as a project 45 meters underground and just 30 meters away from Big Ben, there was a great deal of concern over the lack of stability and the potential for Big Ben to start to lean during the construction.

Lod Mair reaffirmed what had been stated earlier by Laura Reardon, that there is a “*great sense of pride and satisfaction*” in working on engineering projects and hoped the young engineers in the room have found todays events inspiring.