

### GAMBICA Meeting Report

#### Parliamentary Panel Event on the Fourth Industrial Revolution and UK Manufacturing

Alan Mak MP is chairing the All Party Parliamentary Group for the 4<sup>th</sup> Industrial Revolution (APPG4IR). The APPG aims to support and promote the Fourth Industrial Revolution (4IR) in Parliament, and encourage Government, Parliamentarians, academia, the private sector, and other stakeholders, to engage with 4IR-related issues. The group's officers are:

- Alan Mak MP (Conservative) (Chair)
- Peter Kyle MP (Labour) (Vice-Chair)
- Nigel Huddleston MP (Conservative)
- Stephen Kinnock MP (Labour)
- Kevin Hollinrake MP (Conservative)
- Lord Willets (Conservative)

The web link to Alan Mak is:

<https://www.alanmak.org.uk/all-party-parliamentary-group-fourth-industrial-revolution> and there is a twitter address: @4IR\_APPG

The event on 22<sup>nd</sup> November 2016 held in the Jubilee Room, Palace of Westminster was organised by the EEF and sponsored by Oracle and GAMBICA were represented by Seb Amos and Steve Bramley.

The session, chaired by Alan Mak, consisted of four speakers:

- Nick Hurd MP, Minister of State for Industry
- Peter Kyle MP
- Vikram Kumar Singla, Oracle
- Chris Richards, EEF

Each provided a brief introduction.

#### Speaker Introductions

##### Vikram Kumar Singla

As well as a plug for Oracle as a supplier of cloud solutions, they believe that today, customers want "outcomes" not products. This implies that customers want to pay for services and not the actual product. So, for example, they pay for tyre mileage and not the tyre, and industry will need to move to the "Service Centric Business Model". However, where there is a need for products, 4IR will need to provide mass customisation at mass production prices.

##### Peter Kyle MP

4IR will require a minimum of 30 years to fully come to fruition. It will be an evolution and it has already started with work on huge improvements on the Data infrastructure. Policies cannot be reactive to the requirements and must also evolve to help build pathways through the next years.

Skills are and will be a key issue. For example, the education exam focus in schools in 1904 was; 2 English subjects, 2 Science subjects, Maths, History or Geography, a foreign or ancient language. It still is.

One question posed: Where should we be going to promote Industry? The parliamentary answer, junior schools, recognising that this is too late for current needs but must be done for the future.

The Apprenticeship Levy will need to set quality targets and must not disadvantage pre-16 targets and the current work there. There will need to be a balance here.

### Chris Richards

The EEF has been visiting its members and others to unpick what industry sees for 4IR. Some of the key responses include:

- Evolution to optimise products and supply chain and revolution to look at business processes and models, for example the moves towards service models. This will be a two speed activity, evolution being the faster one.
- 4IR is not just about technology. There will need to be:
  - A culture change to improve investment
  - IT to be brought into the front office
  - Visionary Leadership
  - Technology as a catalyst for productivity.

### Nick Hurd

Politicians, and indeed ministers, do not have an in depth understanding or knowledge about 4IR. However, 2.7 million people in the UK are employed in manufacturing and the UK is good at it. Productivity in manufacturing is the fastest growing of all business areas. Government needs to help profound change and focus on energy savings.

The automotive industry in the UK is the most productive in Europe. However, over the next 10 years there will be major changes in:

- What we drive, and a move to electric
- How we drive. e.g. move to more public transport, especially in cities
- Do we drive at all? e.g. automated cars

In summary, we need to be competitive and manufacturers need to want to be here.

### Discussions Points

The following section collates the general discussions as bullet points that followed, ignoring questions from politicians about why we should be helping Egypt grow and process cotton and make clothes using 4IR technology from the UK and making sure 4IR did not leave out the carers (this parliamentarian was clearly in the wrong room).

- Re-brand industry to attract people

- Recognise that some years ago the focus was all on Universities and that vocational pathways were ignored “to a great extent” and this needs to be addressed.
- Become more revolutionary in schools and look to vocational courses from earlier ages.
- Make sure the voice of business does not become further removed from its needs. For example, a high percentage of school leavers will remain to work and live within a few miles of where they grow up. Schools have little or no data on the needs of local companies, thus they are not targeting some areas of education to enable students to have the skills to be effective locally.
- A different approach to industrial strategy is required to be a bit smarter and note that whatever happens, there will be losers.
- There are fundamental problems with Early Years, local intelligence and the demand for skills.
- Industry needs role models who can start telling the story.
- SME’s have difficulty getting into schools and schools are so focused on a constantly changing curriculum, testing and reporting methods and inspections, that they have no time for additional outside “interference”. Schools tend to be very insular in their approach.
- There is an issue with educating students with the social skills need for business. The example, why does business need to teach someone how to answer a telephone?
- What lessons could be learned from Silicon Valley? Risk attracts talent.
- 4IR raises challenges with investment. There will be higher risks and longer return on investments. Are the UK banks being keyed up for this?

### Summary and Comments

It was not clear from this session what the brief was. It was very high level and the two key areas of comment were around Chris Richards overview of unpicking an industrial view of 4IR and the larger part of the discussion around skills and education.

Education is a no-brainer but the constant evolution/revolution in an area that is managed by ministers seems not to have advanced the holy grail identified in 1904. Whatever happens, there should be some quick benefits (2-5 years) once the Apprenticeship Levy starts to work, and at least the passion, especially from Peter Kyle, is there to promote industry early.

Everything that was discussed was relevant to 4IR. But, at this stage there seem to be more questions than answers and without more detail it becomes harder to focus the Government view on what they should do to improve the environment to allow UK Industry more effective and even a leader in 4IR.

**Additional Notes:**

To put the APPG4IR into perspective, the following is a quick background check on the focus published by Alan Mak and his team. The initiative came from the "Free Enterprise Group". A group of new Conservative members grouped together and the founder, Liz Truss MP, says on the front page of their website:

"Conservatives need to recast the argument about free enterprise for a new age, or risk losing the debate to a tide of anti-market socialisation. That's why a new group of Conservative MPs "The Free Enterprise Group" has formed."

This can be viewed at: <http://www.freeenterprise.org.uk>

With specific reference to 4IR, Alan Mak published a report that outlines Twenty Key Recommendations for Government Action:

<https://www.alanmak.org.uk/sites/www.alanmak.org.uk/files/2016-11/Alan%20Mak%20MP%20-%20FEG%20-%20Masters%20of%20the%20Revolution%20-%204IR%20Report.pdf>

The 20 recommendations are listed below which I will leave with the reader as food for thought:

1. Use Brexit as a catalyst to accelerate Britain's 4IR leadership role: identifying opportunities to support the 4IR should be at the centre of the Government's post-Brexit horizon-scanning exercise
2. Britain should turn away from the EU's over-reliance on the precautionary principle when it comes to new technologies, and adopt a British, pro-innovation approach to the 4IR
3. Dedicated regional investment funds for 4IR businesses, infrastructure and technologies,
4. New national Catalyst Fund for 4IR innovation based on convergent technologies
5. Strategic focus on scale-up support for 4IR SMEs
6. New 4IR-focused Catapult Centre for vaccines and bio-security
7. A fast-tracked visa system for high-skilled 4IR workers
8. A Robotics and Autonomous Systems (RAS) Leadership Council
9. National research institutes for 4IR technologies
10. National Research Institute or Catapult Centre for Robotics and Autonomous Systems

11. Regional test-beds for 4IR products and services (e.g. autonomous vehicles)
12. Continued investment in digital infrastructure
13. Promoting Britain as a great place to develop 4IR technologies and encouraging British 4IR exports
14. Support for lifelong learning to give people the skills they need to take up 4IR jobs
15. A review of how well the education system is preparing Britain for the 4IR
16. A new, standing Commission on Artificial Intelligence at the Alan Turing Institute
17. Strong legal protections for innovation
18. A flexible regulatory environment
19. A nation-wide focus on cybersecurity
20. Government procurement of British-made 4IR products and services

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05Dec16