

## **BEIS Recovery Roundtables**

**Business secretary Alok Sharma set up recovery roundtables in mid-June 2020. BEIS asked questions on various subjects, requesting very responses be sent in very rapidly. Below is EAMA's feedback on the questions asked regarding, firstly, net zero (the climate change objective), and then accelerating innovation.**

**At the current time of very rapid change, it is important to imagine the future and be able to adapt, as well as fully to understand and manage the present. EAMA will seek to pursue the policies in the quickly-assembled response set out below, and also to evolve them as appropriate.**

**EAMA is an alliance of trade associations representing firms in machine tools, automation, robotics, component manufacturing, material handling, distribution, and maintenance, including compressed air and fluid power.**

### **(The Green Recovery) Net Zero**

**Q: BEIS asked, what areas of economic recovery should be prioritised to drive economic recovery and delivery of net zero infrastructure?**

EAMA answer: Investment in 'smart' road capacity and traffic management is needed to reduce congestion costs to business and to attract investment to the UK.

A review is urgently needed of the focus on battery-electric vehicles, to ensure that we have the best balance between BEV and other net zero technologies. There is strong interest in hydrogen for light and heavy vehicles, and for rail transport.

Greater investment in energy generation and supply is needed, most probably in nuclear, to ensure supply and to give investors confidence in security of supply. Investment is also needed in telecommunications and the digital network.

**Q: What action should we take to align investment in the UK and globally with net zero?**

We should monitor, and be open to, net zero technologies from around the world that give strong long-term benefit/cost; and be a leader in innovation and adoption.

A step-change in business guidance and advice is needed. This would pay back strongly in the engineering sector. Sector trade associations have the potential to play a pivotal role in that.

**Q: What are the key regulatory barriers weakening incentives to invest in net zero, and how do we address them?**

EAMA represents companies of all sizes. It has a particular concern to ensure that government initiatives, and the way that they are communicated, take full account of the needs and views of SMEs, which can be different to those of large companies and can be overlooked. Incentive and financial ability to invest are essential to businesses, especially to SMEs. The temporary increase in annual investment allowance addresses those issues to a degree and the higher level should be extended long-term. Additional incentives may be required where the net zero case is strong but the financial pay-back long-term. Other countries have examples of successful, easily-understood measures.

The point at which business rates must be paid sucks much-needed cash out of businesses, undermining their ability to invest. Covid has further weakened balance sheets, making reform in this area more pressing.

State aid rules are interpreted too narrowly.

Grants from local authorities are too often focused on job creation, rather than productivity or net zero benefits. Greater consistency is required.

**Q: How can we more effectively support businesses across the economy in acting to access growing low carbon markets and support delivery of net zero?**

Firms in the engineering and machinery supply chain, from step-change innovators to specialist sub-contractors, will respond best to clear regulation – for example, mandating net zero-related standards for industrial, commercial and domestic buildings. Regulation works best when the additional investment required is justified by clear whole-life pay-back – which may be long-term.

In engineering, a focused drive to improve productivity is needed, focused on leadership & management, supply chain collaboration, innovation and technology adoption. The High Value Manufacturing Catapult, working with sector trade associations, may be best-placed to deliver that, but some revised direction would be needed. (EAMA has also submitted evidence to BEIS' current HVMC review.)

Technology contributes to design and production aimed at net zero whole life carbon costs. In additive manufacturing, government can assist AMUK and trade associations to promote additive manufacturing, both in developing technical standards and awareness across the supply chain.

We welcome the government's response to the BEIS committee's report on automation (March 2020), with its focus on capturing the benefits of AI and smart robotics and automation, bringing both economic and environmental benefits. We note the emphasis on a sectoral approach and feel that EAMA's trade associations are well-placed to support that, as with other initiatives. Government should work with the automation sector to increase understanding and create a 'buzz' around adoption, fund an independent advice re-source (possibly through HVMC); and consider incentives for SMEs.

Greater interaction between large companies and their suppliers is needed. Large companies also need a better understanding of the capabilities of the UK supply chain. EAMA trade associations already work to bring OEMs/Tier 1s and SMEs together, and can do more (as was demonstrated by the Ventilator Challenge). The online resource, <https://www.reshoring.uk/> was established by an EAMA member, GTMA, and is now supported by more than 20 trade associations.

We should pursue both incremental improvements and step-changes in design and technology. Both are worthwhile in themselves. In addition, actions aimed at incremental improvements can foster more dramatic step changes and innovations – it is unhelpful to see the two as completely separate issues.

It is essential that the UK engages strongly in international trade. Strong support for export efforts will help to boost investment in the UK. EAMA is in discussion with the Department for International Trade on that issue and is a strategic partner of UK Export Finance, seeking to increase the effectiveness of UKEF's work in the engineering sector.

Include innovative net zero-related material in education and training material for engineering, technology, finance and other disciplines.

**Q: How can we help the UK's carbon intensive sectors to transition to low/zero emissions while maintaining competitiveness?**

The UK should encourage investment in advanced, carbon-intensive manufacturing and re-cycling, using the most effective low-energy technologies. This will reduce carbon related to transport (in carbon intensive sectors, as it does in other sectors).

**Q: What actions should we take to ensure local and regional economies can effectively contribute to the Net Zero target?**

Regions should be encouraged to build on their current technology and market strengths and to anticipate opportunities. At the same time, a balance must be struck between the independent, entrepreneurial spirit of many regions and excessive competition between them to attract investment. Local/regional and sectoral clusters should be encouraged. Trade associations can contribute greatly to that.

## (The Future of Business) Accelerating innovation

### **Q: What are the systematic barriers to business innovation (e.g. regulatory systems, procurement or the network of contacts and exchanges that promote the sharing of ideas)?**

This submission focuses largely on the manufacturing and engineering sector, and is written substantially from the point of view of SMEs.

Manufacturing is at or near the top of UK sectors for innovation, in both processes and products\*. Even so, it is recognised that UK manufacturing and engineering needs to do significantly more, in its adoption of new digital and automation technology, to remain competitive. Among the major influences are, in EAMA's view:

**Leadership and management** More needs to be done to raise standards. We note that among firms engaged in the Made Smarter North-west pilot, support with raising leadership standards was the number one request from SME firms. Government should work with relevant stakeholders, including sector trade associations, to respond decisively and to help achieve higher standards. We have world class educational establishments, which should be used more effectively.

**Financial short-termism** Members have highlighted an attitude within British accountancy and company leadership that demands unusually quick returns on investment. This approach is often unrealistic and does not take a sufficiently holistic and strategic view of the business.

**Contract short-termism** SME suppliers to OEMs and Tier 1s often lack the security within their relationship with major customers which would encourage them to make long-term investment. Greater collaboration across the supply chain should be encouraged.

### **Technology challenges:**

Rapidly changing technology can lead to decisions being repeatedly deferred, for fear of investing in technology that will soon become out-dated. Also, it can be hard to keep up with technology developments. These factors can also make external asset funding of technology more expensive, especially when they also involve process changes. (This is especially true in additive manufacturing.) A step-change in business guidance and advice is needed and would pay back strongly in the engineering sector. Sector trade associations have the potential to play an important role in that.

**Incentives:** Funding support is often targeted at the capital cost of equipment only. The true cost is often much greater, and starts with a review of processes. The temporary increase in annual investment allowance addresses capital cost issues to a degree, and the higher level should be extended long-term. In addition, incentives should take account of the broader project and training costs associated with new technology.

**Automation** We welcome the government's response to the BEIS committee's report on automation (March 2020), with its focus on capturing the benefits of AI and smart robotics and automation, bringing both economic and environmental benefits. We note the emphasis on a sectoral approach and feel that EAMA's trade associations are well-placed to support that, as with other initiatives. Government should work with the automation sector to increase understanding and create a 'buzz' around adoption, fund an independent advice re-source (possibly through HVMC), and consider incentives targeted at SMEs.

**Skills** We have highlighted the need for greater leadership and management skills. In addition, we need address a shortage of engineers and technicians with the right skills for innovation, including digital and skills.

**Grants** Grants from local authorities are too often focused on job creation, rather than productivity or net zero (climate change) benefits. Greater consistency is required, and grants should be aligned with a national framework focused on innovation raising productivity and meeting net zero targets.

**Innovation funding** The UK has out-standing centres of learning. However, the balance of funding is felt to lean too heavily towards fundamental research, to the neglect of practical application of innovation - which needs to be 'state-of-the-art'. That contributes to difficult and slow commercialisation of innovation.

**Innovation v adoption** We should pursue both innovation and adoption of new technology, which are in practice often closely related. Adoption at company level is often also innovation for that company, leading it to be more productive and boosting the competitiveness of the UK economy. In addition, actions aimed at incremental improvements using new technology can foster more dramatic step changes and innovations – it is unhelpful to see the two as completely separate issues.

**Supply chain** The visibility and understanding of UK suppliers among large companies and on public procurement projects needs to be much improved, to give boost innovation. The notion of dual sourcing to improve resilience, which has been come to the fore as a result of the Covid crisis, is welcome.

**The High Value Manufacturing Catapult** HVMC can play a central role in addressing many of these issues and in helping manufacturing to recover and prosper, which is vital to the UK economy:

- it has the physical assets and the nucleus of human resources to help promote innovation in SME processes and technology;
- it has a pivotal role in advancing supply chain collaboration/visibility/understanding - with large companies, SMEs, universities, and others;
- HVMC has shown it can have a hugely positive impact on individual SMEs. It needs to do that on a bigger scale, and that is likely to need changes in funding and direction.

**Trade associations** Sector trade associations, not least members of EAMA, can (like HVMC) be invaluable partners in advancing innovation in the engineering

sector, due to their close relationship with, and understanding of, their member companies. The potential benefits to be gained from working with TAs was demonstrated in the Ventilator Challenge when they played a substantial role in mobilising their members to help, and in assisting OEMs, integrators, and others to find suppliers.

A characteristic of EAMA members is that they represent companies whose technologies and markets cut across much of the economy, from space to oil & gas, food to laboratories. This 'horizontal' rather than 'vertical' appreciation has great value in terms of manufacturing flexibility and technology transfer across sectors.

EAMA's members are happy to be challenged, to assist in driving productivity.

*\*Manufacturing innovation: Source, BVA BDRC SME Finance Monitor*

**Q: How can we strengthen the support provided by publicly-funded institutions (e.g the Catapult Network and other institutions such as the National Physical Laboratory)?**

The previous answer refers, regarding HVMC. In addition, EAMA strongly supports the NPL, which is a world-class body, and an important national asset.

**Q: What are other countries doing better than the UK in encouraging and promoting innovation?**

Our sense is that other countries are more successful in linking different parts of the supply chain, research facilities, and business support. They also have stronger financial incentives for technology adoption.

Other countries have stronger public political support for engineering. The UK government should have a stronger strategy for promoting manufacturing, working in partnership with trade associations.

**Q: What specific actions would enhance the adoption and diffusion of innovation across the full breadth of UK businesses, including those far from the frontier? (Are there policies that government should stop/start/continue, what role do big firms have in pulling innovation through the supply chain etc?)**

**UK supply chain analysis** Government should undertake a review of UK supply chain capability by sector, to establish where it is strong, where capability needs to be strengthened, and where greater understanding between buyer and supplier is required. The value of such an exercise was vividly demonstrated by the Ventilator Challenge, which shone a light on many of the UK's strengths and weaknesses, in a which had not been done before.

The process would create a basis for sector-specific programmes to drive innovation. It would avoid so-called 'cookie cutter' solutions and help greatly to increase the engagement with companies. Trade associations have the potential to play an important role in partnering with government to make this and other initiatives successful.

### **Enhancing existing programmes**

More effective use can be made of the HVMC, as above.

UK Export Finance's supplier fairs are a good example of productively encouraging engagement across the supply chain, and these should continue. EAMA trade associations and others have similar events. These have become all the more relevant with renewed interest in shortening supply chains and increasing UK content. These activities can be catalysts for accelerated innovation, both within and across sectors.

Made Smarter, if its impact is to be optimised, must be a national programme, adequately funded. Progress to date has been disappointingly slow and local to the North-west. The programme should work closely with the HVMC.

Govt should help to create a sense of 'buzz' around innovation in our sector, through ministerial engagement and support.

**'Investing in ourselves'** In the manufacturing sector, a high proportion of businesses are overseas-owned. It is right that the government works to attract inward investment into the UK, and it is essential that firms already here continue to invest. At the same time, more needs to be done to encourage investment and re-investment by UK-based SMEs, mostly privately-owned.

**Supporting travel and exchange of ideas** An essential part of maintaining and accelerating innovation is seeing what others are doing, and gaining and exchanging ideas and insights, both within the UK and internationally. There are many ways this can happen and be encouraged. Trade associations enhance networking and promote international involvement. The HVMC has an important role to play. Online learning is increasing and has been given a huge boost by the need for virtual meetings as a result of Covid-19 restrictions. The Department for International Trade should adjust how it supports companies and sectors to reflect the greater use of virtual meetings – and should work with EAMA and other sector trade associations (reflecting the importance of partnership with trade associations noted in the Export Strategy, 2018). Additionally, one of the most important ways people learn is through attending exhibitions, both within the UK and overseas. These have been very hard hit by Covid-19 but should be supported as part of recovery.

International travel is an essential element of the spread of ideas and of investment. It is especially important for the UK, as a global trading nation with a high proportion of its domestic business being foreign-owned, and seeking to maintain and increase investment that is productive for the UK. Due to Covid-19 restrictions, the UK risks falling behind in this important area. At the earliest reasonable opportunity, international business travel must be allowed and promoted by government, with a clear message that UK manufacturing and engineering is thriving and forward-looking.

**Q: What more can government do to enhance access to the finance needed to support innovation? At what stages of innovation would this support be most beneficial (e.g. at commercialisation stage)?**

Manufacturers are the least likely to rely on banks to fund innovation – which is one reason why the sector is held back. At the same time, asset finance has become much more popular over the past two years, as firms have sought to protect their cash balance ahead of Brexit changes.

**Prompt payment** The introduction of mandatory reporting by large companies of their payment practices online (<https://www.gov.uk/check-when-businesses-pay-invoices>) is welcome. However, one does not have to spend long on this site before uncovering very poor payment practice by companies that are, in effect, using their SME suppliers as banks and reducing SMEs' ability to invest and to innovate. Strengthening of the payment code should be encouraged. Where large companies have government support, for example through CCFF, prompt payment should be a condition of the support. The position of the Small Business Commissioner should be reviewed, with a view to a strengthening of regulatory powers.

**Q: How can government better identify and support the key technological trends that will drive innovation-led growth and productivity in the recovery (e.g. diffusion of artificial intelligence, emergence of quantum technologies)?**

Government should establish a process to receive regular input from the HVMC, sector trade associations (such as in EAMA) and others. It is important to involve TAs, as they are close to companies in the sector – including users and providers of innovative engineering technology. In the case of additive manufacturing, where technological change is particularly rapid, director and resource AMUK to help drive forward the adoption and use of technology.

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