A manufacturing future for Wales: a framework for action

A consultation response from the IET.

**Introduction**

We are the Institution of Engineering and Technology ('The IET'), a charitable engineering organisation working to engineer a better world by inspiring, informing and influencing the global engineering community for the benefit of society. (For further information … see ‘About the IET’ at the end of this response).

**Opening statement**

We greatly welcome and support ‘A manufacturing future for Wales: a framework for action’ ('the Framework'). We believe, if implemented, it can deliver a sustainable and prosperous future for the people of Wales.

As the economy re-emerges from the shock of COVID19 and the UK prepares to leave the EU, we would encourage the Welsh Government ('the Government') to think big, to be bold and, above all, to be outward-looking, when it comes to implementing the Framework.

In this response, we answer your questions and seek to highlight the ambition, excitement and opportunity which the Framework creates.

**Q1: Do you agree with the definition of high value manufacturing as described and its importance in future proofing the sector?**

1.1 Yes. We are delighted so see that this definition aligns with the Well-being of Future Generations (Wales) Act 2015, being a much broader and ambitious definition of high-value manufacturing than that often used in industry.

1.2 Nevertheless, we would strongly urge the Government to set out some metrics against which the Framework can to be measured and quantified, in this regard.

**Q2: Do you agree with the themes identified, which have to be addressed to help future proof the sector?**

2.1 We summarise the ten items specified as: climate change, technology transformation, skills, infrastructure, fair work, collaboration, clusters, leadership, supply chain and embedding inward investment.

Consider increasing industrial inimitability (difficult to copy) through technology!

*Example: Wales can be a specialist biotech leader. Manufacturing *vital nutraceuticals* from plentiful, valuable agricultural waste, a £5bn+ sector which does not currently exist.*
2.2 We feel there is significant overlap and perhaps some opportunity to consider combining some of these and or indeed creating some cross-cutting themes, given that none of these operate in isolation.

2.3 Some of these items involve considerable investment. Others, we see as being relatively inexpensive to deliver. We would strongly urge the Government to focus on engaging minds over money. Let’s use our brains not our wallets.

Place-based recovery

2.4 Wales has so much to offer to those operating, or choosing to establish, a manufacturing base here and has enjoyed a strong legacy in winning inward investment, notably from overseas – long may that continue!

2.5 The Framework can and must deliver a whole of Wales focus in our view. It strongly mentions the Cardiff and South Wales corridor and the North, with its proximity to the Liverpool City Region, North West England and the manufacturing heartlands of the Midlands. Close collaboration with these neighbouring centres of excellence will benefit Welsh manufacturers. Yet Central and West Wales also have tremendous potential with existing manufacturing communities and companies too and the capability to accommodate the possibility of more.

People-based recovery

2.6 Skills, fair work and collaboration lie at the heart of a people-led recovery. No stranger to shocks, workers in Wales can be justly proud of their relentless ability to adapt, remain dedicated, and maintain their resilience over many years.

2.7 We would urge the Government to empower workers at all levels, in part through a national training and reskilling programme, and to utilise diversity of all kinds whether in ability, background, gender, age or race, as a tremendous asset. If we are to increase diversity within manufacturing, greater emphasis on workplace culture and ethics will be required.

2.8 We feel that emphasis on fair work, whilst important, is by itself unambitious and potentially reinforces negative industry perceptions. Work should be fair by default but above all empowering and impactful, creating an infrastructure that prioritises and facilitates higher skills development to support future trajectory of the industry.

2.9 Understanding the culture and empowering Welsh manufacturers to embrace innovation and new ways of working is vital. Help for all, whether homegrown family businesses that have been built over generations or new start-ups attracted by the support and new opportunities Wales can offer.

2.10 Start-ups come in all shapes and sizes and are just as likely to emerge from existing firms, pivoting areas of their business or diversifying, whether locally or globally focused, urban or rural, led by young entrepreneurs or experienced practitioners. Small
is beautiful. Scaling up can be a scary business. Targeting supporting for SMEs helping them to grow their markets, secure trusted suppliers and create more high-quality jobs, will strengthen the manufacturing economy in Wales.

2.11 Supporting industrial innovation through a strong commitment to research and development is also important and we would thoroughly recommend more initiatives which will see Welsh manufacturers collaborating and innovating with assistance from their local universities. An assessment of the strength and depth of academic and scientific resource to support manufacturing in Wales is needed.

Green and just

2.12 Action on sustainability (‘A Globally Responsible Wales’) and economic success (‘A Prosperous Wales’) are inextricably linked. Reducing waste makes both environmental and financial sense. Resource productivity enables firms to improve the efficiency of their non-labour costs (often 50% of total costs). Remanufacturing and circularity offer firms further benefits. Yet more manufacturers in Wales need to embrace and become active in securing the evident benefits sustainable manufacturing can bring.

2.13 There is a real opportunity for the Welsh Government to champion sustainable manufacturing in a way which no other national government is doing so, currently.

Digital

2.14 Rather than simply ‘bouncing back’ or ‘building back better’, UK manufacturing needs to be capable of taking several leaps forward in order to remain competitive and relevant. The application of the digital technologies, referred to within the Framework, will help with that.

2.15 The presence of both the Compound Semiconductor Applications Catapult and the AMRC Cymru is a huge positive and bodes well for the increased incidence and application of digital technologies within Welsh manufacturing.

2.16 Yet digital transformation is not an end in itself. Largely targeted at reducing labour cost (typically just 10% of costs) at present, transformation presents an opportunity to create new high-quality jobs. Investment in digital will provide better returns when jointly tasked to address place-based and green and just considerations, at the same time.

2.17 Liquidity is a real issue for many manufacturers, currently. Although the business case for investment in digital is strong, many firms will not now have the cash to invest. Firms fortunate enough to have cash are likely to be cautious about their digital spend.

2.18 On a more positive note, technology (in the form of blockchain) is enabling supply chains to take significant strides forward in overcoming many of the financial, information and trust issues which have traditionally beset the sector.
2.19 Government procurement is a huge positive for the economy especially where goods and services can be supplied by Welsh businesses. Yet firms awarded Government contracts should be held to account when it comes the payment and treatment of their suppliers and subcontractors, as a condition of procurement.

Q3: Do you agree with the actions proposed and do you have any additional suggestions on how the commitments in the plan can be delivered?

3.1 There are multiple references to existing programmes including Smart Cymru and the Accelerated Growth Programme within the Framework. These are excellent programmes but, as many of our members have told us, they are not easy to access.

3.2 Post-Brexit, does the Welsh Government have any plans of its own to replace or support the continuity of schemes currently funded by the EU?

3.3 Given its fiscal powers, a huge positive, would the Government be prepared to consider excluding plant and machinery from the rateable value of industrial and commercial property? Its inclusion effectively raises the price of acquiring capital for manufacturers and disincentivises investment in new technologies and in enhancing capacity or capability, thus limiting productivity and growth.

3.4 There is a reference to the refashioning and reprioritising of apprenticeships in the foreword to the Framework but no detail on how this will be delivered. We would urge the Government to consider the value of rolling out a model, such as the Aspire Shared Apprenticeship Scheme, as a means of widening access for SMEs.

Question A: We would like to know your views on the effects that the manufacturing plan would have on the Welsh language, specifically on opportunities for people to use Welsh and on treating the Welsh language no less favourably than English.

A1 Some of our members in Wales are Welsh speakers, passionate about the language, keen to see it encouraged, yet reluctant to see it made the subject of further legislation or regulation or, for that matter, generating additional costs and time factors.

A2 We feel there is an opportunity to create a ‘Made in Wales’ brand which draws upon elements of Welsh heritage, language and culture to create a distinctive and unique value proposition for local and international customers. We appreciate this has been attempted in the past.

Question B: We have asked several specific questions. If you have any related issues which we have not specifically addressed, please use this space to report them:

B1 As previously stated, we at the IET share the Government’s ambition, excitement and opportunity for the Framework and believe this can create a sustainable and prosperous future for the people of Wales.

B2 As a matter of urgency, we believe that time invested in updating and refreshing the SWOT analysis, referred to in the consultation document would reap rewards in highlighting further opportunities for place-based, people-based, green and just, and digital recovery. This is something which we as the IET can help you with, marshalling the expertise of our thought leaders across industry, not least the six vertical sectors of the IET.
Note: We understand that responses to consultations are likely to be made public, on the internet or in a report.

**About the IET**

We are the Institution of Engineering and Technology (The IET), a charitable engineering organisation working to **engineer a better world** by inspiring, informing and influencing the global engineering community for the benefit of society.

We have engineer and technician members based all over the world (some 167,000 in total) working in **industry and academia** across energy, transport, digital, healthcare, construction, and manufacturing.

We promote STEM and careers in engineering. We provide a **professional home for life** to our members offering a wide range of knowledge services, membership and professional development.

We champion the expertise of our members, promote technology innovation with industry and create policy input for governments. We have an **active and passionate** membership in both the manufacturing sector and in Wales.

Our Board of Trustees has identified five societal themes which will provide a **focus for the charity** over the next decade. These will also help to inform our support and future engagement with you in developing and delivering the Framework.

These are:

- Sustainable planet
- Digital futures
- Healthy lives
- Productive manufacturing
- People-centric infrastructure

**Thank you**

We welcome this opportunity to submit this response. We would greatly welcome the opportunity to talk to you in more detail about our ideas and the various ways in which the IET can support the Government, in this regard. Do please get in touch!

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