





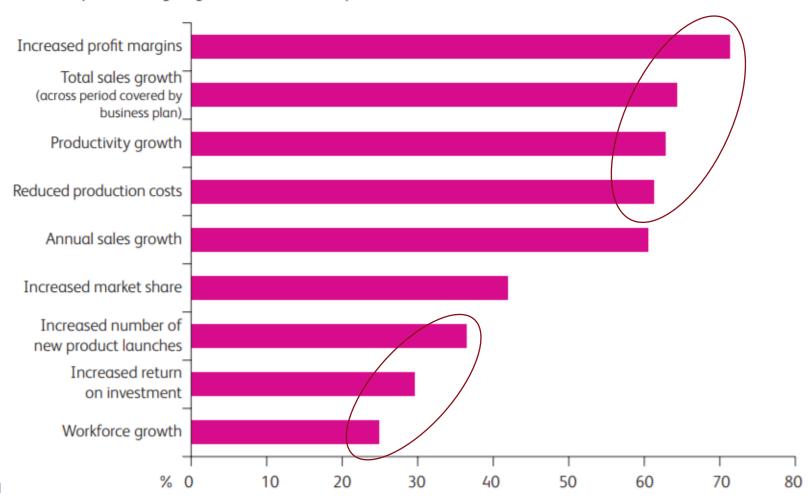


Agenda

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What's the story in Manufacturing.
      Current State - Future State.
         Manufacturing / Innovation Strategy.
   Future Proof Performance – Make UK / WAF
      Route to Growth
         4 key Ambitions
         Welsh Government EAP
   Opportunities to collaborate
      Priorities / structure to support delivery
   Questions
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What is your ambition?

% of companies citing targets in their business plans



Driving Added Value - FPP Strategy?

Future Proof Performance.

Clear ambitions from government provide a clear signal that it is prioritising actions that will build on Wales industrial strengths to support the value added activities that will rebalance the economy. See EAP.

Clear ambitions also provide the framework for government to work collectively (as a government and with the private sector) to overcome the obstacles in the business environment to making its vision a reality. The ambitions are:

- More companies bringing new products and services to market
- More globally-focused companies choosing to expand in the UK
- •A lower cost of doing business
- •A more productive and more flexible labour force
- •Make UK "Manufacturing".
 - •Performance Profile / Lean Benchmark / Gap Analysis and deliver sustainable impact



Welsh Government: Economic Action Plan

Calls to Action

Businesses seeking financial support from the Welsh Government will be expected to contribute to at least one of our five Calls to Action which are designed to support them to overcome the challenges of the future. Business will be able to see clearly where government will seek to provide support and people will be able to benefit from businesses that are preparing for future change.

- Decarbonisation carbon intensive products will see their market shares significantly decline in the very near future; we need to enable more of our business base to become carbon light or free.
- Innovation, Entrepreneurship and Headquarters - product lifecycles are reducing and the marketplace has never been more competitive, we want to support businesses to innovate, introduce new products and services and succeed.
- Exports and Trade there is significant untapped potential for trade with the rest of the UK and the rest of the world and we want to proactively support this.

- High Quality Employment,
 Skills Development and
 Fair Work businesses need
 high quality skills to compete
 and businesses that employ
 people with high skills are able
 to pay higher wages that support
 communities to become more
 sustainable.
- R&D, Automation and
 Digitalisation businesses
 will increasingly need to
 develop and introduce new
 products, automate and
 digitalise to remain competitive.

 Our universities will have an important supporting role in research and innovation as drivers for prosperity and growth.

Feedback :- 1) INVESTMENT

ISSUES

Mfg investment path uncertain.

Increased automation hitting hurdles too.

costs

management & workforce skills adapting technology to processes finance & tax landscape

Loss of access to skills may accelerate need to more automation, but few firms see this as likely at the moment.

UK has large catch up challenge.

Feedback:- 2) Innovation

Not enough **process innovation**, but firms say it's getting more important.

Clear link with business outcomes.

Adoption of ICT and 4IR-related technologies remains underweight.

Mfg challenged by lack of skills and uncertainty about returns.

Firms also underestimate what is involved.

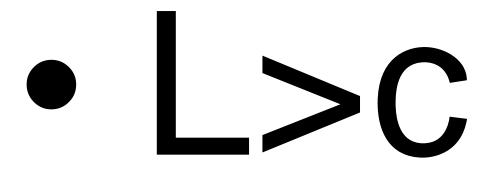
Mfg believes gvt support for process innovation is lacking.

Who is involved in process innovation?

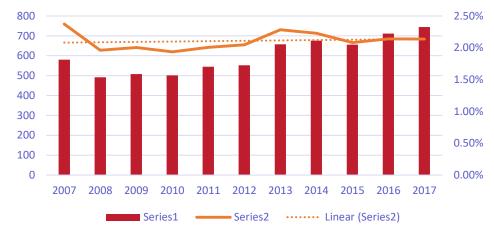


How many companies have
Innovation Strategy
Manufacturing Strategy
Integration of these Strategies

Where and how do I start:

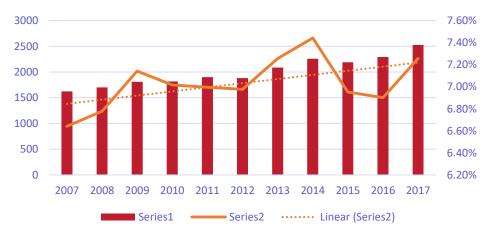


R&D spend in Wales.



Note – Discuss Rate of Innovation.

R&D spend in Scotland



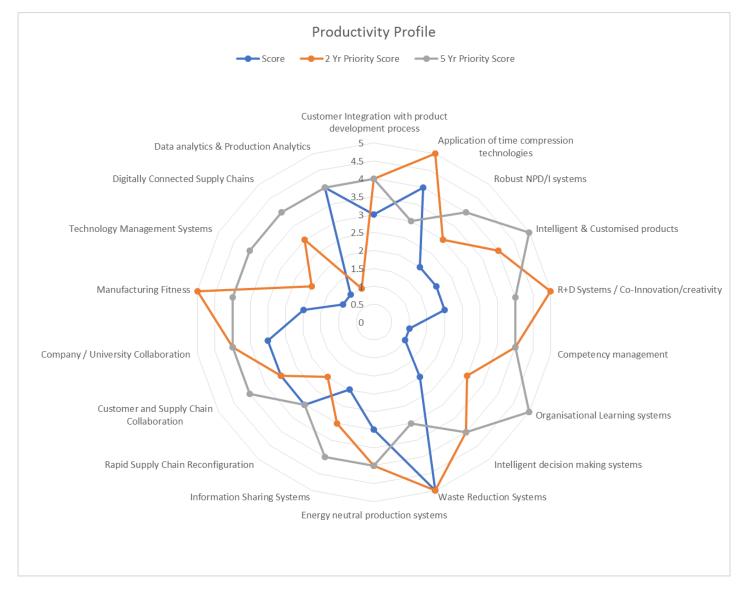
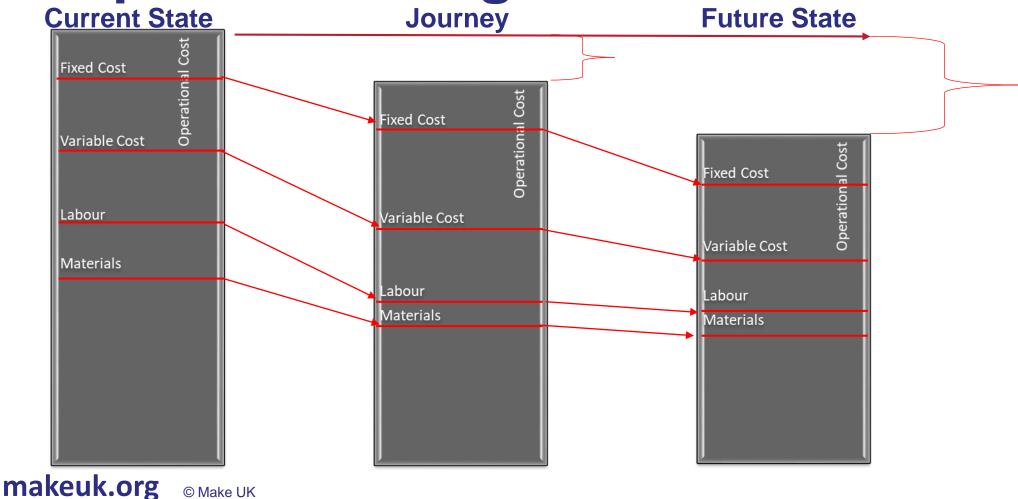


Figure 2a - Productivity Profile Component Manufacturer (Mech) Figure 2b - Productivity Profile Component Manufacturer (Food) V1 Customer Integration with V1 Customer Integration with product development process product development process V2 Application of time V18 Data analytics and Production V2 Application of time compression V18 Data analytics and compression technologies V3 Robust New Product Analytics technologies Production Analytics V17 Digitally Connected Supply V3 Robust New Product V17 Digitally Connected Development/Introduction elopment/Introduction (NPD/I) Supply Chains (NPD/I) V16 Technology Management V4 Intelligent and Customised V16 Technology Management V4 Intelligent and Oustomised V5 R & D Systems/Co-V5 R & D Systems/Co-V15 Manufacturing Fitness V15 Manufacturing Fitness Innovation/creativity Innovation/creativity V14 Company/University V14 Company/University V6 Competency management V6 Competency management Collaboration Collaboration V13 Customer and Supply Chair V13 Customer and Supply V7 Organisational Learning V7 Organisational Learning systems Collaboration Chain Collaboration V12 Rapid Supply Chain V8 Intelligent decision-making V12 Rapid Supply Chain /8 Intelligent decision-Reconfiguration Reconfiguration making systems V11 Information-Sharing V11 Information-Sharing Systems V9 Waste Reduction Systems V9 Waste Reduction Systems V10 Energy neutral production V10 Energy neutral systems. production systems • • • • • Current - Priority • • • • • • Current Priority V1 Customer Integration with product development process V2 Application of time V18 Data analytics and compression technologies Production Analytics V17 Digitally Connected V3 Robust New Product Development/Introduction... Supply Chains V16 Technology Management V4 Intelligent and Customised Systems products V5 R & D Systems/Co-V15 Manufacturing Fitness Innovation/creativity V14 Company/University V6 Competency management Collaboration V13 Customer and Supply 77 Organisational Learnin Chain Collaboration Figure 2c - Productivity Profile Component Manufacturer V12 Rapid Supply Chain /8 Intelligent decision-making (Electronics) Reconfiguration V11 Information-Sharing V9 Waste Reduction Systems Systems V10 Energy neutral production

• • • • • Current

Priority

Future Proof Performance Impact: Existing / variants Products.

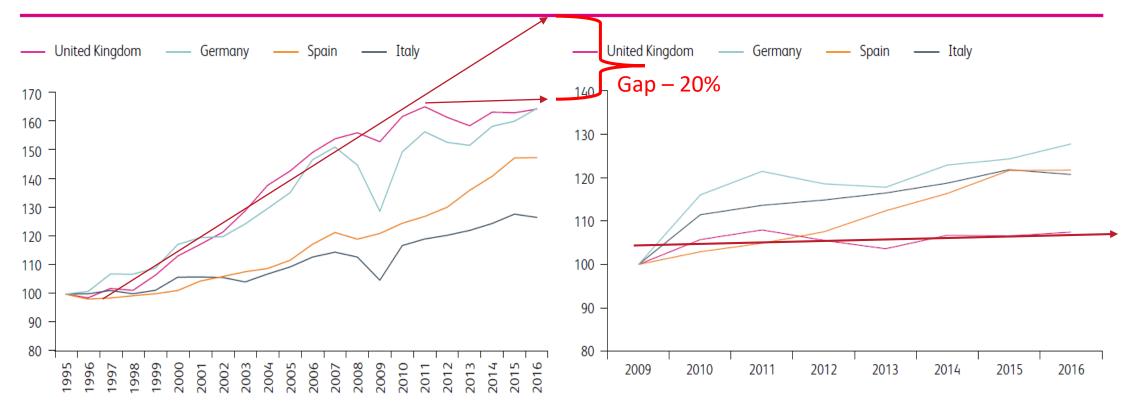


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Productivity – Getting Manufacturing Productivity Growth back on trend

UK manufacturing had strong productivity growth up until the financial crisis

Real GVA per hour, left chart 1995 = 100, right chart 2009 = 100



Source: Eurostat, OECD, EEF analysis



STRATEGIC REVIEW



COST SAVINGS THROUGH OUR ADVANTAGES PROGRAMME



LEAN / BENCHMARK / KPIS / LEAN ACADEMY / SIX SIGMA



ACCESS TO EVENTS, WORKSHOPS AND BRIEFINGS



PRODUCTIVITY IMPROVEMENTS



IMPACT MONITORING



CONTINUOUS IMPROVEMENT CULTURE PROGRAMME



ORGANISATIONAL LEARNING CULTURE



MENTORING AND COACHING



ORGANISATIONAL RESILIENCE

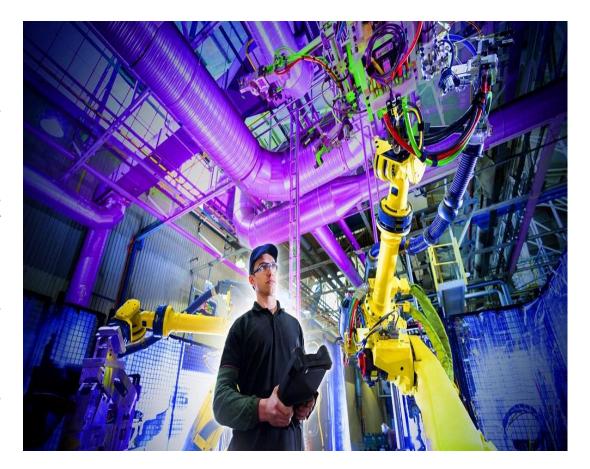
KEY ACHIEVEMENTS TO DATE:

- · 54% increase in productivity
- 16% reduction in scrap material
- 300% increase in stock turns
- 98% + deliver performance
- 70% improvement in space utilisation
- 75% reduction in leadtime
- Reduce time to Market
- Deliver World Class Performance
- · Operational Excellence -



Future Proof Performance - Knowledge Transfer

- The following Apprentice Standards are in the process of being developed.
- Improvement Leader - <u>https://www.instituteforapprenticeships.org/apprenticeship-standards/improvement-leader/</u> Master Black Belt (Level 6 – Degree) qualification.
- Improvement Specialist -<u>https://www.instituteforapprenticeships.org/apprenticeship-standards/improvement-specialist/</u>
 This is a Level 5 (Foundation Degree) qualification Six Sigma Black Belt.
- Improvement Practitioner https://www.instituteforapprenticeships.org/apprenticeship-standards/improvement-practitioner/. Level 4 qualification – Green Belt.,
- Improvement Technician
 https://www.instituteforapprenticeships.org/apprenticeship-standards/improvement-technician/ Level 3
 (A Levels qualification) Green Belt/Yellow Belt. 1



Summary

Future Proof Performance – New "Make UK Initiative" / WAF – Drive Added Value Business Growth / Strategy - QFD

Current state - Future State

Gap Analysis – Performance / Productivity Compass / Benchmark / Process Innovation.

Prioritisation – re EAP

Intervention – Based on "4 Route to Growth"

Plan to - Manufacturing Connect Events- Best Practice

Case Evidence – Share information / Best Practice

Manufacturing Community Network

New industry cluster / network model.

QUESTIONS