
EEF : Improving skills, productivity and growth

Paul Byard : National Director Wales.

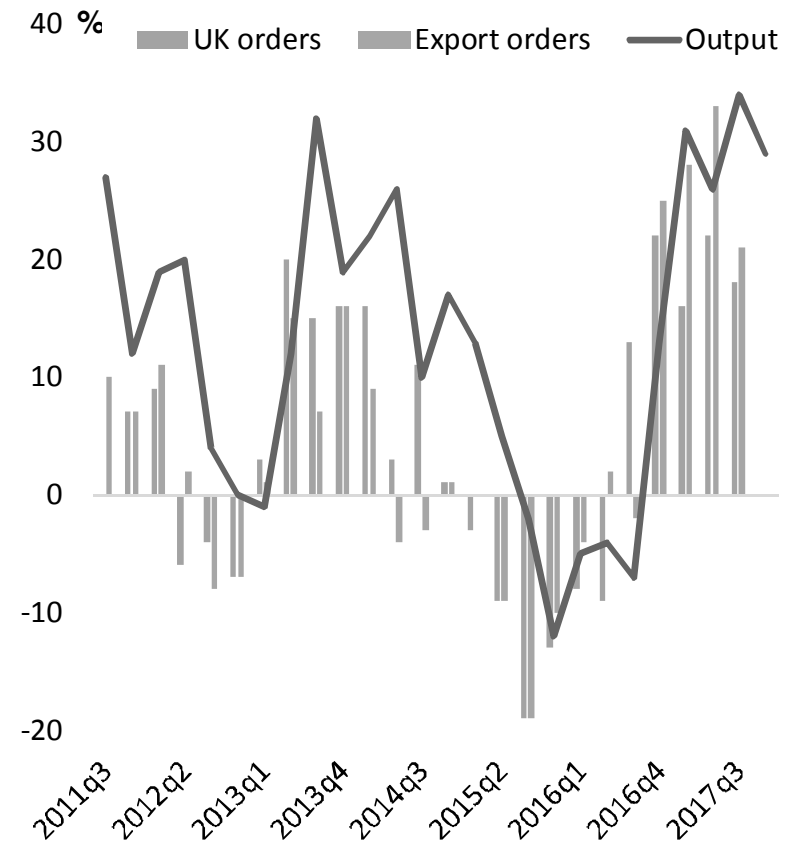
Agenda

- Wales – What's the story in Manufacturing.
 - Current State - Future State.
 - Manufacturing / Innovation Strategy.
 - Lean Performance
 - Future Proof Performance.
 - Route to Growth
 - 4 key Ambitions
 - Innovation / Investments
 - Debate / Questions

What's the story for manufacturing?

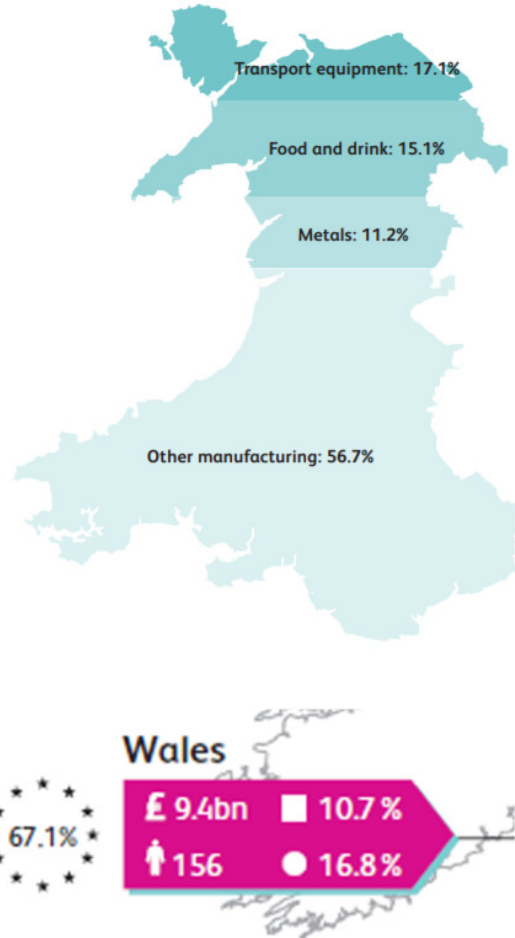
% balance of change in output and orders

- Expansion in manufacturing output and orders continues.
- Investment **intentions** still positive...
- but levels insufficient to keep up with tech change and to close **productivity** gap
- It's not *just* Brexit uncertainty.
- But confidence about the UK economic outlook has faltered.
- Companies also struggling to overcome hurdles to greater investment.



Source: EEF Manufacturing Outlook Survey

Manufacturing in Wales



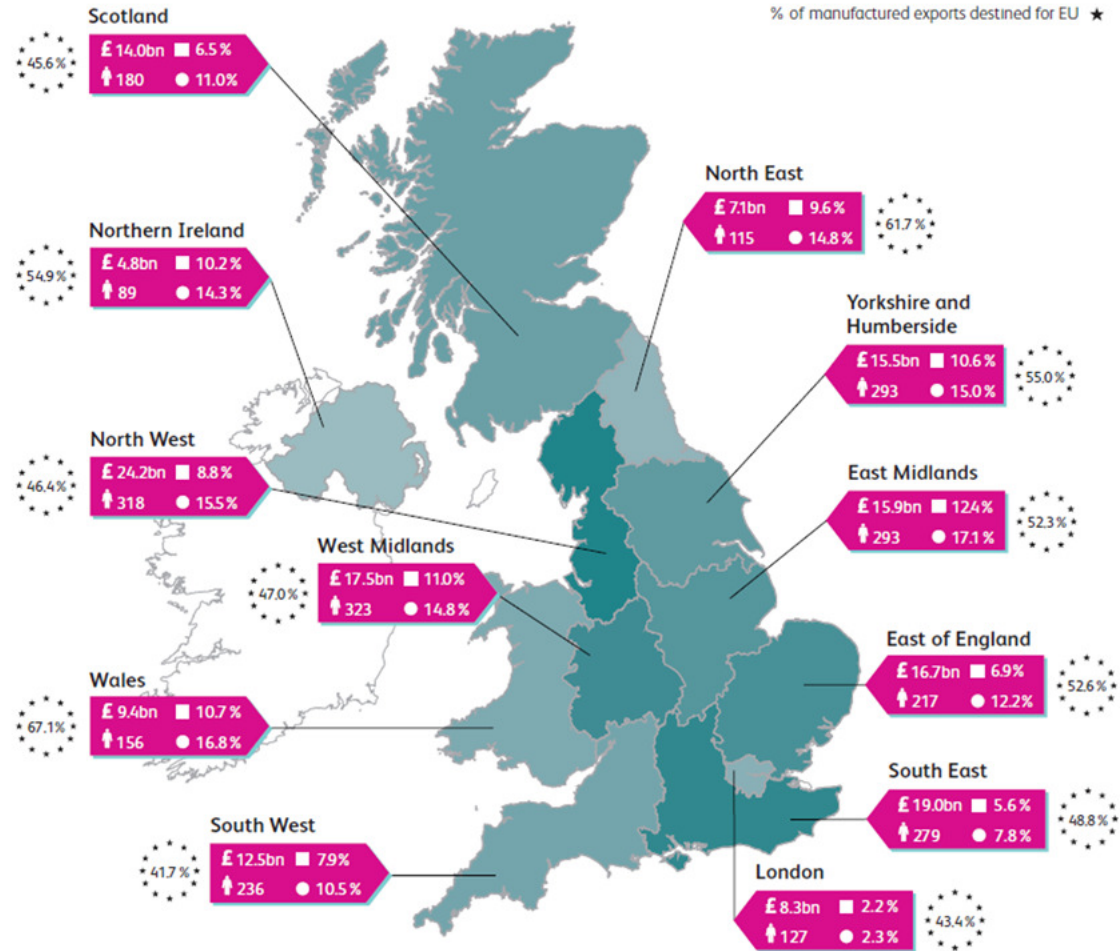
HOW IS MANUFACTURING SPREAD AROUND THE UK?

eef The manufacturers' organisation

Supported by: Santander Corporate & Commercial

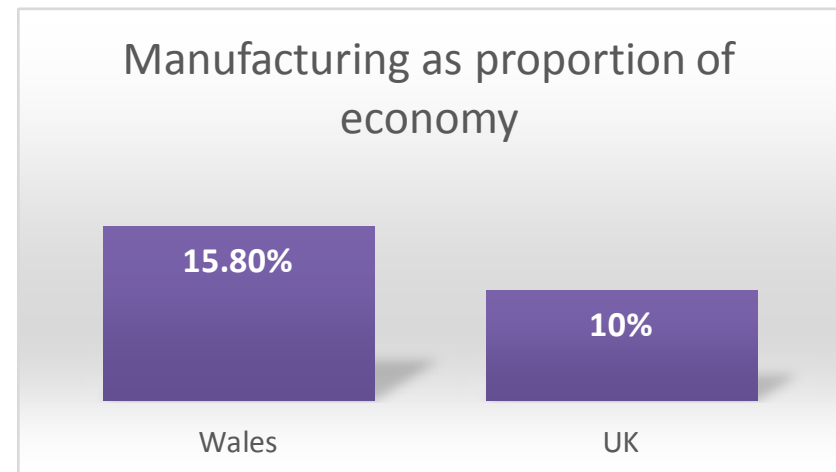
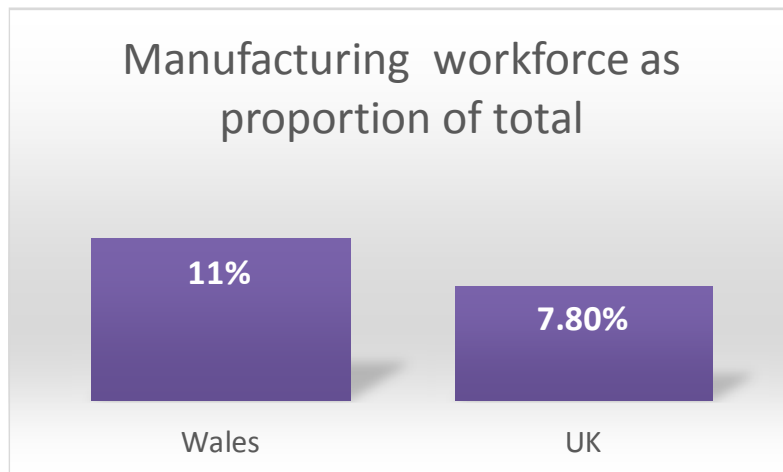
KEY

- Manufacturing output (£bn) £
- Number employed in manufacturing, 000s ↑
- Manufacturing as a % of regional employment ■
- % of regional output ●
- % of manufactured exports destined for EU ★



Welsh Manufacturing: Key facts

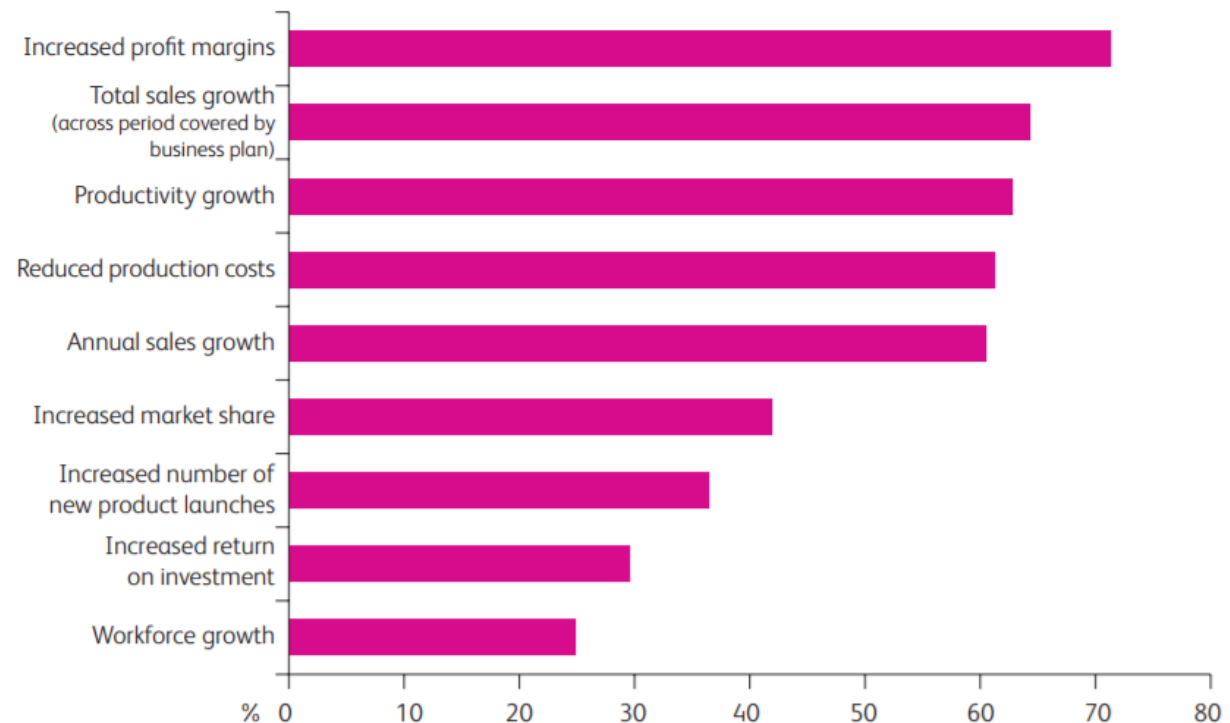
- 155,800 jobs in the Welsh manufacturing sector
- Manufacturing represents 11.0% of workforce
- Manufacturing accounts for 15.8% of GVA of Wales



What is your ambition?

- What is the ambition of your business? [Increase profits? Sales growth? Productivity improvements? Reduced production costs? Market share? Workforce growth?]

% of companies citing targets in their business plans



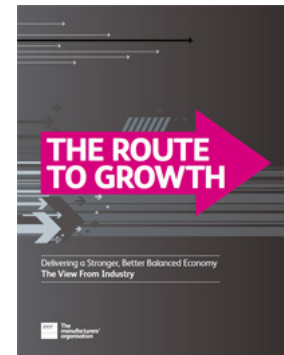
Driving Added Value - FPP Strategy?

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.

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**
- EEF “Manufacturing”.
 - Lean Benchmark / Gap Analysis and deliver sustainable impact



Industrial Strategy:

1. Investing in science, research and innovation
2. Developing skills
3. Upgrading infrastructure
4. Supporting businesses to start and grow
5. Improving procurement
6. Encouraging trade and inward investment policy
7. Delivering affordable energy and clean growth
8. Cultivating world-leading sectors
9. Driving growth across the whole country
10. Creating the right institutions to bring together sectors and places

Building our Industrial Strategy

The challenge

Our economy has great strengths, but while many people, places and businesses are thriving, opportunities and growth are still spread unevenly across the country.

Our approach

We are developing a modern industrial strategy. We want to build on our strengths to enable all parts of the country to succeed: helping to deliver a high-skilled, competitive economy that benefits people throughout the UK.

Your views

We want to hear from every part of the country, every sector of industry and businesses of every size.

This is a public consultation, and we welcome your comments and contributions to inform our industrial strategy and help deliver an economy that works for everyone.

Have your say: www.gov.uk/bels

Our 10 pillars

 <p>Investing in science, research</p> <p>We will become a more innovative economy and do more to commercialise our world leading science base, developing new technologies and driving growth throughout the UK.</p>	 <p>Developing skills</p> <p>We will build a proper system of technical education, and boost key skills in science, technology, engineering, maths and digital proficiency, to ensure people have the skills employers need now and in the future.</p>
 <p>Supporting businesses to start & grow</p> <p>We will support businesses and entrepreneurs across the UK, to ensure they can access finance and wider support to grow, and have the right conditions for companies to invest long-term.</p>	 <p>Encouraging trade & inward investment</p> <p>We will make Britain a global leader in free trade, including promoting and supporting UK exports, building future trading relations and creating a more active approach to winning major overseas contracts.</p>

Energy, defence central and local delivery.

Procurement and infrastructure, and creating jobs.



EEF's submission to Industrial Strategy Green Paper consultation

EEF have welcomed the renewed focus of industrial strategy from the government. The consultative nature of this new approach, together with a clear focus on tackling challenges such as productivity growth and the UK's long-standing imbalances provide an opportunity to build consensus on the strategy that will hopefully offer more longevity.

Strategy overview

- Industrial strategy should seek to tackle the UK's long-standing challenges of unbalanced growth and weak productivity.
- The ten pillars in the green paper are the right ones. Government action to improve underpinning infrastructure, skills, procurement and provide better support for companies seeking to innovate and export are aligned with the challenges the economy faces and the ambitions of the private sector.
- The white paper which follows should set out more specific metrics on the outcomes from industrial strategy so we can be confident that progress is indeed being made and to guide the policy trade-offs across government departments.
- We do not see the need for new institutions to be created; but industrial strategy is a long-term process rather than a single set of actions in support of growth. The white paper should be clear about which are the most important first policy steps in the pursuit of stronger productivity growth.

Strategic alignment :

Welsh Government has devolved powers and budget to resource many aspects of the 10 pillars. In order to prioritise these we indicated that the Route to Growth ambitions should be aligned to support a vital wealth creating and priority sector.

Route to Growth	Industrial Strategy
Ambition 1 – Innovation Helping companies bring new products and services to market	1. Investing in science, research and innovation. 7. Delivering affordable energy and clean growth
Ambition 2 – Commercialisation More globally-focused companies choosing to expand in the UK	4. Supporting businesses to start and grow 6. Encouraging trade and inward investment policy
Ambition 3 – A lower cost of doing business	
Ambition 4 – A more productive and more flexible labour force	2. Developing skills 8. Cultivating world-leading sectors

3. Upgrading infrastructure

5. Improving procurement

9. Driving growth across the whole country

10. Creating the right institutions to bring together sectors and places

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Route to Growth	Industrial Strategy	Actions
Ambition 1 – Innovation Helping companies bring new products and services to market	1. Investing in science, research and innovation. 7. Delivering affordable energy and clean growth	Identify the rate of Innovation required to achieve sustainable growth. What does success look like. ie Design Future State requirements re Industrial Strategy
Ambition 2 – Commercialisation More globally-focused companies choosing to expand in the UK	4. Supporting businesses to start and grow 6. Encouraging trade and inward investment policy	Determine the level of business support required to aid competitiveness.
Ambition 3 – A lower cost of doing business	Gap in provision.	Eg Productivity
Ambition 4 – A more productive and more flexible labour force	2. Developing skills 8. Cultivating world-leading sectors	Future Leaders Programme to Lean activity to Future skills needs re I4.0 / Innovative solutions.

- 3. Upgrading infrastructure
- 5. Improving procurement
- 9. Driving growth across the whole country
- 10. Creating the right institutions to bring together sectors and places

Feedback sought on new proposals

1) INNOVATION

Issue

- 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**.

Feedback sought on new proposals

2) 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.

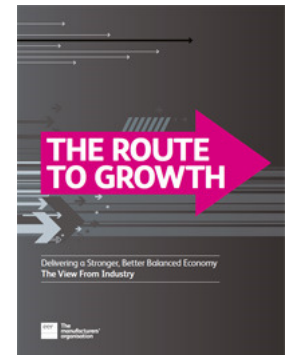
Key issues:

- Innovation
 - Rate of Innovation
 - Process Innovation
 - Product Development

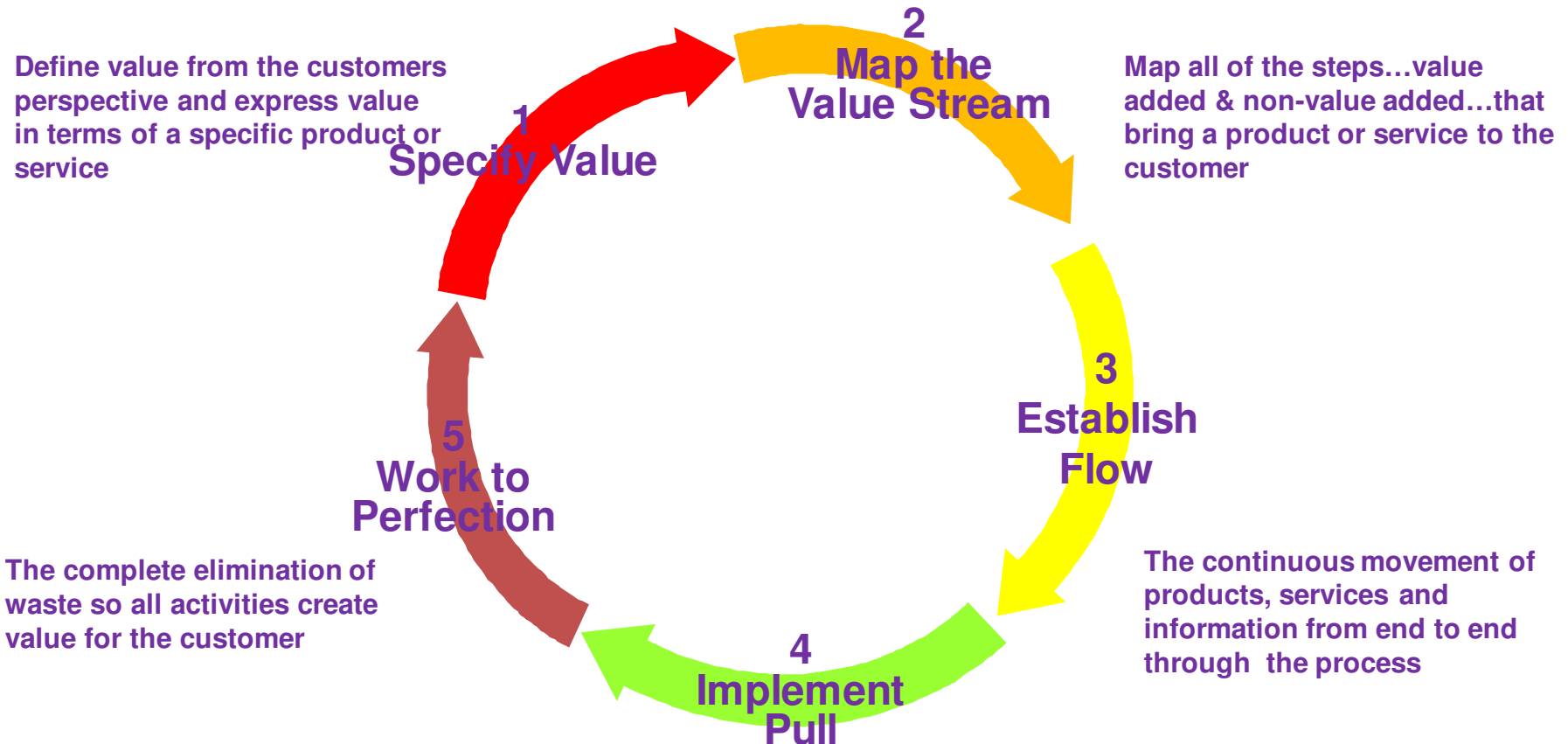
FPP Strategy?

Future Proof Performance.

- **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**
- EEF “Manufacturing”.
 - Lean Benchmark / Gap Analysis and deliver sustainable impacts towards



Five Principles of Lean



The
manufacturers'
organisation

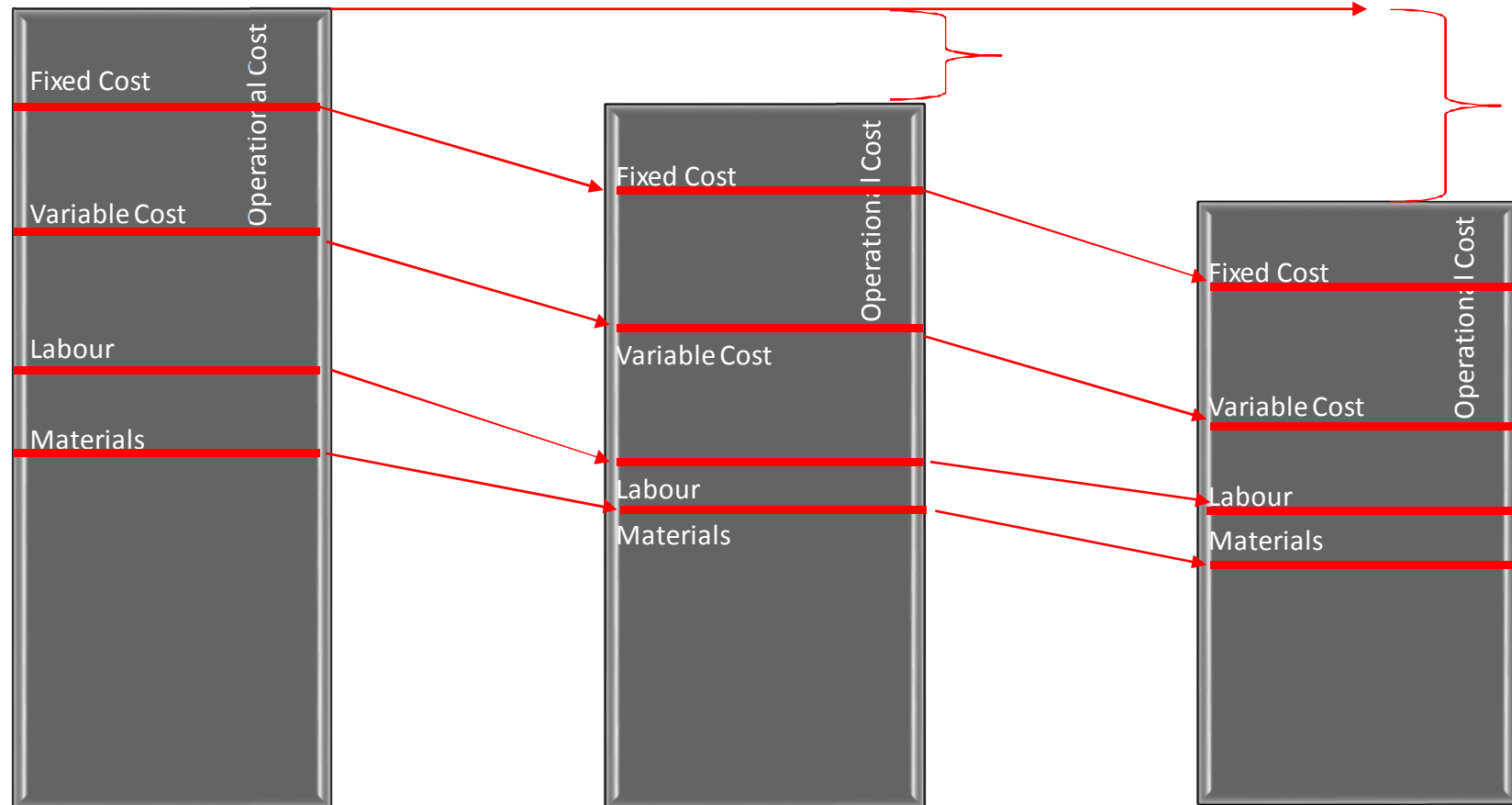
Nothing is done by the upstream process until the downstream customer signals the need

Impact : Existing / variants Products.

Current State

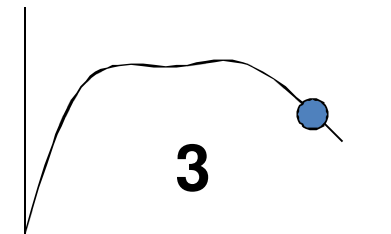
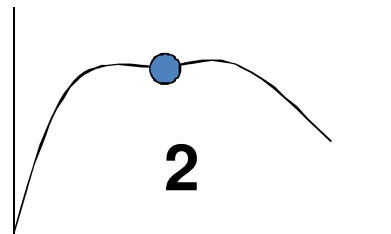
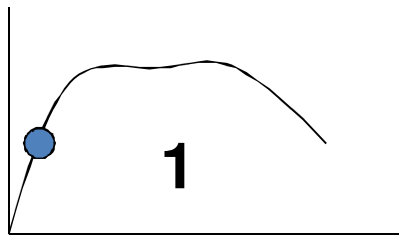
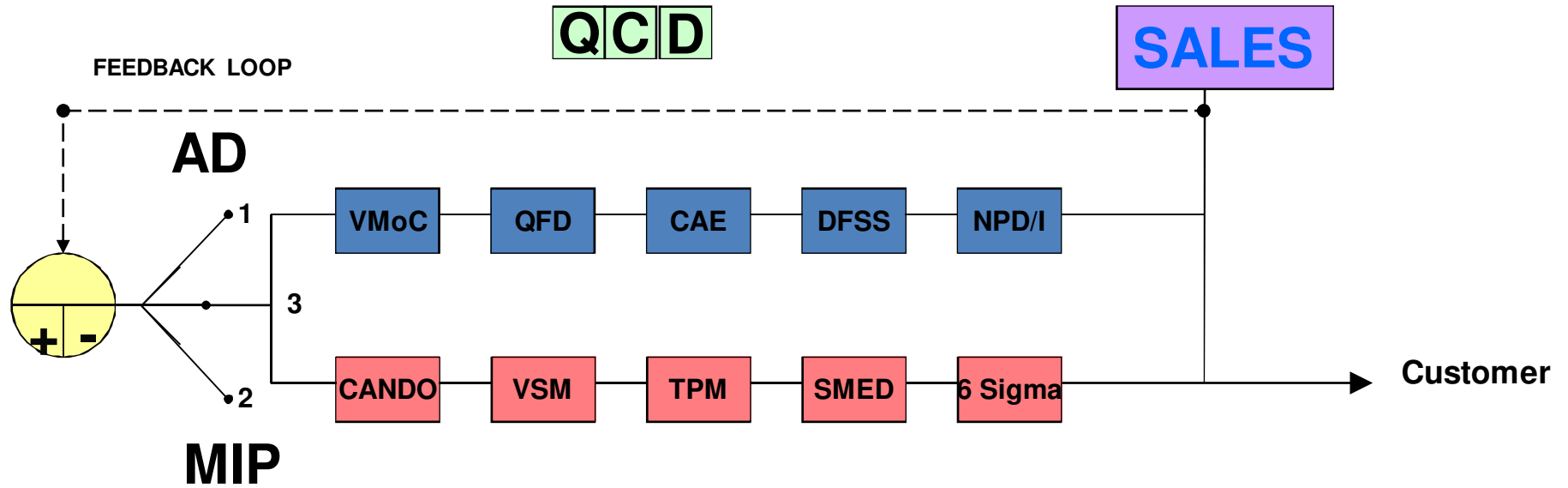
Journey

Future State



STRATEGIC BUSINESS MODEL

Business/Sales Enhancers



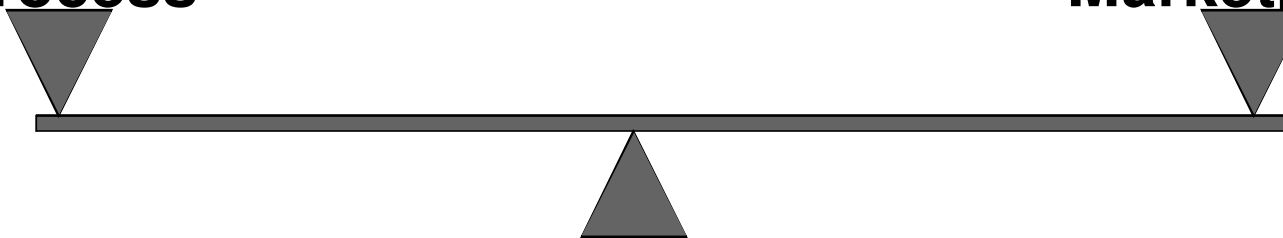
Theory of Constraints

Clearing constraints in process will naturally push the constraint of capacity back into Marketplace and vice versa.

Aim is to throw the constraints between process and market. If a continual MOVING imbalance is achieved then the company is moving towards sustainability.

**Constraints in
Process**

**Constraints in
Marketplace**



**Aim: Clear them and
Create constraint in
Market**

**Aim: Clear them and
Create constraint in Process**

Future Proof Performance

- Current State
- **Future State Requirements**
- Gap Analysis Incl benchmarking
- Prioritisation
- Engage and align recommendations with priorities
- Identify mechanism of support
- Review and understand impact delivery towards future state

Lean Benchmark: On line

<http://leanbenchmark.org/eef/free.php>

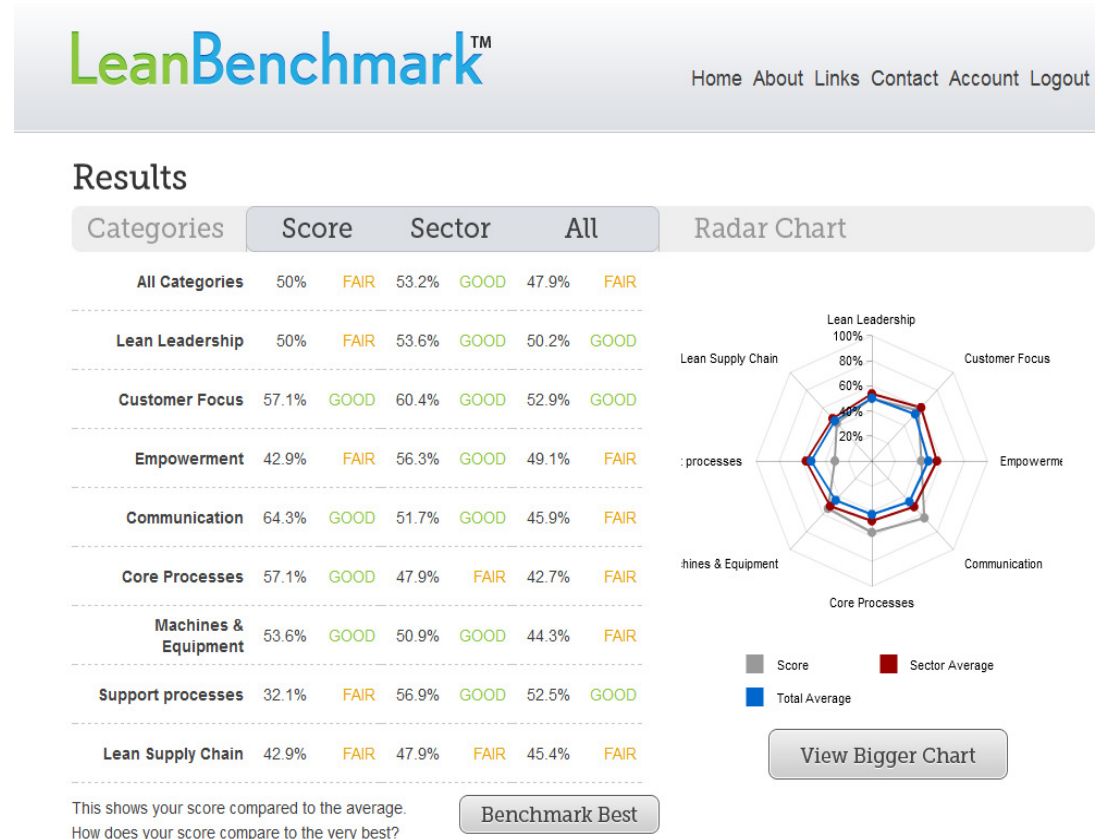
A Report will be unique to your organisation; the content is driven by the answers you have provided and benchmarks your organisation's performance across the 8 Lean competencies:

- 1. Lean Leadership
- 2. Customer Focus
- 3. Empowerment
- 4. Communication
- 5. Core Processes
- 6. Plant and Equipment
- 7. Support Processes
- 8. Supply chain

Lean Benchmark: On line

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- Overview:
- 1. Lean Leadership
- 2. Customer Focus
- 3. Empowerment
- 4. Communication
- 5. Core Processes
- 6. Plant/Equipment
- 7. Support Processes
- 8. Supply chain



On-line Lean Benchmarking

How it works

- Answer the questions
- There are 8 sections, each containing 7 questions so 56 questions in total.
- It is most valuable to base the answers on accurate, factual information. There are 4 opportunities to take the assessment, so we would suggest that in the first instance you take the assessment, answer the questions as best you can and familiarise yourself with areas that require further work to track the exact answers.

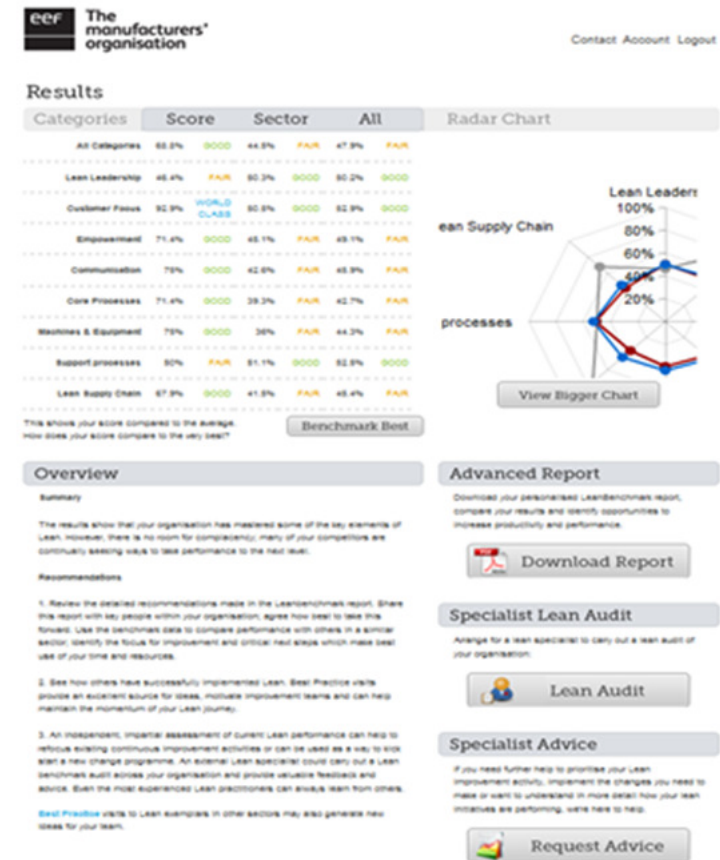
The screenshot shows the user interface for the eef The manufacturers' organisation online Lean Benchmarking assessment. At the top, the eef logo and 'The manufacturers' organisation' name are displayed, along with 'Contact Login' links. Below this, a brief introduction states: 'There are 8 sections which will take approximately 15 to 20 minutes to complete. Once started you must complete all questions. The top tips offer advice and guidance in order to achieve the most accurate self assessment of your Lean Performance.' A 'Read carefully the statements given, then select and mark the current performance of your organisation:' instruction is followed by a legend for the performance scale: 1. Not relevant or not found anywhere in this company; 2. Found in some areas; 3. Commonly found, but not in the majority; 4. Very typical, some exceptions; 5. Found everywhere, no exceptions. A 'Top Tips' icon is also present. The main assessment area is titled 'Lean Leadership' and features a progress bar with a scale from 1 to 5. Below the title, several statements are listed, each with a corresponding performance scale (1-5) and a 'Score: Not Complete' indicator. The statements include: 'The organisation's vision, mission and goals are written down, the objectives are measurable and are understood at all levels'; 'Staff can accurately describe the organisation's objectives and how their job contributes to the achievements of those objectives'; 'There is a Lean strategy and the organisation's goals are linked to the implementation of Lean principles'; 'Senior Managers are regularly seen on the shop floor discussing current issues and improvement programmes with production teams'; 'A non-blaming culture, fact-based, process driven atmosphere exists throughout the organisation'; 'The roles, responsibilities and accountabilities of team leaders, supervisors and managers are clearly set out and published'; and 'Promotions, pay and rewards are decided in a fair and structured way. All staff understand how their Team Leader or Manager rates their performance'. At the bottom, there are 'Back' and 'Next' buttons, and a 'Total Score: Not Complete' indicator.

On-line Lean Benchmarking

How it works

Obtain your results

- The data provided compares your results across 8 key competencies including: Leadership, Customer Focus, Empowerment, Communication, Core Processes, Machines and Equipment, Support Processes and Supply Chain.



Future Proof Performance

Where and how do I start:

Business Transformation



Future Proof Performance

Where and how do I start:

L > C

Future Proof Performance

Where and how do I start:

L>c

Replace:

Plan Do Check Act:

With

Plan Measure Analyse Solve Execute Embed

Future Proof Performance

Where and how do I start:

L>c

Replace:

Plan Do Check Act:

With

Plan Measure Analyse Solve Execute Embed

Benchmark – Frequency / rate of change

Future Proof Performance

Where and how do I start:

Glenday Sieve:

50% of your volume will come from 6% of your products

Focus on 6%

Value Engineering opportunities

DFM

Rationalisation of components /assemblies

Supply Chain- Input /Rationalise/cost down

Focus on one piece Flow for the 6%.

Redo the production rates / cost based on the above scenario

Future Proof Performance

- How many companies have
 - Innovation Strategy
 - Manufacturing Strategy
 - Integration of these Strategies
- Business Model to embed the above

Opportunity :

Gap analysis.

- Route to Growth identifies a gap in provision re Lower Cost of Doing Business.
- This can provide an opportunity to consider Efficiency, Productivity, Value Engineering, Design for Manufacture, Industrial Engineering, Lean Benchmark etc.

MANUFACTURING: VITAL TO THE ECONOMIC PROSPERITY OF WALES.



QUESTIONS