Paul Byard: National Director Wales.
A Lower Cost of Doing Business

09:00  Welcome & introduction to EEF, Paul Byard, EEF Wales
09:15  Agile Innovation & New Product Development, Dafydd Davies, BIC Innovation
09:30  Energy Efficiency, Cost & Consumption, Nick Linklater, Ener-G
10:00  Resource efficiency & reducing waste costs, Damian Walsh, WRAP Cymru
10:30  Coffee
10:50  Future Proofing Manufacturing and Lean Performance, Paul Byard, EEF
11:30  Buildings as Powerstations - Followed by tour, Professor David Worsley, SPECIFIC
12:30  Lunch
Future Proof Performance / The Lean Journey. Sustainable Manufacturing

- New Product Development
- Sustainable Manufacturing
- Innovation

Impact

Lean
- Investments
- Skills
- Supply chain robustness
- Cost of manufacture

EEF The manufacturers’ organisation
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.
Impact:

<table>
<thead>
<tr>
<th>Current State</th>
<th>Journey</th>
<th>Future State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Cost</td>
<td></td>
<td>Fixed Cost</td>
</tr>
<tr>
<td>Operational Cost</td>
<td></td>
<td>Operational Cost</td>
</tr>
<tr>
<td>Variable Cost</td>
<td></td>
<td>Fixed Cost</td>
</tr>
<tr>
<td>Labour</td>
<td></td>
<td>Fixed Cost</td>
</tr>
<tr>
<td>Materials</td>
<td></td>
<td>Variable Cost</td>
</tr>
</tbody>
</table>

Operational Cost: Labour, Materials, Variable Cost, Fixed Cost
EEF, FOCUSING YOUR BUSINESS ON TOMORROW

Paul Byard : National Director Wales.
Overview : Manufacturing In Wales.

EEF :

• Current State - Future State.
  • Manufacturing Strategy.
  • Lean Performance
• Future Proof Performance.
• Rebalancing the Economy.
EEF, the manufacturers’ organisation

• Professional Services Trade Organisation within manufacturing and related industries

• **Our vision is to help secure the future growth & development of UK manufacturing**

• And in doing so, we promise to help our members – and our industry – be dynamic and future focused

• Thousands of member businesses ranging from SME’s to International Corporates

• Focus on supporting and advising senior management teams, helping them to deliver their business objectives

86% of members would highly recommend, or recommend EEF

EEF member survey, 2012
## Membership
- HR & Legal Advice and Support
- Tribunal Representation
- Settlement Agreements
- Health and Safety Option
- Regional Voice, Events & Networking
- Industry Reports
- Partner Services (Insurance, Tax Credits, OCC Health, Recruitment, Energy)

## Corporate Membership
- Policy & Representation
- Networking
- Industry Insight
- Board Collaboration
- Lobbying

## Learning & Development
- Tailored Courses
- Accredited Training
- In House Training
- Training Centres Nationwide
- Open Courses
- Personal Development, Management & Leadership, LEAN, HR, Legal, H&S, C&E

## Advantages
- EEF Business Insurance
- EEF Healthcare Cash Plan
- Salary sacrifice employee benefits
- EEF energy services
- Recruitment services
- R&D Tax Credits

## Business Improvement
- Information and Research
- Process and Productivity Improvement
- LEAN
- Product and Service Development
- Combining Advice, Consultancy, Training and Development

## Climate & Environment
- Carbon Footprint
- Recycling
- Process and Procedure
- IEMA Training
- Consultancy
- REACH
- Behavioural C&E

## Apprentices and Skills
- State of the Art Learning Facility in Aston
- Advice on Applying and Funding National Schemes
- Skills Training in Plant
- Skills Training in Aston

## HR Consultancy
- Settlement Agreements
- Policy and Procedures Updates
- Employee and Industrial Relations
- Job Evaluation
- Appraisals
- Interim Management
- Case Management

## Health & Safety
- Reviews
- Occupational Hygiene
- Auditing and Evaluation
- General Consultancy Management
- Accredited Training
- Behavioural H&S
Manufacturing Strategy for Wales


The Strategy for Manufacturing in Wales has been produced by the Manufacturing Forum in which EEF, Semta and the Welsh Government are partner organisations.
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
Future State: “Building a Balanced Economy on a Secure Manufacturing Base”.

- Growth within Sector
- Skills Gap Increasing
- Retirements within Sector
Where are you - Where are you going – How are you going to get there.
Where are you - Where are you going – How are you going to get there.
Where are you - Where are you going – How are you going to get there.

1

Sales

Contribution

Sales

Operational Costs

Reduce Costs
Increase Productivity

Operational Costs

Loss

Pressure on Margins

Reduce Costs
Increase Productivity

TIME Line

Heading for 1 above

Increase Sales

Operational Costs

TIME Line

TIME Line

TIME Line
Where are you - Where are you going – How are you going to get there.

Pressure on Margins

Reduce Costs
Increase Productivity
GO TO 3

Operational Costs

TIME Line

Sales

Increase Sales
GO TO 4

Heading for 1 above

Operational Costs

TIME Line

Sales

Identify
Business Risk
Customers
Markets
%Sales/Cutomer
Diversification
Acquisition

TIME Line

GO TO 4

Pressure on Margins

Reduce Costs
Increase Productivity

Operational Costs

TIME Line

Sales

GO TO 4

Operational Costs

TIME Line

Sales
Five Principles of Lean

1. Specify Value
   - Define value from the customers perspective and express value in terms of a specific product or service.

2. Map the Value Stream
   - Map all of the steps...value added & non-value added...that bring a product or service to the customer.

3. Establish Flow
   - The continuous movement of products, services and information from end to end through the process.

4. Implement Pull
   - Nothing is done by the upstream process until the downstream customer signals the need.

5. Work to Perfection
   - The complete elimination of waste so all activities create value for the customer.
Current Lean thinking.

The Focus too narrow.
What about the other opportunities from 85% of the Operational Cost.
I.e. Value Stream, Value Engineering, DfM etc.
Impact:

Current Lean thinking/application is too narrow. This causes an imbalance into the business.
Impact:

Material 50-80%
Labour 5-15%
Fixed / Variable Costs 20 – 30%

5S
Takt Time
Changeovers
Teamworking
Problem Solving
Material Flow
T.P.M.
Error-proofing
SPC
One Piece flow
Material 'Pull' Systems
'Waste' Elimination
Visual Management
Process Improvement
OEE Measurement
Preventive Quality Approaches

Supply Chain
Value Eng
Open Innovation
Strategic Priority
-5% = 40%
increase on bottom line

Reduce Ind Cost
Reduce Variable Energy Costs
Process Costs
Capital Management
Lean Accounting

The manufacturers’ organisation
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 impacts towards
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

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

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

![Image of Lean Benchmark results]

This shows your score compared to the average. How does your score compare to the very best?
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.
On-line Lean Benchmarking

How it works

Obtain your results

• The data provided with the free trial compares your results across 8 key competencies including: Leadership, Customer Focus, Empowerment, Communication, Core Processes, Machines and Equipment, Support Processes and Supply Chain.
What’s in a “Product”.

The manufacturers’ organisation
Beyond Lean

- We have spent 20-30 years catching up with the Japanese
- We’ve copied continuously and hence will never develop any distinct capabilities.
- Are we still behind in academic and industrial thinking. When did the last paradigm shift come from the UK? TQM, TPM, Lean, JIT, 6 Sigma.
- Easier to copy than go through the pain of new thinking. To do so means giving up control. We need to stop copying and do something different!!
### Manufacturing Specialist

<table>
<thead>
<tr>
<th>MTM STUDY ANALYSIS AND SAVINGS</th>
<th>Standard</th>
<th>Immediate</th>
<th>Option 1</th>
<th>Option 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manning</td>
<td>Observed</td>
<td>Change</td>
<td>Nil Cost</td>
<td>With Cost</td>
</tr>
<tr>
<td>16</td>
<td>20</td>
<td>16</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

- **Existing Data**
  - **Maximum Output**: 414 Minutes @ 5.4 Seconds
  - **Average parts per shift @ 85%**: 4000
  - **parts per man-hour (PPMH) @ 85%**: 27.8
  - **% Increase in PPMH against the Observed**: N/A
  - **% Increase in PPMH against the Standard**: 6.7%

- **Wages**
  - **Wages/Shift**: £959.4
  - **UNIT LABOUR COST @ 85%**: 23.99
  - **% Reduction in unit labour Cost against Observed**: 20.0%
  - **% Reduction in unit labour Cost against Standard**: 11.1%

### Proposed Phase 1 (Robot Controlled)
- **Work Stations**
  - **Maximum Output**: 414 Minutes @ 5.0 Seconds
  - **Average parts per shift @ 85%**: 4222
  - **parts per man-hour (PPMH) @ 85%**: 29.3
  - **% Increase in PPMH against the Observed**: 31.9
  - **% Increase in PPMH against the Standard**: 18.7%

### Proposed Phase 2 (Solder Op. Controlled)
- **Work Stations**
  - **Maximum Output**: 414 Minutes @ 4.73 Seconds
  - **Average parts per shift @ 85%**: 4463
  - **parts per man-hour (PPMH) @ 85%**: 31.5
  - **% Increase in PPMH against the Observed**: 39.5
  - **% Increase in PPMH against the Standard**: 25.5%

### Proposed Phase 3 (Dustcap + VC/Damper)
- **Work Stations**
  - **Maximum Output**: 414 Minutes @ 4.42 Seconds
  - **Average parts per shift @ 85%**: 4776
  - **parts per man-hour (PPMH) @ 85%**: 33.2
  - **% Increase in PPMH against the Observed**: 49.25
  - **% Increase in PPMH against the Standard**: 25.33%

### Areas for review
- 1. Productivity
- 2. Design Critique
- 3. Purchasing Insight to BOM only.

**Company**: Panasonic Electronic Devices (UK) Ltd – Port Talbot (PED UK Ltd)

**Product**: ES-3MST-18808-AD Speaker.
Company: Panasonic Electronic Devices (UK) Ltd – Port Talbot (PED UK Ltd)
Operational Performance Review Interim Report.

### Slovakia

<table>
<thead>
<tr>
<th>Typ Av unit cost</th>
<th>Material</th>
<th>Labour</th>
<th>Overhead</th>
<th>Unit cost Reduction</th>
<th>% Reduction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6% 0.934</td>
<td>79% 0.074</td>
<td>8% 0.485</td>
<td>100.0 £ 1.88</td>
<td>0.38173</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

**Scenario 1: Savings against current selling price.**

<table>
<thead>
<tr>
<th>Summary of Savings</th>
<th>Unit Savings</th>
<th>Volume</th>
<th>Total</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity</td>
<td>1.493 £</td>
<td>1,890,428</td>
<td>1,493 £</td>
<td>3,092,023 £</td>
</tr>
<tr>
<td>Logistics</td>
<td>166,667 £</td>
<td>-£916,033</td>
<td>-£916,033</td>
<td>2,342,657 £</td>
</tr>
</tbody>
</table>

**Conclusion:**

The justification to move to Slovakia is very weak.

### Scenario 2: Savings against current selling price with additional vol.

<table>
<thead>
<tr>
<th>Type</th>
<th>Av unit cost</th>
<th>Material</th>
<th>Labour</th>
<th>Overhead</th>
<th>Unit cost Reduction</th>
<th>% Reduction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Renault Contract</td>
<td>1600 40 pallets per truck.</td>
<td>14400 363 per euro pallet.</td>
<td>0.11</td>
<td>1500000</td>
<td>£</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cost</td>
<td>£ 1890.428</td>
<td>1,890,428</td>
<td>£</td>
<td>3,092,023 £</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Total Savings:** £ 3,092,023 £

### Scenario 3: Savings against Original agreed selling price from Jan 06.

<table>
<thead>
<tr>
<th>Type</th>
<th>Av unit cost</th>
<th>Material</th>
<th>Labour</th>
<th>Overhead</th>
<th>Unit cost Reduction</th>
<th>% Reduction</th>
<th></th>
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<td>0.38173</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Current Selling price:** 20.61%

**Original Agreed selling price from Jan 06:** 12.877,056 £

**Total Combined Savings Plus Additional vol. contribution:** 4,982,451 £

**New turnover:** 17,919,225 £

**% return on Sales:** 27.81%
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  - Lean Benchmark / Gap Analysis and deliver sustainable impacts towards
Strategic Planning.
ALIGNMENT AND DEPLOYMENT VIA THE ONE PAGE PLAN

<table>
<thead>
<tr>
<th>Senior Level 1</th>
<th>HOWS</th>
</tr>
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<tbody>
<tr>
<td>VF1</td>
<td>VF1</td>
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<tr>
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<tr>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>VF1</td>
<td>VF1</td>
</tr>
<tr>
<td>VF2</td>
<td>VF2</td>
</tr>
<tr>
<td>VF3</td>
<td>VF3</td>
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<table>
<thead>
<tr>
<th>Team Members Level 3</th>
<th>HOWS</th>
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</thead>
<tbody>
<tr>
<td>VF1</td>
<td>VF1</td>
</tr>
<tr>
<td>VF2</td>
<td>VF2</td>
</tr>
<tr>
<td>VF3</td>
<td>VF3</td>
</tr>
</tbody>
</table>

The manufacturers’ organisation

**eef**
EEF Wales – Delivering Growth

Case Study 1.
Current T/o £34m
EEF Wales Member for 18 months.
EEF Wales Advantages support with:
Secured £108k R&D Tax Credit (proj £250k over 5 years)
Supported Investment £2.9m capex including £800k WG grant.
Skills Growth Wales - £70k for Lean Training by EEF specialists (achieved approx £600k GVA)
Projected expansion to £50m+ by 2018.

“*We now have the flexibility and agility to meet increased demand. We continue to work closely with EEF as we look towards investing further in our new production facility, to double capacity.*”

Case Study 2.
Current T/o £5m
EEF Wales member for 8 years
EEF Wales Advantages support with:
Skills Growth Wales - £120k for embedding Lean throughout the business and teams.
Output across 2 cells has risen by 74%.
Has enabled export expansion to 95 countries.
Projected expansion to £16m by 2018.

"*EEF has taken the time to understand our business and work hand-in-hand with us to shape a wide range of business support around our growth strategy.... it is great to have a partner such as EEF to guide us and take the pain away.*"
IS MANUFACTURING VITAL TO THE ECONOMIC PROSPERITY OF WALES.

Rebalancing the Economy :- WHY!!!

QUESTIONS