

Can Climate Change save the West Midlands Economy?

Dr. Simon Slater
Head of Sustainable Development
Advantage West Midlands

Prof. Peter Braithwaite
Director
Arup

To answer this question:

1. Key future issues for the region
2. How tackling climate change can help address these issues
3. The low-carbon challenge
4. The low-carbon West Midlands of 2020
5. How is your business doing?

Key future issues for the West Midlands

Society	Technology	Economics
<ul style="list-style-type: none">▪ Ageing population▪ Population growth▪ Migration▪ Increasing skills gap▪ Increasing healthy lifestyle▪ Changing workforce▪ Increased inequality	<ul style="list-style-type: none">▪ New technology opportunities▪ More networked world▪ Accelerated change▪ Increased stress on transport and energy infrastructures	<ul style="list-style-type: none">▪ Expanding global markets▪ Increased international competition▪ Rise of the knowledge economy

Climate Change

Carbon reduction; pressure for climate change mitigation; pressure for climate change adaptation; pressure on natural resources; energy supply and security

Birmingham to
Chester in 30 mins



MCHRONICAL

NOVEMBER 2020 £9.99

Unlucky for some 13th tornado hits region today!

Last disc blown off iconic Selfridges building

The much talked about Selfridges building in Birmingham has been featured on a Royal Mail Stamp as part of its Architecture stamp set. Birmingham's Selfridges building has been a talking point from the day the designs were first published, to when the building was completed and it's still making headlines.

The building is now featured on a stamp as part of the Royal Mail's Modern Architecture stamp set.

The stamp featuring the Selfridges building went on issue on Tuesday 20th June, to coincide with Architecture week.

An icon of 90's architecture, whether you love it or hate it, you certainly can't miss it, with its 15,000 stainless steel and aluminium disks and jolly mould shape.

Selfridges general manager Lorena Fraser said: "The building was an important part of the skyline in the nearly thirty years since it opened. It is now a tourist attraction for the city as well as being important to those who travel through and shop here every day."

As soon as it was built, it was being hailed as a modern icon, a symbol of Birmingham today. It perfectly illustrates how modern public buildings no longer have to be boxes."

**OIL REACHES \$500 A BARREL
ALLOWABLE ROAD USE CUT
TO 2 DAYS A WEEK**

World Cup at Ricoh

England manager Rooney over the moon! England's best chance of winning



ROONEY AND HIS
TEAM TO FAME

Football may be the staple diet for the majority of England's sports lovers - but Wayne Rooney's team served up a feast never to be forgotten.

Anyone with a single drop of sport in their blood will remember where they were when Rooney claimed the trophy for England after 99 minutes and 40 seconds of stomach-wrenching combat at the former Villa Stadium.

The football World Cup triumph of 2010 is regarded as English sport's finest moment.

Sir David Beckham's side, however, never needed to leave Wembley to lift the trophy, while Rooney took his men to a different hemisphere to claim victory.

MORE... SPORT PAGE 22

Indians vote Midlands 'hot stuff'

Winning a top category Indian energy awards

Last night, the West Midlands won the 'top innovator' category at the prestigious annual Indian energy awards. This was in recognition of the role of the region over the last twenty years as the birthplace of the low carbon industrial revolution, that has helped power the world economy once again, this time through significant research and deployment partnerships with India utilities and manufacturers.

MORE... LETTERS PAGE 8

Penthouse 'granny flats'

Yuppie flats revamped into sheltered housing

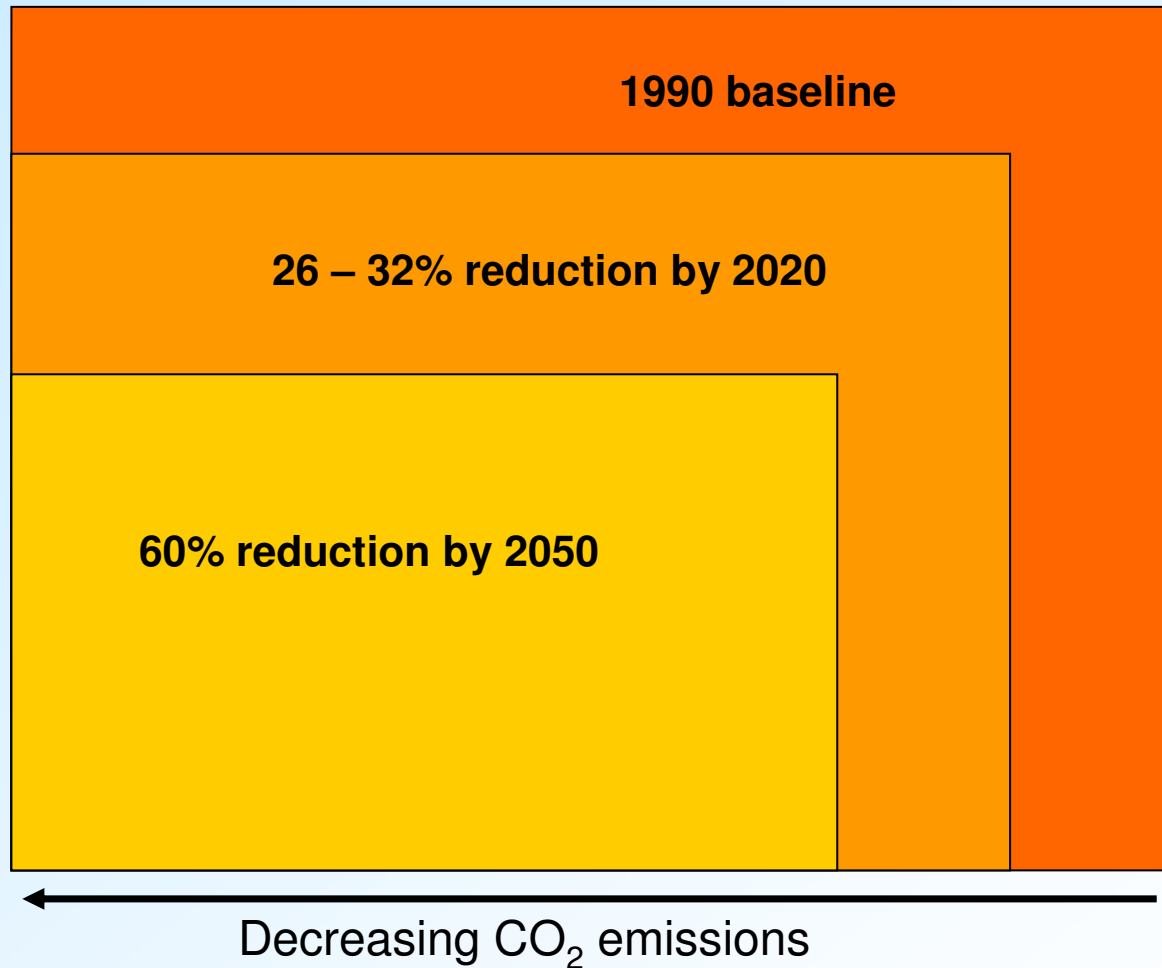
Last Stoke-on-Trent waterside yuppie flats revamped into sheltered housing or units combined to cater for large extended families.

Built at the turn of the century, for the now rare young professional, for the latest announcement signals the last in the region's conversion of its starter flats and yuppie flats from the Brown to the growing older population living to be near services, and family younger members can't afford their own, has seen

2020: The low-carbon region

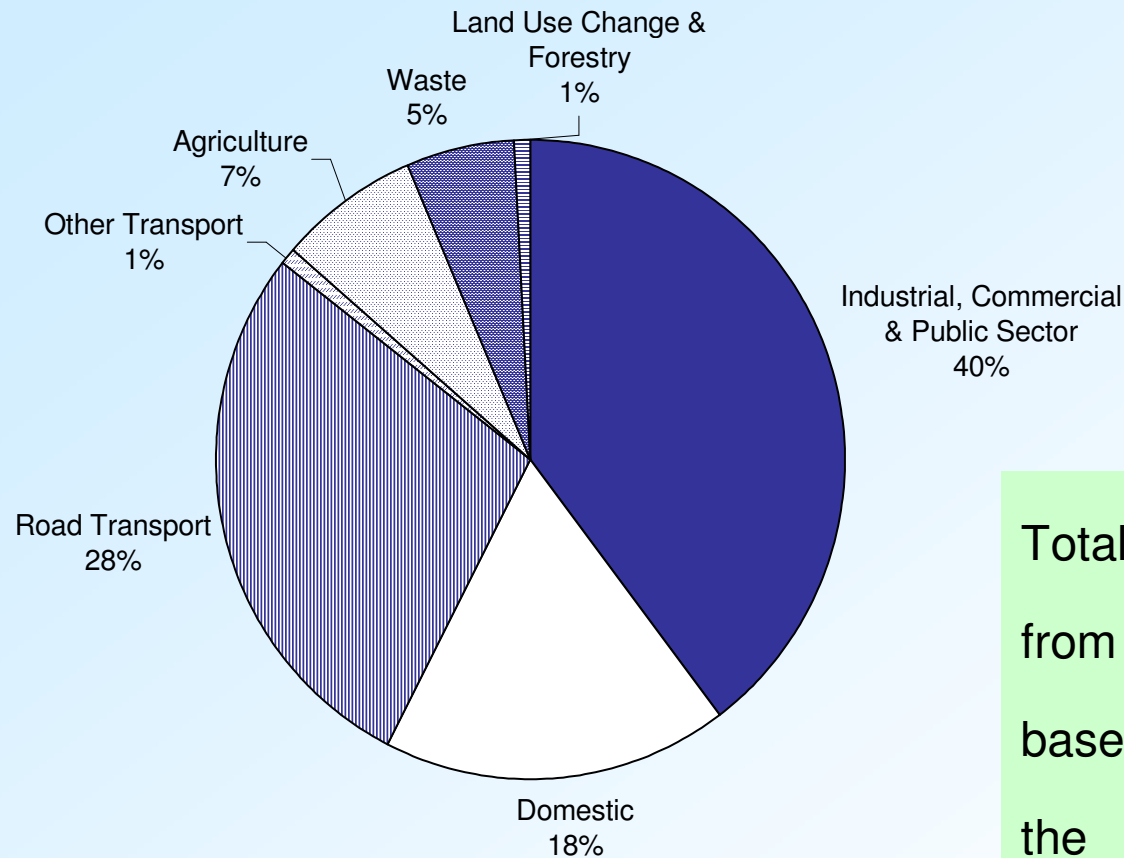
- A low-carbon economy is not distant utopia
- It will involve practical changes to everyday actions and processes
- The West Midlands has historically been the home of innovation and pioneering new processes

The national challenge



The Draft Climate Change Bill sets targets to reduce CO₂ emissions by 60% by 2050. This reduction meets the necessary minimum target to stabilise global carbon dioxide concentrations at 450 ppm – the threshold at which dangerous climate warming of more than 2°C would be unavoidable.

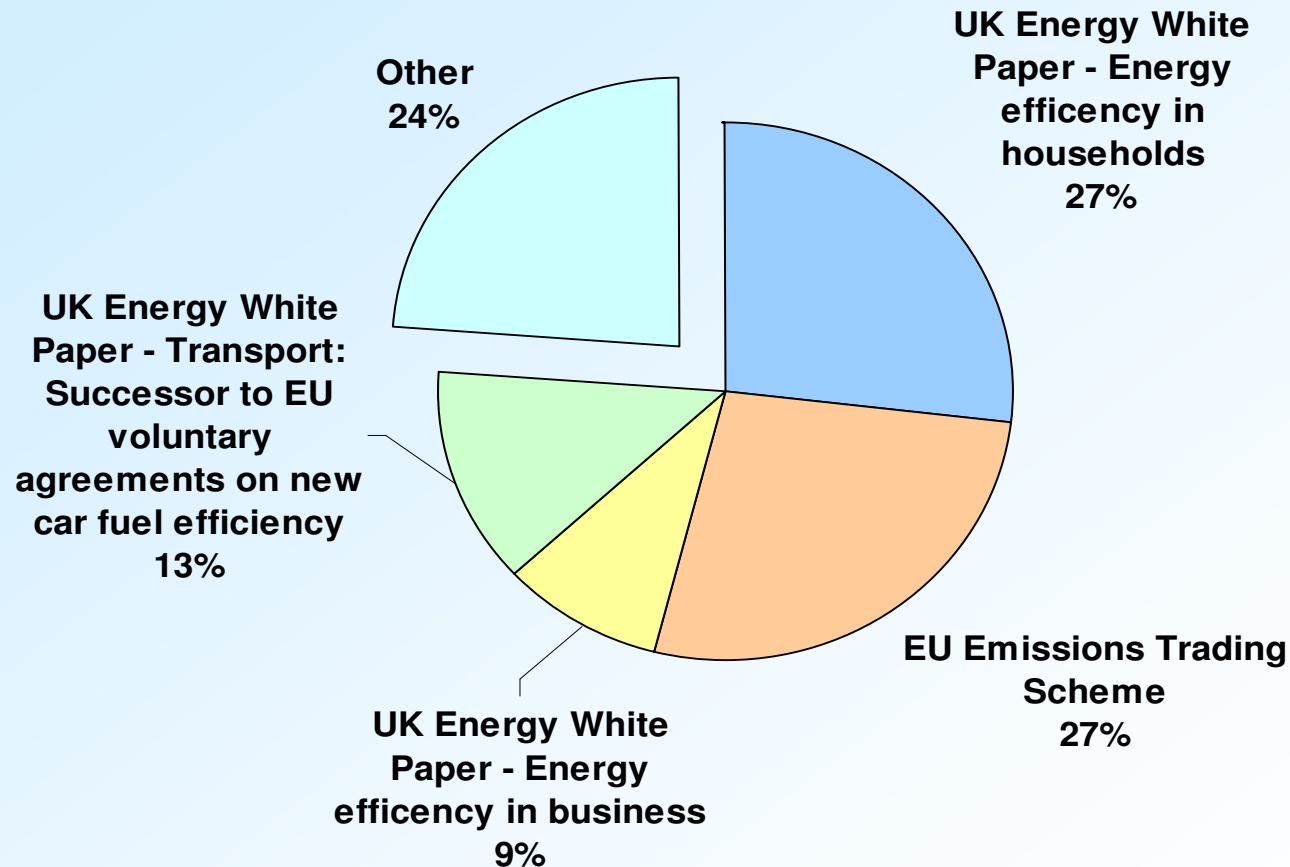
The regional CO₂ contribution



Total annual regional emissions from sources geographically based within the region are in the order of **44,500 Kt CO₂** (equivalent).

The regional reduction potential

The regional implementation of national legislation could result in potential carbon savings in the range of 4,900–7,600 Kt CO₂ by 2020. This saving represents a **20–28%** reduction below 1990 levels in regional CO₂ emission estimates from 1990 and 2020.



This 20-28% carbon reduction delivered regional implementation of national and international policy will fall just short of the national target range of **26-32%** - **This is the carbon gap!**

Addressing the carbon gap

- To address the regional carbon gap and bring the West Midlands in line with national targets we must implement additional regional schemes.
- The additional savings from these schemes will produce total cumulative savings above the national target by 2020.
 - Congestion charging in Birmingham – **60KtCO₂ per year**
 - Car sharing/car clubs/ home working/shopping (*'soft measures'*) – **510 KtCO₂ per year**
 - Decentralised energy generation for commercial use – **530 KtCO₂ per year**
 - This equates to an overall carbon savings in the order of **6,300–9,900 Kt CO₂** by 2020.
- Potential regional overall reduction of **24–35%** below 1990 levels.

A look into the future...

- So what will a low-carbon future mean for the West Midlands?
- Places
- People
- Businesses





Places



The City: 2020

- Pedestrianised city centres with pavement cafés and bars
- New buildings conform to strict low-carbon design standards and many generate their own renewable energy
- Urban farms and 'eco-malls' bring green-spaces into the city centre
- City universities specialise in science and innovation based degrees



The Suburbs: 2020



- Suburban electric car-sharing schemes reduce dependency upon private car ownership
- Increased suburban cycle paths and public transport infrastructure
- Integrated public transport system links buses, trams and trains
- Tele-hubs allow commuters to work from decentralised shared offices
- Smart metering of households has reduced waste energy use

The Countryside: 2020

- With summer water shortages becoming more frequent farming techniques have had to adapt
- Publicly funded cost/benefit analysis has allowed farmers to assess the most appropriate adaptation measures
- Farms have diversified to encourage rural tourist hospitality
- Micro-generation from biomass reduces rural dependence upon central energy networks





People





2008

2020



The pensioner

- A return to old habits as the low-carbon future places emphasis on reuse and durability of products
- Electric buses provide quick and sustainable transport solutions
- ‘Free-cycling’ and peer-to-peer lending provide local access to everyday good and services

The graduate

- A two-year intensive diploma in low-carbon retro-fitting from Aston University equips graduates with essential new skills for the low-carbon era
- The growing market for low-carbon goods and services has meant that graduates can quickly find work in industry and R&D
- Affordable, carbon-neutral housing schemes allow young people to gain a first step on the property ladder



2008

2020





2008



2020

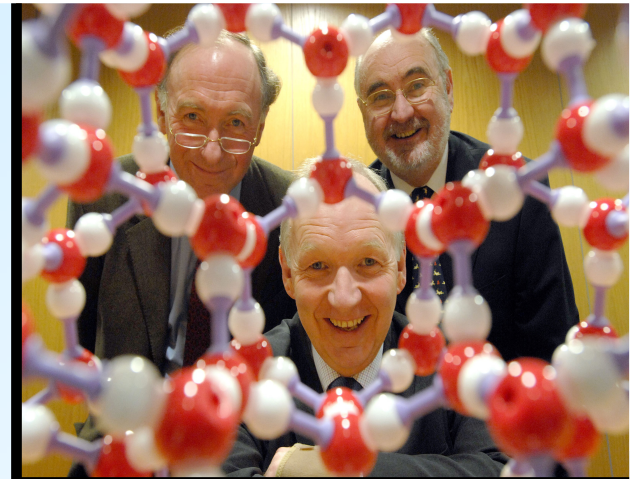


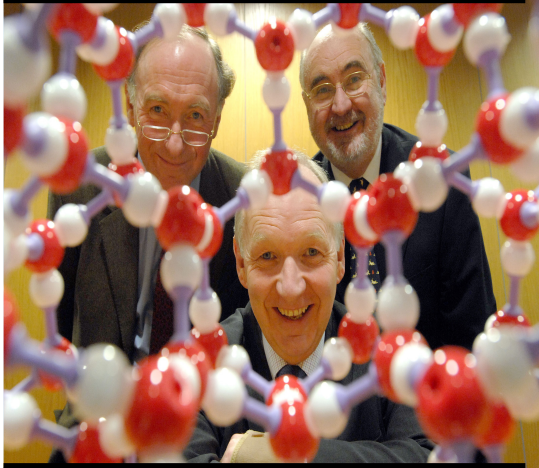
The commuter

- Smarter working practices have transformed the traditional daily commute into the city from the suburbs
- Tele-working and region-wide broadband connection mean that home-working has become mainstream where possible
- Seasonal working allows commuters to take advantage of longer summer evenings
- For unavoidable commuting the quick-link electric bus service provides a convenient travel solution



Business





Low-carbon technology

- ‘High-end’ niche Research and Development companies will exploit low-carbon market
- High-technology corridors will encourage aggregation of businesses
- Opportunities for highly-skilled workforce has led to greater retention of skilled graduates

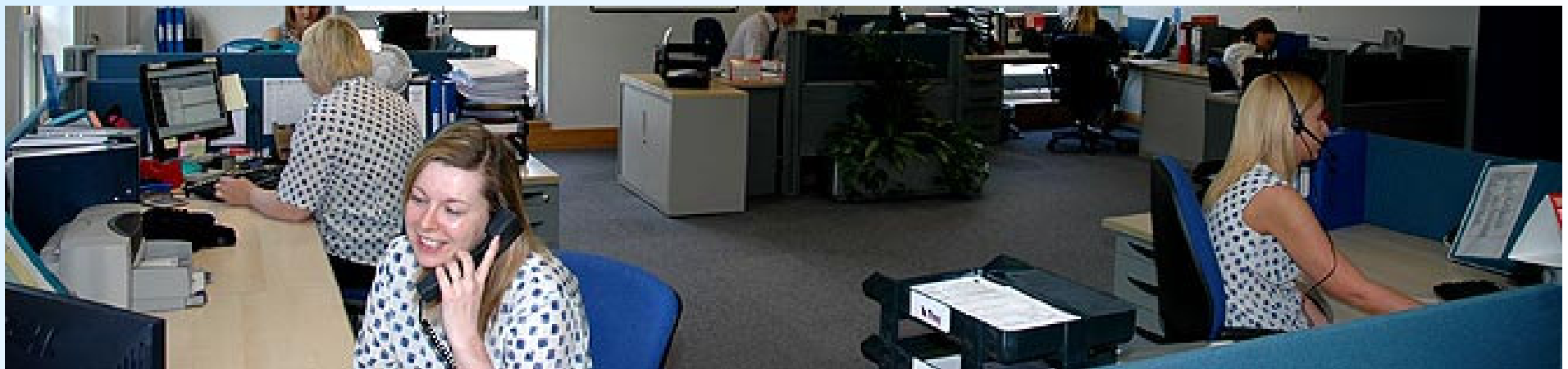


Automotive

- The region's engineering and innovative strengths have been essential in decarbonising the automotive sector
- Low emissions vehicles now average fewer than 50g CO2 / km
 - Universities in Birmingham, Coventry and Staffordshire are at the forefront on knowledge-sharing schemes to pioneer new automotive technologies
- The historic Longbridge site is now home to the manufacturing of electric vehicles



How is Your Business Doing?



Why be more sustainable?

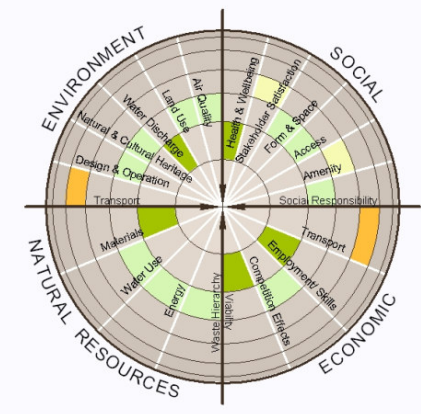
- Reduce compliance risks
- Brand promotion
- Stakeholder confidence
- Increase or maintain market share
- Reduce costs
- First to market advantage
- Manage competition
- Employee satisfaction/retention
- Greater resilience
- Improve risk management

The Sustainability Assessment Approach



SPeAR[®]

- A tool for assessing sustainability at a point in time
- Based on established indicators
- Shows strengths and weaknesses
- No weightings
- Guides decision making
- Provides robust, independent management information

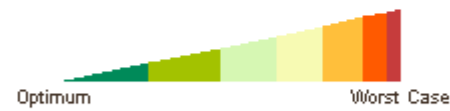


SPeAR[®]

Best practice



CERTIFIED



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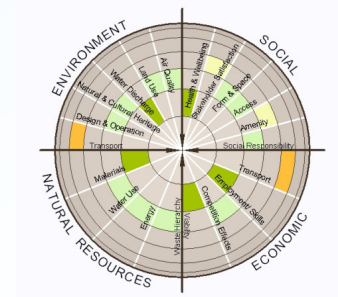
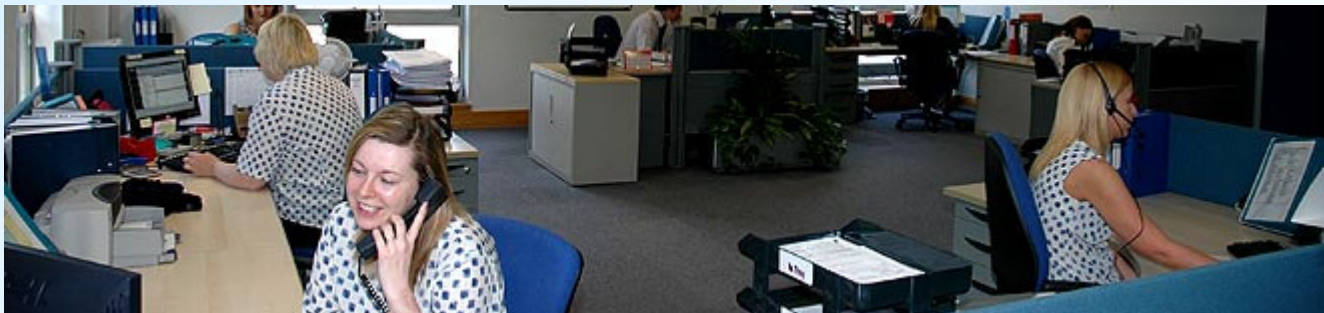
Kingspan Insulation

- Had environmental credentials
- Next step – sustainability
- Aim – to do something meaningful
- Baseline assessment 2004



The Process

- Understand the business
- Review SPeAR Indicators
- Review data
- Site visits
- Workshop
- Assessment



Sustainability within Kingspan Insulation

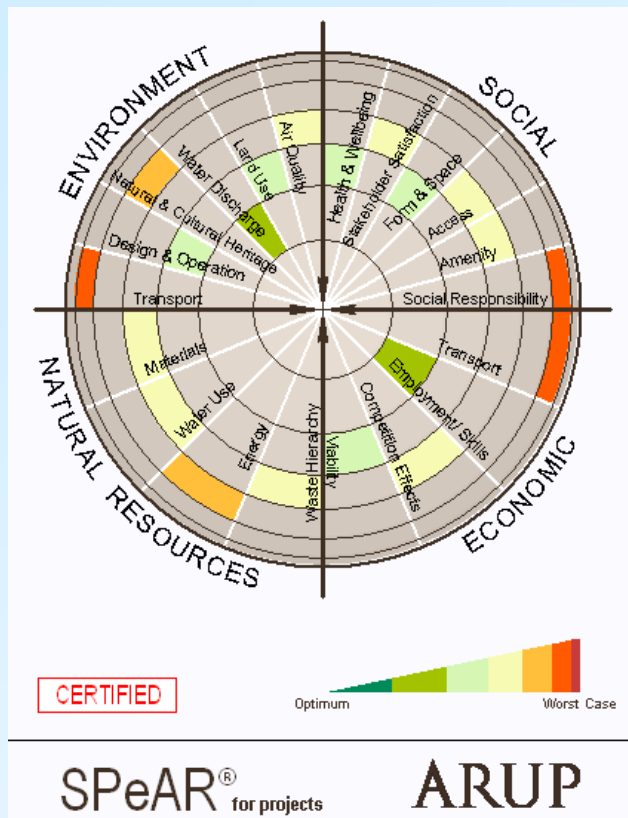
- Aim
 - To find out where we are today
 - To identify strengths & weaknesses
 - To allow you to decide what to do
 - To help provide validated Sustainability Report to measure progress against
- Objective
 - To help you help yourselves!



Range of considerations

- Reduce energy consumption per unit
- Waste reduction
- Secondary materials
- Environmental performance
- Competence training
- Environmental pollution
- Transport
- Employee conditions
- Social awareness
- Etc,etc,etc

Baseline 2004



From Baseline Assessment

Identify weaknesses

Priorities

Action Plan

Arup Proposals for Improvement

Approach

- Areas of consideration
 - Priority 1's / Black Spots
 - Quick wins
 - Others
- Timescale
 - Priority and quick win plans within 12 months
- Re-assessment
 - “Future” SPeAR based only on assumption of implementation of proposals agreed



Areas covered include:

- Raw products
- Energy
- Transport
- Water
- Giving
- Supply Chain
- Local Produce
- Waste
- Daylighting



Issues

Environmental	Refrigeration/ozone depleters Freight haulage Alternative fuels
Social	Ethical trading policy Local suppliers Human rights policy
Natural resources	Reuse of Pallets Recycle targets Energy use per unit
Economic	Embodied energy Life costing Vehicle useage

First Year Action Plan

Environment

Key Areas Showing Improvement	Areas for Improvement
<ul style="list-style-type: none">• Plans to replace diesel with LPG powered forklifts• Improved management of dust and housekeeping• HCFC/ HFC commitment within Environmental Purchasing Policy• Introduction of a Landscaping Policy• Plans for a BREEAM assessment for new building• Logistics department ownership of the Transport Plan	<ul style="list-style-type: none">• Dust from cork products• Remaining product containing an HCFC blowing agent

Social

Key Areas Showing Improvement	Areas for Improvement
<ul style="list-style-type: none">• Development of the Kingspan Community Trust• Centralised point of contact for employees within Human Resources, with a robust system for dealing with complaints• Proactive and preventative focus on employee health and welfare• Policy and commitment to consideration of pedestrian scale• Upgrading of canteen	<ul style="list-style-type: none">• Implementation of Code of Conduct and Human Rights policies

Economic

Key Areas Showing Improvement	Areas for Improvement
<ul style="list-style-type: none">• Implementation of a detailed Ethical Purchasing Policy• A focus on the value of training• Improved utilisation of freight and reduced truck movements• Permanent reduction in internal level of crime	<ul style="list-style-type: none">• Creation and implementation of a policy on local supply chain

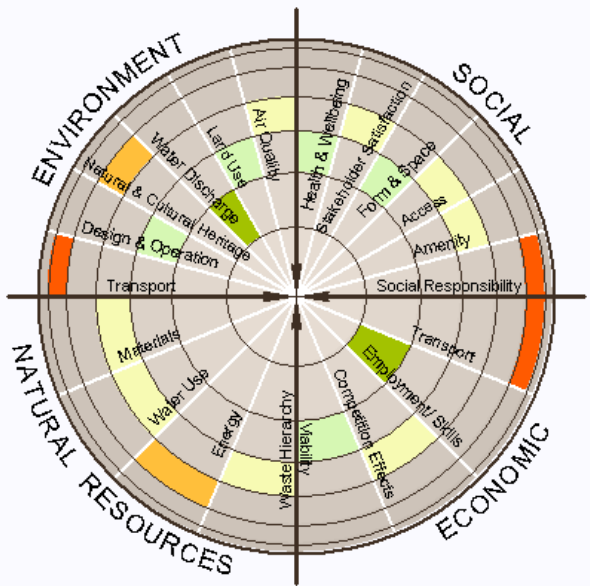
Natural Resources

Key Areas Showing Improvement	Areas for Improvement
<ul style="list-style-type: none">• Sustainable sourcing of timber, particularly verification of sources• Engagement with suppliers regarding their environmental performance• Consideration of rainwater harvesting for new buildings• Feasibility study for CHP plant• Environmental Purchasing Policy with a focus on waste avoidance• Level of recycling	<ul style="list-style-type: none">• Creation and implementation of a policy on local supply chain• Auditing of suppliers on their environmental performance• Recycling of remaining office and kitchen wastes

Progress

Baseline

Sept 2005



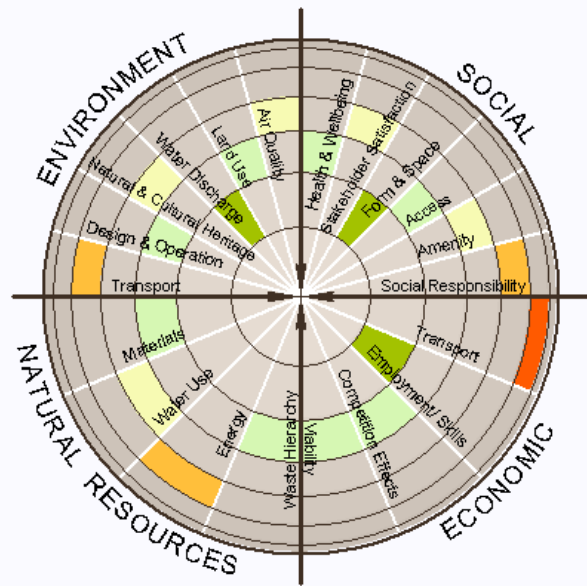
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Optimum

Worst Case

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CERTIFIED

Optimum

Worst Case

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Year 2 Action Plan

ISSUE	RECOMMENDATIONS
Cork dust	<ul style="list-style-type: none"> Amend the Environmental Purchasing Policy to reflect the current status of the cork de-dusting
Water treatment	<ul style="list-style-type: none"> Ensure that the reedbeds will have sufficient capacity for the site development proposals
Car sharing	Introduce incentives to encourage car sharing
Occupant feedback	Monitor the effectiveness of the new employee complaints/ suggestions scheme
	Use occupant feedback to proactively inform the design of new buildings or refurbishment of existing buildings.
Access to green space/ health and fitness	<p>Promote the use of local footpaths nearby the plant to employees for leisure/ health and fitness:</p> <ul style="list-style-type: none"> Provide information on local footpaths that could be used by runners or walkers at lunchtimes or after work Organise a lunchtime jog or walk from the plant and continue this on a regular basis if successful
Health and safety, environmental and quality systems	Introduce a formal zero fatality policy
	Put a timing plan in place for the integration of health and safety, environmental and quality systems

Year 2 Action Plan

ISSUE	RECOMMENDATIONS
Supplier environmental performance	Consider auditing suppliers' environmental performance
Corporate Governance	Adjust corporate governance structure so that it conforms to recognised guidance e.g. OECD Principles of Corporate Governance
Products	Investigate alternatives to using solvent-based adhesive for products.
	Undertake product innovation to examine a more 'sustainable' product e.g. in terms of its source of raw materials, one designed for re-use/ recycling? This could be through use of life cycle analysis.
Reporting	Produce an annual Kingspan Insulation Corporate Social Responsibility Report. This could be based on SPeAR and/ or the Global Reporting Initiative Guidelines. Produce the report in consultation with employees, the local community, customers and suppliers, to ensure that the information they are interested in is featured.

Year 2 Action Plan

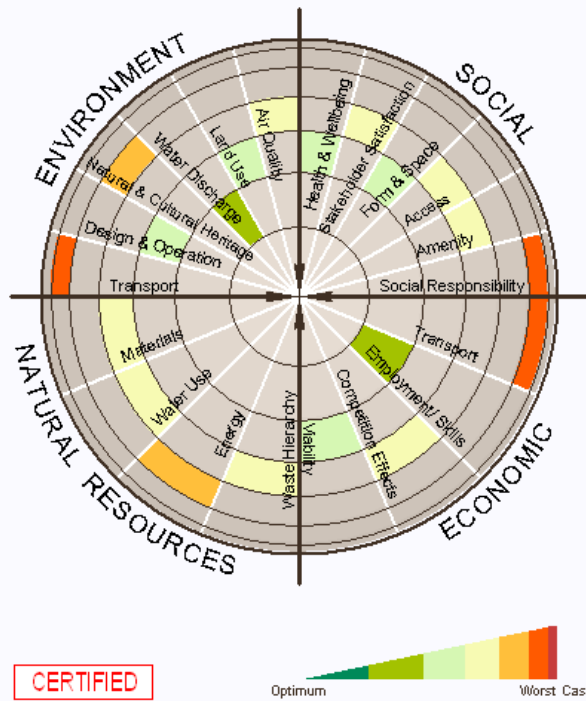
ISSUE	RECOMMENDATIONS
Energy	Investigate renewable energy options for the plant, particularly: <ul style="list-style-type: none">•Geothermal energy•Solar hot water heating
Water consumption	Look for opportunities to reduce mains water consumption when specifying fit-out of new buildings e.g. spray or non-touch taps, low flush WCs.
Waste disposal	Investigate the options to recycle the cooking oil from the canteen kitchen.
Daylighting	Consider retro-fitting of skylights into warehouse areas

Progress

Baseline

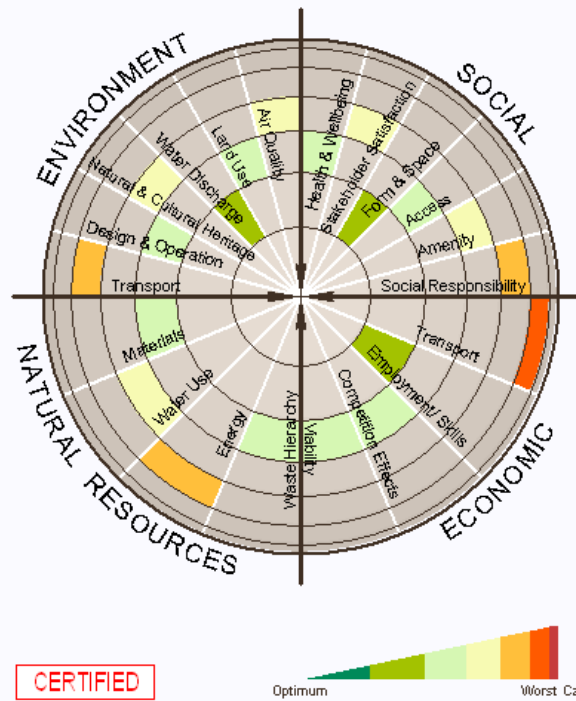
Sept 2005

Sept 2006



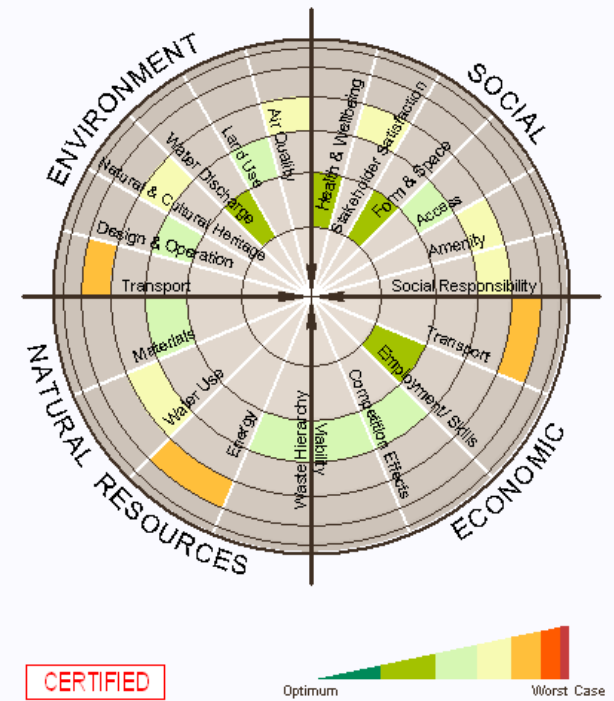
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Sustainability Can Create Value

For Kingspan Insulation

- Addressing climate change agenda
- Save operational costs
- Market position
- Retain staff
- Good neighbour
- Save capital costs
- Supply chain
- Procurement
- Continual improvement
- Future proofing

All improvements made within existing budgets

