

# Sustainable Product Development Teaching at Bournemouth University

George Howarth

Mark Hadfield

## CONTENT



- Sustainable Development
- Developing Competencies
- Example Case Study 3 Sustainable Product Development assessment of motor car

# Sustainable Development

- **Very complex – vast subject matter**
- **Main activities**
  - a. **Strategic level in organisation**
  - b. **Everyday actions by all**
- **The issues and concerns of all stakeholders should be considered – strong social aspects**
- **Remember no one solution, but need balanced judgement**

**Objective: 'Quality of Life' has become part of everyone's job**

# Developing Competencies

- **Awareness & Understanding** – Impact on planet, issues & concerns, definitions, 3 concepts.
- **Use of practical tools** – Simple LCA , ‘Design for Waste’ , Sustainable Product Development Assessment
- **Shareholder engagement** - Their issues/concerns, impact on product life cycle and their own stakeholders
- **Balanced judgement** – Evaluation of sustainable development ‘risks & benefits/opportunities’ for a company, its products & manufacturing site.

# Case Study 3 Sustainable Product Development Assessment

## The motor car

- **Role:** Just joined car company as product designer
- **Task:** Identify the Sustainable Development 'risks & benefits' for a particular car, the company and the manufacturing site and make recommendations for future activities.
- **Information:**
  - Background on Sustainable Development, Stakeholders ( x6)
  - Product information based on product life cycle
  - Company information
  - Site information
- **Assessment:**
  - Score , impact in social, economic, environmental and L, M or H then add comments to explain reasons for assessment
  - Tables of top Risks & Benefits with comments
  - Graphs of Social, Economic , Environmental risks & benefits and source.

# PRODUCT, COMPANY AND SITE SD ASSESSMENT

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## Summary of Key Benefits

Topic	Score	Social		Economic		Environmental		Comments
		Risk or Benefit?	High, Medium or Low?	Risk or Benefit?	High, Medium or Low?	Risk or Benefit?	High, Medium or Low?	
Hazardous	5					Risk	High	few chemicals in product
Source	6	Benefit	High	Benefit	Medium			local community
Use of child labour	3	Risk	Medium					little from third world
Costs	8			Risk	High			valuable raw materials
Transportation	6					Risk	Medium	local
Non renewable	9							none used
Energy used	10			Benefit	High	Benefit	Medium	some energy used on site but not major
Emissions	8					Risk	High	paint shop has high levels
Discharges	6					Risk	High	strict consent conditions
Nuisances	6	Risk	High	Risk	High	Risk	High	close to local community
Health and Safety	7			Benefit	Medium	Benefit	High	few dangerous jobs on site
Other								
Other								
<b>Raw Materials Risks Total Scores &gt;</b>			<b>7.50</b>		<b>14.00</b>		<b>28.00</b>	
<b>Raw Materials Benefits Total Scores &gt;</b>			<b>6.00</b>		<b>16.50</b>		<b>12.00</b>	

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## Summary of Key Risks

