

# IV: Sustainability

## 1: Introduction

- Various legal and moral pressures means as engineers we must consider the environmental effect of our products.
- Sustainability is a concept which ought to be embedded in all engineering.
- During operation, wind power plants are friendly to surroundings environments, releasing no direct emissions, harmful pollutants or  $CO_2$ .

## 2: The thinking exercises

### 2.1: Topic\_1: The Recycling

- The cans go to the recycling factory after been picked up by the local councils.
- The electrical parts will be disassembled first and then each parts will be sent to the recycling place.
- The recycling can reduce the waste apparently and increase the using ratio of a product.

### 2.2: Topic\_2: The High Speed Railway

- The high-speed railway systems will hopefully improve travel across the country, especially between London, the Midlands and the North.
- HS2 is a cleaner alternative to flying and driving, which can replace the very carbon intensive short haul flights.

### 2.3: Topic\_3: The comparison of electrical vehicle and petrol vehicles

- We can use the spider diagram analysis.
- We can use  $CO_2$  as the emissions during manufacture.
- Water is a measure how well the pump water.
- International is the distance between point of manufacture and point of use.
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