

New and Emerging Technologies 2

Global manufacture

- This is when parts of products are made in different locations.
- The benefits include cheaper labour and investing in poorer countries' economies.
- However, this can result in child exploitation and unfair conditions!
- Fair Trade tries to ensure that everyone benefits.

Biodiversity and deforestation

- We must avoid damage to natural habitats and source materials sustainably.
- The Six Rs help!
- FSC and managed forests supply sustainable timbers.
- Select recycled materials over virgin materials.
- Protect wildlife and natural eco systems.

Cost of a prototype

Making a prototype involves more costs than just materials:

- energy costs to power machinery
- labour costs – prototypes can be one off, hand-made items
- CAD/CAM CNC are very expensive
- intellectual property to protect that brilliant invention.

New materials are constantly being developed to improve current materials. Take 3D printing PLA – a reel of inexpensive, bio-degradable material, sourced from nature and melts at 210°C. It is available in lots of colours, finishes and sizes.