



Activity – Bags of ideas

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Managing Innovation

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This activity is designed to help you explore knowledge push as a source of innovation

Like it or loathe it, polythene is one of the key material innovations to come out of the 20th century. It is the world's 'favourite' plastic measured in terms of consumption - 60 million tonnes /year find their way into films, plastic bags, packaging, cosmetics and a host of other applications. Discovered by accident by chemists working at ICI in the UK in 1933 the original low density polyethylene product has gone through a classic pattern of incremental and occasional breakthrough innovation – giving rise to new products – like high density PE and film and to process innovations like the Phillips catalysis process which enabled better yields in production.

Do some research on polythene and try and draw a 'family tree' of innovations – major breakthroughs and incremental improvements like finding new markets. Try to identify the drivers behind the big shifts – for example the pressure on sustainability which is pushing towards bio-degradable versions of the polymer.

Alternatively pick another product like this and try to track its origins in the science labs of the world into everyday and widespread application.

Box 5.1: The ubiquitous tale of polyethylene

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