

**Product Renovation and shared ownership:
sustainable routes to satisfying the World's growing
demand for goods**



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A National Research Centre for reducing Industrial
Energy and Material use in supplying UK needs



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Consumer Growth and Sustainability

A few basic points

- Industry produces goods from primary materials, energy and labour.
- The demand for consumer goods is a function of personal affluence.
- Globally the number of people who will be wealthy enough to live a developed lifestyle could triple by 2030.
- The IEA want to reduce global emissions from industry by 23% as part of it's green house gas reduction strategy

Will progress help us ?

- Modern plants are more energy efficient so have lower emissions.
- Designing for purpose not surplus will reduce our material demand.
- Improved scrap recovery and recycling reduces demand for new material.
- Substitute low emission materials for high emission ones.
- Reduce packaging.

**But we will still only be able to produce half the goods we want
within the emission target**

What do we do with our goods



Use them occasionally



Store them mostly



discard them when a new design comes along

What we could do

Hire if we don't use it often



Share if we use regularly



For the user - Lower up front cost
For business – Predictable income
For the environment - Fewer goods needed



Some more options

Make thing stronger & repair them so they don't need replacing so often



Remanufacture worn out goods



Convert obsolete ones



Yet More Options

Sell unwanted goods



Find alternative use for discarded goods



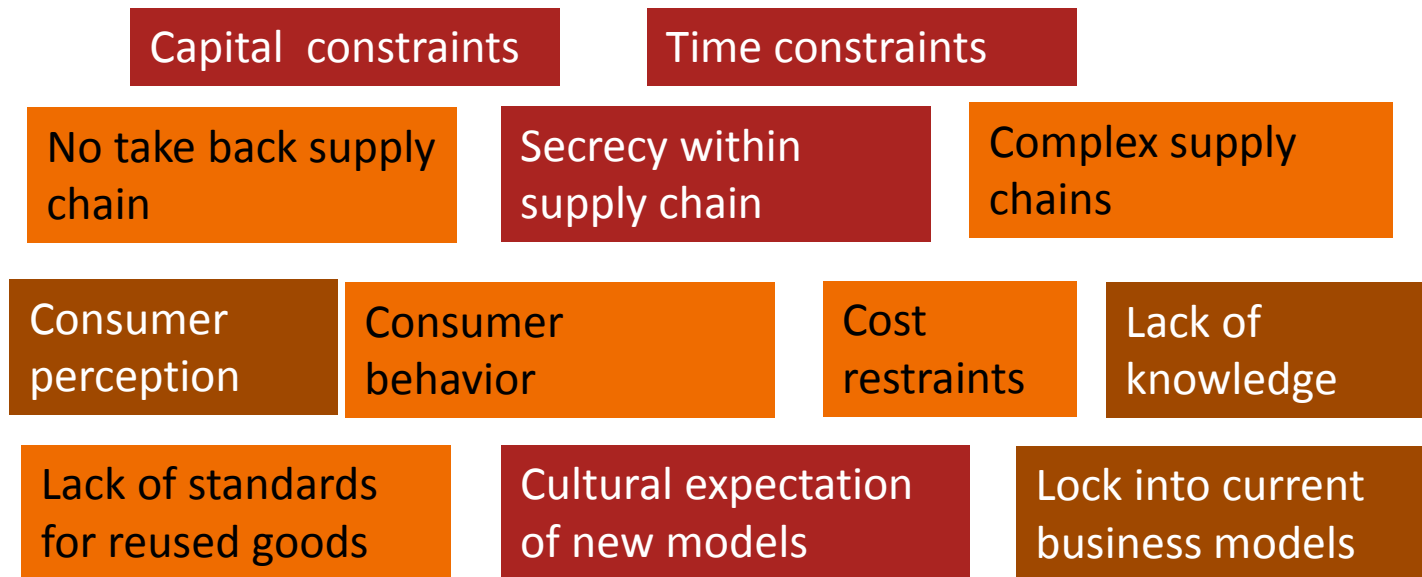
Same strategies apply to
“sustainable” technologies



All these activities go on but why are they not mainstream

Businesses ?

Perceived barriers to promoting product life elongation



Business drivers towards longer product life and higher product utilisation

Disruption of
material supply

Impact on
profitability

User demands
/attitudes

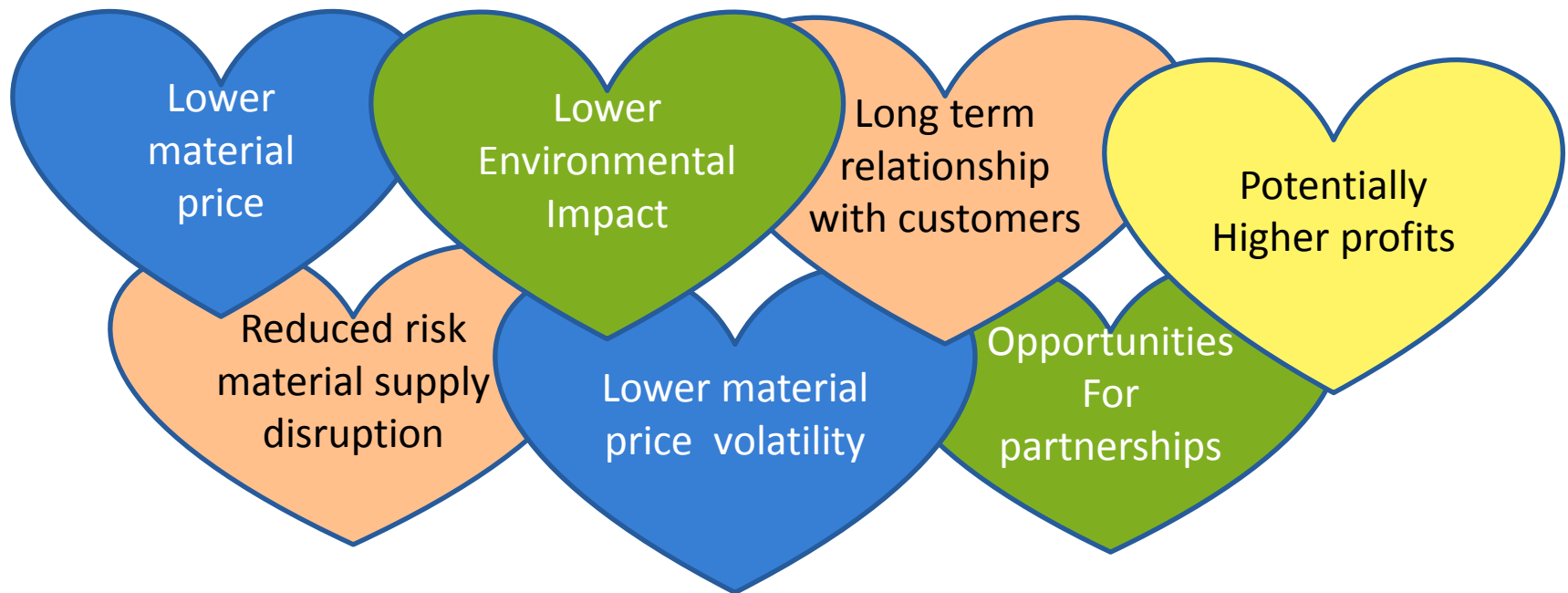
Future Cost
uncertainty for
materials

Future Cost
uncertainty for
energy

Policy

If you can't influence it it's a risk to your profits

What are the business benefits of extending product life and shared ownership



Servitization Is the new mass production

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