Designing Out Waste
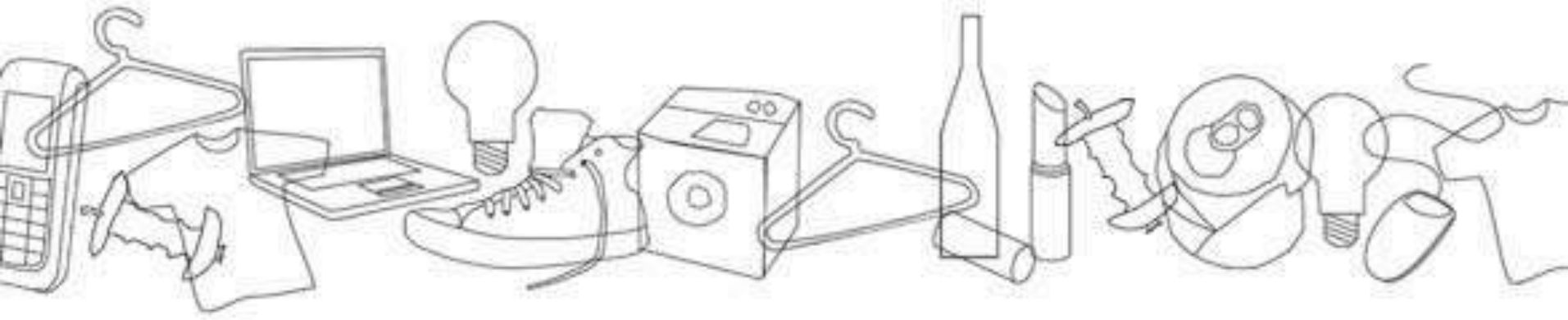
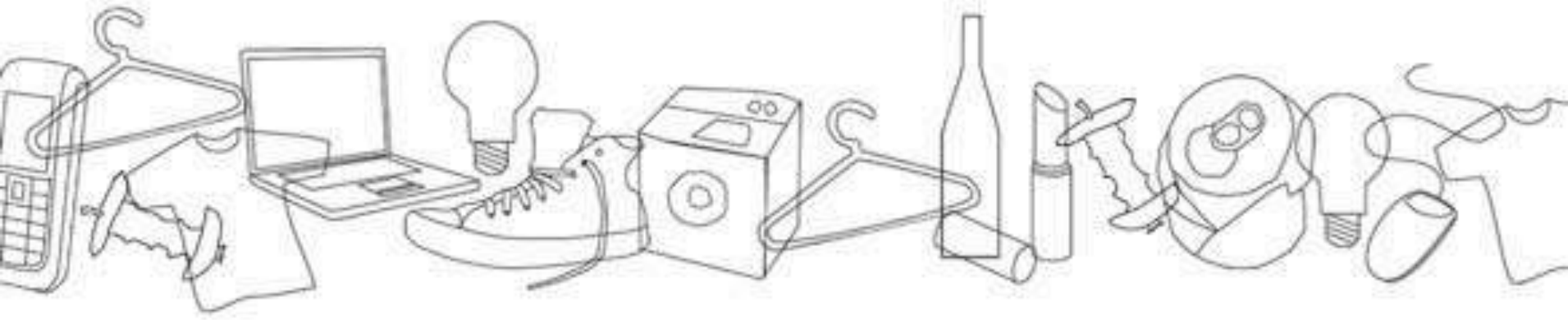**the challenges and opportunities of a resource efficient economy**

Hannah Hislop, Senior Policy Adviser
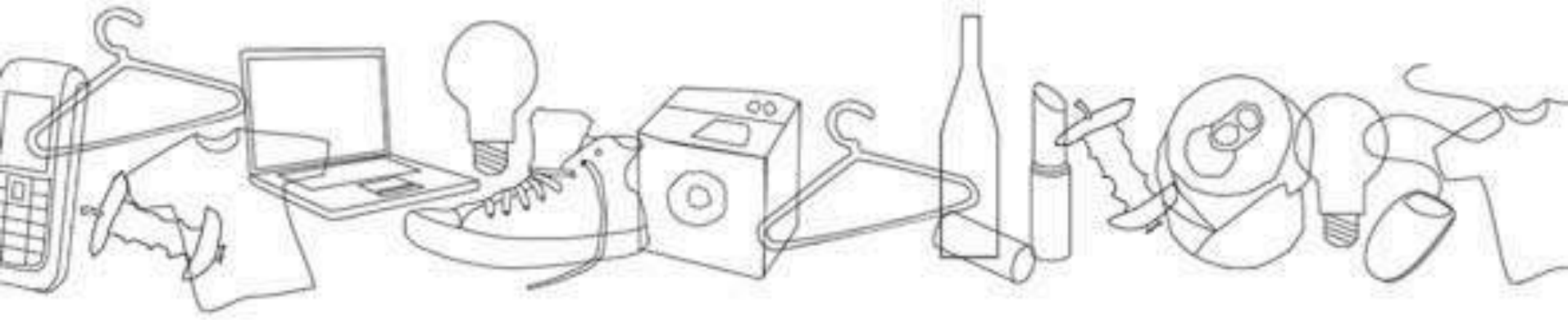
Green Alliance

green
alliance...

What do we mean by designing out waste?

- **Resource conservation (which and why?)**
- **Resource 'efficiency' i.e. getting more from less (how efficient is good enough? Jevon's Paradox?)**
- **Resource recovery (which take priority, on what basis?)**
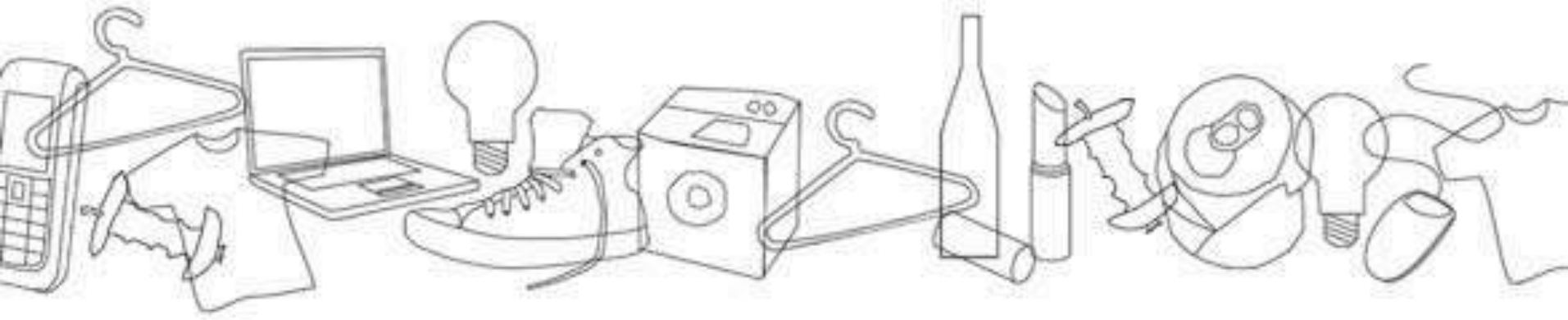- **Substitution/technology-forcing (which and why?)**

'Efficiency'

- **Is this a measure of primary material use, intensity of use, or waste?**

- **Is it about specific materials, products or supply chains, or aggregate consumption?**
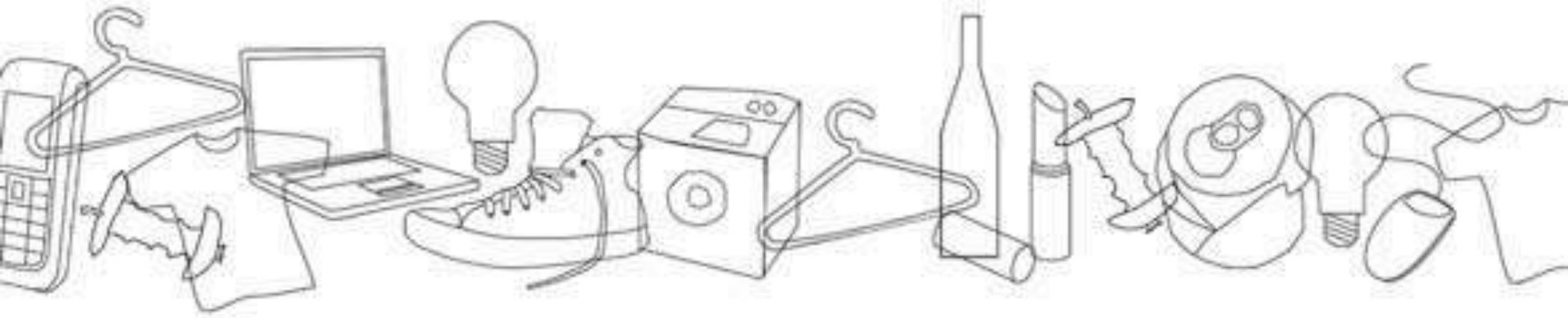
Resources: which to worry about most?

- **Metals: non-renewable, but never seem to run out**
- **Plastics: more of a pollution problem than a resource problem**
- **Aggregates: plentiful ingredients, high carbon intensity**
- **Paper: increasing use, unacceptable pressure on a theoretically renewable resource**

The most crucial resources:

- **Biodiversity: irreplaceable, non-substitutable**
- **Land: competing demands**
- **Soils: under extreme pressure**
- **Energy: imperative to decarbonise**
- **Water: the ultimate limiting factor**

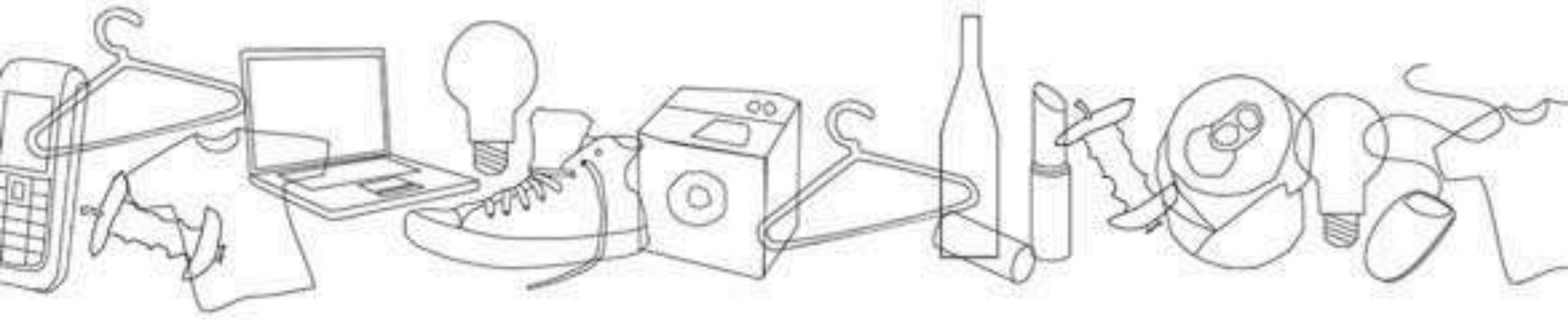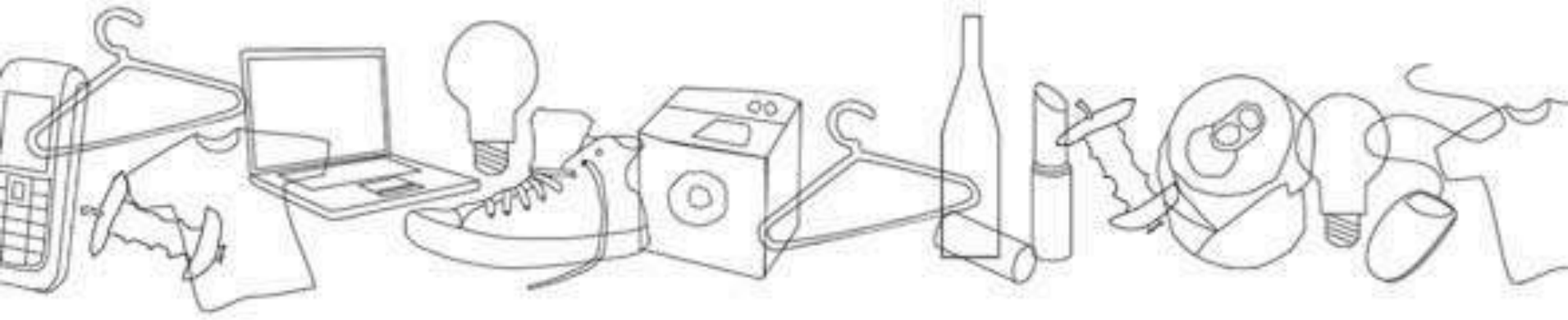| The natural ecosystem (after Michael F Ashby 2009)	The industrial system
Uses few elements	Uses most of the periodic table
Is cyclic	Is linear
Has subsystems that use 'waste'	Lacks subsystems that use 'waste'
Closed loop	Open loop
Indicator of well-being is equilibrium	Indicator of well-being is growth

Supposed policy drivers

- **Focussed strongly on carbon, and mainly carbon from direct energy use rather than embedded energy in products and materials**

- **Hardly any attention to embedded water**

- **EU/UK waste drivers are primarily about landfill diversion rather than achieving 'closed loop' systems**

- **Recycling targets are piecemeal (household, not industrial; not geared to impact of materials)**
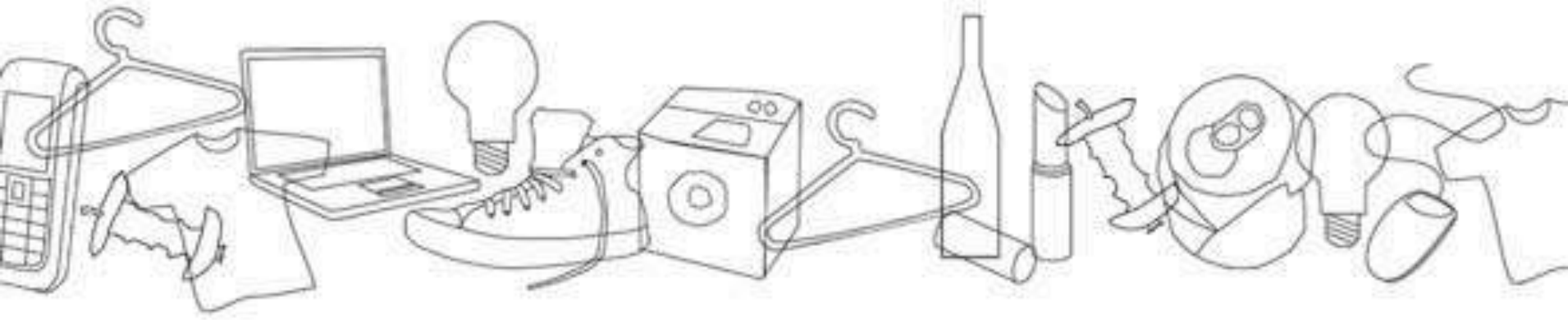
- **Product standards at the beginning of a long, slow EU process**

- **UK action on products and materials under-resourced**

- **Energy from waste debate is a distraction**

In summary, no strategic drivers for 'designing out waste' or 'resource efficiency'

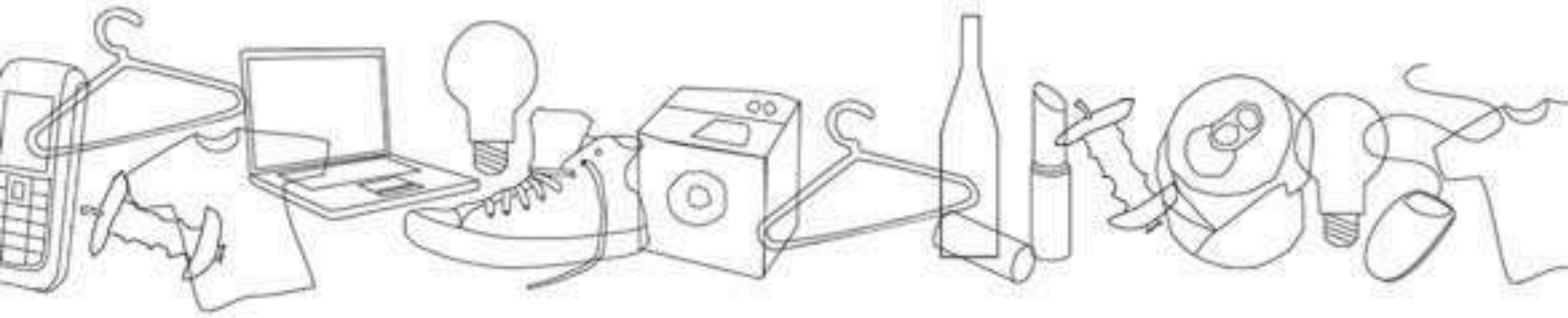# Green Alliance's 'Designing out Waste' programme

- **Works with businesses across the supply chain to research, analyse and debate, and develop proposals**

- **Recently published *A Pathway to Greener Products* setting out views of the consortium on four key areas**

- **New programme involving new partners (Cadbury, Interface, Rio Tinto) starts next month with a focus on material security and models of product stewardship and producer responsibility**

A Pathway to Greener Products

- **Evaluating product impacts**
- **Tackling commercial and industrial waste**
- **Towards improved product standards**
- **Upstream incentives to design out waste**

A pathway to greener products
Recommendations from Green Alliance's
Designing Out Waste consortium

DESIGNING OUT WASTE

ASDA

Boots

gsk GlaxoSmithKline

Royal Mail

Sainsbury's

incpen

valpak

VEOLIA ENVIRONMENTAL SERVICES

Unilever
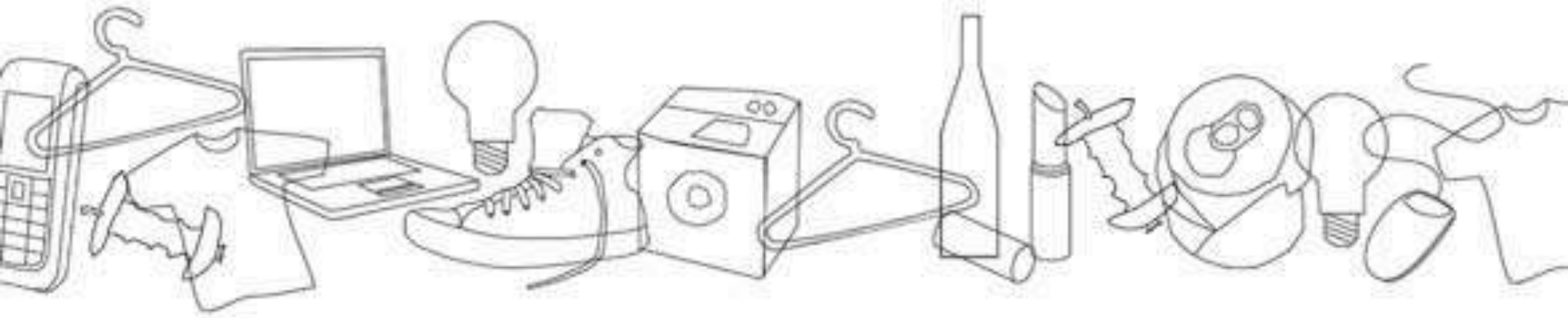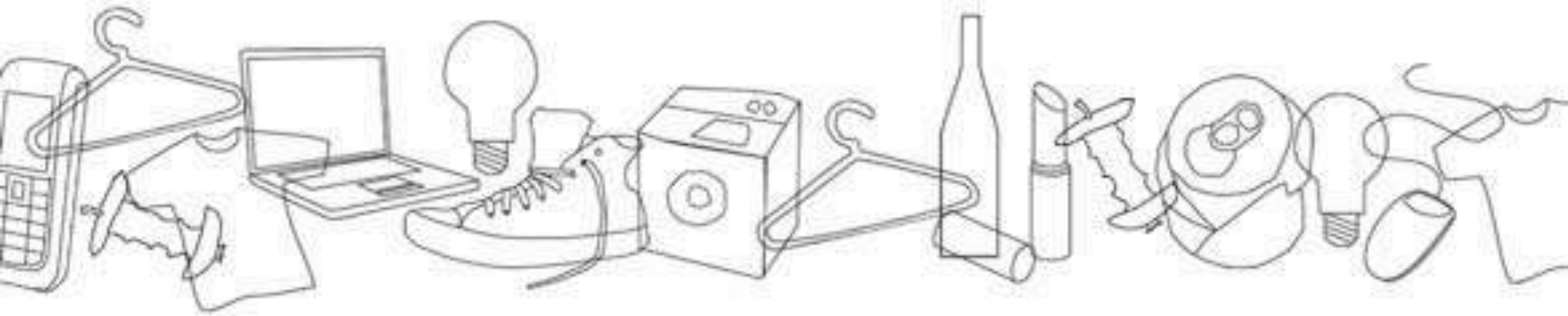
shanks. waste solutions.

The Secret Life of Stuff: Jan 2011

"[Hill] uncovers the true origin and cost of stuff and, while her inventory will shock, it is the first step towards overcoming waste.

Overconsumption is not your fault, but it is not something you can ignore either. Hill shows how politicians, business people and we, as consumers and citizens, can together create a new, and better, material world."

DESIGNING OUT WASTE

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