Is policy ready to support the Circular Economy?

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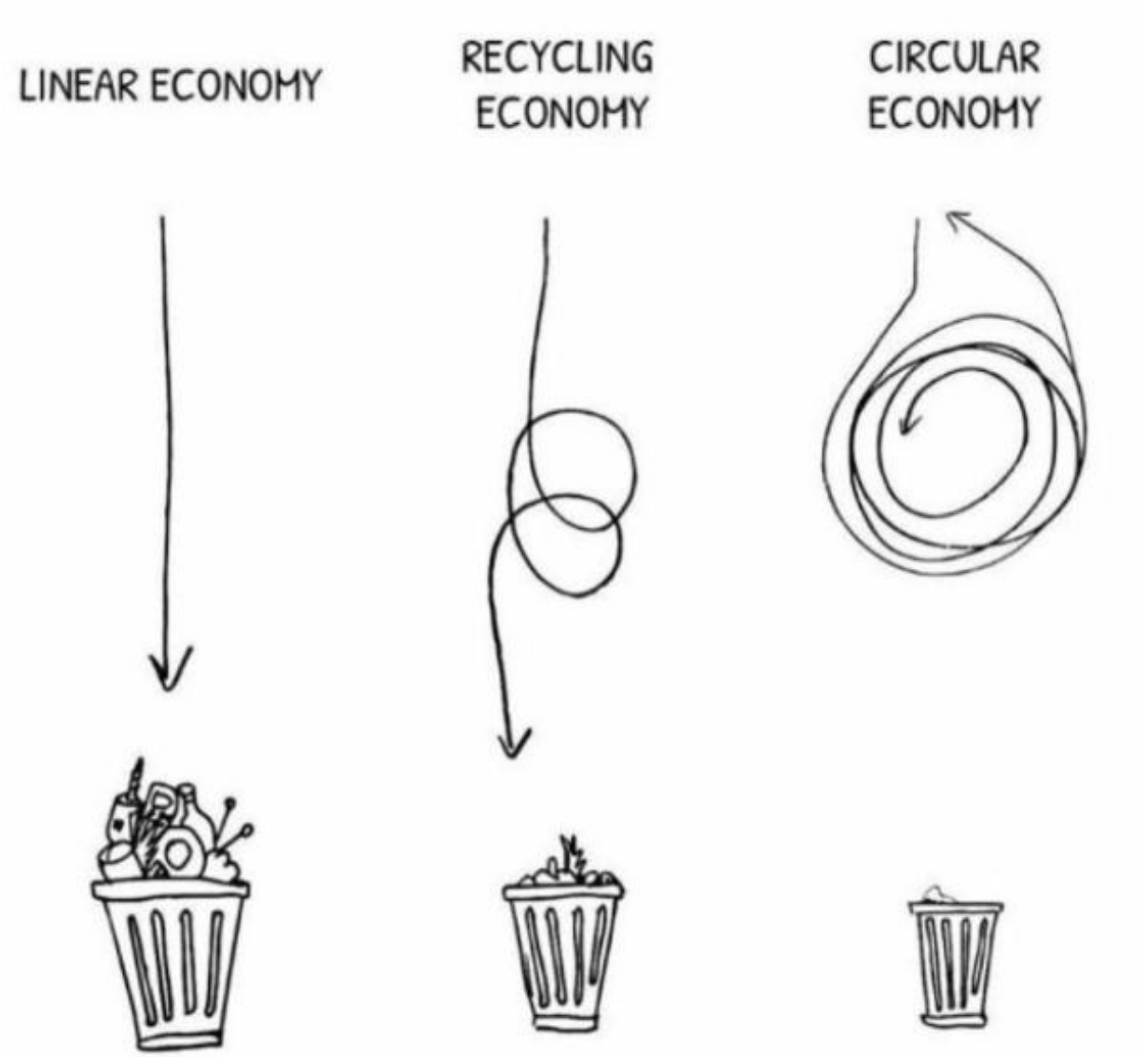
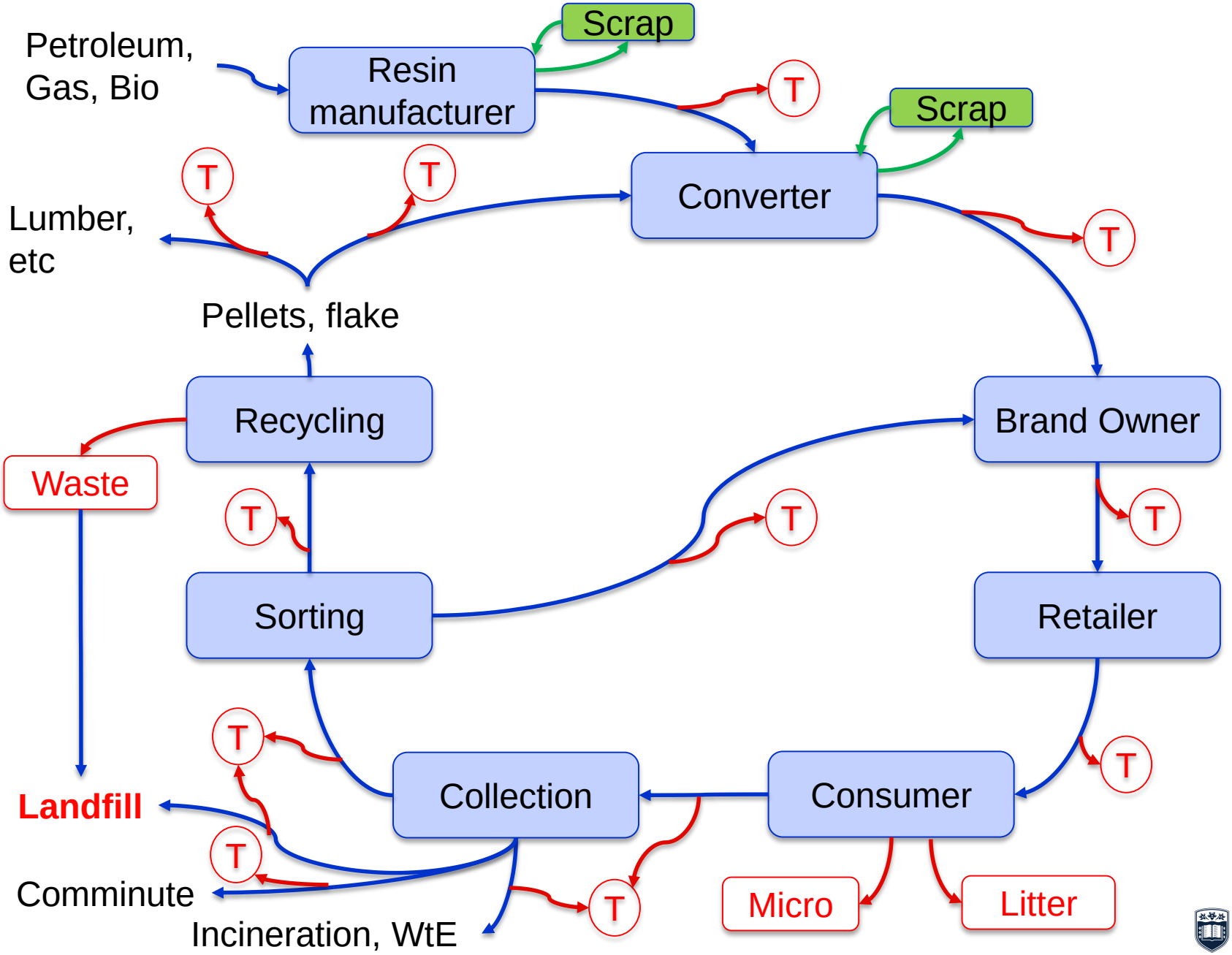
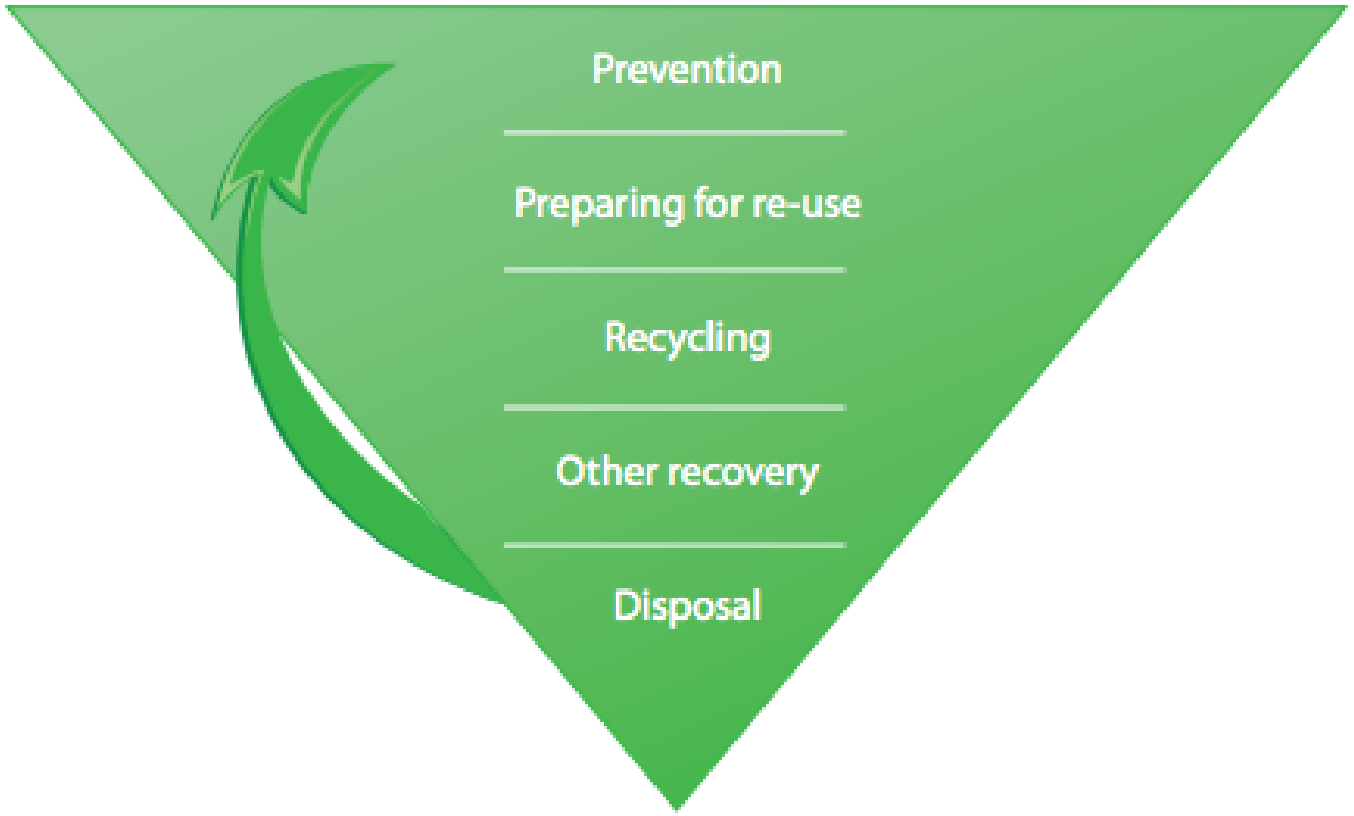

LINEAR ECONOMY
RECYCLING ECONOMY
CIRCULAR ECONOMY



EU Waste Hierarchy



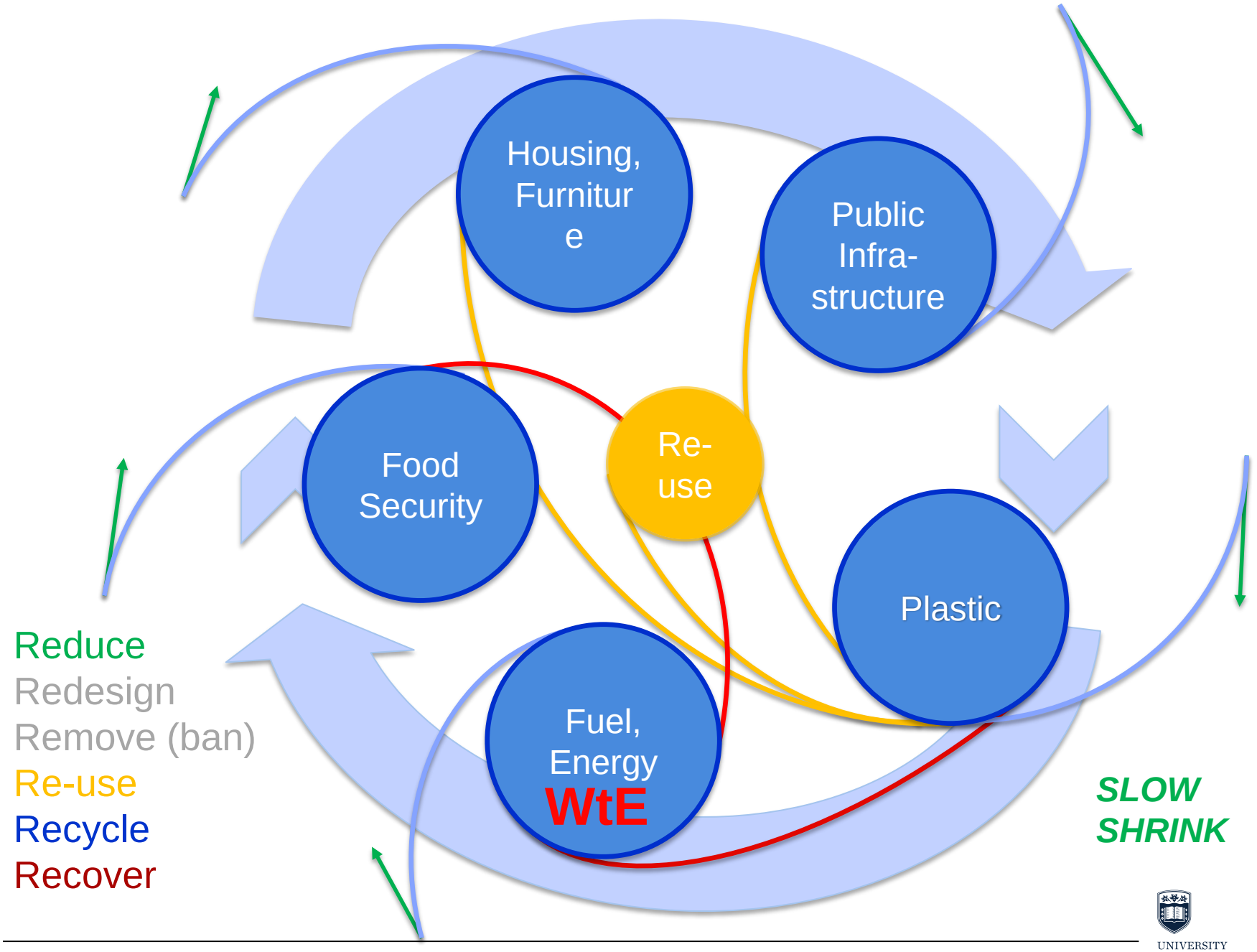
The policy hierarchy

Prioritising effort and investment

6Rs

1. **Reduce** raw material use
2. **Redesign** design products for re-use or recycling
3. **Remove** single-use plastics when practical
4. **Re-use** alternative uses or for refurbishment
5. **Recycle** to avoid plastics going to waste
6. **Recover** re-synthesise fuels, carefully controlled incineration for energy production

Source: GESAMP (2015). “Sources, fate and effects of microplastics in the marine environment: a global assessment” (Kershaw, P. J., ed.). (IMO/FAO/UNESCO-IOC/UNIDO/WMO/IAEA/UN/UNEP/UNDP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection). Rep. Stud. GESAMP No. 90, 96 p.



The reality

Finding good quality scrap plastic

European Survey of plastics converters

Result: The quality of recycled plastic materials remains the biggest barrier to a stronger use of recyclates as raw materials.

- Almost 60% find it *'hard or very hard'* to get sufficient plastic scrap of an acceptable quality.
- Only 27% think their customers are sufficiently aware of the benefits and needs for using recycled plastics.
- Almost 60% think current regulations are not suitable to support a stronger use of recycled plastic materials in the future.

Source: https://www.recyclinginternational.com/recycling-news/10896/plastic-and-rubber/europe/plastic-converters-find-it-039-hard-very-hard-039-get-good-quality-scrap. (485 different companies from 28 European countries)

Extended Producer Responsibility

Designing waste out of the economy

Major enabler of the Circular Economy

- Producers / importers responsible for
  - Collection, recycling & disposal of product after use
  - Can include costs in product price
- Producers responsible for env. impacts of their products
  - throughout product's value chain (design to post-consumer)
- Shift burden from municipalities & taxpayers to producers
  - in line with the producer pays principle
- Provides flexibility for innovation
- Can be cheaper for producer than taxes, etc.

Extended Producer Responsibility

Beyond take-back schemes

Good EPR implementation:

- Full physical & economic responsibilities to manufacturers
- Regulation
  - economic signals to incentivise products suitable for reuse & recycling
  - includes taxation
- Outcomes include
  - reduction in toxic and hazardous substances
  - products designed for disassembly & recycling (less virgin material)
  - high levels of separate collection
- Provide product *function* more efficiently
- Can lead to service-based systems

Poor & Current EPR implementation

Beyond take-back schemes

- Low collection = cost born by local administration
  - Cost not considered by consumer when making buying decision
  - User pays twice – product and waste fee
  - Producer not including collection cost in design phase

- Current implementation:
  1) Producer pays a product fee to central administration
     - Pays for collection & treatment
  2) Producer initiates a Product Responsibility Organisation (PRO)
     - Charges producer a fee for collection & treatment

  - **Financial tool**
  - **Rely on voluntary collection**
  - **Packaging?**

EPR for packaging

The recent example of Norway - 1 Sep 2017, 1 Jan 2018

- New amendment to waste regulation
  - May only place packaging on Norwegian market if:
    - Complies with Annex I
    - Design, reuse, recycling requirements
    - % of materials can be recycled into marketable products in compliance with community standards
- Must join approved compliance scheme
  - If supply market with min. 1,000kg packaging type / year
  - To finance the collection, sorting, recycling & other processing of waste packaging
- Must prevent waste & report
  - Report on % decrease in packaging from previous years

Other policy interventions

Supporting EPR in the Circular Economy

Landfill taxes

- increase diversion, international trade

Pay as you throw

- consumer behaviour, reduce generation

Recycling targets

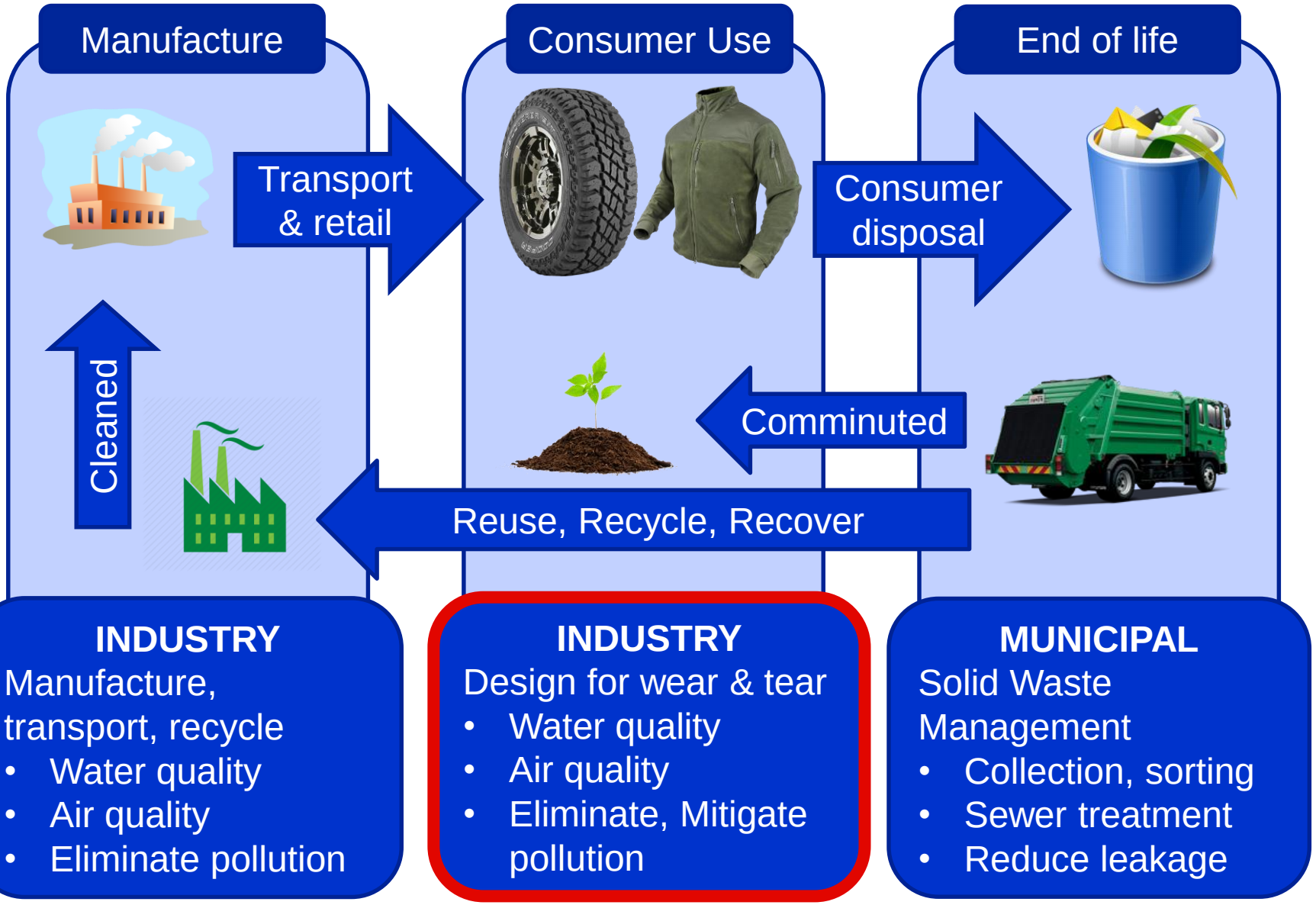
- Incentivise collection, investment

Environmental taxes

- funds to pay for clean-up, hazardous materials

Tax/penalties for producers

- non-recyclable packaging


Manufacture
Consumer Use
End of life
Transport & retail
Consumer disposal
Cleaned
Comminuted
Reuse, Recycle, Recover
INDUSTRY
Manufacture, transport, recycle
• Water quality
• Air quality
• Eliminate pollution
INDUSTRY
Design for wear & tear
• Water quality
• Air quality
• Eliminate, Mitigate pollution
MUNICIPAL
Solid Waste Management
• Collection, sorting
• Sewer treatment
• Reduce leakage

Sustainable Development Goals

Voluntary

SDG 14.1:

- 2025 - prevent and significantly reduce marine pollution of all kinds, in particular from **land-based activities**, including **marine debris**.

SDG 14.2:

- 2020 - sustainably manage and protect marine and coastal ecosystems … and take action for their **restoration** in order to achieve healthy and productive oceans.

SDGs Cont'd

SDG 6.3:

- 2030 - improve **water quality** by reducing pollution, eliminating **dumping** and minimizing release of **hazardous chemicals and materials** … and **substantially increasing recycling and safe reuse** globally.

SDG 11.6:

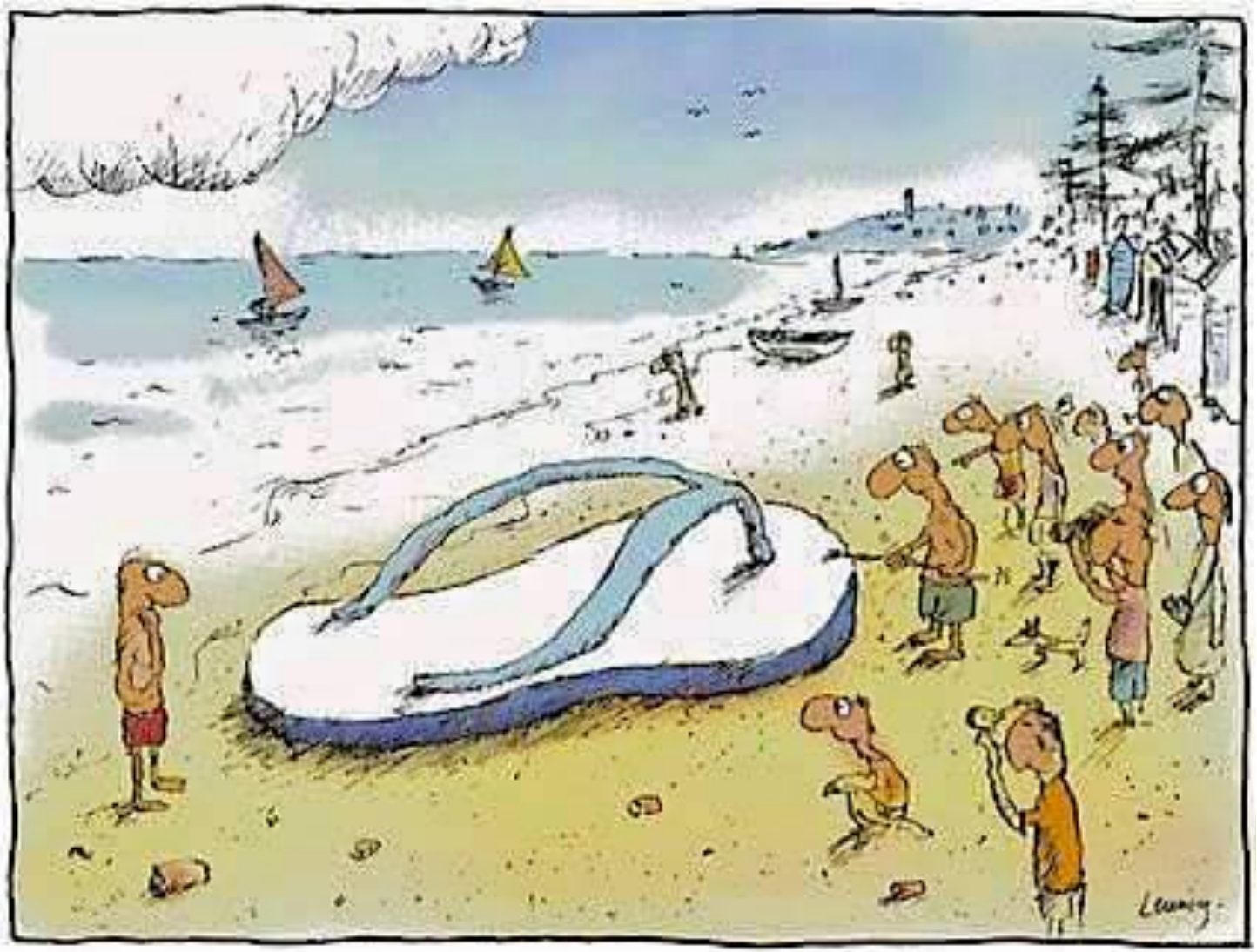
- 2030 - reduce the adverse **per capita** environmental impact of cities, including …. municipal and other **waste management**.

SDG 12.4:

- 2020 - achieve the environmentally sound management of **chemicals and all wastes throughout their life cycle**.

SDG 12.5:

- 2030 - substantially **reduce waste generation through prevention, reduction, recycling and reuse**.



Thank you!