



From conventional intensive farming to performance economy?

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Circular economy

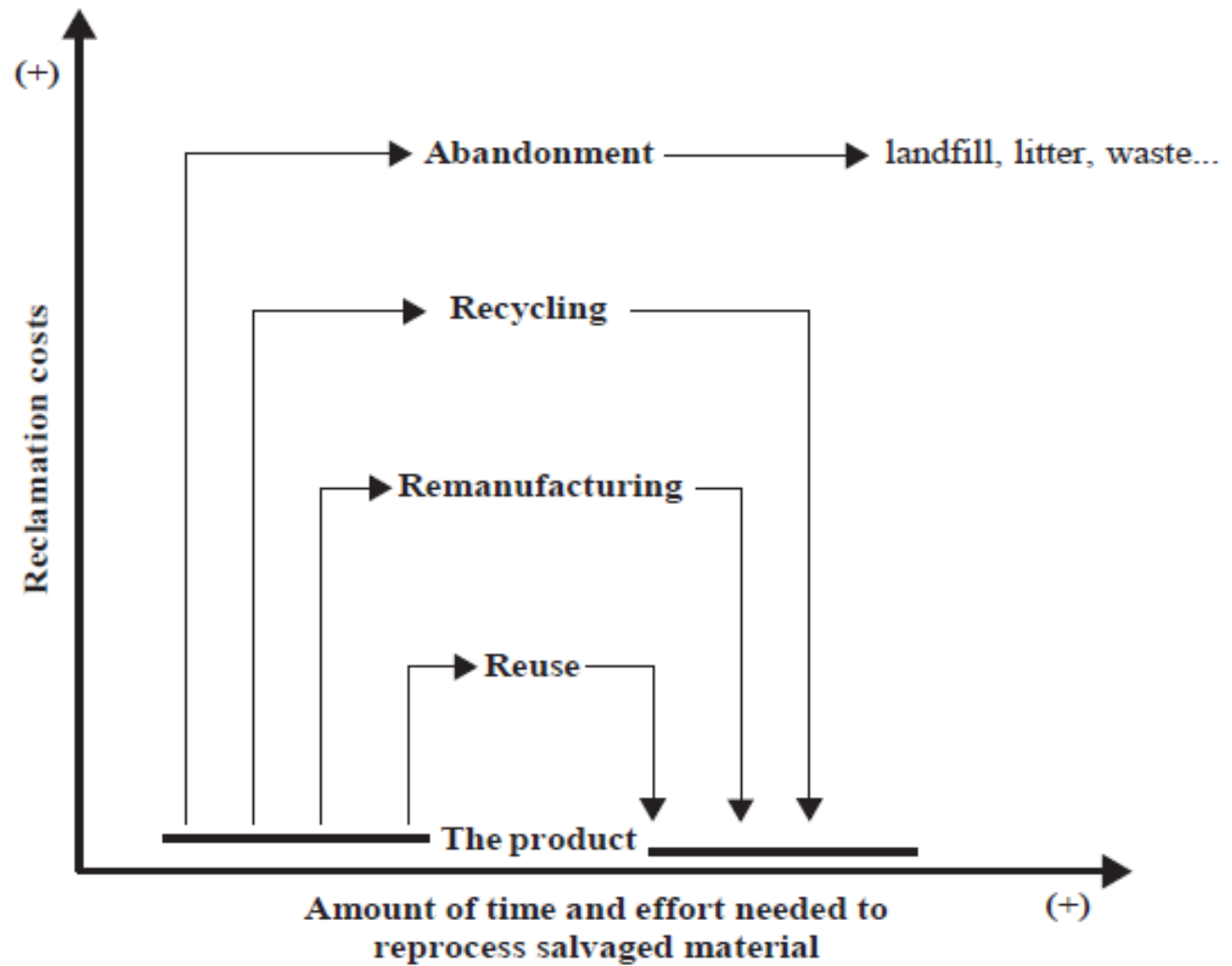


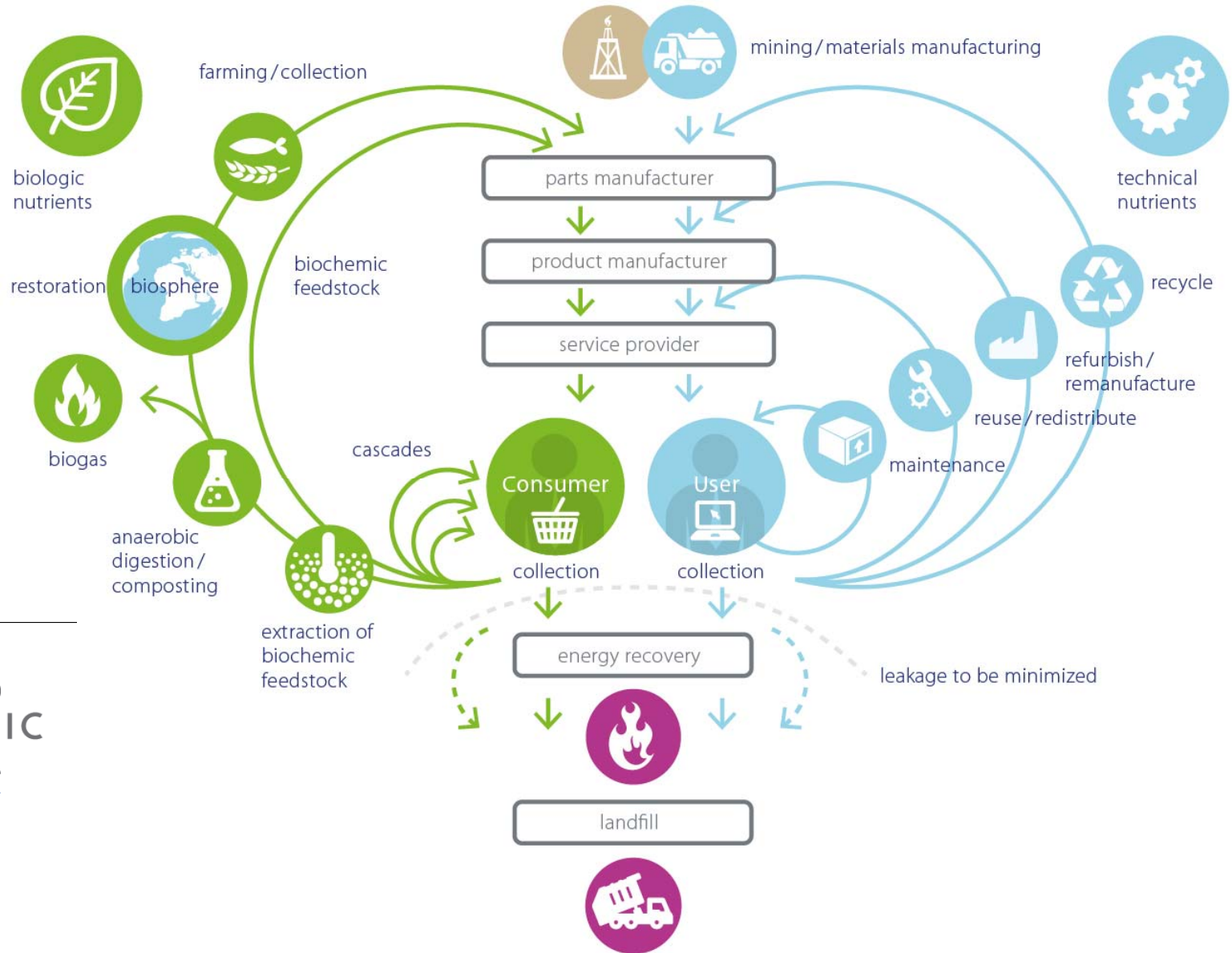
FIGURE 22-1: Costs and time associated with reuse, recycling and remanufacturing



Re- concepts for sustainability or sufficiency

- Reduce – exploitation of resources,
- Reuse – commodities, infrastructure
- Revive – through consequent changes
- Recycle – materials, commodities
- Redefine – resource needs
- Re-imagine – potential uses
- Redesign – use flows, uses of materials and infra
- Replace -
- Rebuild -
- Regenerate -
- Reform -
- Reorganize -
- Resilient: adaptability, transformability, persistence, preparedness



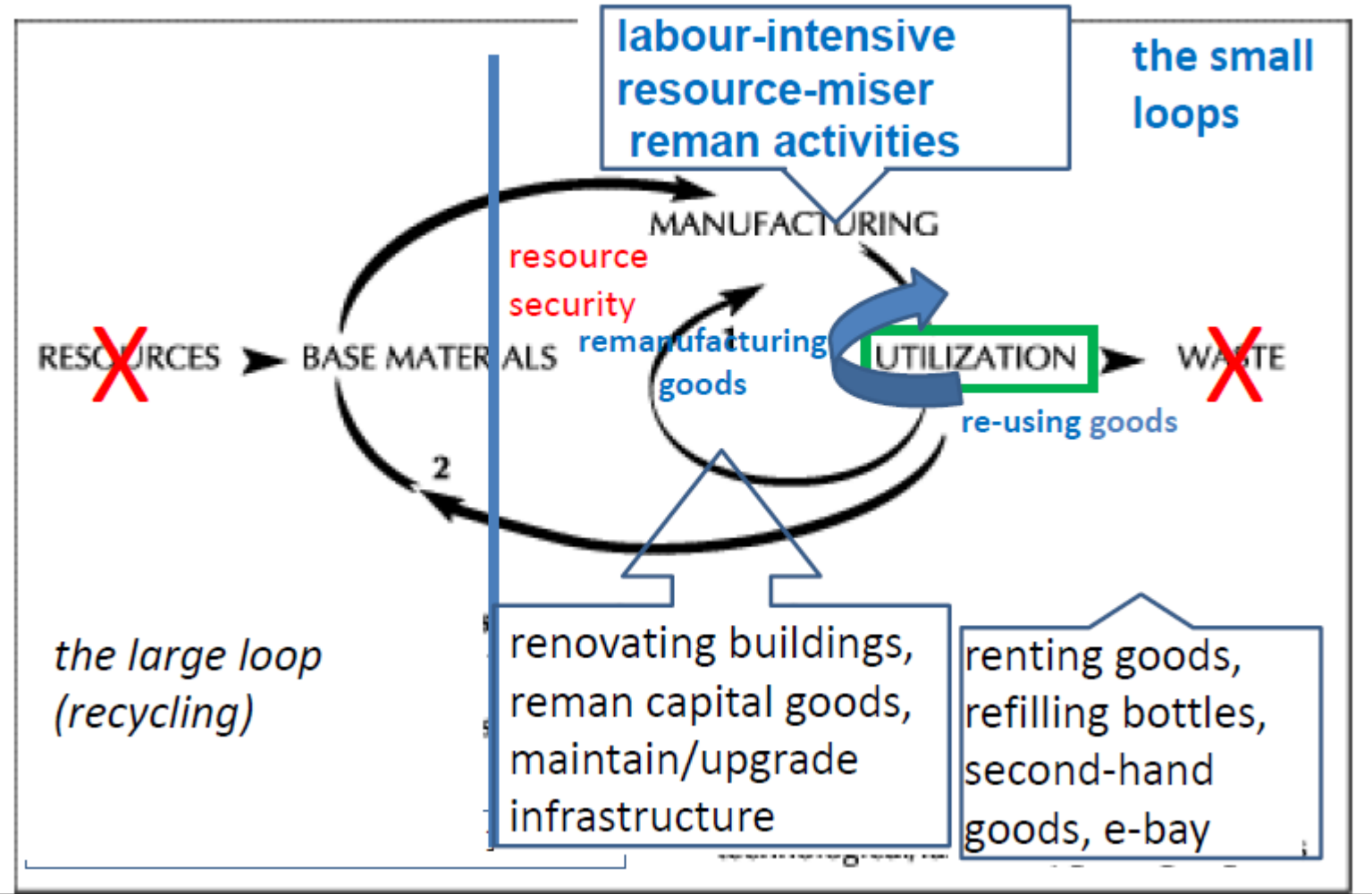


WORLD
ECONOMIC
FORUM

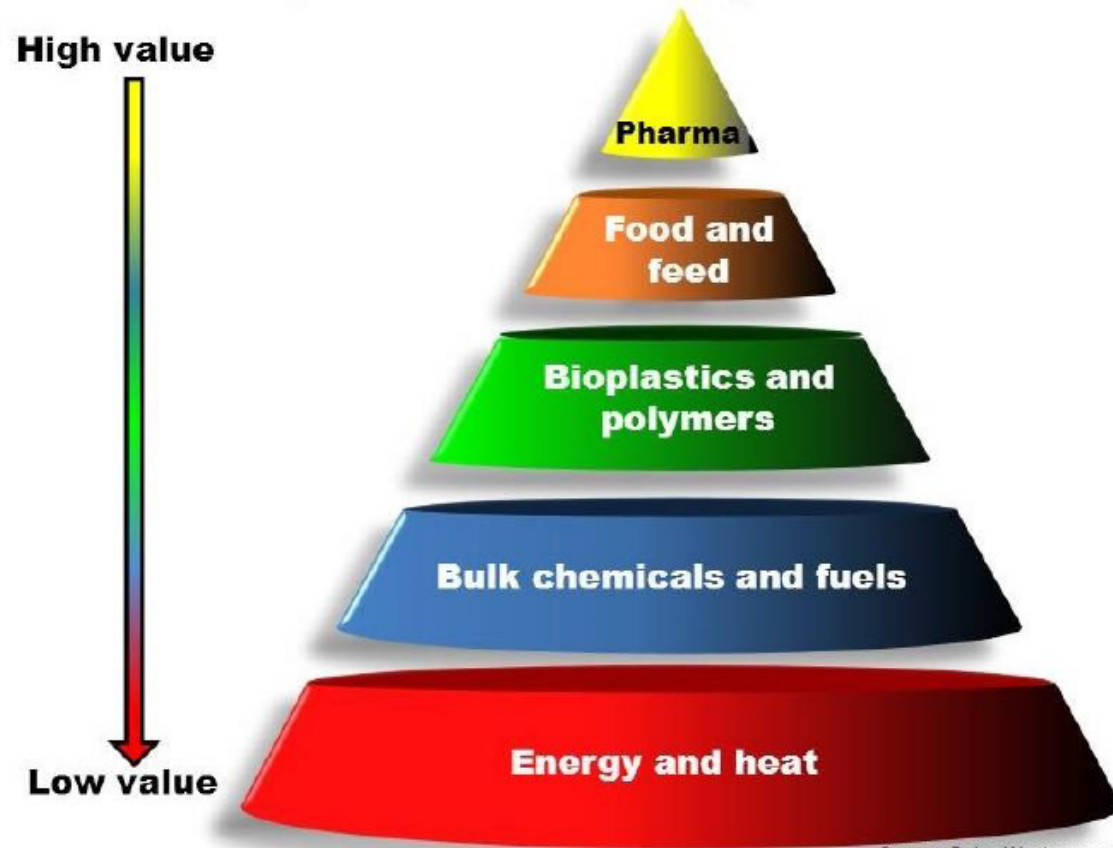
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Economics of the Circular Economy to manage stocks locally, not flows globally, as of **TODAY**



Cascading



Source: Peter Westermann

Optimized use: Break the siloes
Between biotech, chemistry and health

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The Performance Economy

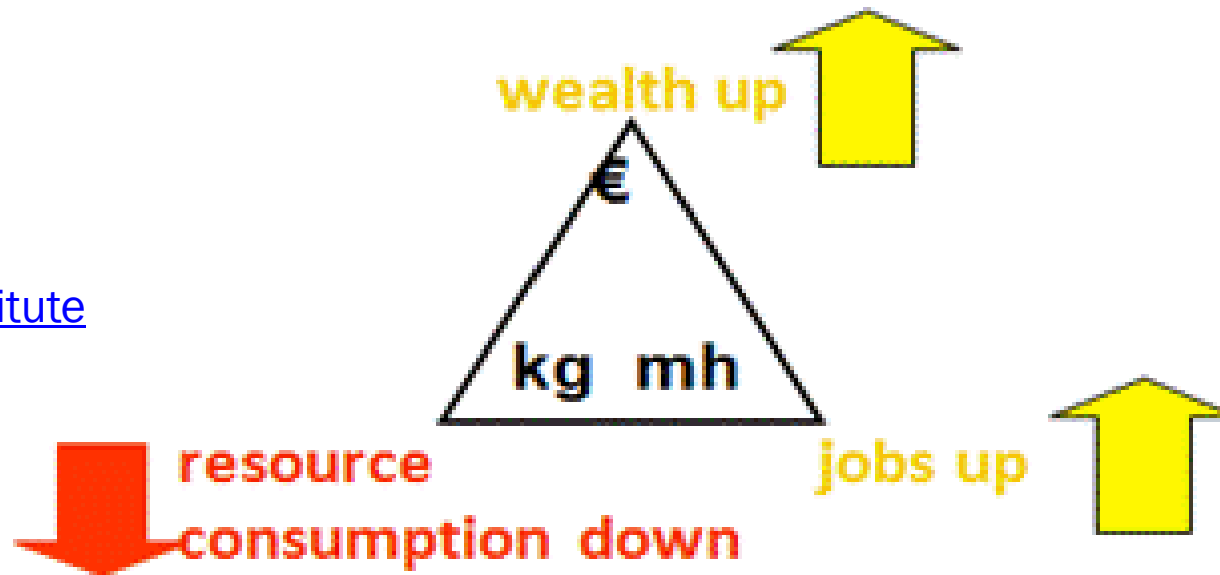
- At policy level: bridges the gap between the 2010 Lisbon Objectives of the European Union - higher growth and more jobs - and the sustainability objective to greatly reduce the resource consumption - energy and materials - especially of industrialised countries
- At practical level: exploits sufficiency and prevention as profit strategies



The objectives of the Performance Economy:
decoupling growth, as well as job and wealth creation,
from resource consumption : **higher sustainability**



[University of Surrey](#)
[The Product-Life Institute](#)



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The Performance Economy

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Useful tool for tomorrow's functional service economy?

- introduces the business models that turn knowledge into better performance, more jobs and greater wealth,
- describes how to improve the **manufacturing** process, product **service** sales and **performance over time**,
- shows how innovations in traditional sectors can preserve embodied resources and create both manual and skilled jobs, resulting in lower unemployment, lower energy consumption, less waste and greatly reduced resource throughput – major ingredients for economic growth.
- Introduces new **decoupling metrics** to measure the relation between value, jobs and resource consumption



Producing Performance

- Circular economy: reduce, reuse, remanufacture, recycle
- new metric of the value-per-weight ratio (€-per-kg) to measure wealth creation in relation to resource consumption – resource efficiency (rebound impact managed)
- strategies how to significantly boost this ratio up to million a Euro per kg resource ratio through, for instance, science and knowledge workers



Selling Performance

- business models that enable entrepreneurs to achieve synergies by profitably exploiting the three objectives of more value, more jobs and considerably less resource consumption
- procurement strategy of buying performance instead of goods
- selling performance has a strong environmental component because it internalises the costs of risk and of waste and rewards sufficiency solutions and systemic solutions



Managing Performance over Time

- the new metric of the labour input-per-weight ratio (man hour-per-kg) to measure job creation in relation to resource consumption and highlights ways to radically increase this ratio by preserving value
- business models used focus on extending the service-life of goods, components and infrastructure through reuse, remanufacturing and technological updating
- Legitimacy from EU waste directive and development of circular economy



Sustainability and the Performance Economy

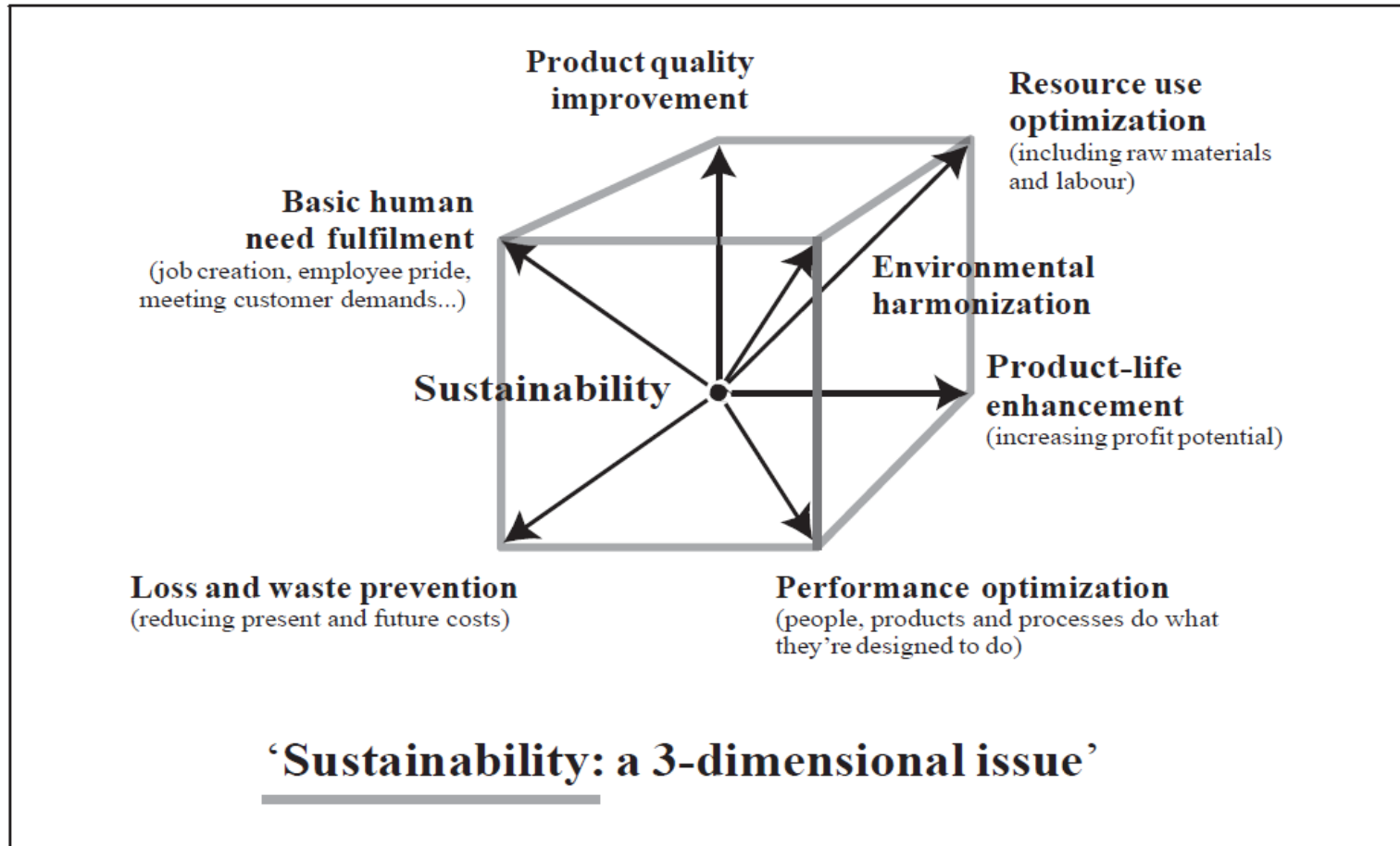


FIGURE 1-1: The areas where sustainability leads
Adapted from Walter Stahel's 'Quality Cube'



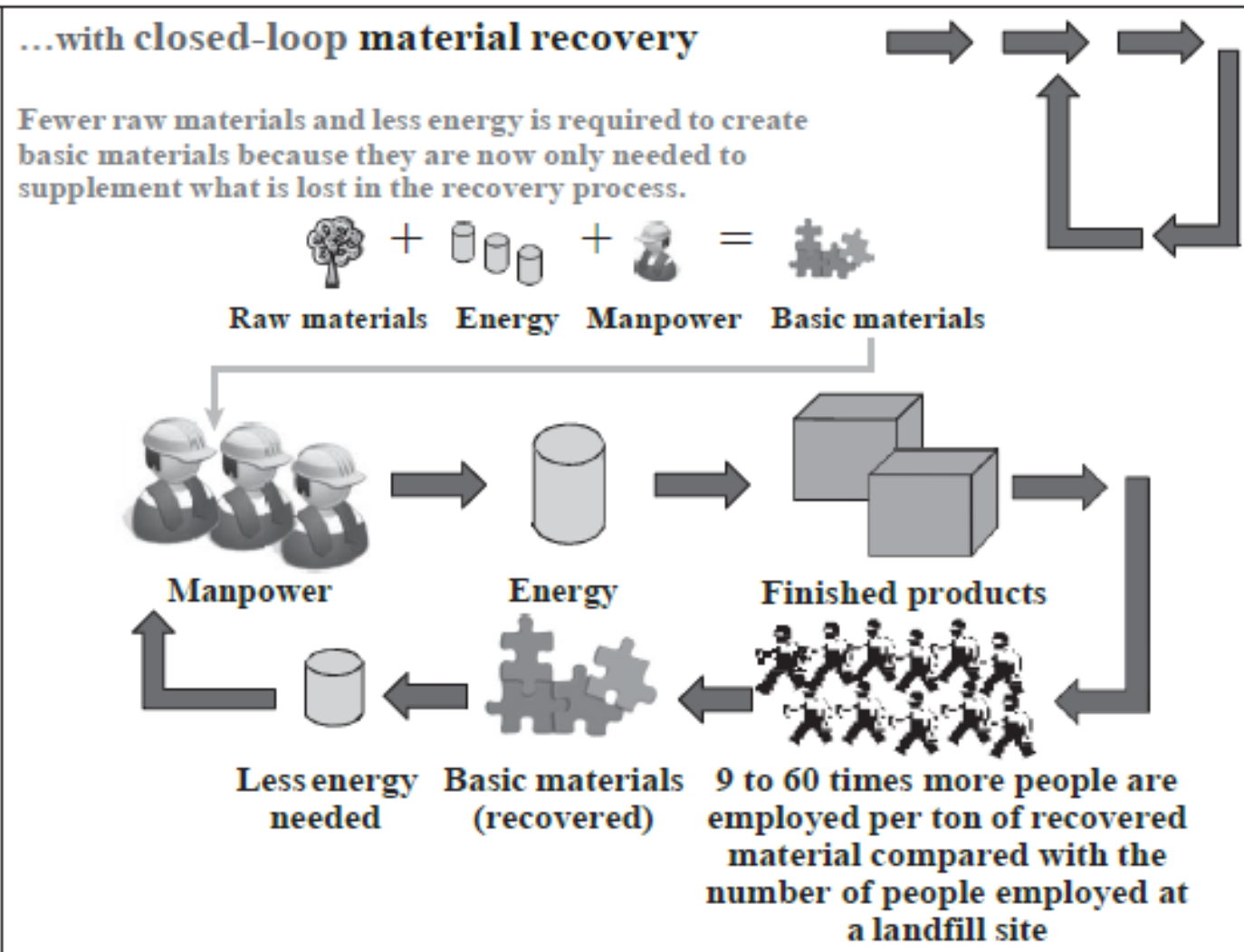


FIGURE 5-2: Closed-loop material recovery



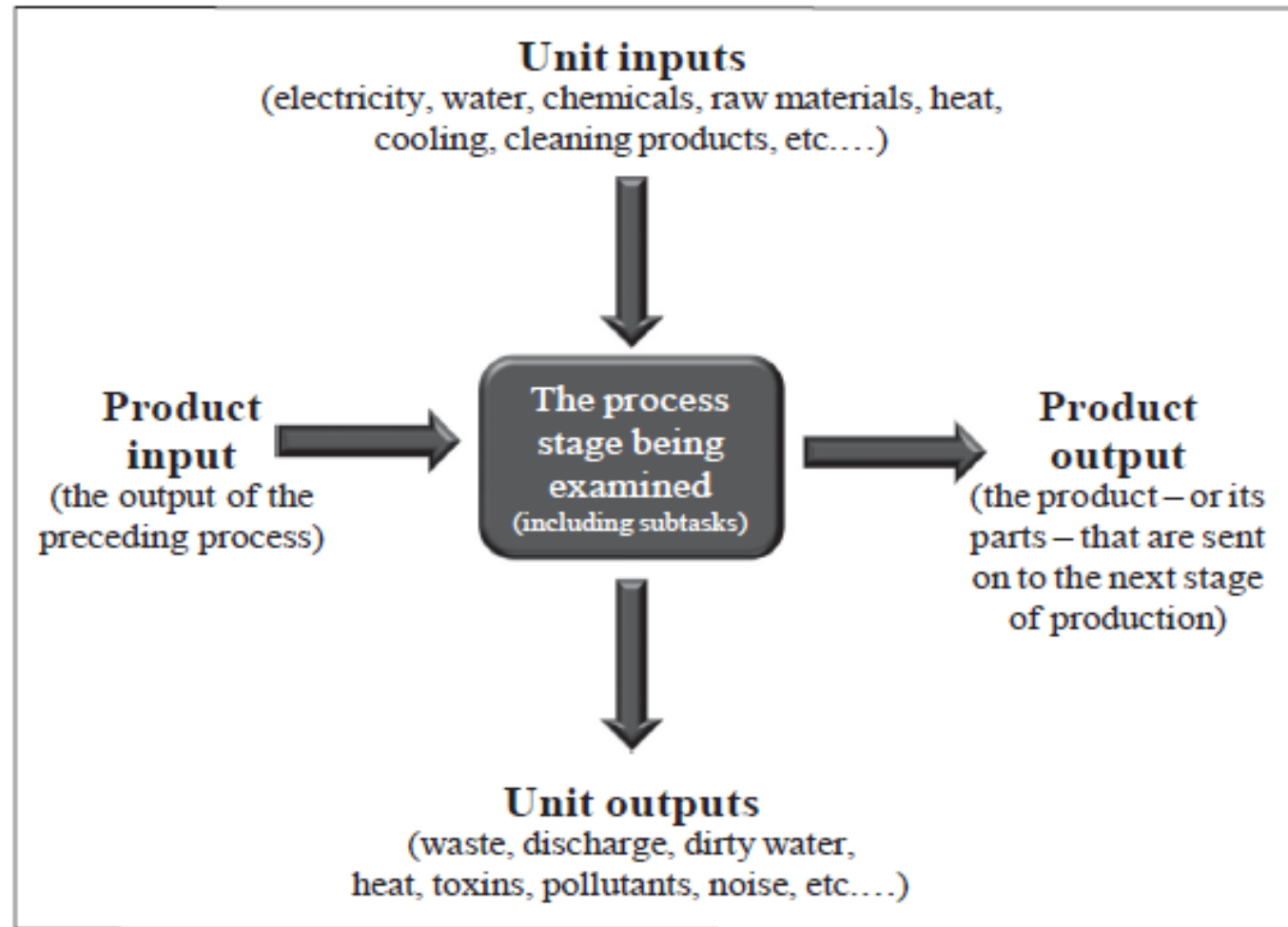


FIGURE 10-2: Production unit analysis

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Ideas and methods to be applied

- Cradle to cradle – closed loop resource use
- Performance economy
- Biomimicry – nature as model - emulate, nature as measure - judge, nature as mentor - teach
- Industrial ecology - to shape closed loop production processes so they perform as close to living systems as possible
- Blue economy - using the resources available in cascading systems (Gunter Pauli)
- Regenerative Design John T. Lyle



Example at machinery performance:

PONSSE Performance Packages

- are designed for improved basic **servicing** or updating of forest machines. Performance Packages can be used to update larger systems on forest machines, such as the harvester head, crane or base machine, so that they are **as good as new**. This helps to maintain the machine's performance year in and year out.
- enable fast updates of older machines so they **comply with modern standards**. You get a more profitable and economical machine with a longer service life.
- include all the parts needed for basic servicing of a certain part of the machine. The packages are ready-made, enabling fast and money-saving machine updates. You can also avoid extra downtime by conducting **preventive servicing** using Performance Packages. The updates will be **proactively performed** in connection with improved basic servicing, for example, helping you to maximise the profitability of your machine.



Example at agro-ecological or green performance??

- Performance of the soil
- Performance of green (vegetation) resource
- Performance of animal resource
- Performance of human resource
- Selling the performance (perception of performance economy)
- From profit economy to performance economy





Thank you for listening !

Questions, discussion please 😊

