

TOO4TO

SUSTAINABLE MANAGEMENT: TOOLS FOR TOMORROW



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TOO4TO

Content of the presentation

- Tripple Bottom Line concept
- Planetary boundaries
- Linear economy vs. Circular economy Principles of CE
- Europe as a linear economy
- System and systems thinking and their role in CE
- 3R / 9R frameworks

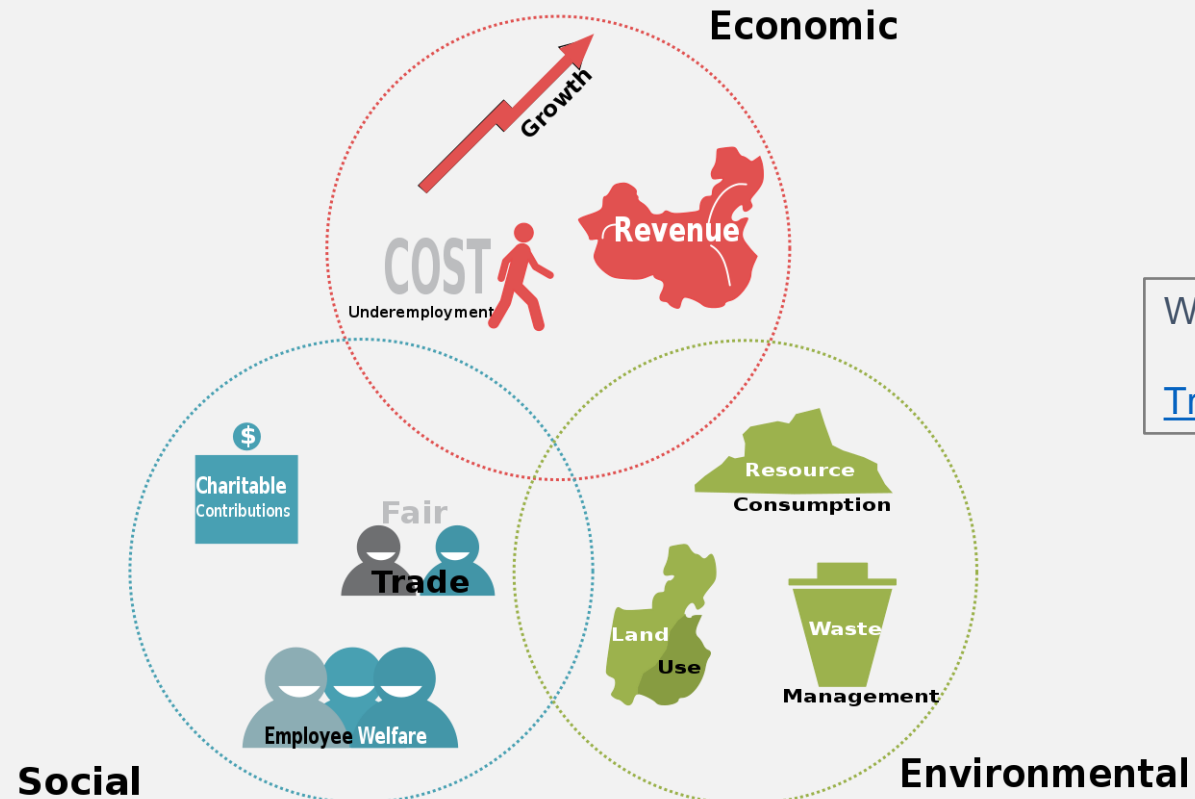
Triple Bottom Line - explanation

Business concept useful to understand the relationships that shape our economy.

Firms should commit to measuring their social and environmental impact—in addition to their financial performance—rather than solely focusing on generating profit, or the standard “bottom line.”

Can be broken down into “three Ps”: profit, people, and the planet.

Triple Bottom Line – graphical view



Watch a short video on the topic:

[Tripple Bottom Line Video](#)

Source of the picture: By Clonewayx - Own work, CC BY-SA 4.0 [Link available here.](#)

Triple Bottom Line - Profit

- In a capitalist economy, a firm's success most heavily depends on its financial performance, or the profit it generates for shareholders.
- Strategic planning initiatives and key business decisions are generally carefully designed to maximize profits while reducing costs and mitigating risk.
- This understanding is not sufficient according to the TBL.
- Leaders have the power to use their businesses to effect positive change in the world without hampering financial performance.
- In many cases, adopting sustainability initiatives has proven to drive business success.



Source: [What is the tripple bottom line?](#)

Triple Bottom Line - People

- This component highlights a business's societal impact, or its commitment to people.
- Companies create value for all the stakeholders impacted by business decisions, including customers, employees, and community members.
- Examples: ensuring fair hiring practices and encouraging volunteerism in the workplace; formation of successful strategic partnerships with nonprofit organizations that share a common purpose-driven goal.



Source: [What is the tripple bottom line?](#)

Triple Bottom Line – The Planet

- This component is linked with making a positive impact on the planet.
- Since the birth of the Industrial Revolution, large corporations have contributed a staggering amount of pollution to the environment, which has been a key driver of climate change.
- All businesses have opportunities to make changes that reduce their carbon footprint.
- Examples of actions: using ethically sourced materials, cutting down on energy consumption, and streamlining shipping practices.



Source: [What is the tripple bottom line?](#)

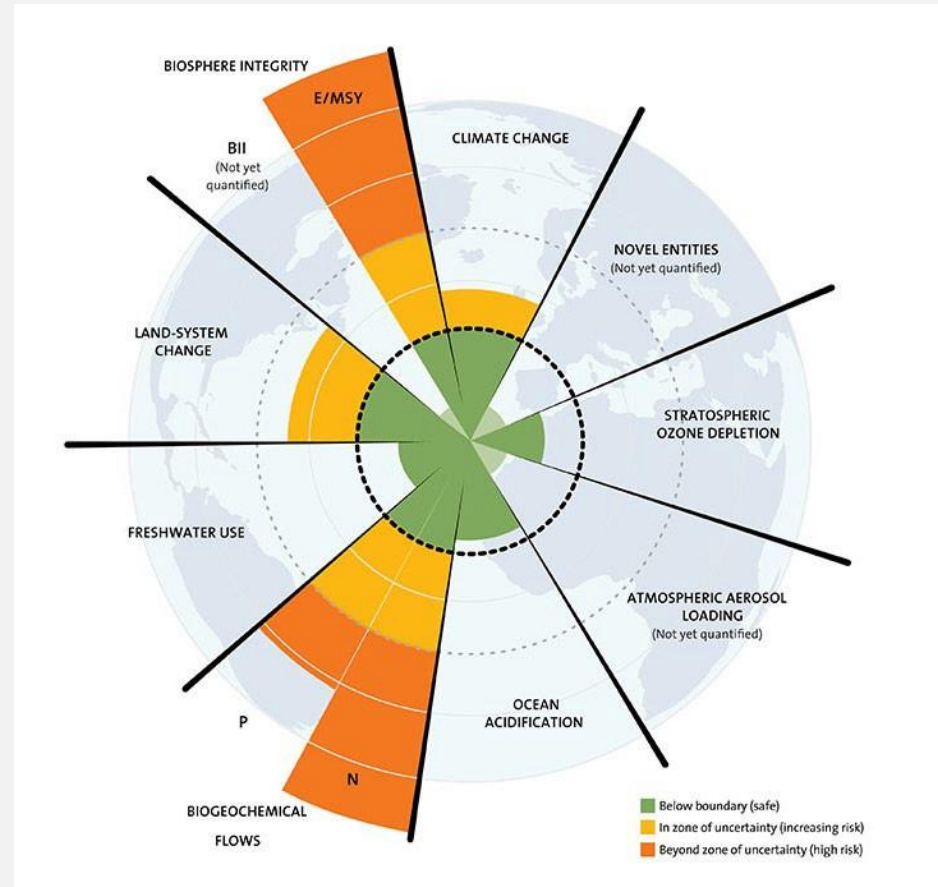
Planetary boundaries

- The planetary boundaries concept presents a set of nine planetary boundaries within which humanity can continue to develop and thrive for generations to come.
- In 2009, the scientists proposed quantitative planetary boundaries within which humanity can continue to develop and thrive for generations to come.
- Crossing these boundaries increases the risk of generating large-scale abrupt or irreversible environmental changes.
- Since then the planetary boundaries framework has generated enormous interest within science, policy, and practice.

Source: [Planetary boundaries](#)

The nine planetary boundaries

Humanity must keep the nine planetary boundaries to make Earth habitable.



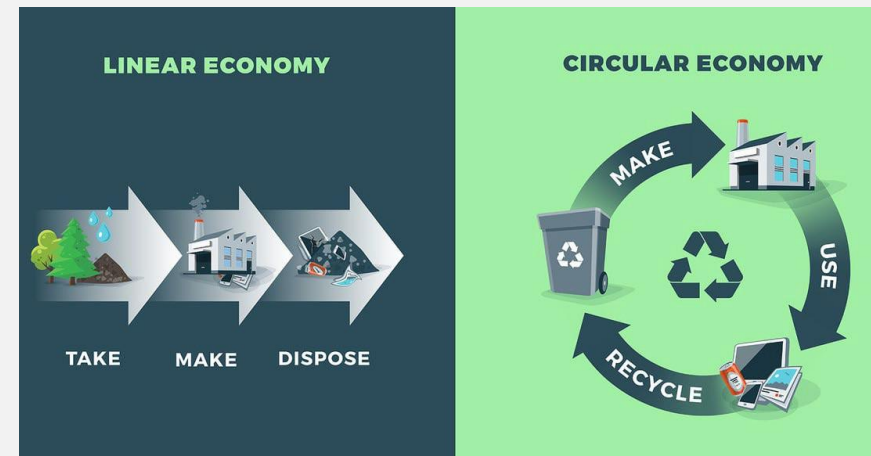
Watch a video on the topic:

[How many planetary boundaries have already been crossed?](#)

Source: [Planetary boundaries](#)

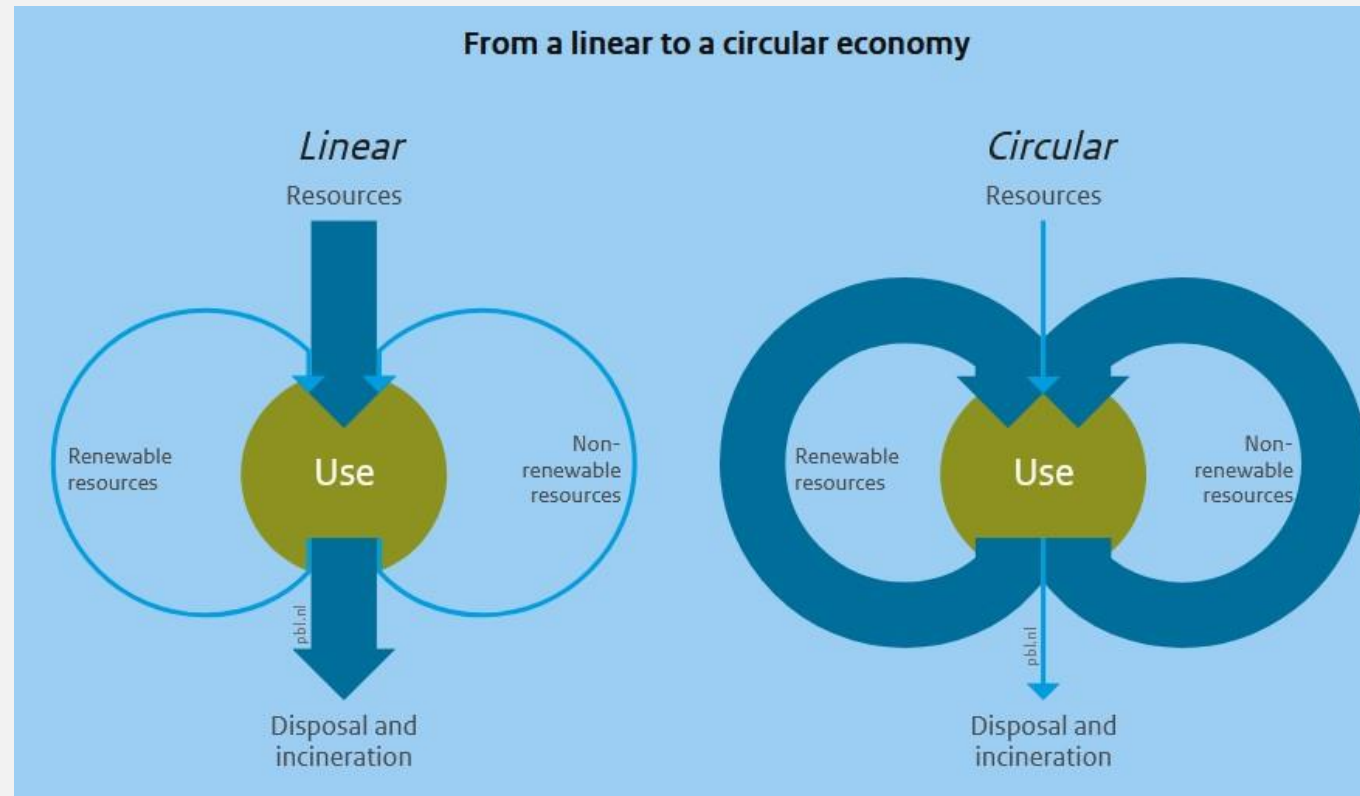
Linear economy vs. Circular economy – part 1

- **A linear economy** operates on a ‘take-make-dispose’ model, making unbounded use of resources to produce products that will be discarded after use.
- **A circular economy** is based on the reuse of products and raw materials, and the prevention of waste and harmful emissions to soils, water and air, wherever possible (‘closing the loop’).



Source: [Circular economy](#)

Linear economy vs. Circular economy – part 2



Source: [Circular economy](#)

Europe as a linear economy – example 1

- the average European car is parked 92 percent of the time;



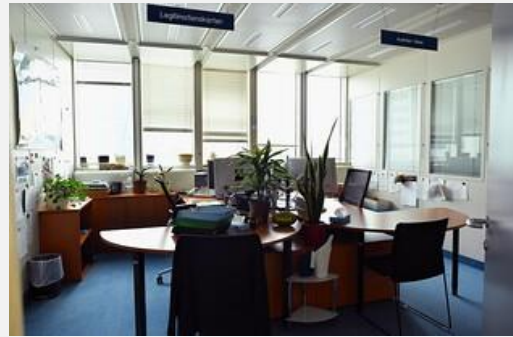
- 31 percent of food is wasted along the value chain;



Source: McKinsey. (2015), "[Growth within: a circular economy vision for a competitive europe](#)", Ellen MacArthur Foundation, p. 12.

Europe as a linear economy – example 2

- the average European office is used only 35–50 percent of the time, even during working hours;



- use cycles are short – the average manufactured asset lasts only nine years (excluding buildings).



Source: McKinsey. (2015), "[Growth within: a circular economy vision for a competitive Europe](#)", Ellen MacArthur Foundation, p. 12.

Principles of Circular Economy



Eliminate waste and
pollution



Circulate products and
materials



Regenerate nature

**Rethinking The World's Waste:
Circular Economy**

**Interesting examples of companies following
Circular Economy:**

[Video on companies following Circular economy](#)

How to better understand the complexity and relations?

- Useful tool is **systems thinking**.
- It helps in better understanding of complex social systems.
- It is also useful in finding solutions to problems resulting from many factors.

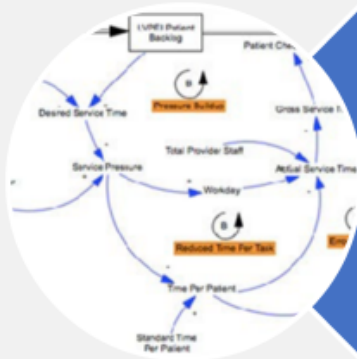
Watch a video on the topic:

[Systems thinking](#)

Systems thinking



has its foundation in the field of system dynamics, founded in 1956 by MIT professor Jay Forrester;



allows people to make their understanding of social systems explicit.



Systems thinking - quotation

“Systems thinking is a discipline for seeing wholes, recognizing patterns and interrelationships, and learning how to structure those interrelationships in more effective, efficient ways.”

Senge, P. & Lannon-Kim, C., 1991

Laws of systems thinking – part 1

- Today's problems come from yesterday's solutions.
 - People tend to be moving the problem around.
 - E.g. decrease in sales after promotion – why? People bought more products before.
- The harder you push, the harder the system pushes back.
 - Compensating feedback.
 - E.g. food and agricultural help for developing countries – it might do more harm, people need to learn themselves.

Laws of systems thinking – part 2

- Behavior grows better before it grows worse.
 - Simple solutions give positive results but only temporarily, then the situation gets worse.
- The easy way out usually leads back in.
 - We are eager to use well-known solutions, which often are not successful.
- The cure can be worse than the disease.
 - Simple solutions can be harmless, e.g. social help programmes.
 - Each long-term solution must increase system's capability to cope with its own burden.

Laws of systems thinking – part 3

- Faster is many times slower.
- Cause and effect are not closely related in time and space.
 - **Only by proper identification of causes one can lead to changes and permanent improvement.**
- Small changes can produce big results – but the areas of highest leverage are often the least obvious.

Laws of systems thinking – part 4

- You can have your cake and eat it too, but not at the same time.
 - Sometimes in the long run both approaches can be applied.

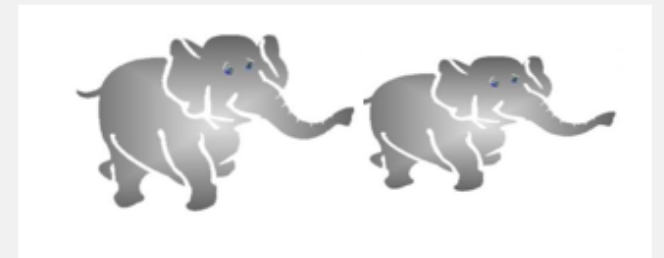


Laws of systems thinking – part 5

- There is no blame.
 - **Systems thinking – you and the problem are a part of the same system.**
- Dividing an elephant in half does not produce two small elephants.
 - **Organization should not be divided artificially – no interactions between divisions.**



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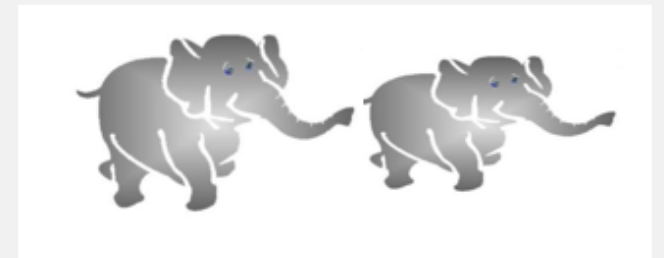


Laws of systems thinking – part 6

- There is no blame.
 - **Systems thinking – you and the problem are a part of the same system.**
- Dividing an elephant in half does not produce two small elephants.
 - **Organization should not be divided artificially – no interactions between divisions.**



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Systems thinking vs. Traditional analysis

- **Traditional analysis**

- focuses on separating individual pieces of what
 - is being studied
- „analysis” = „to break into constituent parts”

- **Systems thinking**

- focuses on how the thing being studied interacts with the other constituents of the system

Systems thinking – some characteristics



involves the use of various techniques to study systems of many kinds;



includes studying things in a holistic way, rather than purely reductionist techniques;

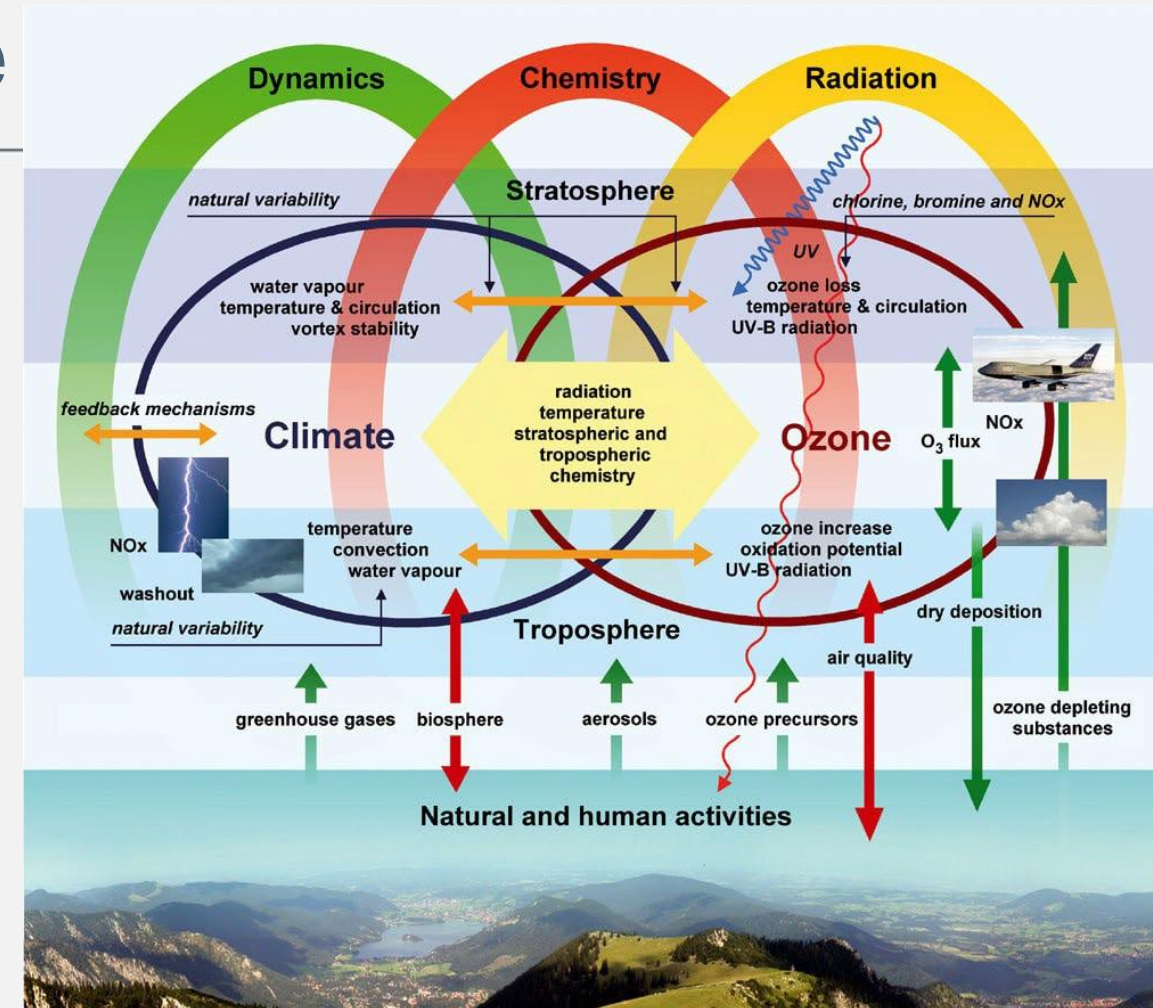


aims to gain insights into the whole by understanding the linkages, interactions and processes between the elements that comprise the whole 'system'.



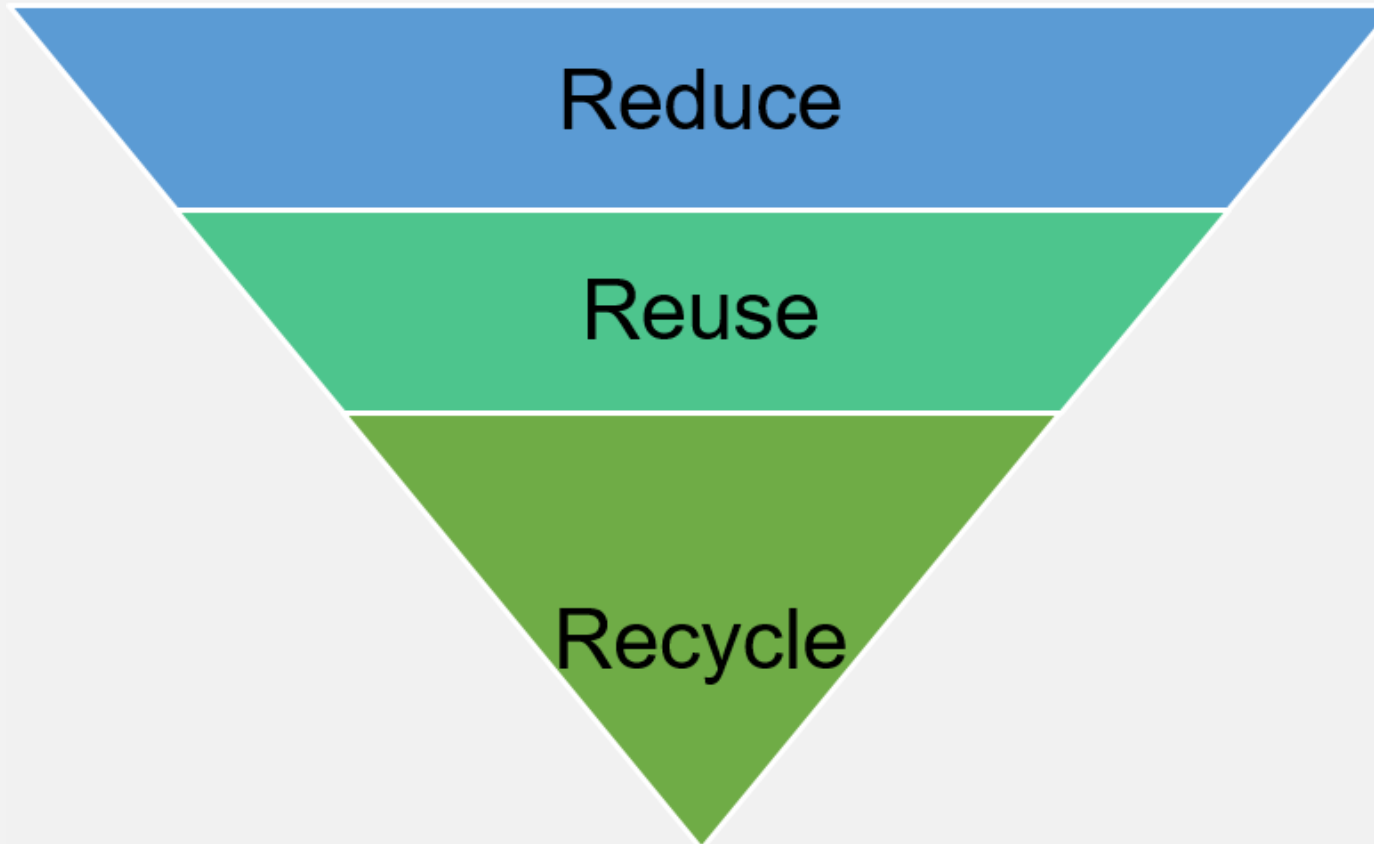
Systems thinking - example

- Useful in understanding climate change and all the complex social phenomena



Source: [Systems and models](#)

3R framework in the circular economy

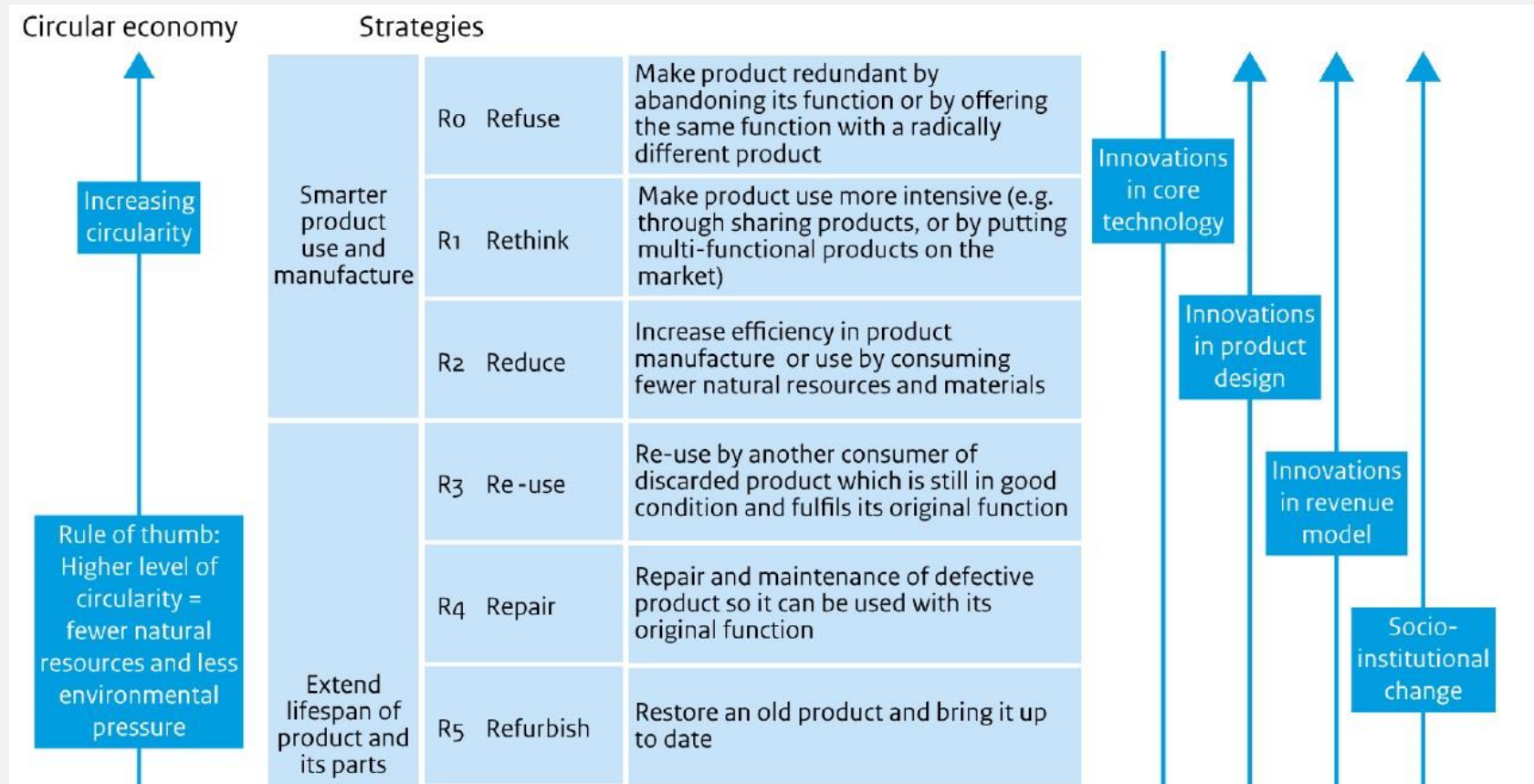


The three R's help to cut down on the amount of waste we throw away.
They conserve natural resources, landfill space and energy.

Watch a video on the topic:

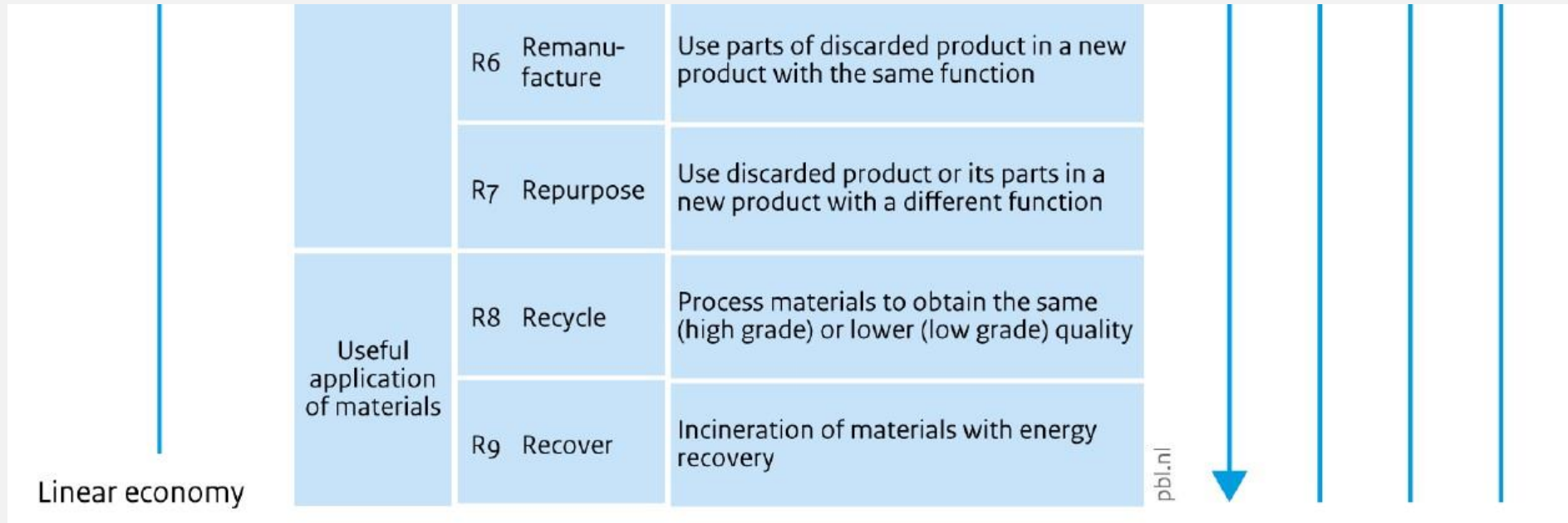
[Reduce, Reuse, Recycle](#)

9R framework – part 1



CIRCULAR ECONOMY: MEASURING INNOVATION IN THE PRODUCT CHAIN

9R framework – part 2



[CIRCULAR ECONOMY: MEASURING INNOVATION IN THE PRODUCT CHAIN](#)

Resources

- [Triple Bottom Line graphic](#) By Clonewayx - Own work, CC BY-SA 4.0,
- [11 Laws of systems thinking](#)
- [What is the tripple bottom line](#)
- [Opportunities for a circular economy](#)
- McKinsey. (2015), "[Growth within: a circular economy vision for a competitive Europe](#)", Ellen MacArthur Foundation
- CIRCULAR ECONOMY: [MEASURING INNOVATION IN THE PRODUCT CHAIN](#)
- [Planetary boundaries](#)

Self-study question

- Think about your everyday activities. What can you do not to contribute to the crossing of the nine planetary boundaries?
- Try to analyse one of the environmental problems you face (e.g. waste management) from the perspective of systems thinking.