

Resource Efficiency

Can we do more with less or do we need to reduce our appetite altogether? What does it mean to live in a resource-efficient city?



Understanding resource efficiency

Resource efficiency is about doing more and better with less. This may apply to all kinds of resources; it is however particularly important in case of natural resources, such as clean air and water, land and biodiversity, minerals and metals.

This is because natural resources, essential to our survival on Earth, are not unlimited but for years we have been acting as if they were.

The European Commission proposes five rules of resource efficiency:

● save

Resource saving is just as much about technology as it is about behavior. To get it right, the product's entire lifecycle needs to be considered, already in the design stage.

● recycle

Recycling is a process of turning waste into new products so that the use of raw materials can be reduced. It is not only sustainable but often playful and creative.

● substitute

Wherever possible we should replace scarce or harmful resources with those that are more easily available and produce lower environmental impact.

● reduce

Can we deliver same or better result with less or no resources used? This can be solved with technological or social innovation, e.g. by shifting from ownership to access with services like bike sharing or tool libraries.

● value

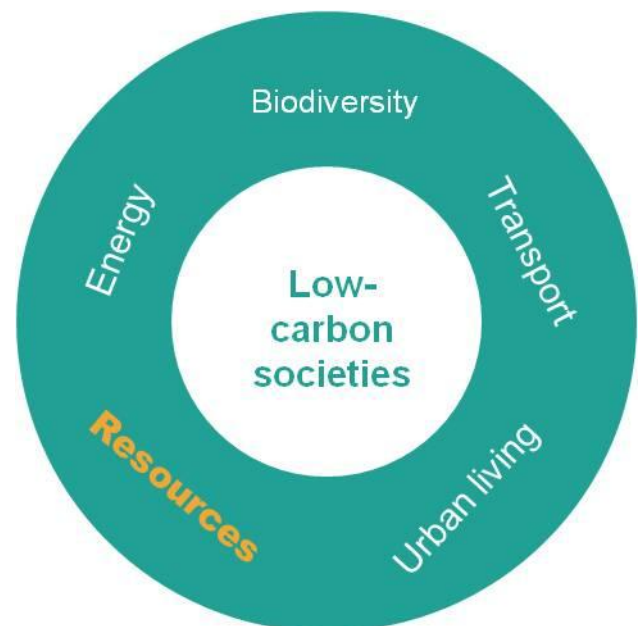
We have gotten used to taking natural resources for granted and this led to them being overexploited and degraded. Putting a value on them, monetary or non-monetary, may be a way to properly account for their use.

Efficiency and the big picture

Regions, cities and communities are complex, interconnected systems. We need to learn to look at the system as a whole, and not just its single elements.

How does resource efficiency fit in there?

We have made great improvements over the years in using resources more efficiently, particularly in the cases where less resources consumed meant more money left in our pockets. Energy-efficient or water-saving appliances have become mainstream. Resource efficiency is too often reduced to a technological problem but it is also about our consumption habits, our values such as justice or fairness, our understanding of what a good life means.



In 2014 the European Resource Efficiency Platform, a high-level advisory body consisting of representatives of policy, business, academia and civil society, called on Europe to double its resource productivity by 2030 in order to boost competitiveness and maintain a high quality of life for citizens.

The Flemish Materials' Programme lays the foundation for a green circular economy

Adopted in 2012 as part of the Flanders in Action project, the Materials' Programme is a joint effort of the government, industry, experts and civil society with an aim to put Flanders on a path towards circular economy.

The three pillars of the programme are long-term vision and experiments, policy-relevant research and the implementation of 45 concrete projects divided across 9 crucial levers, ranging from the promotion of urban mining to green fiscal policy.

For more information visit
vlaamsmaterialenprogramma.be



Thinking, producing and consuming through closed material cycles is both an ecological necessity and an economic opportunity



Henny de Baets, OVAM

Searching for solutions

Doing more with less has long been a mantra of our economy. What about replacing efficiency with sufficiency?

Introducing more efficient technologies does not necessarily lead to absolute savings. This is often referred to as rebound effect, when savings in one area are compensated with increased consumption elsewhere, e.g. having a fuel-efficient car and using it more often may offset the benefits of increased fuel efficiency.

What will be your solution?

Espresso Mushroom Company from Brighton (UK) collects used coffee grounds to grow oyster mushrooms

Espresso Mushroom Company uses a specially adapted bike to collect used coffee grounds from coffee shops around Brighton, diverting them from landfill. As mushrooms grow they break down the coffee grounds, reducing greenhouse gas emissions and acting as natural recyclers. End products? Delicious oyster mushrooms and a high-grade mushroom-enriched compost.

For more information visit espressomushroom.co.uk

ARTS is a research project which aims to benefit theory, policy and practice related to accelerating sustainability transitions.

Contact

Dr. Niki Frantzeskaki
Dutch Research Institute For Transitions
tel: +31-10-4088775
e-mail: arts@drift.eur.nl
www.acceleratingtransitions.eu
@ARTS_EU

We are currently present in the following regions



Ready to accelerate?
We want to hear from you.

Partners



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 603654.

The content of this publication does not reflect the official opinion of the European Union. Responsibility for the information and views expressed therein lies entirely with the author(s).