

EIT RawMaterials

A vision for a circular future

Lisboa | 23 June 2020 | Massimo Gasparon, Director Innovation



EIT RawMaterials is supported by the EIT,
a body of the European Union



Linear economy



Technical & biological materials mixed up

Energy from finite sources

Circular economy



Biological materials

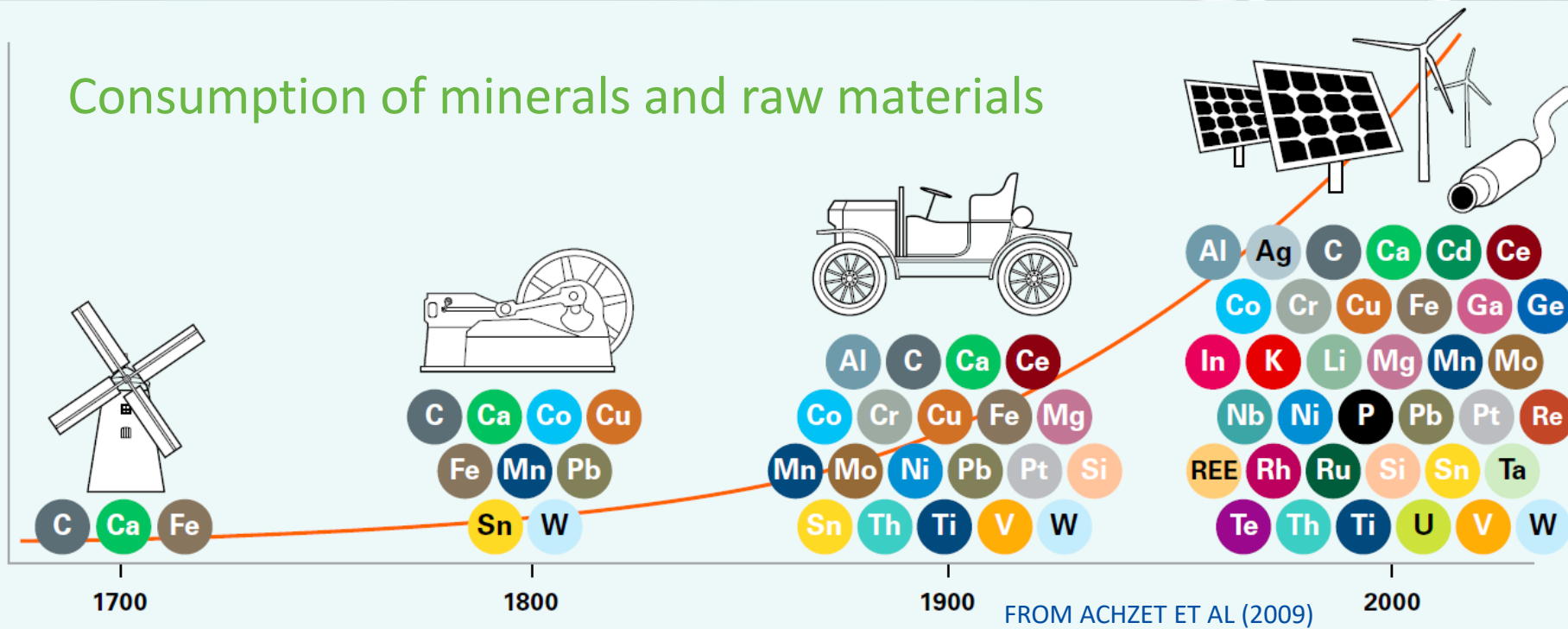
Technical materials

Energy from renewable sources

Image from [datadriveninvestor.com](https://www.datadriveninvestor.com)

(<https://www.datadriveninvestor.com/wp-content/uploads/2018/10/circular-economy.jpg>)

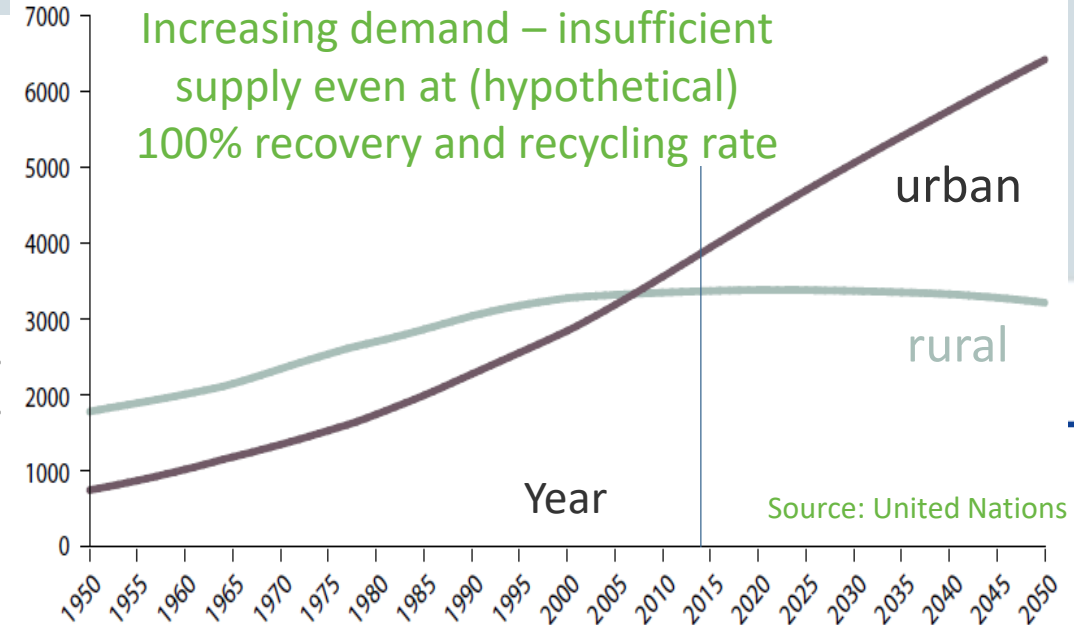
Consumption of minerals and raw materials



Technical & biological materials mixed up

Energy from finite sources

World population (millions)



RAW MATERIALS AND ADVANCED MATERIALS ARE *THE* KEY ENABLERS FOR THE TRANSITION TO THE GREEN ECONOMY

Brown Economy

Fossil Fuels for combustion engines, generators and power stations

Transition

Green Economy

Functional Materials in e-motors, energy storage, energy conversion containing, for example, Co, Li, Pt, REE, Ge, Ga, Si, V



Image: Agarwal et al. 2017 Green Transparency

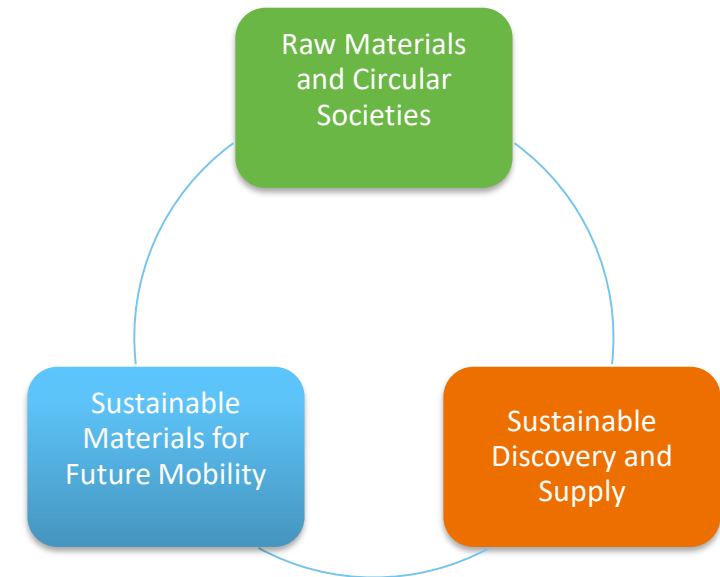
Fundamental shift in the resource basis of a society

EIT RAWMATERIALS' CIRCULARITY CONCEPT



EIT RawMaterials Lighthouses

ACTIONS TO BOOST OUR EXISTING STRENGTHS



SUPRIM

LCSA FOR PRIMARY RAW MATERIALS



SECURE



CLOSE



CIRCULAR

DISCOVERY



EXPLORATION

MINING



PROCESSING

RECYCLING



SUBSTITUTION

CIRCULAR ECONOMY



CHALLENGE

Reliable datasets and adequate assessment methodologies are required to assure and assess the sustainability of raw materials' supply. To date, however, such methodologies do not exist.

SOLUTION

To develop an efficient, objective and robust assessment tool to meet the societal demands of sustainable resource use and to enhance the image of the (European) Primary Production Sector (and consequently of other economic sectors).

IMPACT

Enable decision-makers at site, company, regional and national level to correctly identify and assess existing and potential impacts and prioritize remedial actions. Improved transparency and trust in the raw materials sector.

BUDGET € 1.2 M

DURATION 2017 - 2019



CONSORTIUM:



(Lead Partner)



Universiteit Leiden



THE RAW & CIRCULAR ECONOMY EXPEDITION (RACE)

A life-changing opportunity for Sustainability pioneers to unlock Future Mobility solutions

RACE Theme is “**Raw Materials for Future Mobility**”

A 2-week learning journey along the Raw Materials value chain



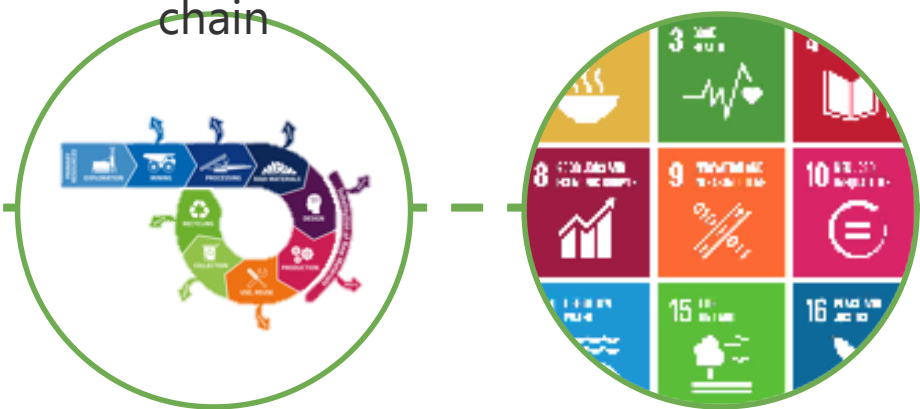
Travelling across Europe from 18-31 August 2019*



Interdisciplinary teams pitching solutions to Future Mobility challenges



Anchored in UN SDGs



Challenge-led curriculum based on industrial hosts
Outokumpu, Umicore,
Audi, CIC (2019)*

Slovenia Deep Demonstration – a systemic switch to the circular economy



Climate-KIC is supported by the EIT, a body of the European Union



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Government of Slovenia,
represented by key Ministries

Slovenian Ministry of Education, Science and Sport, the Ministry of Economic Development and Technology, the Government Office for Development and European Cohesion Funds, Ministry of the Environment and Spatial Planning, Ministry of Infrastructure, Ministry of Agriculture, Forestry and Food



Value chains





Pillar

Create Circular
Communities

Foster Circular
Development

Circular Policy Design &
Science

Barriers

Lack of awareness & culture on circular
economy

Lack of Systems Innovation +
Entrepreneurship

Current regulation supports linear
economy

Programmes

Circular Schools



Circular Discovery Process



Transition Policy Lab



Circular Learning & Resources



Circular Performance



Circular Procurement



Circular Synergies



SME Circular Innovation Support



Circular Higher Education



Transformation Capital for Circular Economy



Circular Transition Pilots: Industrial Value Chains



LONG-TERM VISION 2027: SUSTAINABLE RAW MATERIALS FOR EUROPE'S GREEN TRANSITION

- Leading community for circularity (100+ MEUR funding since 2015)
- Fundamental innovation and capacity building to enable the EU Green Deal
- Strong, committed partner base