



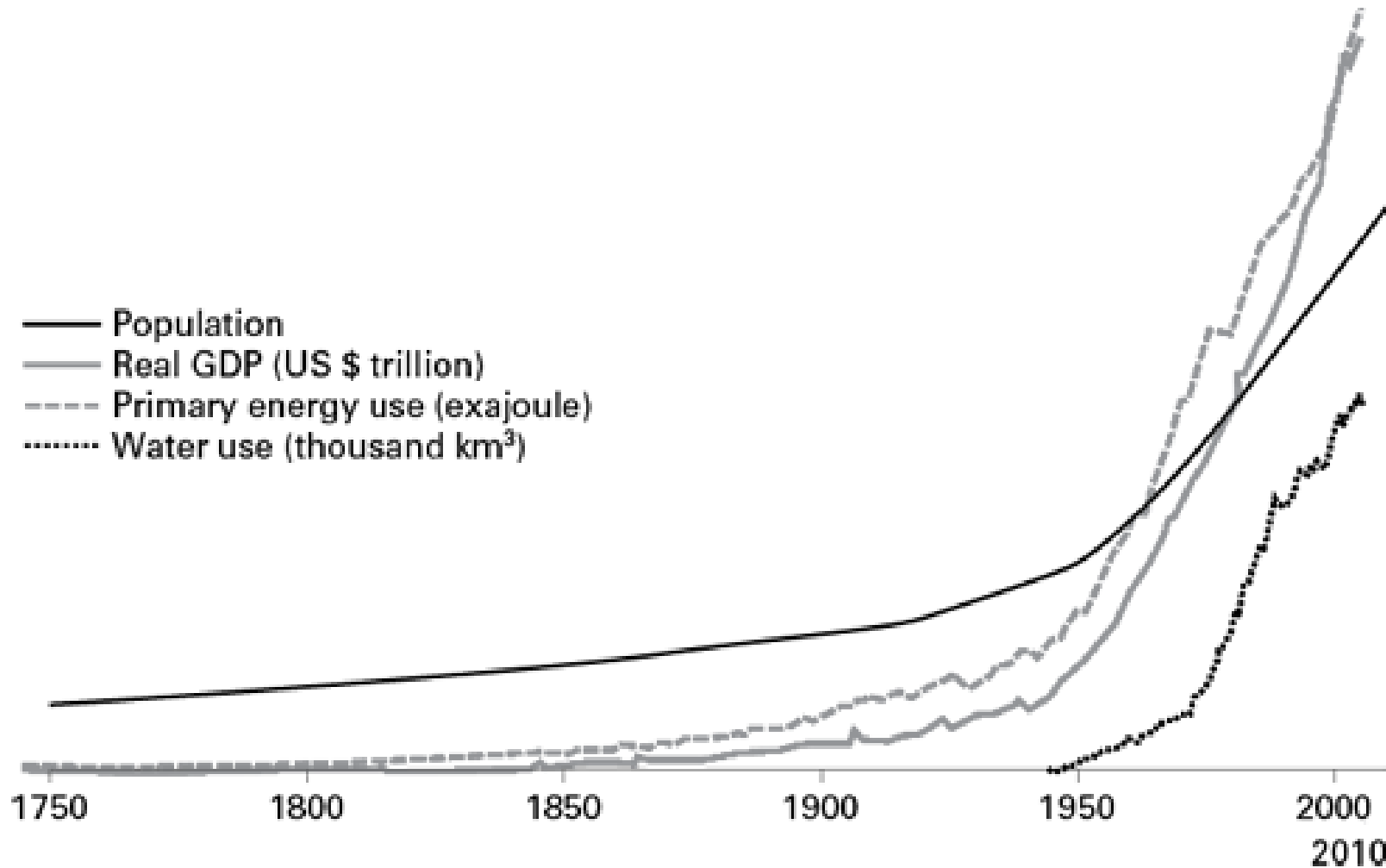
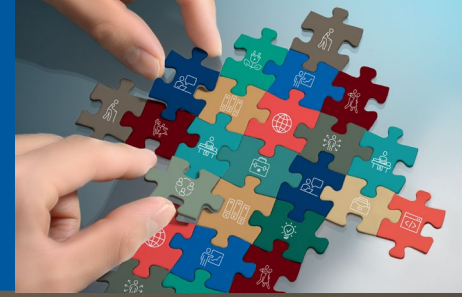
Integrating circular economy principles with project management methodologies for sustainable societal development

Prof. Dr. Vladimir Obradovic



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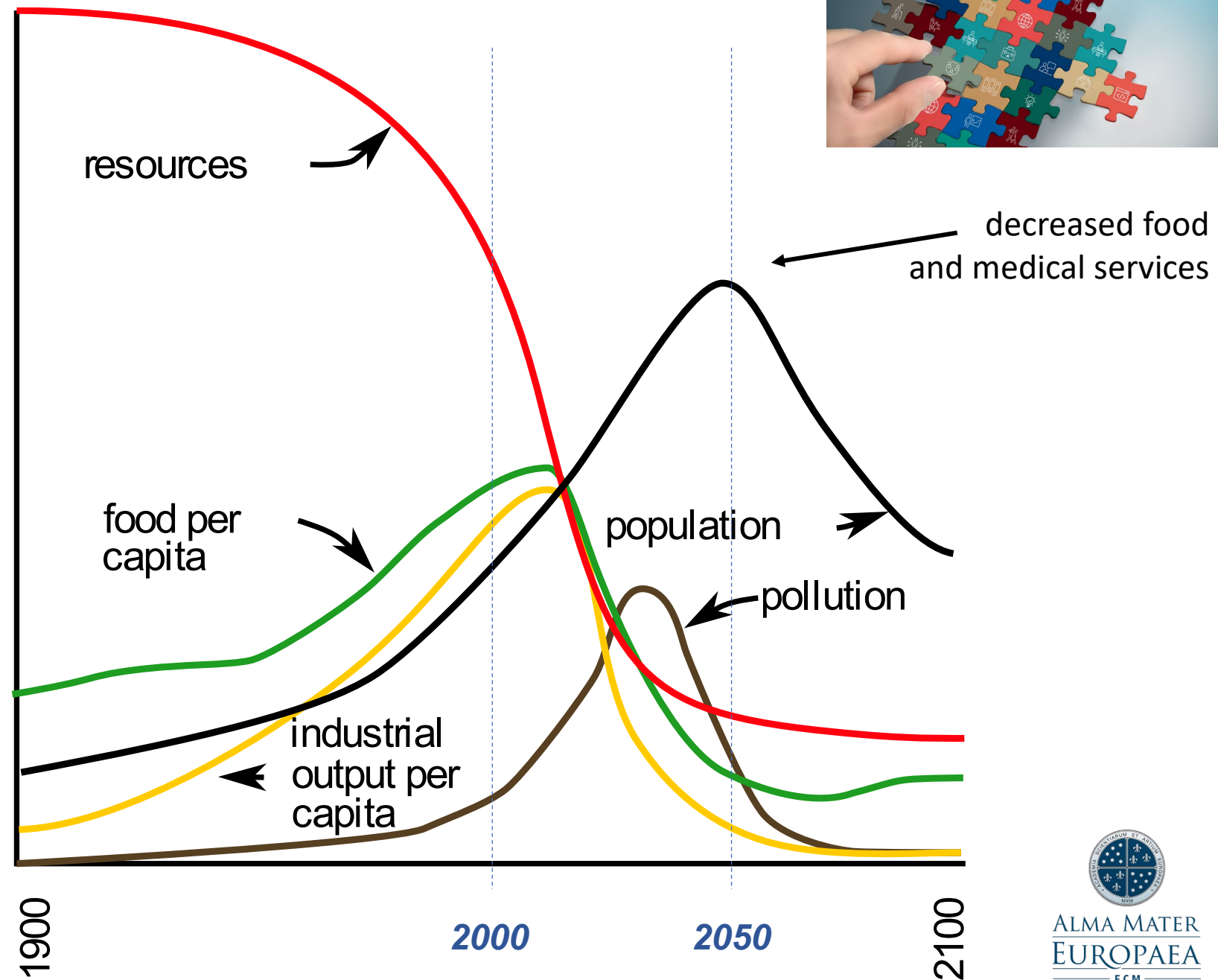
Why?



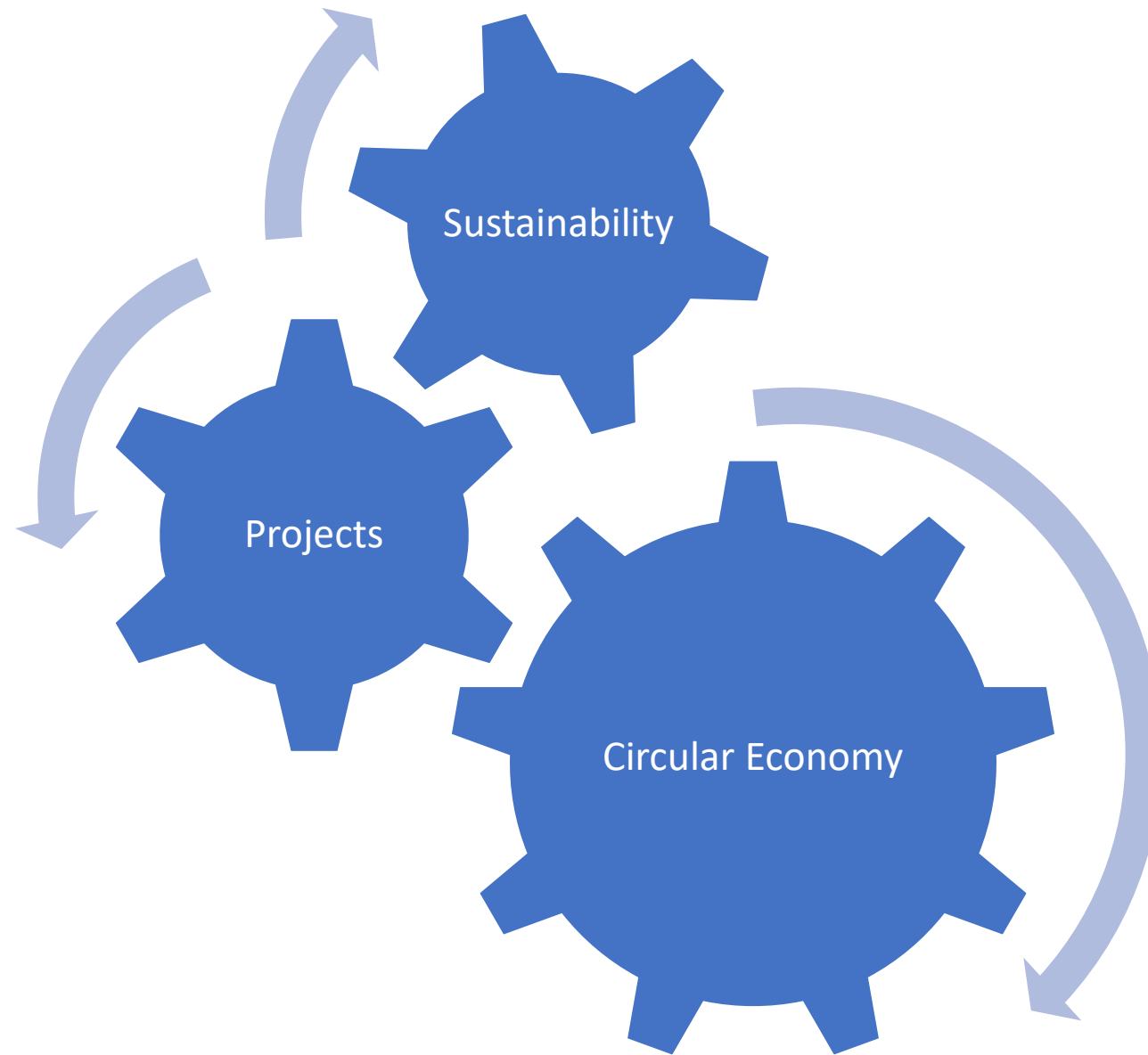
SOURCE: Stockholm Resilience Centre [Online]

When?

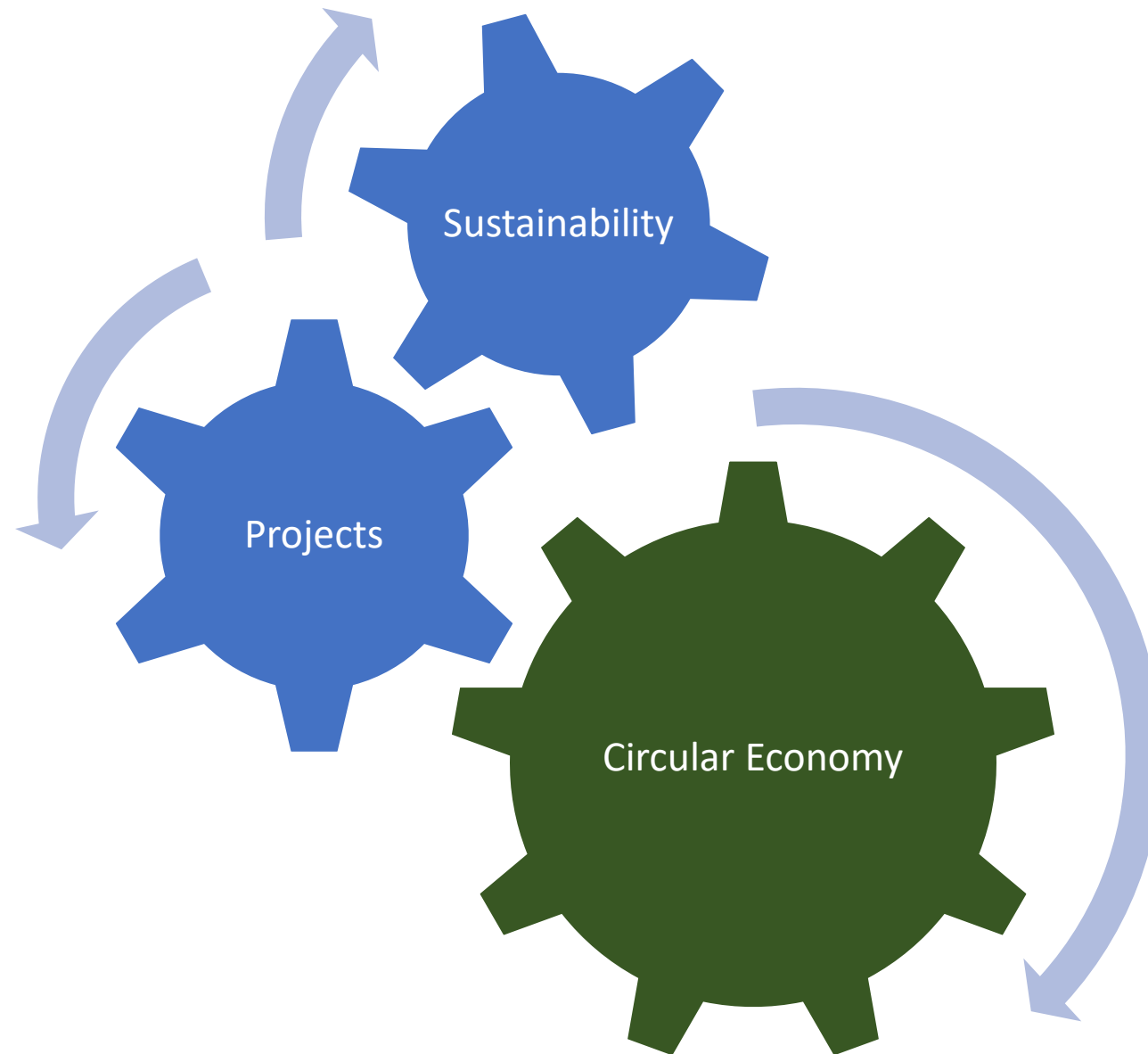
The Limits to Growth
1972 report, *Club of Rome*



What?



Circular Economy



What is Circular Economy?



Economic system

where products and services are traded in closed loops or cycles



It is **reversible and regenerative** system.

The aim is to keep products, components and materials at highest level of usage.

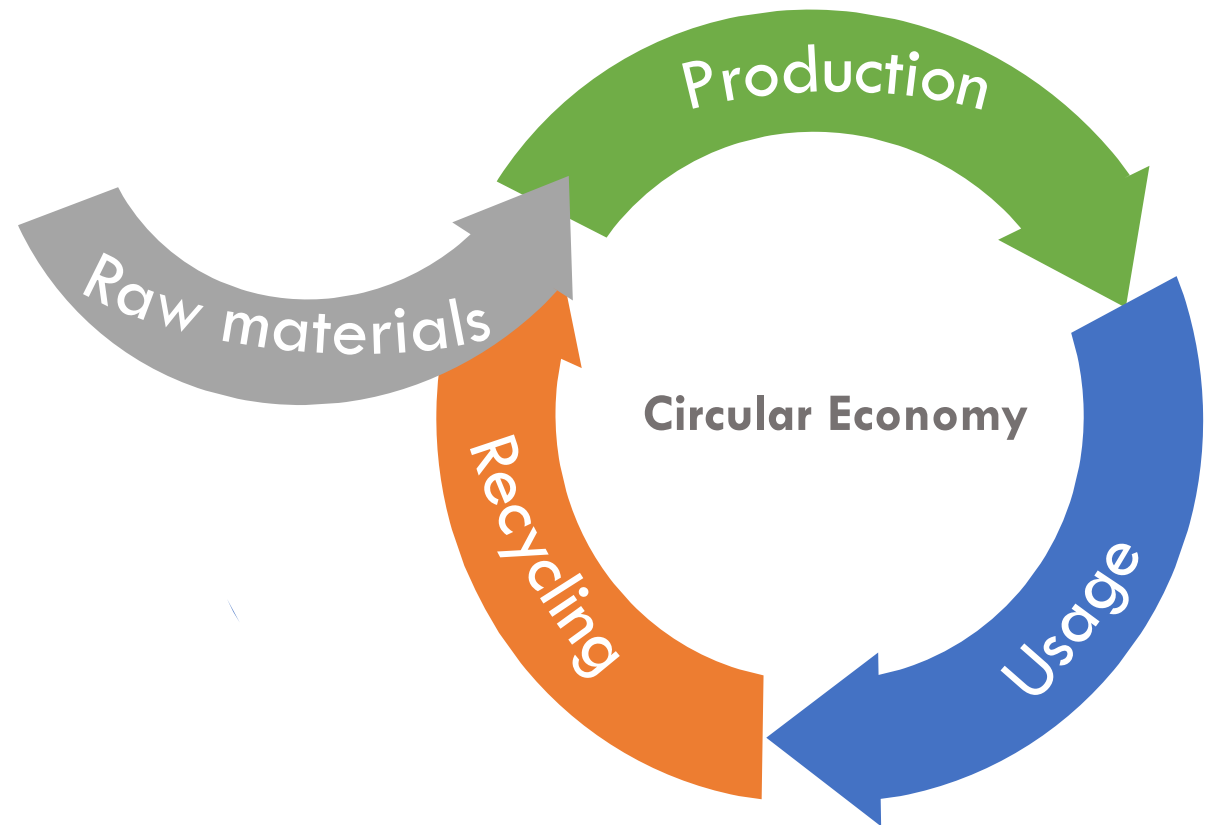
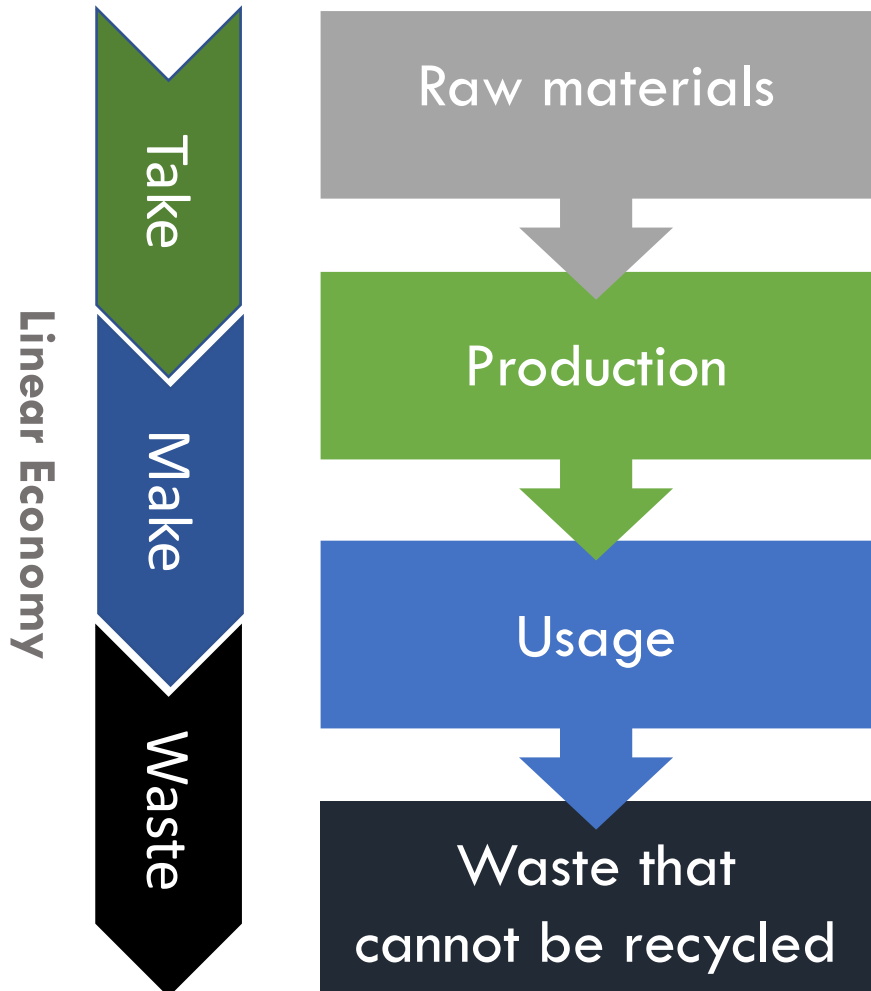
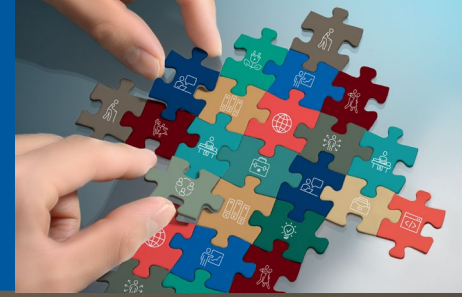


Key ideas:

- Reduce waste and pollution
- Keep products and materials in use
- Regenerate natural systems



From Linear To Circular Economy



The Foundations Of The Circular Economy



Circular design

Companies need to build competencies in the area of CE design to promote reuse, recycling and product cascading.

New business models

Switching to CE involves innovative business models. Profitable CE businesses will inspire other companies to operate in the same way.

Exchange and cycles

New skills are needed for the final return of materials to the soil or back to the production system.

CE supporters and favorable systematic terms

Decision makers play an important role in spreading the principle of reuse of materials and greater productivity of resources - policymakers, educational institutions, etc.

Circular Economy - Possibilities



ECONOMIC

- Economic growth
- Substantial total savings of material costs
- Job Creation Potential
- Innovation



ENVIRONMENTAL

- Reduced CO2 emissions
- Reduced primary resource consumption
- Increased soil productivity, improved soil health and less waste in the value chain

COMPANY

- Profit (savings)
- Reduced volatility and greater security of supply
- Demand for new business services
- Improved customer interaction / loyalty

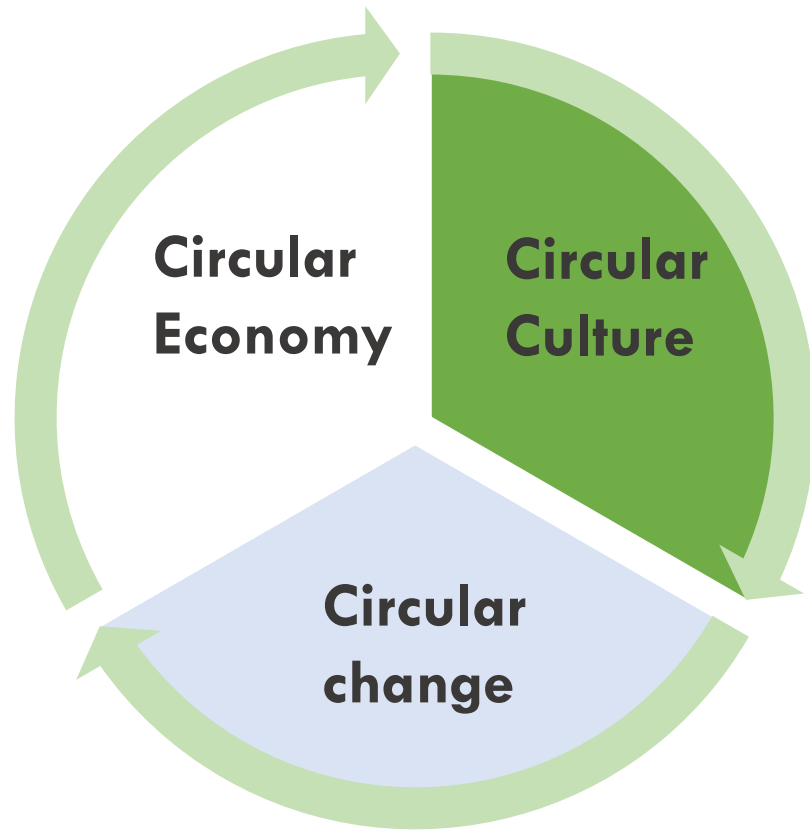
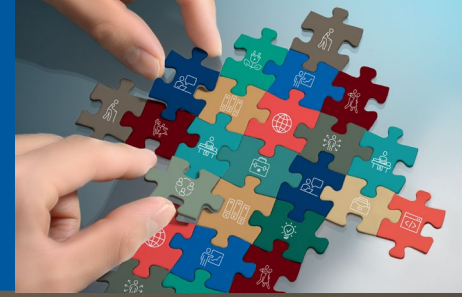


SOCIETAL

- Higher available profit
- Greater usefulness from products and services
- Reduced product obsolescence



Circular Triangle



The "Circular Triangle" consists of three interdependant aspects, where changes in values and patterns of behavior lead to necessary changes in public policies.

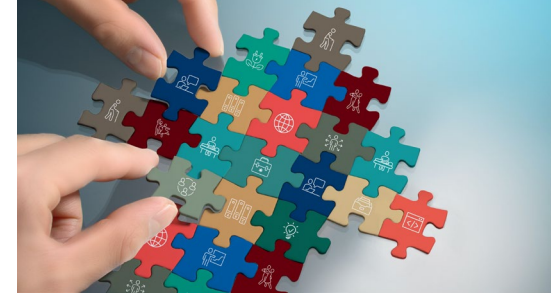


Circular Triangle by Circular Change, Giacomelli Media Ltd, 2017



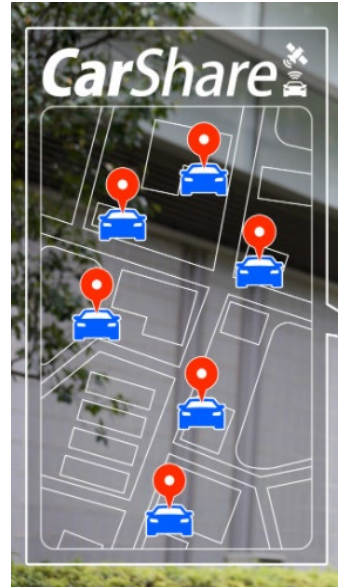
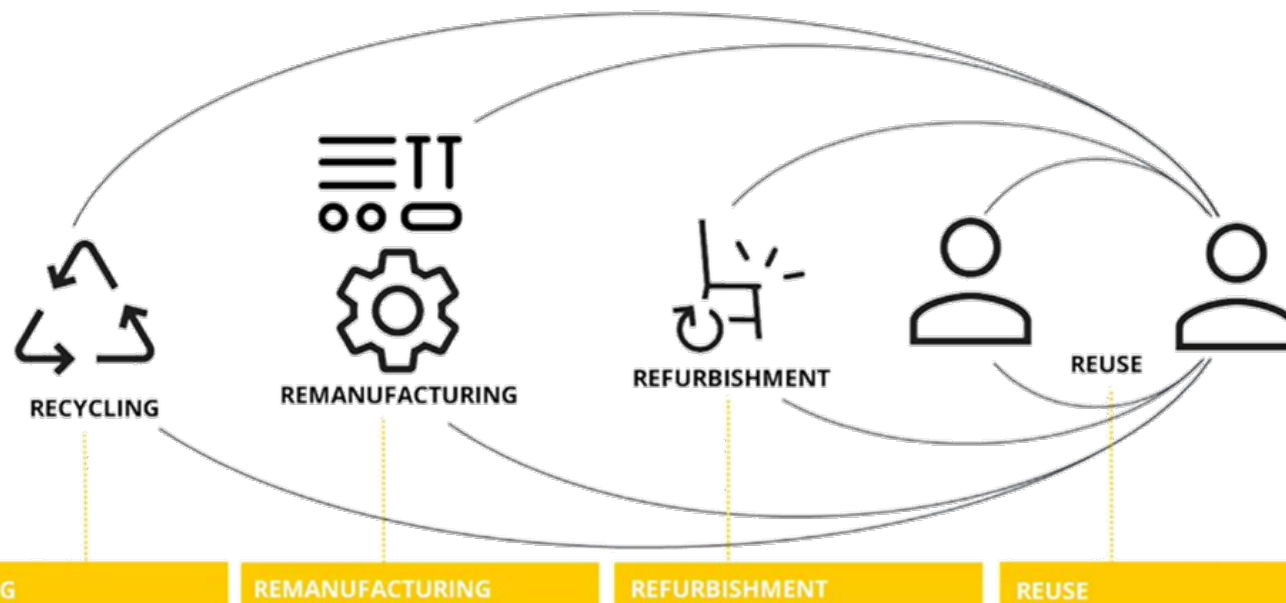
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CE Examples



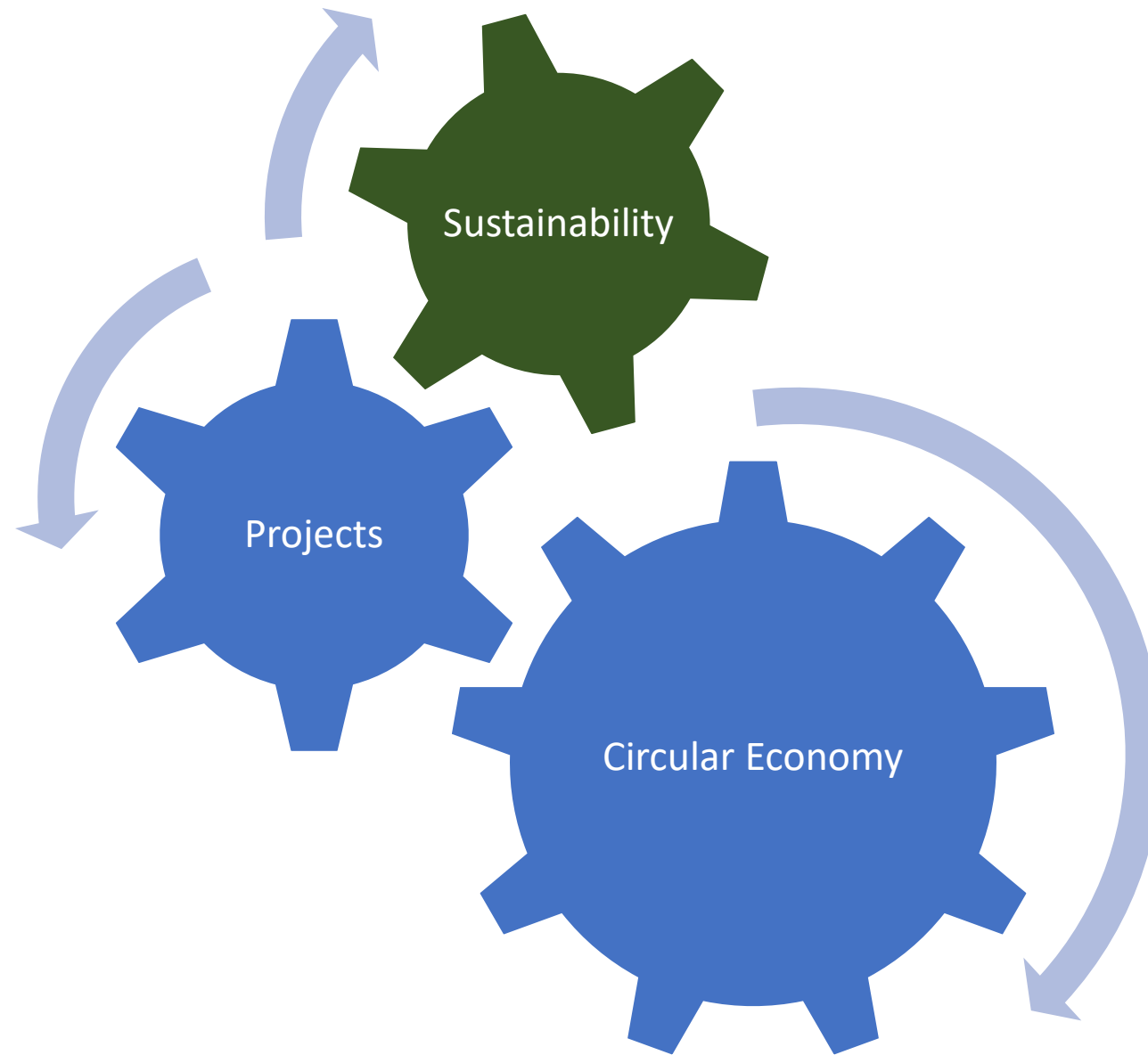
MUD JEANS

TO A CIRCULAR IKEA



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Sustainability

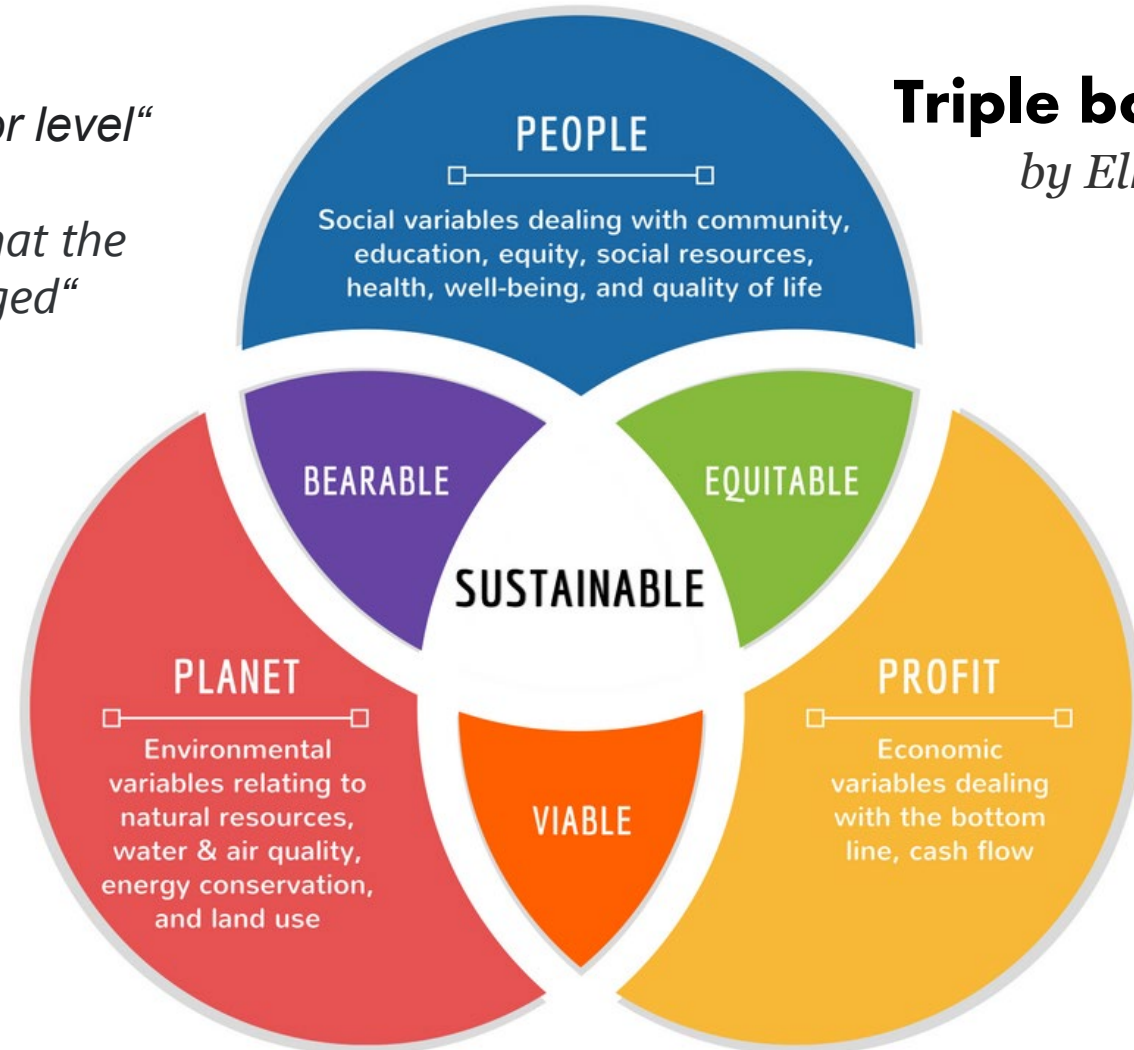


What is Sustainability?



„the ability to be maintained at a certain rate or level“

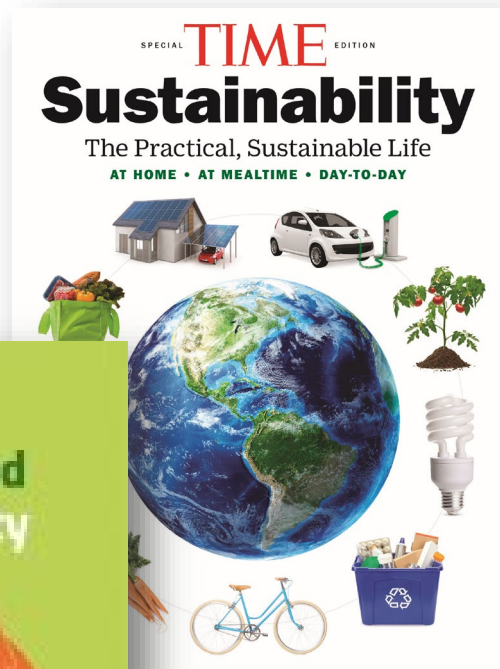
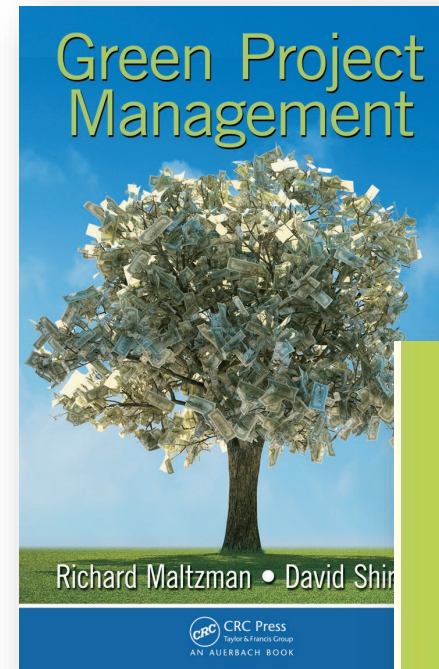
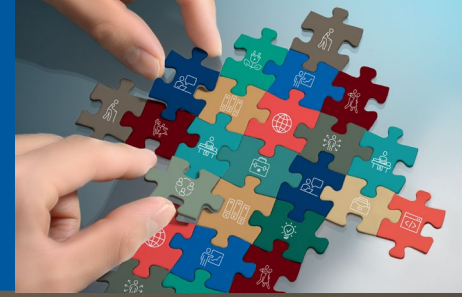
„method of harvesting or using a resource so that the resource is not depleted or permanently damaged“



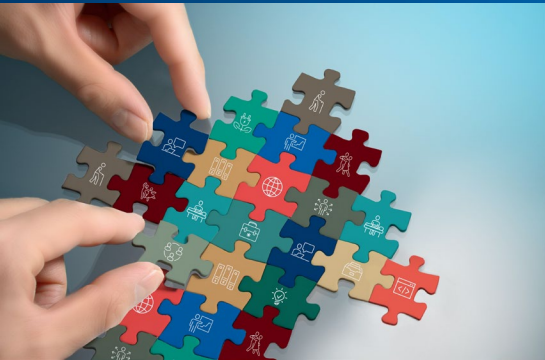
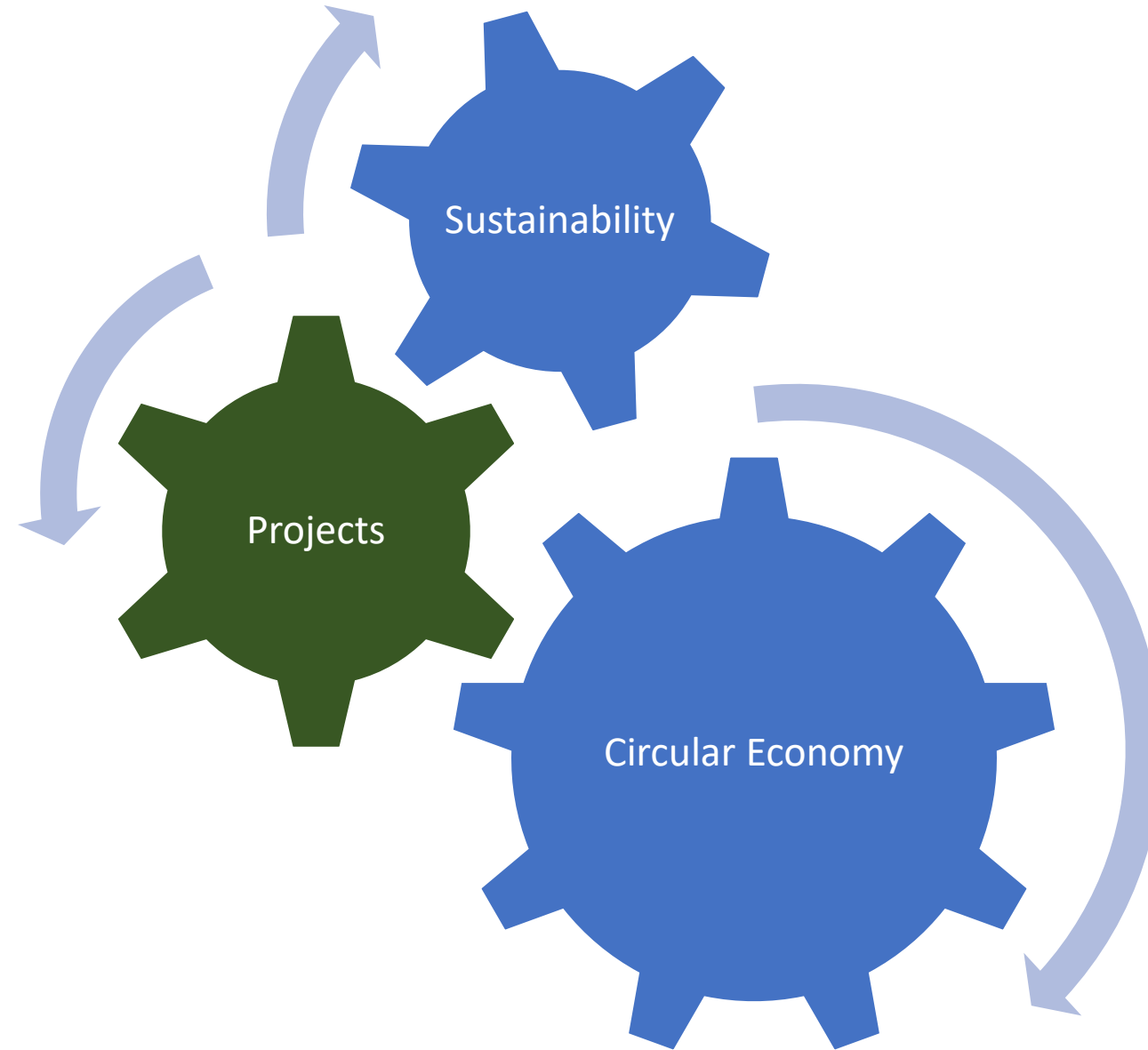
Triple bottom line
by Elkington



Sprouts of sustainability



Projects



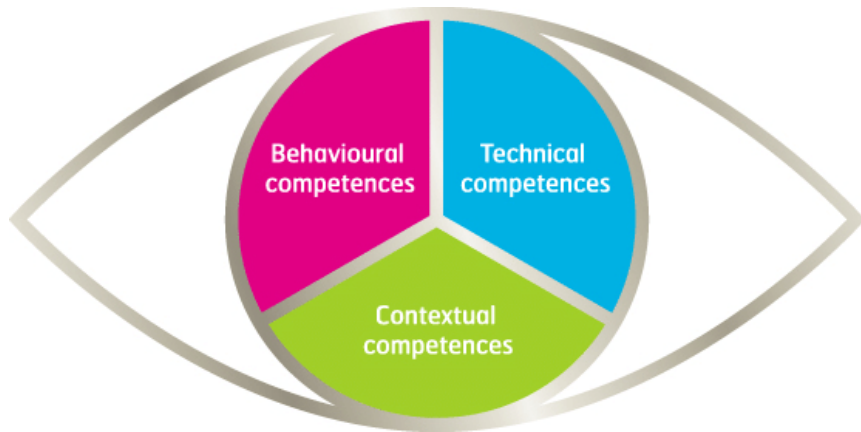
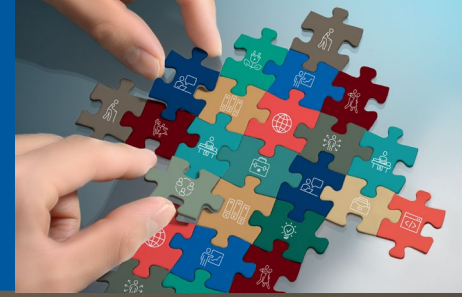
Projectification



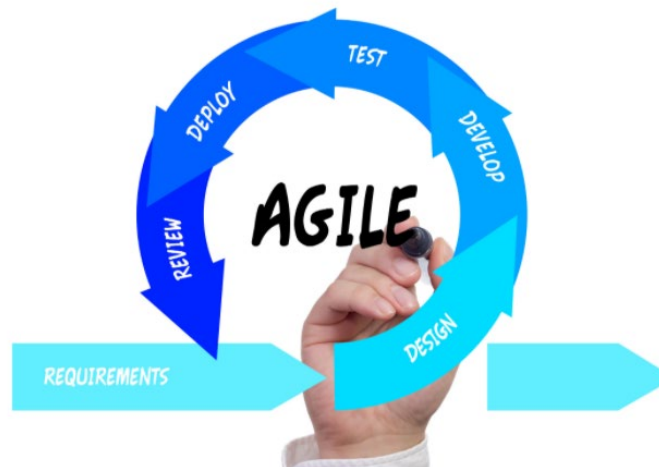
- Age of project economy
- A large part of GDP is in projects
- Major resource usage by projects
- Most of time spent in organizations is through projects
- More and more project workers
- Internationalization and globalization



Methodologies



Open Project Management
Methodology



PRINCE2



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Integration



Hybridize

Standards
Guidelines
Templates
Software

Update

Codes of ethics
Values
Internal policies

Introduce

Recognition systems
Awards
Certifications

Influence

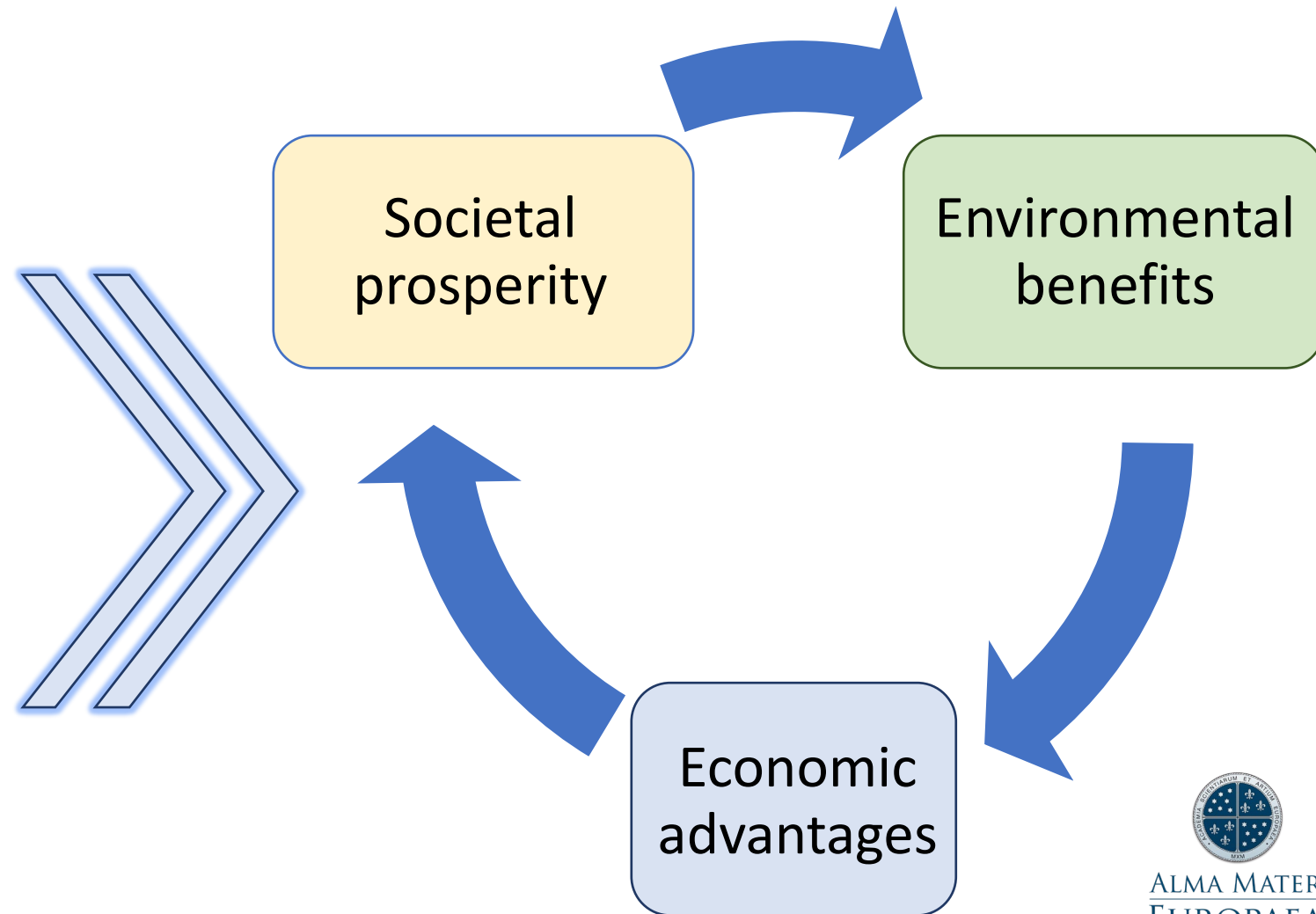
Educators
Training providers
Policy makers
Donors



Benefit - Survival of mankind



- Environmental Benefits
- Greenhouse gases reduction
- Reduced waste
- Reduced water demand
- Materials savings
- Efficiency gains
- Energy savings
- Economic advantages
- New startups
- Increase in employment



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