



Relevance of Circular Economy to achieve SDGs

Group 5



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OUTLINE



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



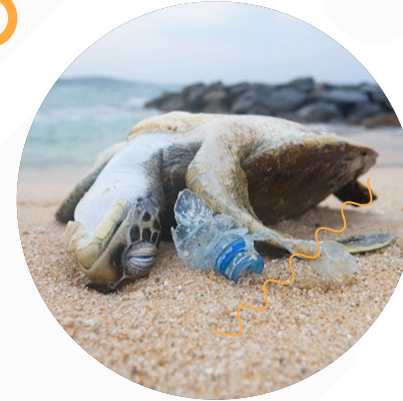
○ CURRENT PROBLEMS



Scarcity of
Resources



Overflowing
Garbage



Toxic
Chemicals



Climate Change

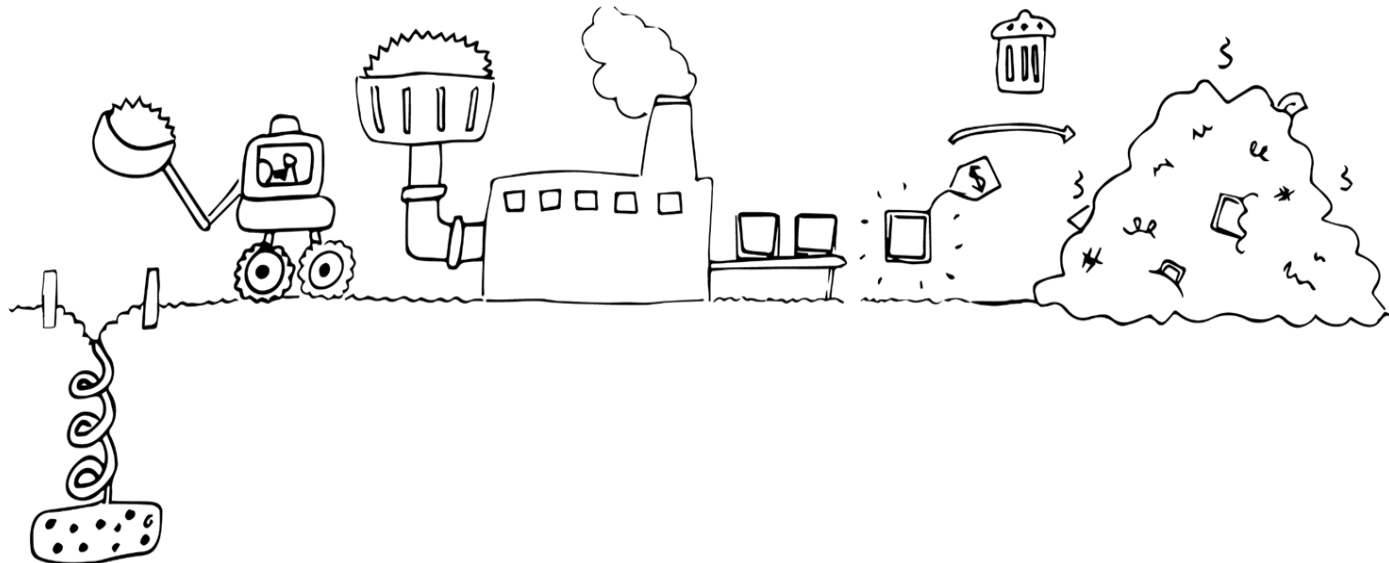


○ A COMBINATION OF RISKS AND OPPORTUNITY



A further 3 billion middle -class consumers will enter the market by 2030 fueling demand ...

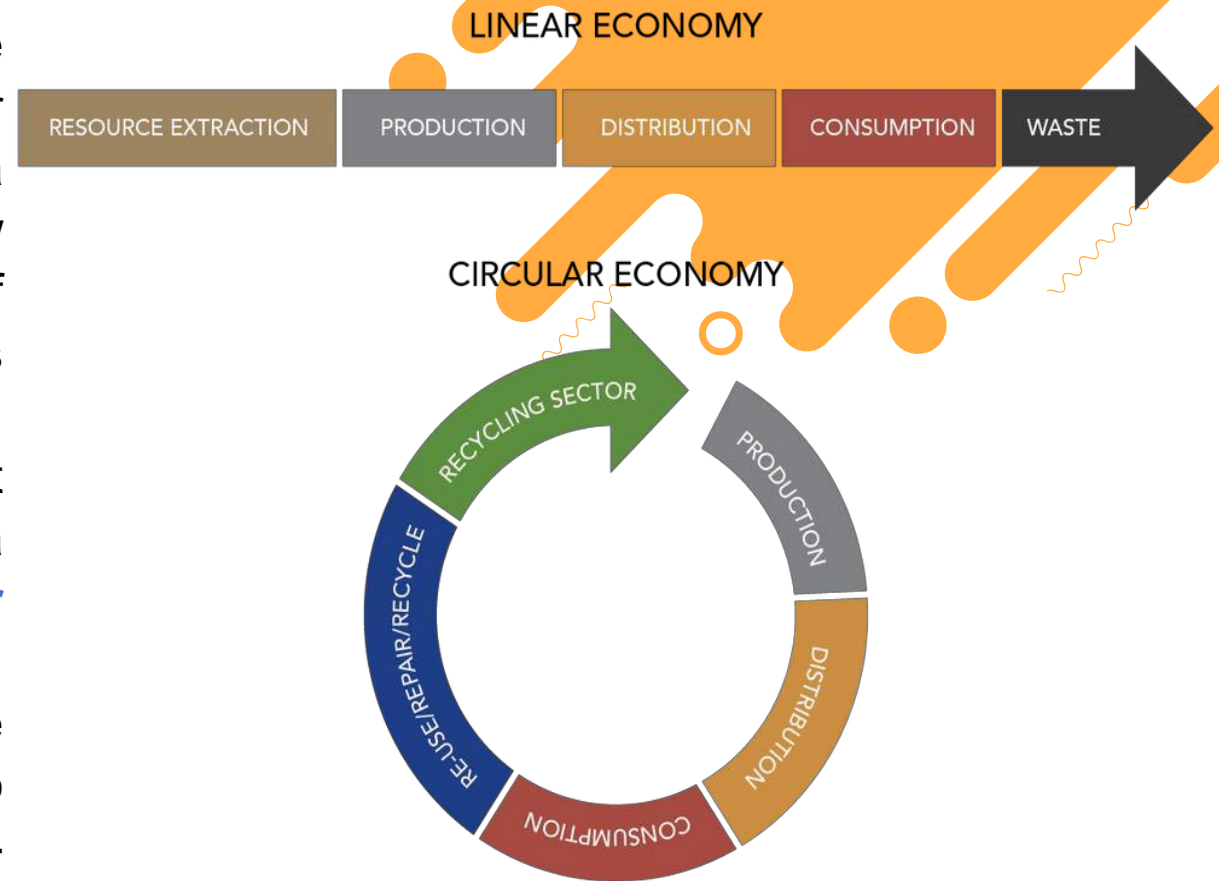
○ TODAY'S TAKE-MAKE-DISPOSE ECONOMY



- New products = new raw materials
- Recycling at "end-of-pipe"
- Waste is chronically high

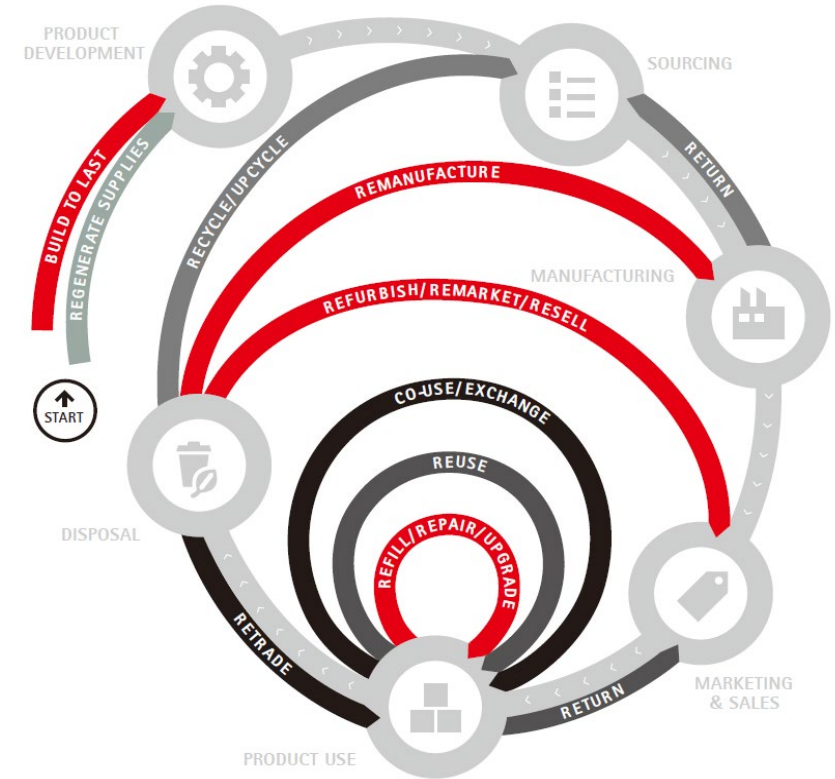
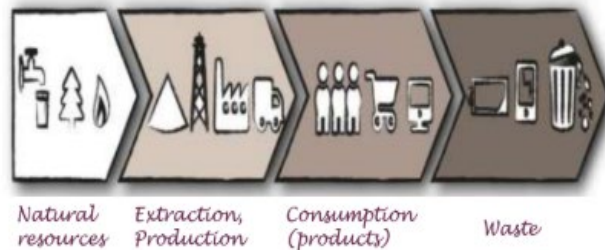
○ WHAT IS CIRCULAR ECONOMY?

CE started developing in the 1970s as an alternative economic model, challenging the traditional linear industrial economy. The **linear economy** is based on a linear process, optimised towards high throughput and low production costs relying on the abundant availability of raw materials at relatively low cost. The typical process consists of a series of steps – resource extraction, manufacturing, consuming and disposing of products at the end of their life cycle – which is also referred to as a **take-make-consume-dispose model**. The **circular economy**, on the other hand, aims at low environmental impact by minimising waste and excessive resource use by turning goods at the end of their lifespan into resources for others through re-use, re-manufacture, re-cycle, waste reduction and other practices. In other words, CE **is restorative by design and intention**.



○ CIRCULAR ECONOMY

- An approach to combat environmental challenges and promote sustainable development
- Opposite to linear economy
- 3R's principle : Reduction, Reuse, Recycle



○ FOCUSING ON...

INCLUDING

- a. **Efficient use of natural resources**
- b. **Reduce waste generation**
- c. **Sustainable technology in consumption
and production**

Environmental Pillar



○ CE in EU

Bottom-up approach from civil society, NGOs, etc.



○ CE in Japan

Top-down approach by “command and control”

CIRCULAR ECONOMY in EU



Biological cycle

Technical cycle

Source: EMF

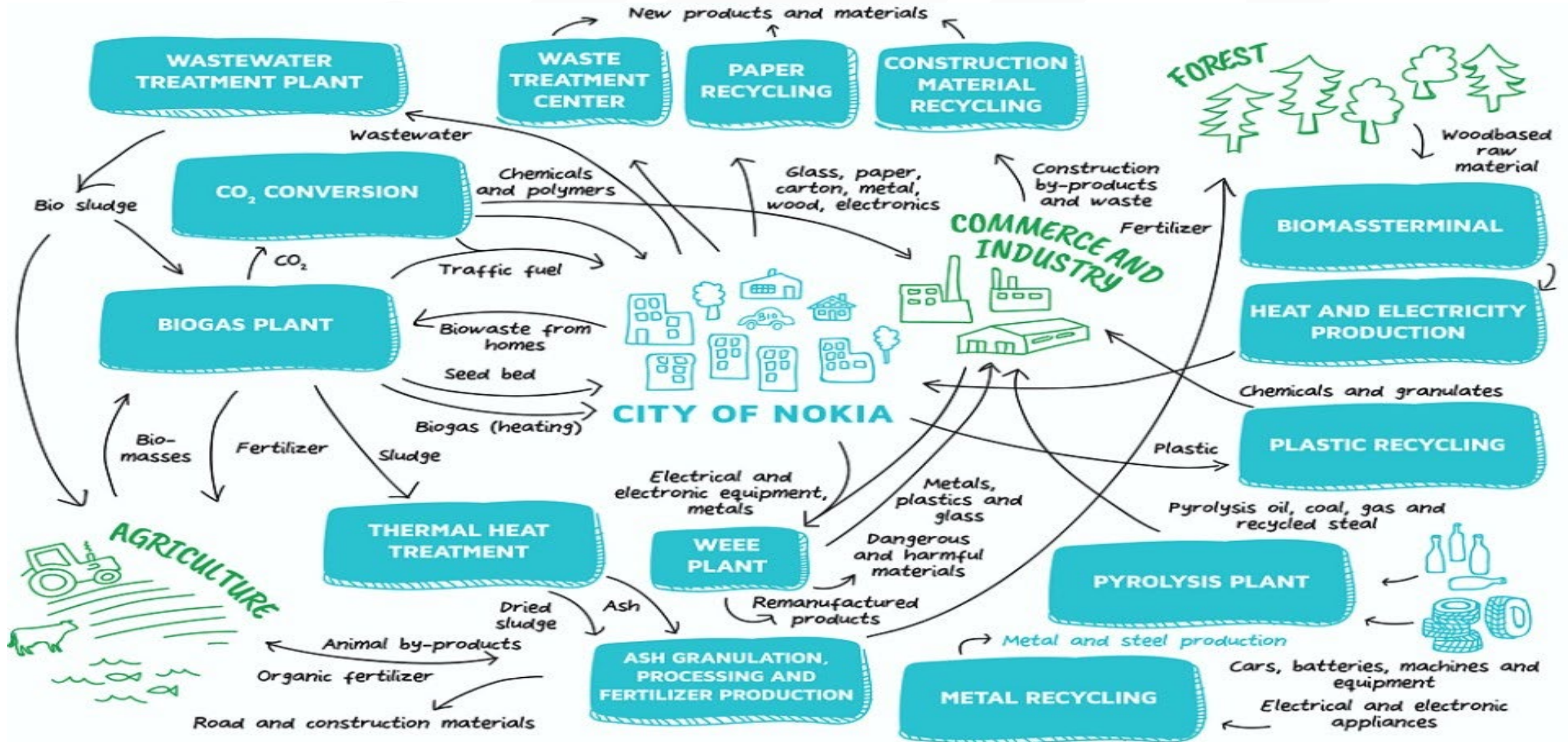
-A common EU target for recycling 65% of municipal waste by 2035;

-A common EU target for recycling 70% of packaging waste by 2030;

-There are also recycling targets for specific packaging materials:

- o Paper and cardboard: 85 %
- o Ferrous metals: 80 %
- o Aluminum: 60 %
- o Glass: 75 %
- o Plastic: 55 %
- o Wood: 30 %

Eco-Town in Japan



○ CE by Enterprises

Tetra Pak

Exports food packages to 170 countries



Trying to...

- Find more bio -friendly alternatives
- Reduce the price of bio -plastic

Coca-Cola



Trying to...

- Make 100% recyclable bottle by 2030

H&M



Trying to...

- Produce clothes by coastal wastes

○ BUSINESS & POLICY



Global Partners

Close collaboration of the Foundation with its Global Partners Google, Cisco, Kingfisher,

Philips, Renault, Intesa Sanpaolo, H&M, Unilever and Nike.

Goal: Demonstrate circular solutions at scale.



CE100 (international and local networks)

innovation platform bringing together leading corporations, emerging in Global innovators, governments & cities, SMEs, and academic institutions, working both internationally (CE100) and regionally (CE100 Brazil and CE100 USA).

Goal: Build capacity, share knowledge and best practices, and develop cross company, cross -sector, pre -competitive collaboration initiatives.



Project Mainstream

A World Economic Forum hosted, multi-industry initiative in collaboration with the Ellen MacArthur Foundation and supported by McKinsey & Co.

Goal: Unlock the stalemates that individual organisations cannot resolve.

THE ELLEN MACARTHUR FOUNDATION

1 INSIGHT & ANALYSIS

Providing robust evidence about the benefits of the circular economy transition



2 EDUCATION & TRAINING

Inspiring learners to re-think the future through the circular economy framework



3 BUSINESS & POLICY

Catalysing circular activities across the global economy



PROJECT MAINSTREAM:

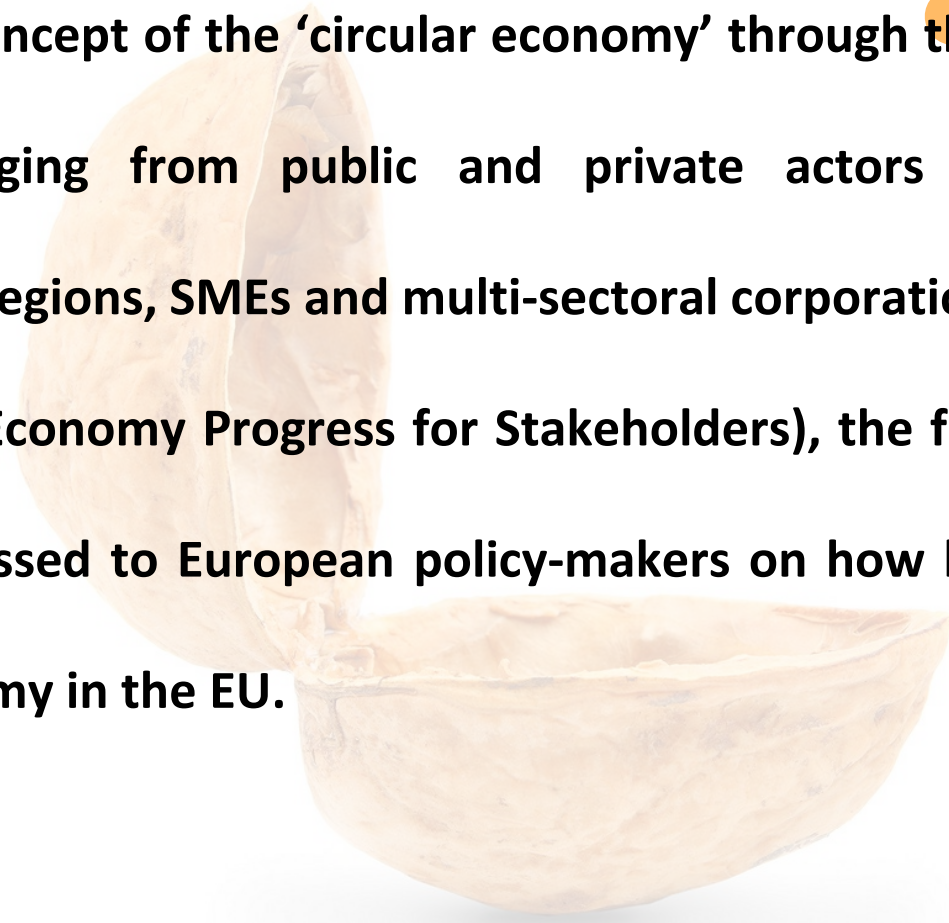
4 COMMUNICATIONS & PUBLISHING

Developing the conceptual framework and celebrating best practice

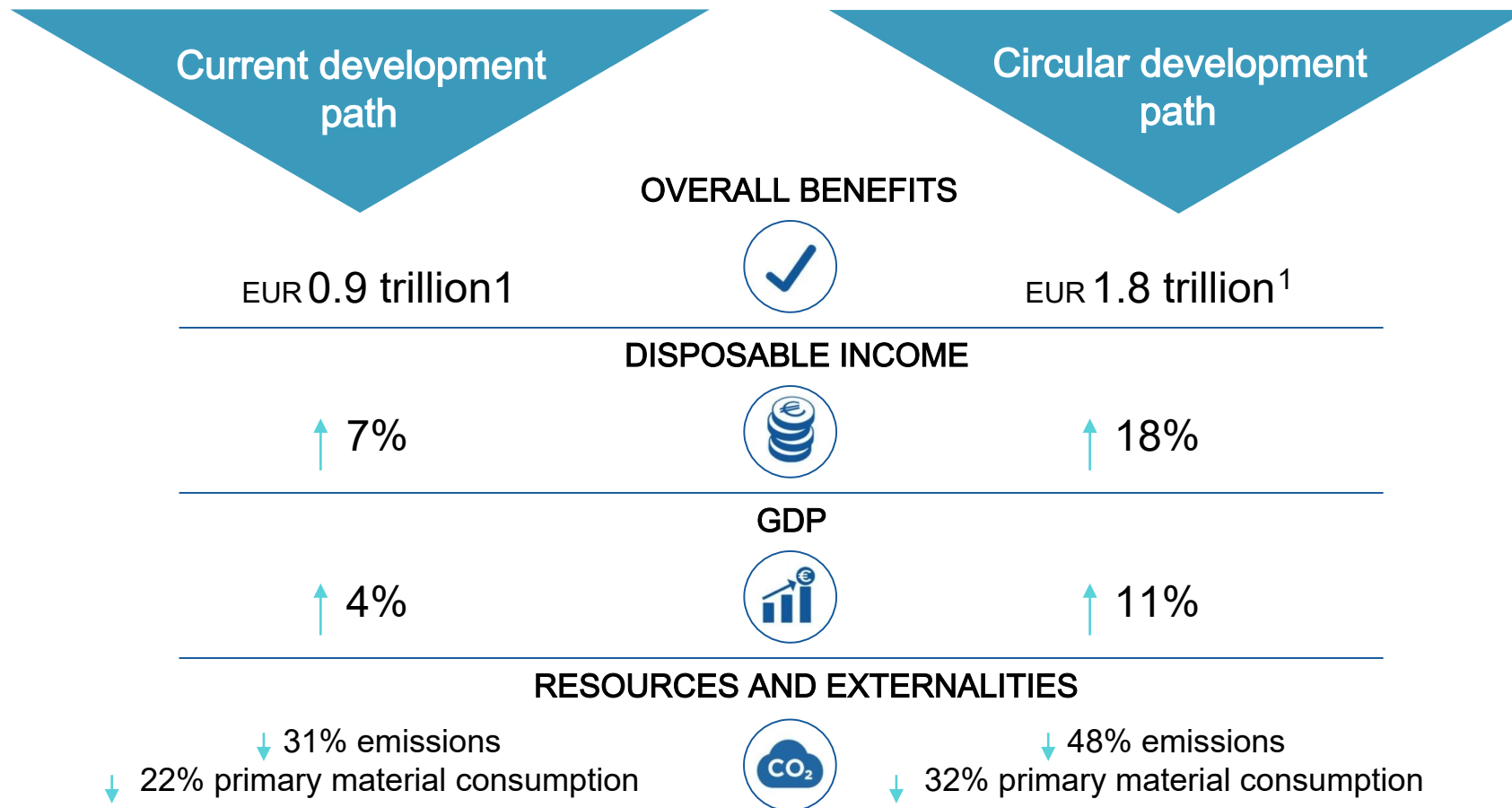


CEPS Framework in a nutshell

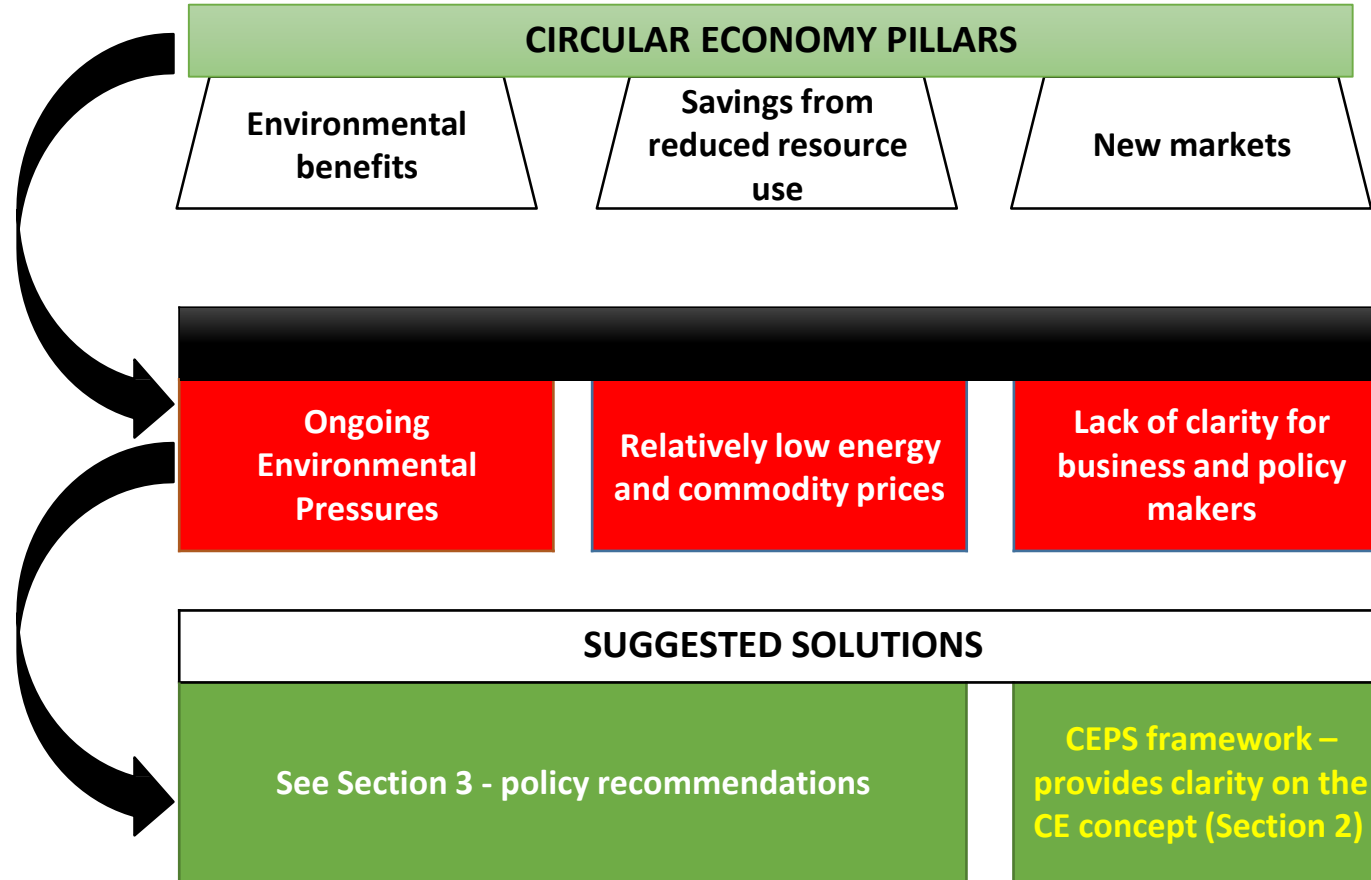
- We aim to rethink the concept of the 'circular economy' through the prism of its relevance to its many stakeholders, ranging from public and private actors and mature and emerging industries to cities and regions, SMEs and multi-sectoral corporations.
- CEPS (short for Circular Economy Progress for Stakeholders), the framework is used to develop recommendations addressed to European policy-makers on how best to support the transition towards a circular economy in the EU.



THE COMPELLING BUSINESS RATIONALE



Circular Economy - pillars, challenges and solutions



Policy Recommendations



General Policy Recommendations

- **Streamlining the links between the circular economy and the collaborative economy (the CEPS framework provides an overview of these links and guidelines for addressing them with policies)**
- **Incorporation of the CEPS framework in forthcoming circular economy legislative initiatives, as called for in the European Commission's**

Circular Economy Action Plan:

- **Plastics Directive**
- **Energy Union Initiatives on Research and Innovation Strategy and waste to energy framework**
- **Numerous legislative initiatives on the circular economy beyond 2016**

Financing the circular economy



- **Providing better access to public financing**
- **Incorporating circular economy aspects into cohesion funds requirements**
- **Adopting SME-specific policy measures**

Strengthening the three pillars of the circular economy

ENVIRONMENT	COST SAVINGS	NEW MARKETS
<ul style="list-style-type: none">• Introducing mandatory or voluntary resource use targets• Introducing circularity indicators• Introducing circular economy labelling – recyclability, re-manufacturability and reusability of products	<ul style="list-style-type: none">• Shifting taxation from labor to natural resources	<ul style="list-style-type: none">• Creating partnerships between different types of stakeholders• Considering the whole life cycle of products and services for public procurement

Limitations

- **Thermodynamic Limits**
- **Spatial and Temporal System Boundary Limitations**
- **Limits Posed by Physical Economic Growth**
- **Limits Posed by Physical Economic Growth: Rebound Effect, Jevon's Paradox and the Boomerang Effect**
- **Intra-organizational VS. Inter-organizational Strategies and Management**
- **Definition of Physical Flows**



OUR STANCE

Government

- 1) Enforceable laws on private firm
- 2) Capacity building
- 3) Knowledge transfer
- 4) Policies on CE
- 5) Awareness programs
- 6) Providing subsidies on CE products





○ YOUTH PARTICIPATION

- Minimalism
- Use of public transport
- Be Vegetarian
- Avoid palm oil products
- Avoid carbon offset flights
- Plant at least 3 trees on your every birthday
- Recycling

○ RETHINKING VALUE CREATION

1

Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows.

2

Optimise resource yields by circulating products, components, and materials at the highest utility at all times in both technical and biological cycles.

3

Foster system effectiveness by revealing and designing out negative externalities.

Recommendations

- 1-Be Critical thinkers
- 2- Be Change Makers
- 3- Be Innovators
- 4- Be communicators
- 5- Be leaders
- 6- Eco- friendly campaign



○ CONCLUSION

- **One of the reasons is the complexity of the circular-economy concept, which eventually will affect all sectors of the economy. Policy-making based on political, thematic or sectoral ‘silos’ will not be effective for fostering this transition.**
- **The CEPS Framework allows for a standardized approach to policy-making for the circular economy and for creating synergies between various building blocks and stakeholders. The incorporation of the CEPS Framework into EU policy would thus allow the world to better exploit the opportunities offered by the circular economy.**



○ CONCLUSION

- **On the basis of the CEPS framework, we also propose to strengthen the three ‘pillars’ of the circular economy:**
 - 1) environmental benefits**
 - 2) cost savings from reduced natural resource needs**
 - 3) additional economic benefits of new markets.**
- **We suggest that the implementation of the CEPS framework and of the policy recommendations associated with these three pillars will help to fully integrate circular economy principles into the European economy.**

