



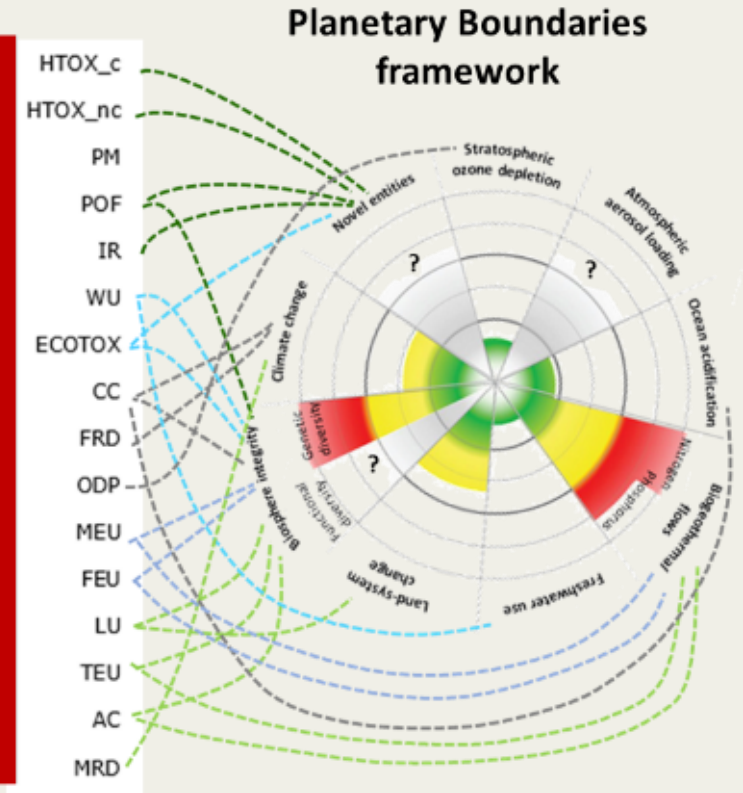
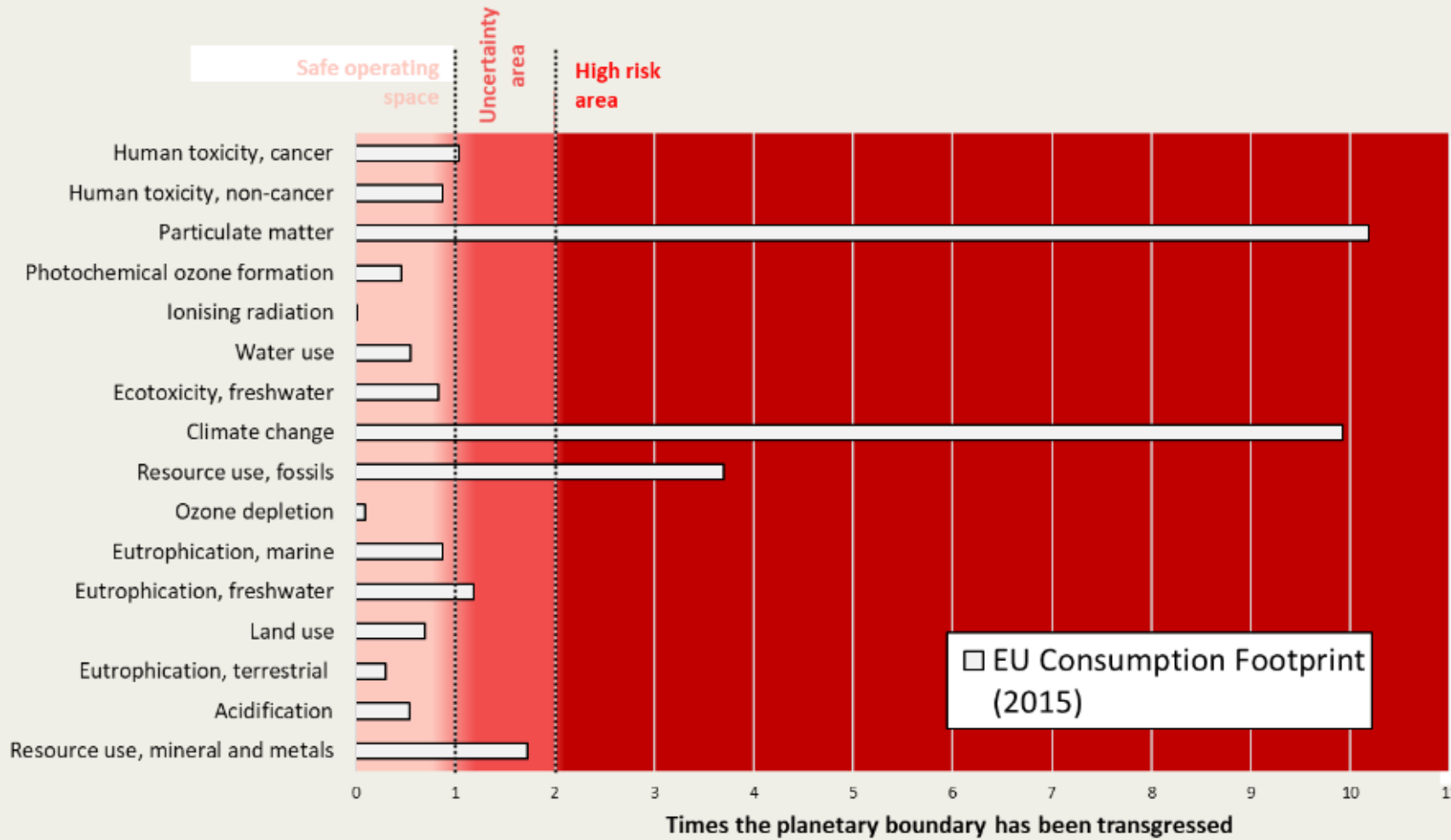
European Social Partners' project on Circular Economy Final conference

Dr. Laurent Zibell, PhD

Brussels (BE)
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EU consumption per capita exceeds planetary boundaries



The greatest part of this impact is generated during production

The non-use phases represent:

- **50 to 60%** of the impact on **climate change** - CC of EU consumption (according to the modelling used)
- **93 to 96%** of the impact on resource use - minerals and metals - MRD
- **65 to 75%** of the impact on particulate matter - PM
- **35 to 60%** of the impact on the resource use, fossils - FRD

Source: JRC (2019) - Sala S., Benini L., Beylot A., Castellani V., Cerutti A., Corrado S., Crenna E., Diaconu E., Sanyé-Mengual E., Secchi M., Sinkko T., Pant R (2019) Consumption and Consumer Footprint: methodology and results. Indicators and Assessment of the environmental impact of EU consumption, Fig. 58.



What is Circular Economy?

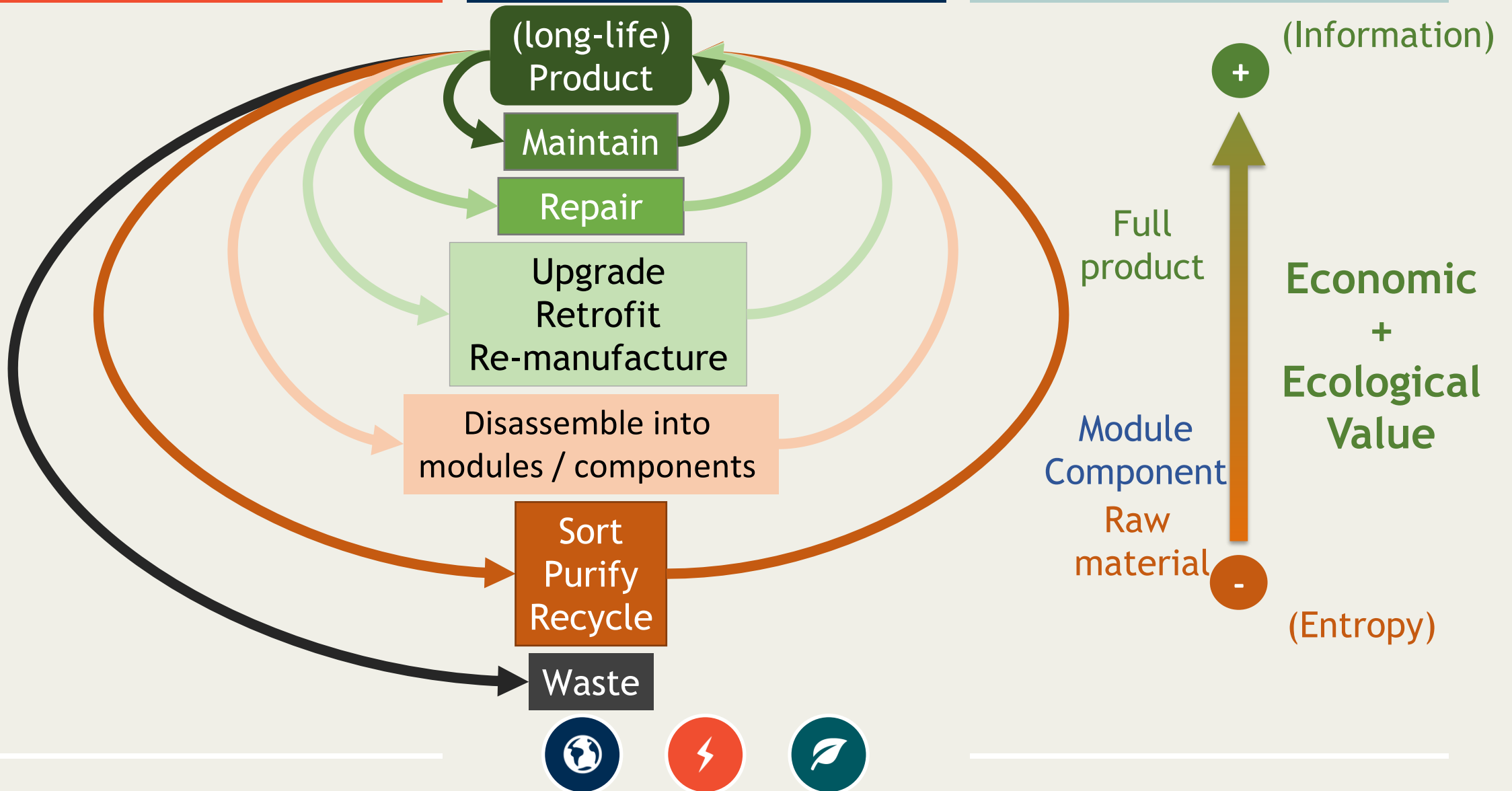
- European Commission “Circular Economy Action Plan” of 2015 definition:

*An economy “where the value of products, materials and resources is **maintained** in the economy **for as long as possible**, and the generation of waste minimised”.*

- A central component of the EU’s efforts to develop a sustainable, low carbon, resource efficient and competitive economy



Circular Economy: illustration



- **Longer lifetime of products via:**
 - Better design and manufacture
 - More maintenance, repair, upgrade, re-use
- **More intense use via:**
 - Sharing
 - Lending or leasing models
- **Less use of primary basic metals, materials or chemicals via:**
 - Use of **sustainably-sourced renewable** materials
 - Use of **recycled** materials:
 - Recyclable products and materials
 - Avoidance of hazardous substances
 - Higher-quality sorting
 - Increased recycling



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Combined
effect: less
impact



“Closing the loop - An EU action plan for the Circular Economy” COM(2015) 614 final

- Requirements on products: **durability, repairability, recyclability**
- **Extended Producer Responsibility** at end of life
- Guidance on and promotion of **industrial symbiosis**
- Research on **premature obsolescence**
- Circular Economy criteria in **Green Public Procurement**
- More ambitious **recycling targets** for municipal waste
- **Quality standards** for secondary raw materials
- Reflection on the handling of **legacy hazardous substances** in products being recycled
- **Plastics**: ban of some single-use items
- Food waste, Critical Raw Materials, construction and demolition waste, bio-based materials
- **Research & Innovation**



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Setting the
stage



Circular Economy Action Plan - For a cleaner and more competitive Europe COM/2020/98 final

- **Sustainable Product Initiative** on Eco-design + product passport + support for circular business models
- **Right to repair**, Substantiating green claims
- Mandatory **Green Public Procurement** criteria
- Circularity criteria in revision of **Industrial Emissions Directive**
- **Priority application** to ICT, batteries, packaging, plastics, textiles, construction, food, water, nutrients
- Higher targets for recycling of **municipal waste**
- Requirements for **recycled material content** in products
- Restrictions to **extra-EU export of waste**



Circular Economy Action Plan 2020

Circular Economy Action Plan - For a cleaner and more competitive Europe
COM/2020/98 final

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Increasing the
ambition





Circular Economy indicators



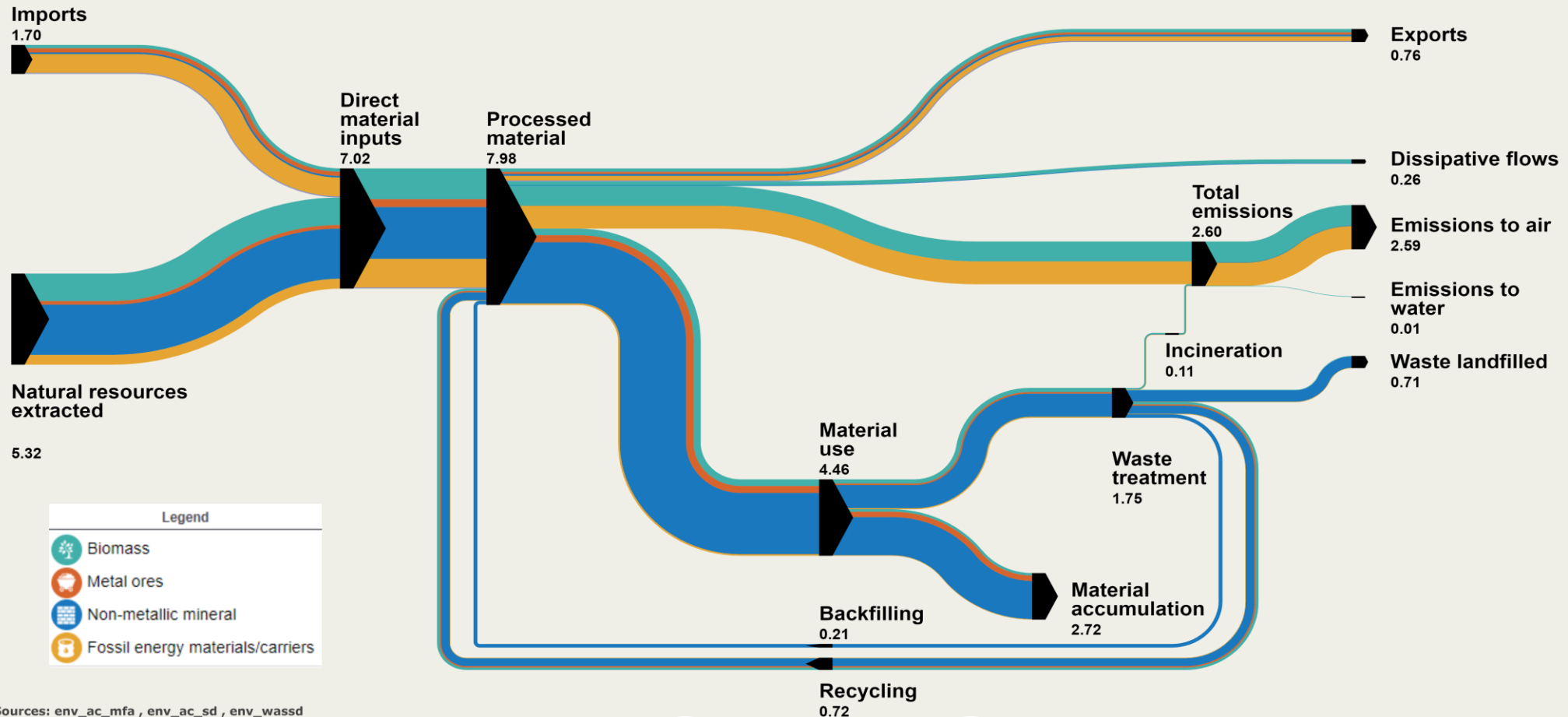
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Circular Economy indicators

Material flow diagrams 2017 for

European Union (27 countries)

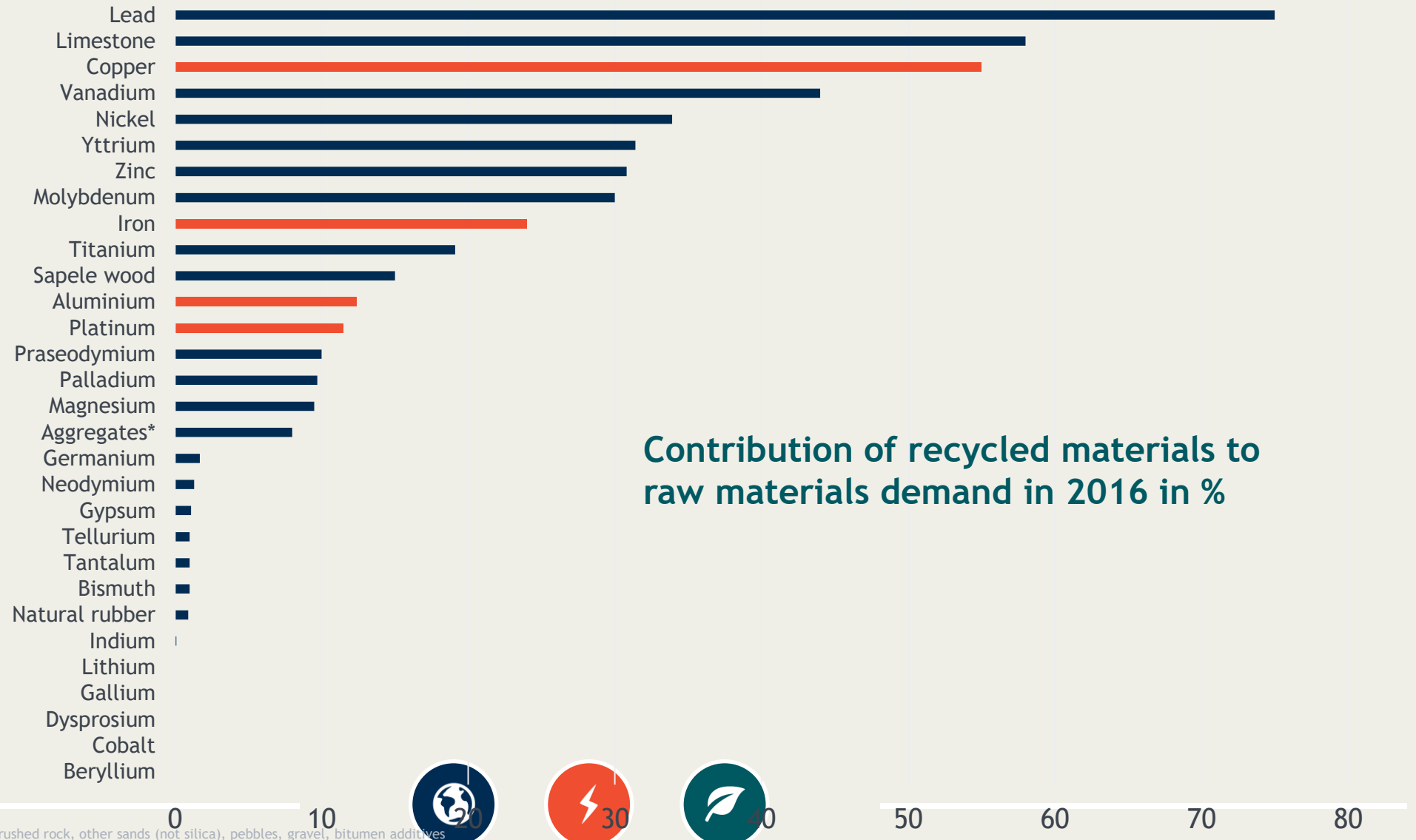
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Sources: env_ac_mfa , env_ac_sd , env_wassd



Circular Economy indicators





Impacts on employment volume and competitive position



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- Convergent quantitative studies + interviews
- Limited, but **positive**, overall impact: + 250 to 700 thousand jobs for EU (0-2% increase in employment)
- Sector contrasts:
 - **Positive:** waste management, repair, maintenance, recycling, re-manufacturing, re-use
 - **Negative:** extractive; primary basic metals, materials & chemicals; some durable goods
 - **Uncertainties:** retail, construction, textile & clothing
- Depends upon policy, technological innovation, and the capacity of sectors to adapt and capitalize on new opportunities



- Interviews
- **Positive effects on non-cost competitiveness**
 - Better match with customer expectations and societal trends
 - Higher-quality products
 - Anticipation of regulatory change
 - Higher attractiveness of sectors for young + qualified workers
- **Potential issues on cost competitiveness**
 - Higher price of secondary materials vs. primary
 - Need to ensure a level-playing field vs. less sustainable companies
 - Investment needs (esp. for SMEs)





Impacts on qualifications & skills, forms & organisation of work, health & safety



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- Convergent studies + interviews
- **Higher requirements:**
 - Work on irregular input, adaptability (using recycled materials);
 - Reliability, quality (in design + manufacturing for longer-life products);
 - Use of complex equipment (automated sorting + recycling);
- Increase in **mid-level** qualifications (repair, maintenance)



- **Work relationships: concerns expressed by workers**
 - Change in economic activity towards circularity => potential change in **applicable collective agreement**
 - Request by workers: to be discussed in **Social Dialogue**
- **Effects of Circular Economy very dependent on company**
 - **Concerns:**
 - “sharing” economy
 - informal economy
 - **Start-up model** of new, innovative businesses: less familiar with social dialogue
 - “Advanced” companies for Circular Economy: also on social dimension



- Convergent studies + interviews
- Handling of **legacy hazardous substances**
- Waste management
- Usage of secondary raw materials (e.g. dust from recovered construction materials)





Case studies



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- SME
- eco-friendly manufacturing of kraft-paper and tissues
- Transition since 1993 towards low-impact processes
- Increase in work-force. Internalisation of packaging
- Transition at pace compatible with training of workers





- Major car manufacturer
- Conversion of Flins plant (FR) into a “RE-Factory” dedicated to Circular Economy: retrofit, re-energy (batteries), re-start (innovation), recycle
- Large changes in qualifications
- Large training needs
- Disagreements among social partners on inclusiveness of the process





- SME, start-up
- Design, sub-contracting and supply of jeans under a “rent and lease” model. Price comparable to high-end brand, accepted by eco-conscious clients (niche market)
- Choice of sub-contractor (Tunisia) with good social and health & safety credentials
- Removes harmful processes (sand-blasting) and usage of worker-friendly technologies (dry indigo, laser treatment)





- Large multinational
- Chemical recycling of plastics
- Pilot project led with whole value chain
- Same process used for primary (naphtha) and secondary (pyrolysis oil) raw material
- Very low impact on labour





- Large multinational
- Recycling of plaster plates
- Complete value chain created for collection + processing of used products (170 collection sites in FR)
- Increased competitiveness (sustainability labels for buildings)
- Evolution in skills needed (less controlled raw material)
- Health & safety issue being monitored: dust





- Service of General Interest
- Waste management
- Composting, recycling, sale of second-hand items
- Rise in skills anticipated for recovery, reuse and repair





General conclusion



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The transition to Circular Economy is there - and deserves attention

- Very strong environmental and climate rationale
- Emerging phenomenon, some front-runners
- Employment consequences currently foreseen as moderate, and positive
- Differentiation per sector
- Increases in skills & qualification
- Possible changes in applicable collective agreement
- Need for anticipation of change + social dialogue!





Thank you for your attention, please contact us for more information



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