



European Social Partners' project on Circular
Economy
Cluster seminar
Spain - Finland - Netherlands - Slovenia

Dr. Laurent Zibell, PhD

on-line
28 January 2021

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What is Circular Economy?

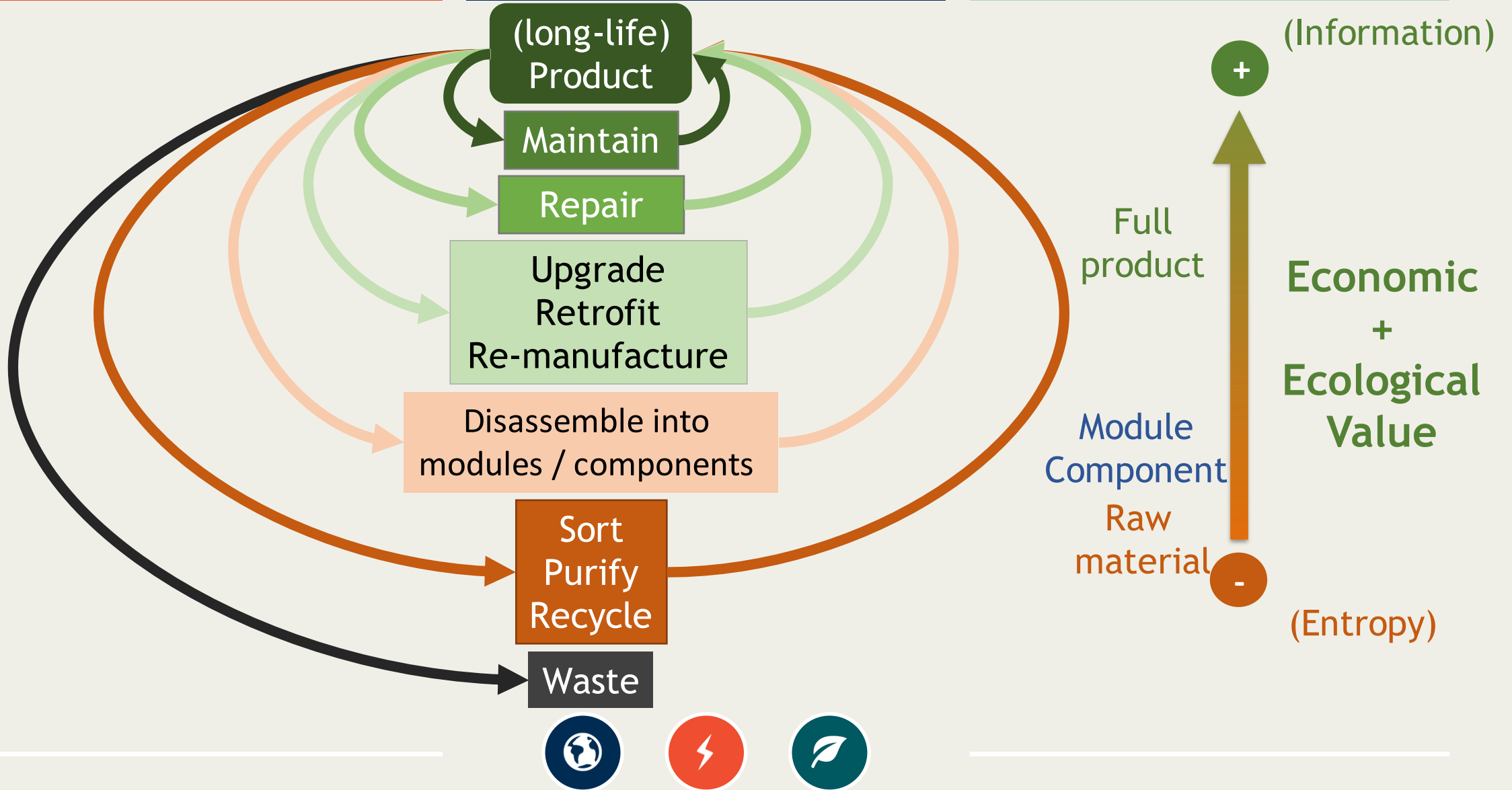
- European Commission “Circular Economy Action Plan” of 2015 definition:

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



Transition to a Circular Economy

- **Product design & manufacturing for:**
 - Longer lifetimes;
 - More maintenance, repair, upgrade, re-use;
 - Less frequent replacement.
- • **More intense use via:**
 - Sharing;
 - Lending or leasing models;
 - Fewer units to serve the same market.
- • **Higher proportion in products of:**
 - **Recycled** materials;
 - **Sustainably-sourced renewable** materials;
 - Less primary, non-renewable raw materials.
- • **More waste being recycled or prepared for re-use.**



“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**.



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Increasing the
ambition





Circular Economy indicators



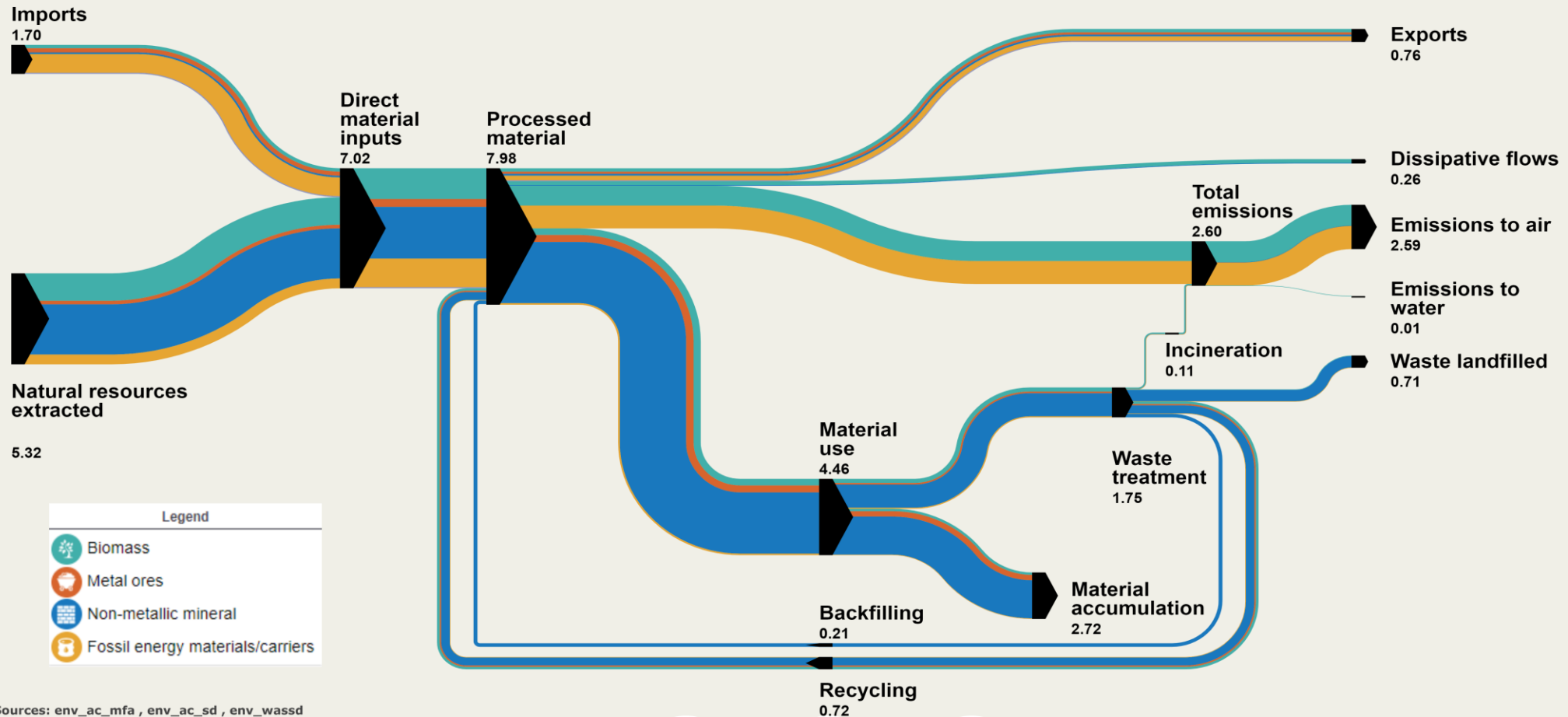
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Circular Economy indicators

Material flow diagrams 2017 for

European Union (27 countries)

Gigatonnes



Sources: env_ac_mfa , env_ac_sd , env_wassd

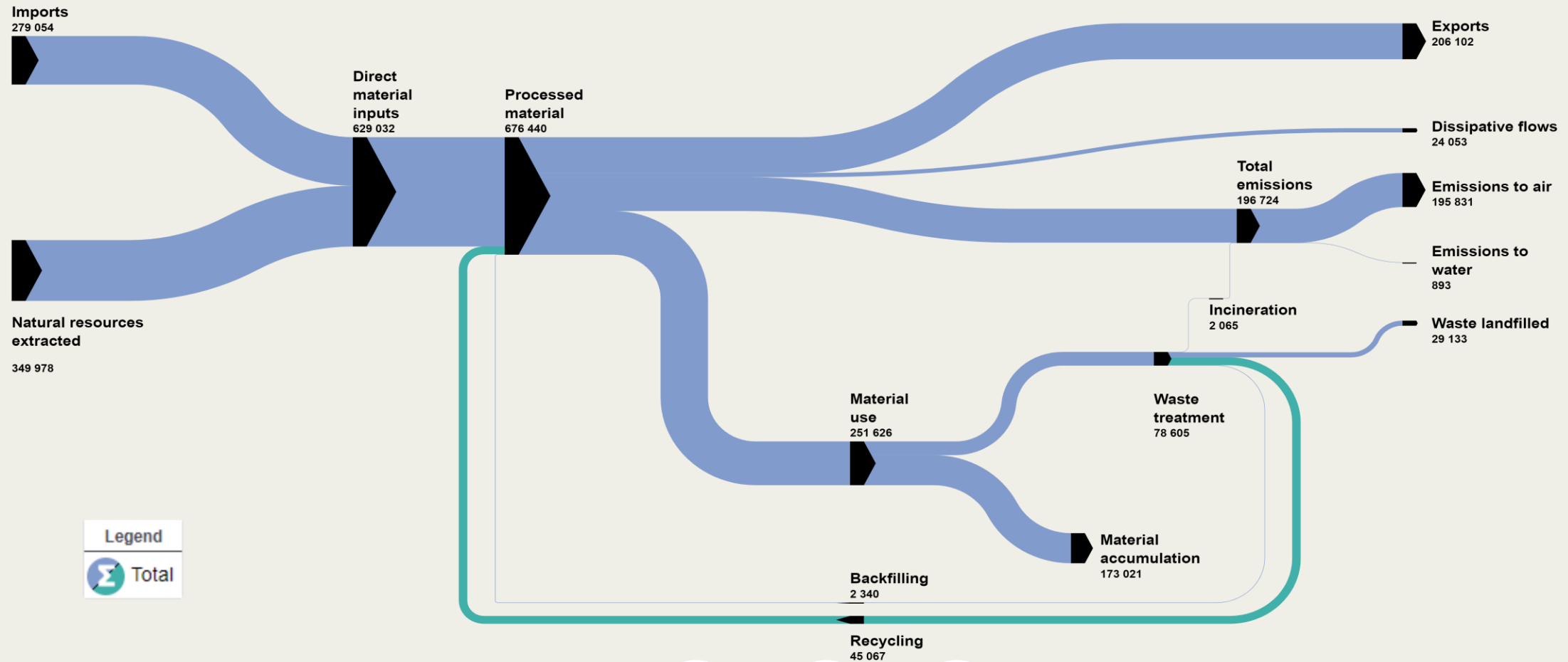


Circular Economy indicators


Material flow diagrams 2018 for

Spain

Thousand tonnes



Legend

 Total

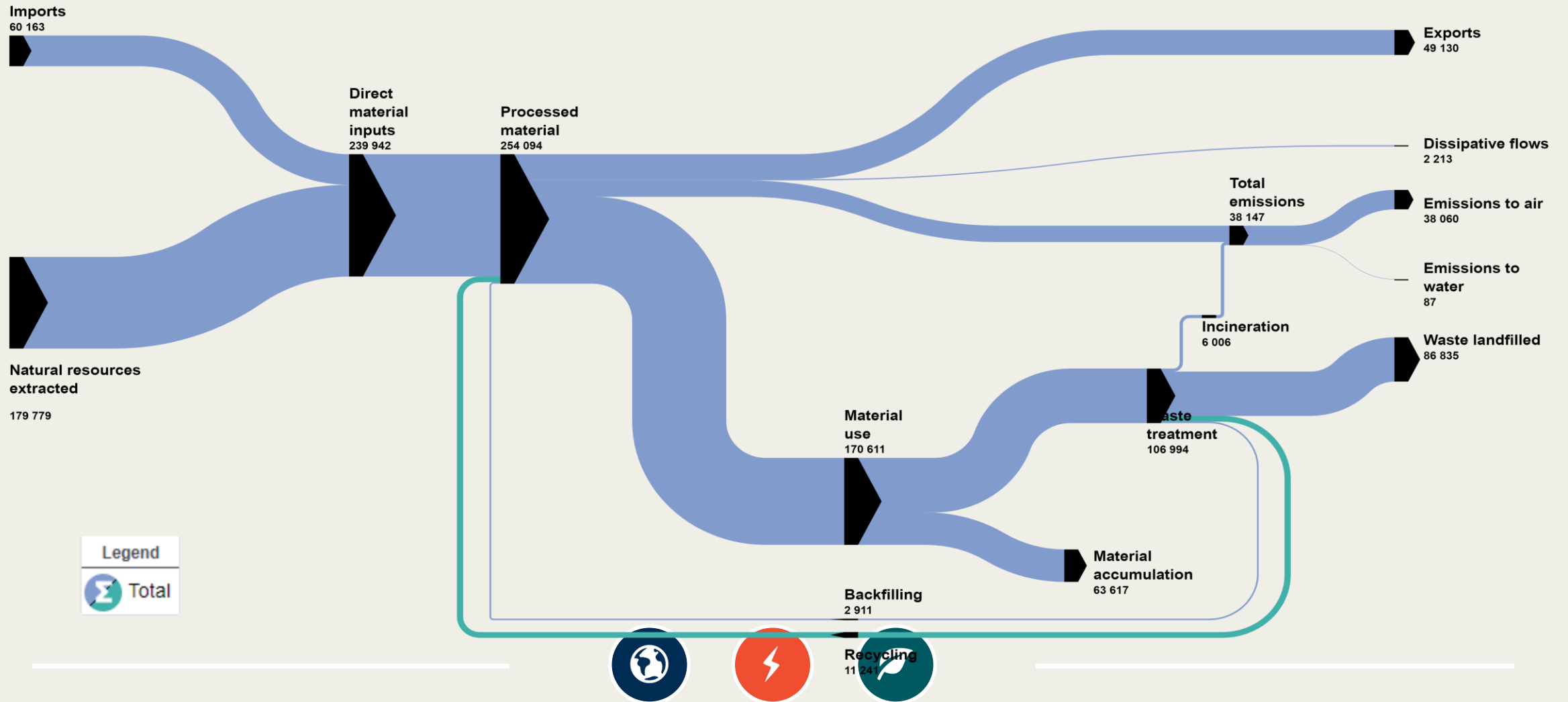


Circular Economy indicators

Material flow diagrams 2018 for

Finland

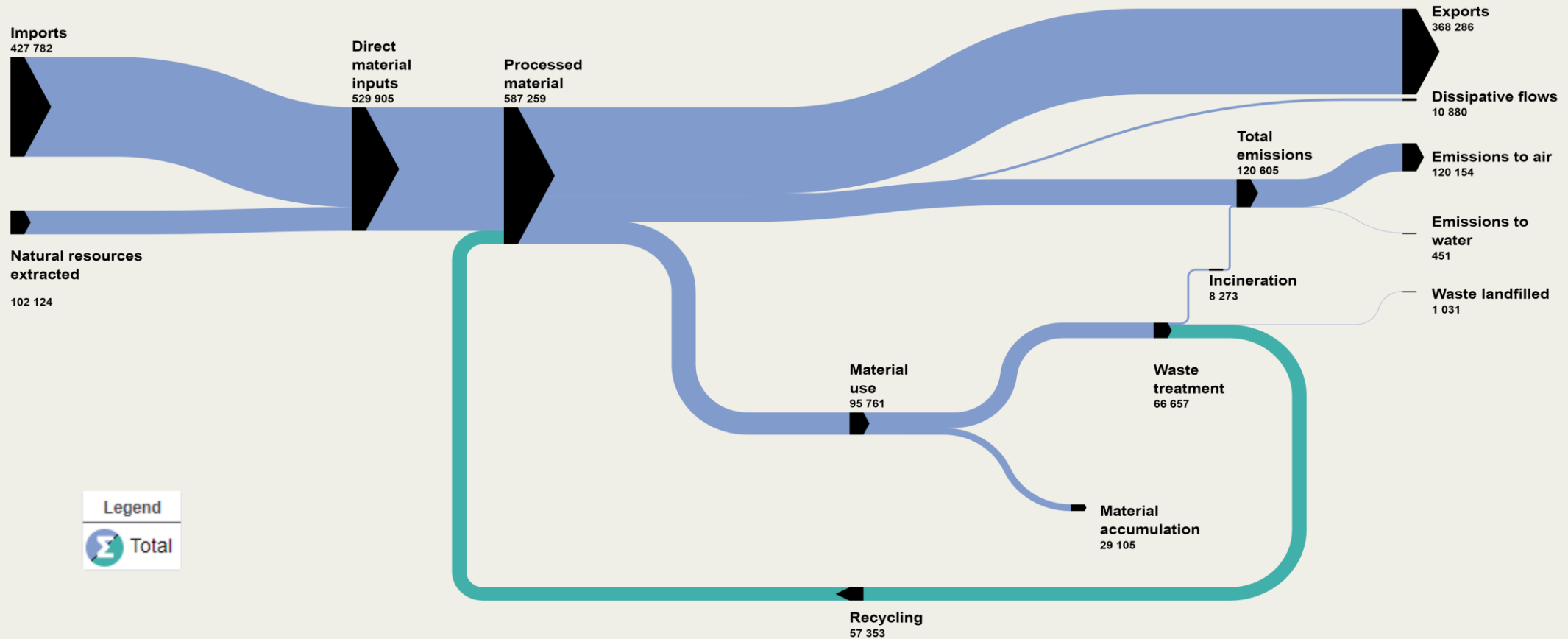
Thousand tonnes




Circular Economy indicators

Material flow diagrams 2018 for

Netherlands
Thousand tonnes



Legend

 Total

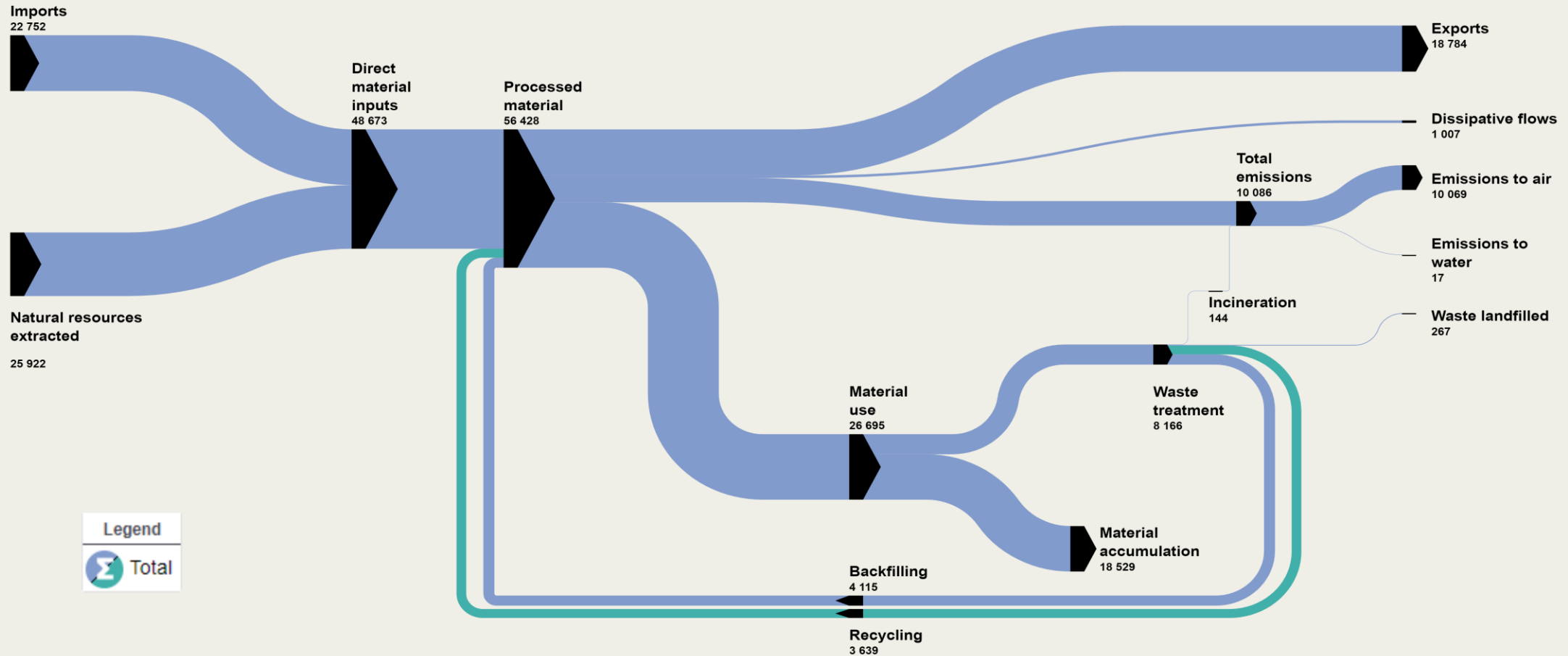
Sources: env_ac_mfa , env_ac_sd , env_wassd




Circular Economy indicators

Material flow diagrams 2018 for

Slovenia
Thousand tonnes



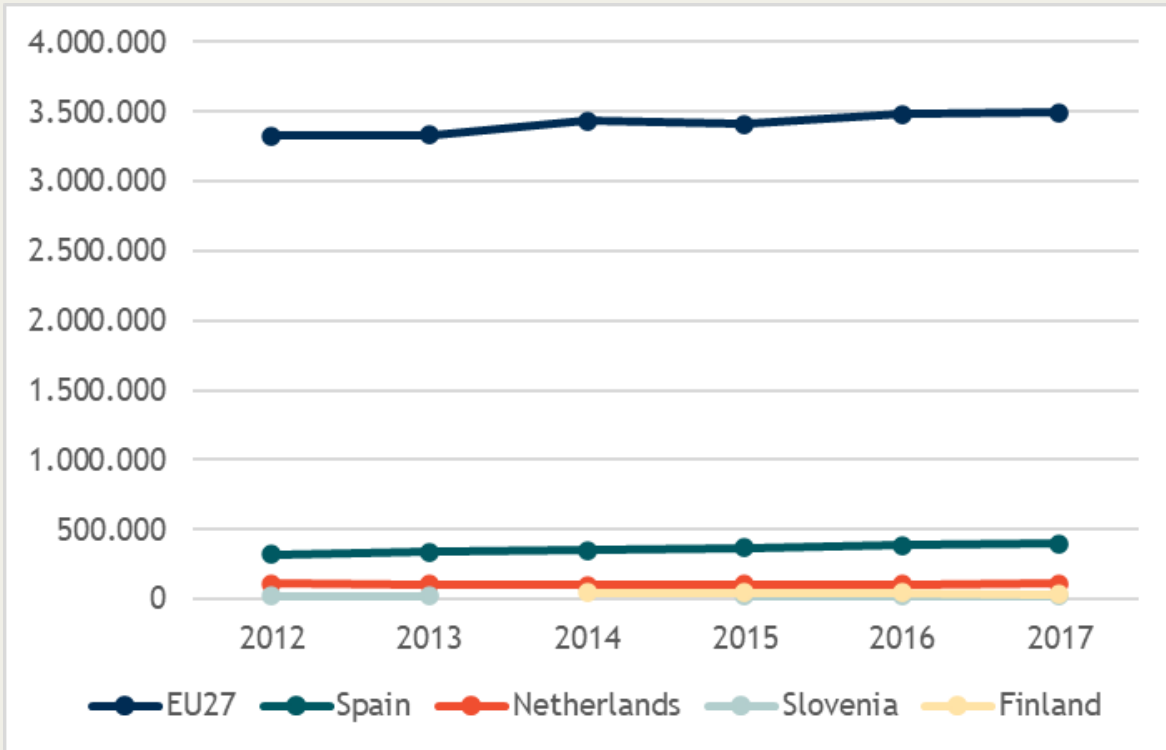
Legend

 Total

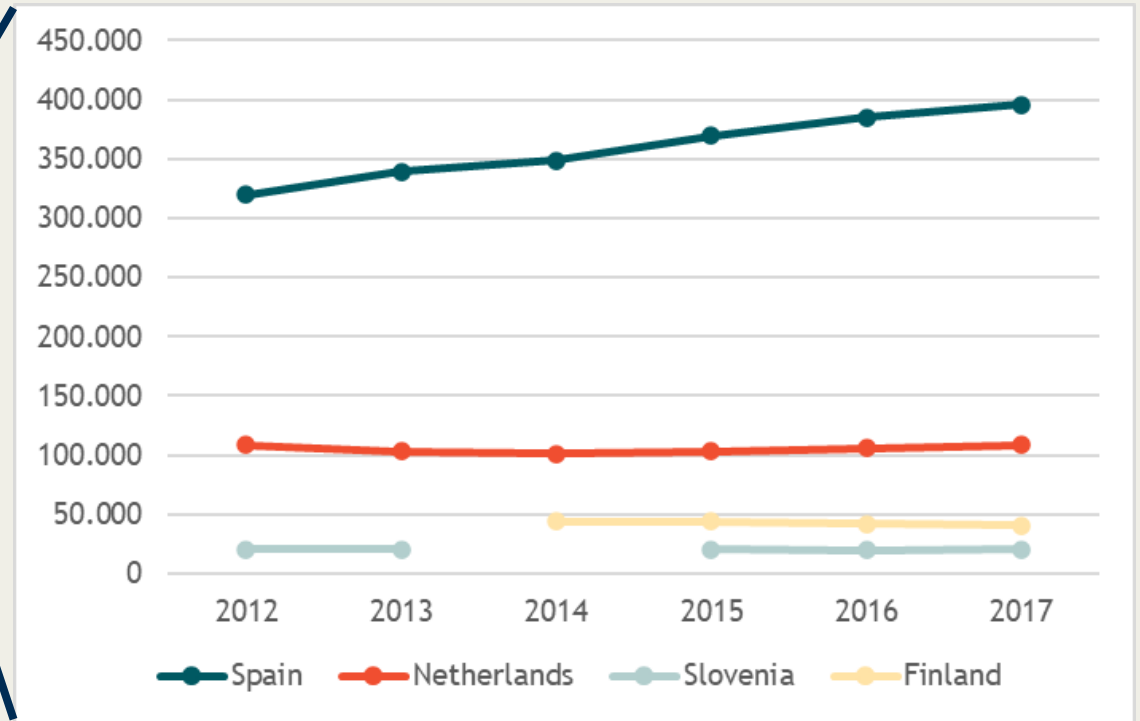
Sources: env_ac_mfa , env_ac_sd , env_wassd



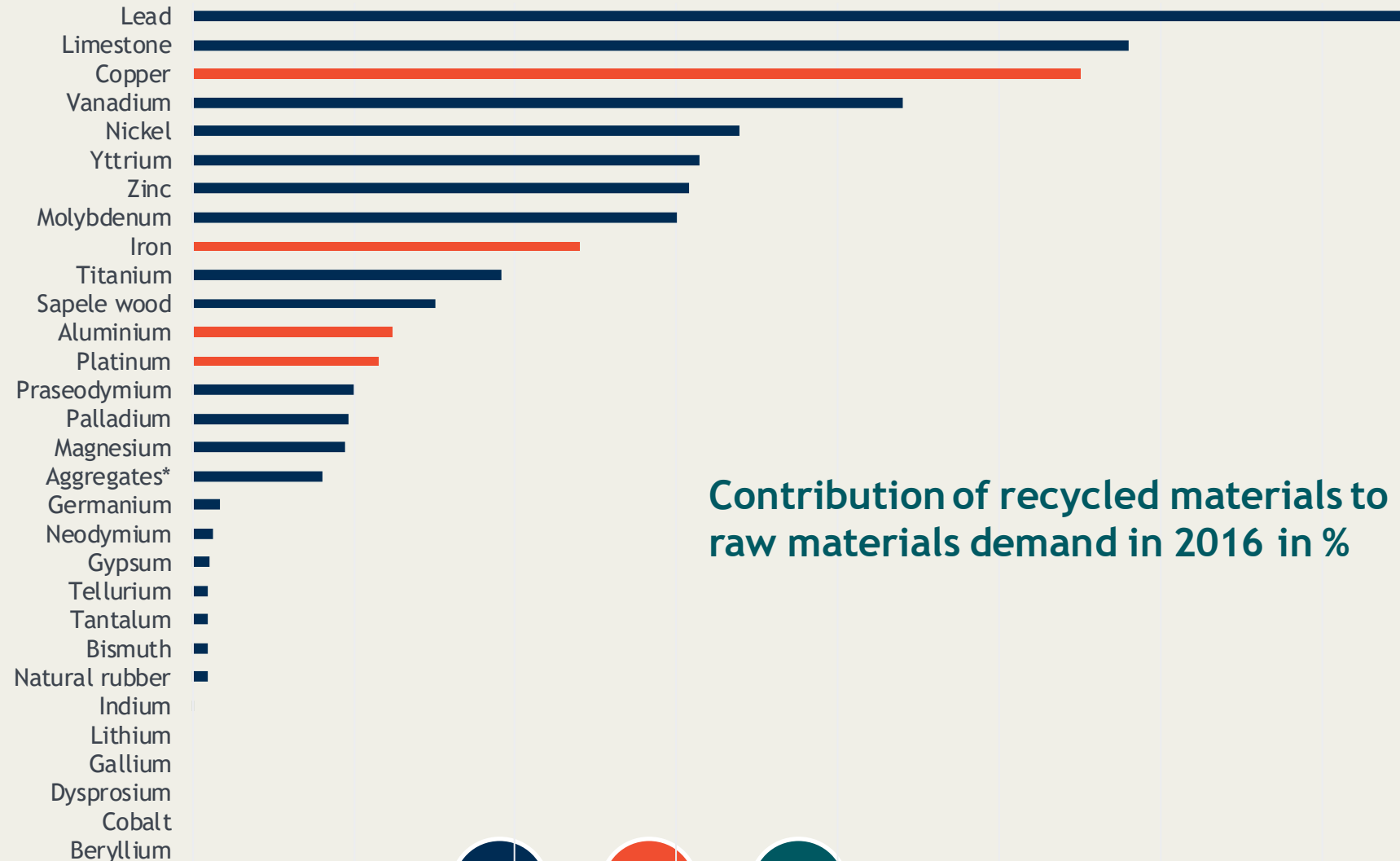
Circular Economy indicators



Number of persons employed in circular economy sectors



Circular Economy indicators



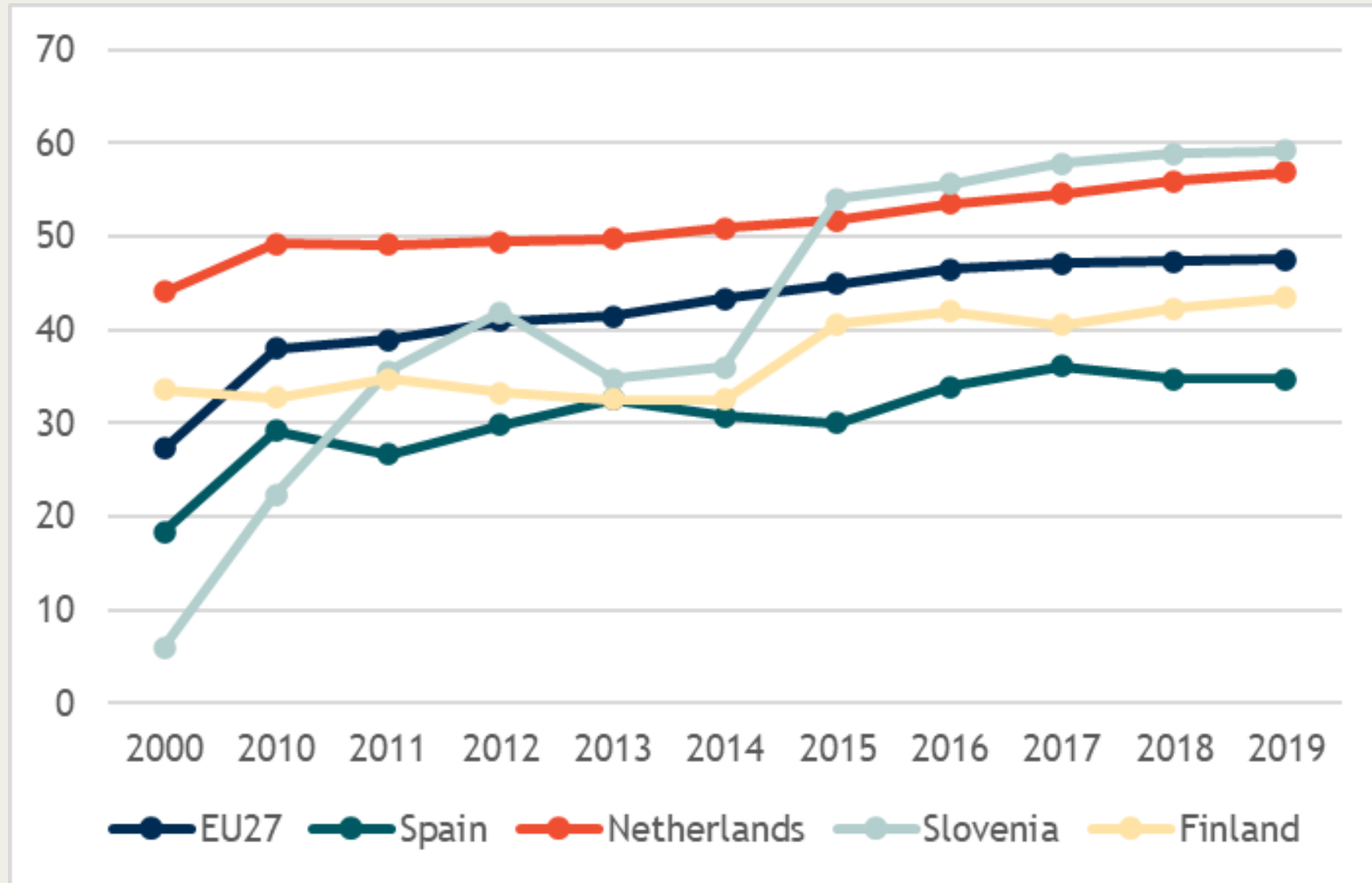
Contribution of recycled materials to raw materials demand in 2016 in %

*crushed rock, other sands (not silica), pebbles, gravel, bitumen additives



0 10 20 30 40 50 60 70 80

Circular Economy indicators



Recycling rate of
municipal waste in %



Impacts on employment volume and competitive position



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- **Employment volume: Convergent quantitative studies**
 - Limited, but **positive**, overall impact: + 250 to 700 thousand jobs for EU;
 - **Sector contrasts:**
 - Positive: repair, maintenance, recycling, re-manufacturing;
 - Negative: extractive, construction, durable goods, [retail].
- **Competitive position: Interviews**
 - **Positive** impact at company level
 - Higher **attractiveness** of sectors for young + qualified workers
 - Circular Economy meets expectations of **customers** (construction materials, chemicals, basic metals)
 - Circular Economy meets expectations of **qualified workers** (waste management)
 - Circular Economy requirements can create **market opportunities** for EU manufacturers (batteries)





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



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- **Qualifications & skills: Convergent studies + interviews**
 - **Higher requirements:**
 - Work on irregular input, adaptability (using recycled materials);
 - Reliability, quality (in design + manufacturing for longer-life products);
 - 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



- **Forms & organisation of work: limited information**
 - Concerns for specific cases (sharing economy; informal economy)
 - Start-up model of new businesses
 - “Advanced” companies for Circular Economy: also on social dimension
- **Health & safety: Convergent studies + interviews**
 - Handling of legacy hazardous substances;
 - Waste management;
 - Usage of secondary raw materials (e.g. dust from recovered construction materials)





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



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