Comparison of EGSS and structural business statistics data on measuring circular economy

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Defining circular economy business

• Circular economy is a comprehensive system change

• Defining is essential for measuring

• In Finland circular economy business is defined through activities that are pivotal from the perspective of a product or service life cycle

• Eight activities, which encompass a total of 18 indicators
Circular economy indicators in Finland

- First indicator set produced in 2020
- Updated in 2022 and 2023 with added indicators
- The goal was to produce indicators that demonstrate Finland’s progress towards the circular economy with an emphasis on a business perspective
- Indicators are primarily based on statistical data already collected for other purposes
- 18 indicators with time series from around 2010 onwards
Circular economy business indicators in Finland

3. Production

- Industry structure
- Pay level
- Education

Number, turnover and personnel of circular economy establishments

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<th>Year</th>
<th>Number of personnel</th>
<th>Number of establishments</th>
<th>Turnover (EUR million)</th>
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Circular economy business indicators in Finland

- Structural Business Statistics (SBS) serve as the data source
- Circular economy is defined through industries
- The Eurostat list of industries serves as the foundation, and the category of ‘Other circular economy industries’ has been added to include industries not originally in the Eurostat list
- Industry classification helps identify which industries fall under the circular economy
- Measuring all circular economy activities across the entire economy is challenging
- The data is compiled from establishment-specific information, covering enterprises where only part of their activity aligns with the circular economy

- Recycling
  - 381 Waste Collection
  - 383 Materials recovery
  - 4677 Wholesale of waste and scrap
  - 4779 Retail sale of second-hand goods in stores

- Repair and reuse
  - 331 Repair of fabricated metal products, machinery and equipment
  - 4520 Maintenance and repair of motor vehicles
  - 4540 Sale, maintenance and repair of motorcycles and related parts and accessories
  - 95 Repair of computers and personal and household goods

- Other circular economy industries
  - 771 Renting and leasing of motor vehicles
  - 772 Renting and leasing of personal and household goods
  - 773 Renting and leasing of other machinery, equipment and tangible goods
SBS as a data source

Positives:
• Finland has excellent data coverage in SBS
• Detailed data on an establishment level
• Covers product and service value chains
• Possibility for regional data

Negatives:
• Industry classification a good starting point but misses a lot of circular economy activity
EGSS and circular economy

• EGSS in Finland is calculated from national accounts’ economic figures

• To calculate CE from EGGS data, the following categories of Classification of Environmental Protection Activities and Expenditure (CEPA) and Classification of Resource Management Activities (CReMA) categories could be considered:

CEPA

• 02 Wastewater management
  • Mostly NACE 22: products related to wastewater management
• 03 Waste management
  • 381 Waste Collection
  • 382 Waste treatment and disposal
• 07 Protection against radiation
  • 382 Waste treatment and disposal

CReMA

• 11B Minimisation of the intake of forest resources
  • 16 Renovation of wooden packaging, pallets, etc. for reuse
• 13C Minimisation of the use of fossil energy as raw materials
  • Mostly NACE 22: products such as replacement bags for plastic bags and regenerative rubber
• 14 Management of minerals
  • Mostly NACE 24: iron made from recycled materials
  • 383 Materials recovery
Comparison of CE industries & products in EGSS and SBS

**EGSS**

- **Recycling**
  - 381 Waste Collection
  - 382 Waste treatment and disposal
  - 383 Materials recovery
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- **Products**
  - 08 Reuse of slag in construction activities
  - 13 Textile bags and sacks as replacements for plastic bags
  - 16 Renovation of wooden packaging, pallets, etc. for reuse
  - 17 Paper bags as replacements for plastic bags and paper made from recycled materials
  - 22 Products for water and wastewater management and products such as replacement bags for plastic bags and regenerative rubber
  - 24 Iron from recycled materials

**Circular economy business indicators (SBS)**

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CE output, value added and export based on EGSS data

- Figures are based on national accounts’ economic data
  - Chosen NACE industries and CEPA/CReMA categories are previously mentioned
  - Circular economy figures then follow trends in the general economy
• Largest industry by far is NACE 24 Manufacture of metals
  • Recycled metals
  • CReMA 14 consist mostly of recycled metals

• Second largest industry is NACE 38 Waste collection, treatment and materials recovery
  • CEPA 3 consist of only waste collection and management
NACE and CEPA/CReMA review

EGSS staff-year for circular economy by NACE

EGSS staff-year for circular economy by CEPA/CReMa
Differences between environmental goods and services and structural business statistics data

**EGSS data (based on national accounts data)**
- Share of EGSS is estimated by using expert assessments, internal statistics, information requests, websites
- Consistent with national accounts
- No regional data

**SBS data (based on tax data and enterprise surveys)**
- Data coverage in Finland is excellent
- Data compiled on LKAU level
- Possibility to cover enterprises where only part of their activity aligns with the circular economy
- Regional data

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Statistics Finland
Thank you!

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