

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

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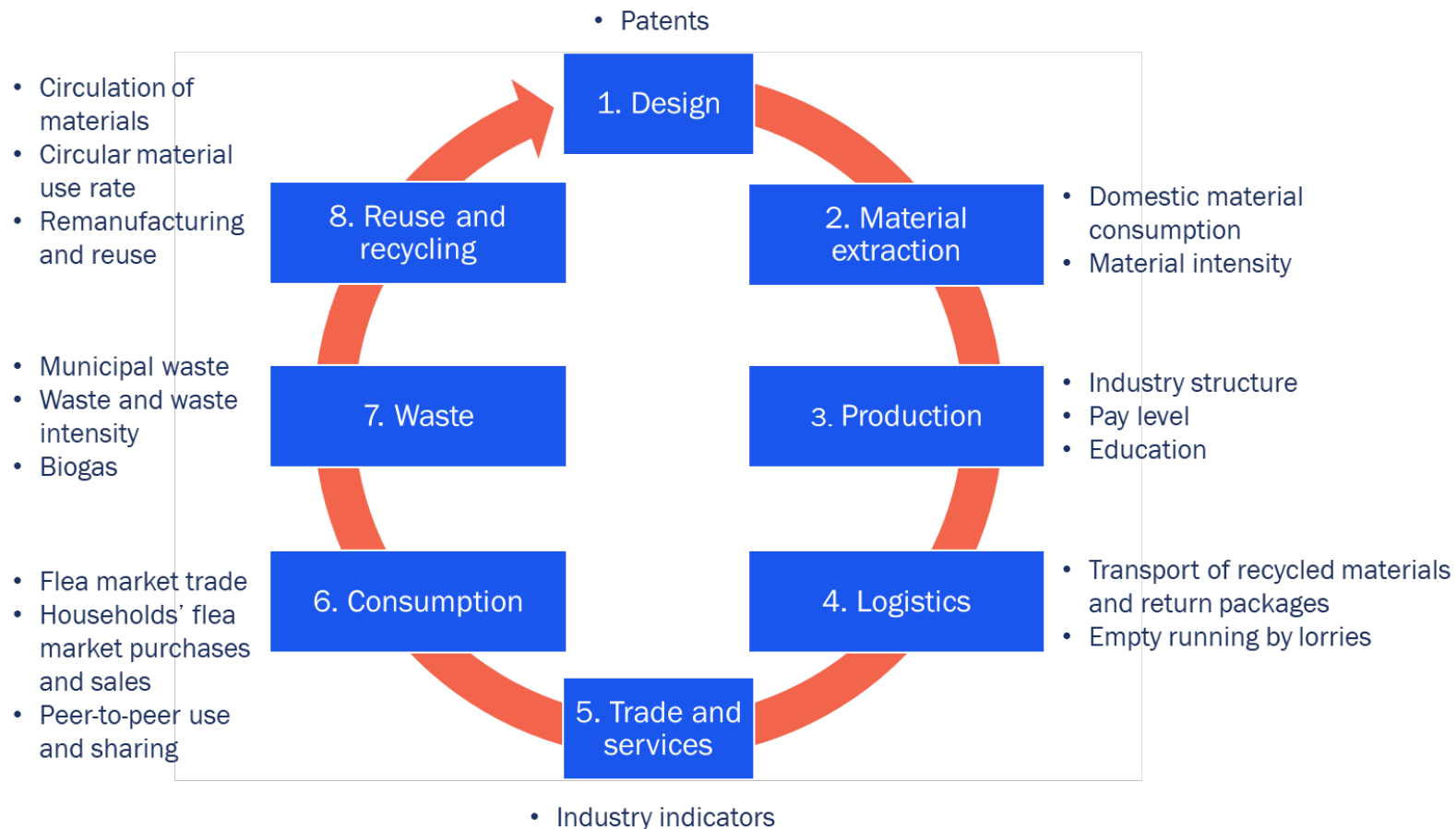
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# Defining circular economy business

- 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

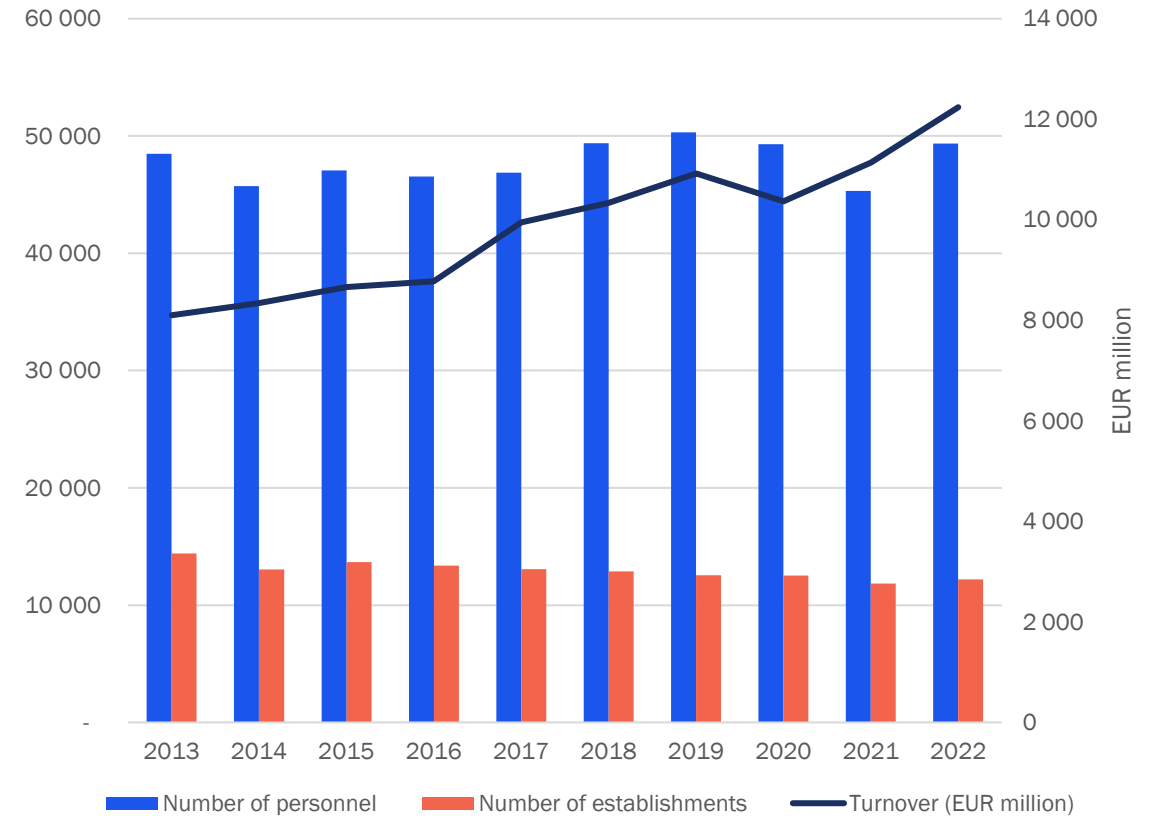
- First indicator set produced in 2020
- Updated in 2022 and 2023 with added indicators
- The goal was to produce indicators that demonstrate Finland's progress towards the circular economy with an emphasis on a business perspective
- Indicators are primarily based on statistical data already collected 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



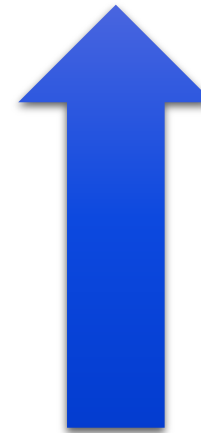
# Circular economy business indicators in Finland

- 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:

- 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

CEPA



- 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

CReMA





# Comparison of CE industries & products in EGSS and SBS

## EGSS

- **Recycling**

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

- **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)

- **Recycling**

- 381 Waste Collection
- 383 Materials recovery
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- **Repair and reuse**

- 331 Repair of fabricated metal products, machinery and equipment
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- **Other circular economy industries**

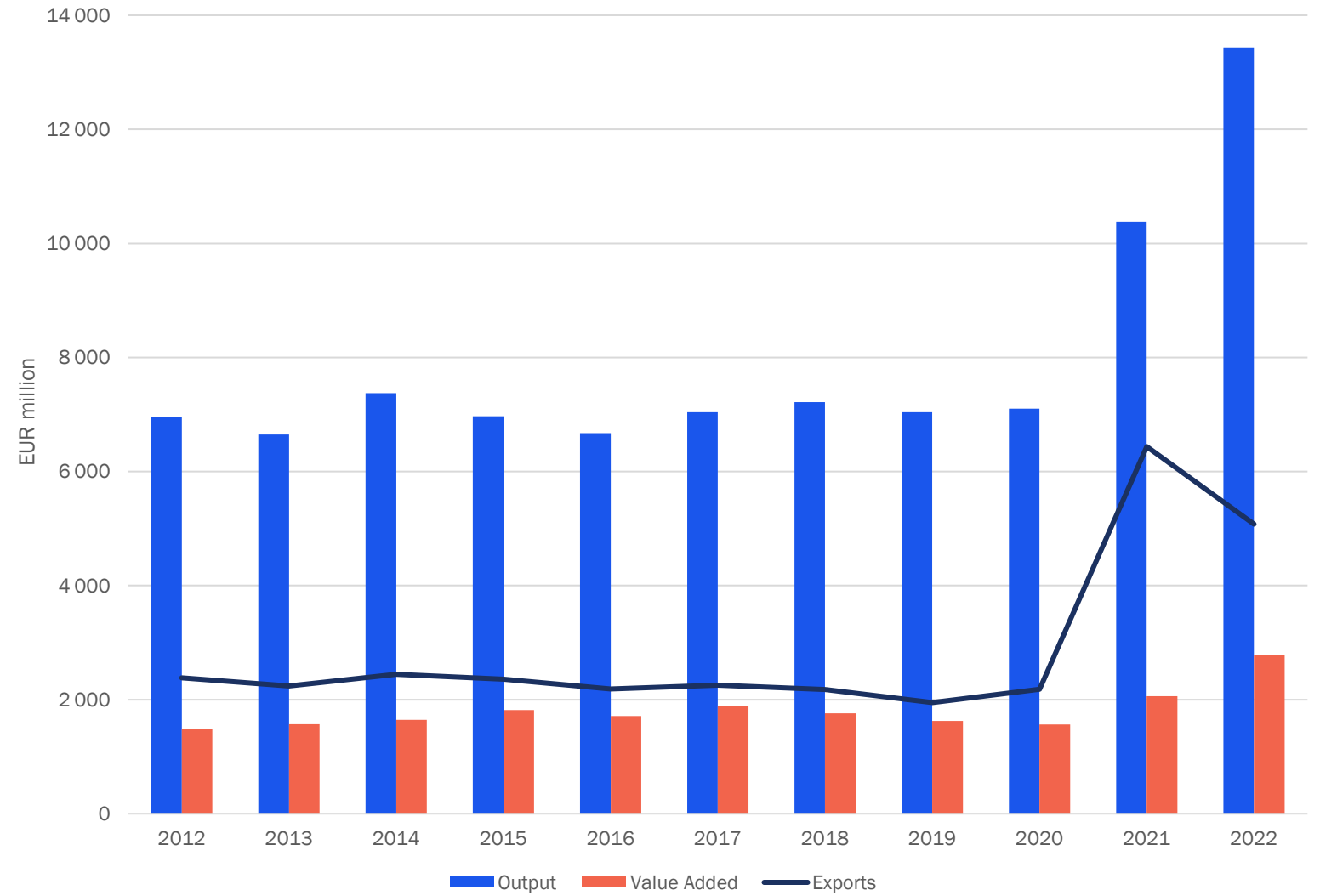
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# CE output, value added and export based on EGSS data

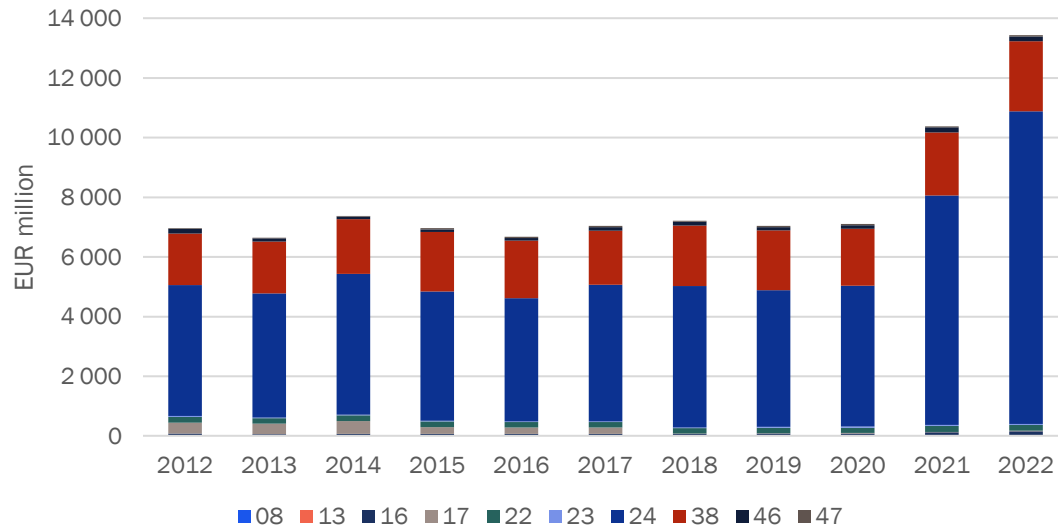
- Figures are based on national accounts' economic data
  - Chosen NACE industries and CEPA/CRema categories are previously mentioned
  - Circular economy figures then follow trends in the general economy

EGSS Output, value added and export of circular economy

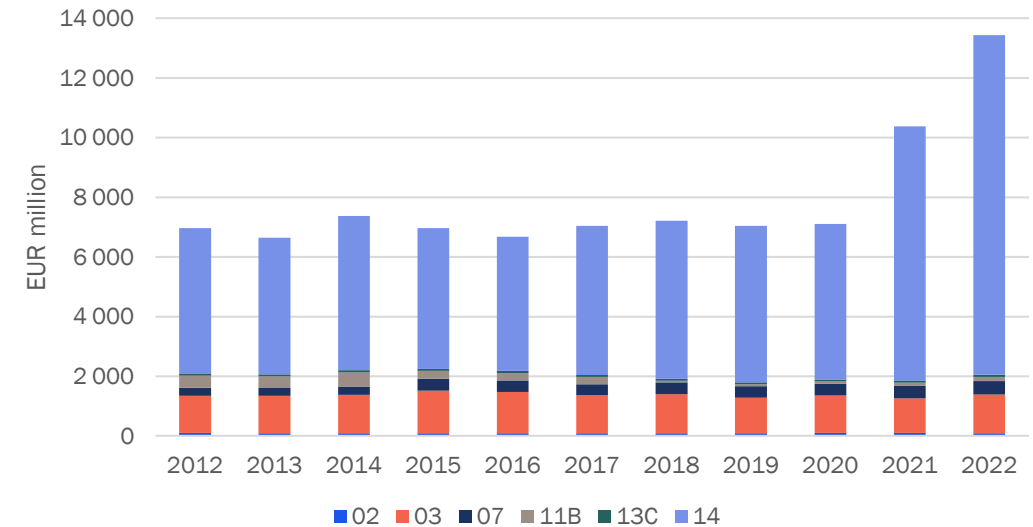


# NACE and CEPA/CRema review

EGSS output of circular economy by NACE



EGSS output of circular economy by CEPA/CRema

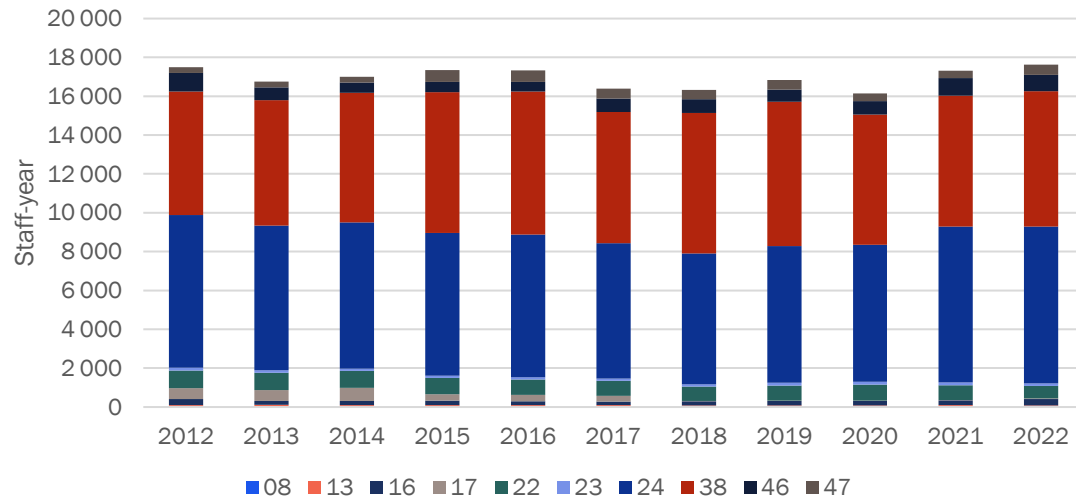


- Largest industry by far is NACE 24 Manufacture of metals
  - Recycled metals
  - CRema 14 consist mostly of recycled metals
- Second largest industry is NACE 38 Waste collection, treatment and materials recovery
  - CEPA 3 consist of only waste collection and management

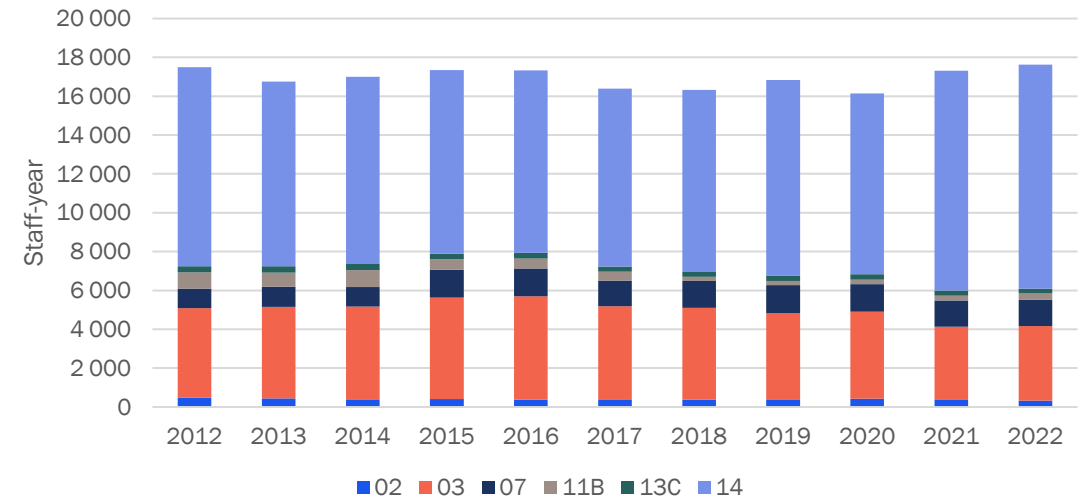


# NACE and CEPA/CRema review

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)

## SBS data (based on tax data and enterprise surveys)

Share of EGSS is estimated by using expert assessments, internal statistics, information requests, websites

No regional data

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

Consistent with national accounts

Regional data

# Thank you!

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