

## Environmental expenditures of industry in Finland

Study visit of Israeli Central Bureau of Statistics on  
Environmental accounting 25 – 27 August 2014

Eila Salomaa



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## Environmental expenditures of industry in Finland

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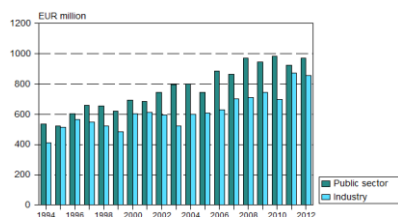
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## Investment and operating expenditure for environmental protection in Finland



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Definition - SBS / Eurostat manual (2005)

- *Environmental protection* is an action or activity (which involves the use of equipment, labour, manufacturing techniques and practices, information networks or products) where the **main purpose** is to collect, treat, reduce, prevent, or eliminate pollutants and pollution or any other degradation of the environment resulting from the operating activity of the company.

SBS = Structural business statistics

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Definition - EU /Environmental accounting (538/2014)

- *“environmental protection expenditure”* means the economic resources devoted by resident units to environmental protection. Environmental protection includes all activities and actions which have as their **main purpose** the prevention, reduction and elimination of pollution and of any other degradation of the environment. Those activities and actions include all measures taken in order to restore the environment after it has been degraded. Activities which, while beneficial to the environment, primarily satisfy the technical needs or the internal requirements for hygiene or safety and security of an enterprise or other institution are excluded from this definition;

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Definition - Eurostat/OECD

- *Environmental protection* includes all **purposeful** activities directly aimed at the prevention, reduction and elimination of pollution or any other degradation of the environment resulting from the production or consumption process.

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## Variables - SBS regulation

- Investment in equipment and plant for pollution control and special anti-pollution accessories (mainly 'end-of-pipe' equipment)
- Investment in equipment and plant linked to cleaner technologies ("integrated technology")
- Total current expenditure on environmental protection
  - Excluded: calculated costs such as depreciation

SBS = Structural business statistics  
EU regulation since the 1990's

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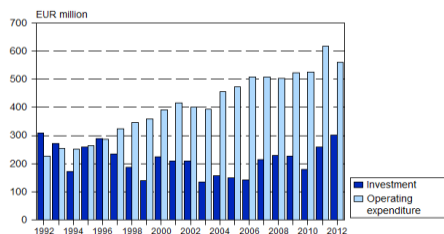
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## Environmental protection expenditure in industry



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## Classifications

- Environmental domains: CEPA 2000
- Economic activities: NACE Rev. 2

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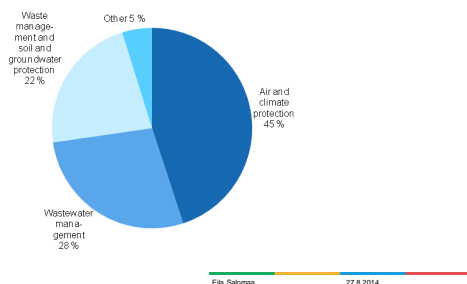
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## Allocation of environmental investments in 2012




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## Coverage in Finland, the frame

- Activities: NACE Rev.2 classes 05 – 36
  - *mining and quarrying*
  - *manufacturing industry*
  - *energy and water supply industries*
- Size >= 1 employees
- The frame:
  - About 20 000 establishments (local units)

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## Data collecting, annual survey

- Establishments selected from the register of SBS
- Stratified sampling, **big companies with polluting impact** best represented in the sample
- Sample size about 2000 **local units** (establishments)
- Questionnaires:
  - Internet, > 90 % of the responses
  - excel and pdf versions available

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## Data processing

- About 95 % of the answers are received and saved electronically
- Checking the data of the answers
- Data editing
  - selective editing being developed
- Data processing
  - Integrated system of the Environment and Energy unit
  - SAS programs

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## Results presented

- by expenditure type
- by economic activity
- by environmental domain
  - air, water, waste, other
- Various aggregations used in reporting

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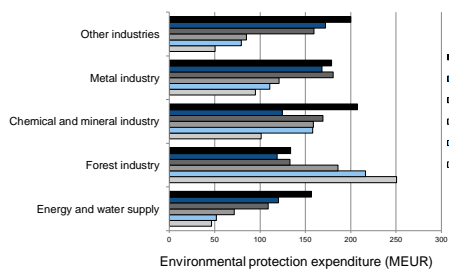
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## Environmental protection expenditure by industrial sector



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Environmental protection investment by environmental domain and industry in 2012					
Industry	Air	Water	Waste <sup>1)</sup>	Other	Total
EUR thousand					
Mining and quarrying	3363	19453	18500	4537	45853
Food products, beverages and tobacco	501	6645	2892	15	10053
Textiles, wearing apparel, leather products and shoes	0	0	12	0	12
Wood, products of wood and cork	722	1401	461	165	2749
Paper and paper products	7669	29608	286	788	38351
Printing and reproduction of recorded media	0	430	0	0	430
Refined petroleum, rubber and plastic products	14106	2974	4982	132	22194
Chemicals and chemical products	11488	3631	12170	276	27565
Glass, clay and stone products	4496	1401	3096	201	9194
Basic metals	32129	16468	17556	136	66288
Fabricated metal products	63	0	0	15	78
Electronic and electrical equipment	736	30	10	0	776
Machinery n.e.c., repair and installation of machinery	2799	1337	59	19	4214
Transport equipment	25	0	151	15	191
Other manufacturing	0	0	192	0	192
Energy supply	57504	334	5311	8263	71413
Water collection, treatment and supply	0	0	2059	0	2059
Industry total	135602	83711	67736	14562	301613

1) Includes waste management and soil and groundwater protection.

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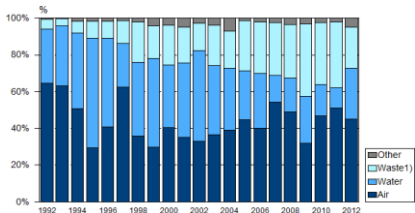
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Environmental protection investment by environmental domain in the Finnish industry



<sup>1)</sup> Includes waste management and soil and groundwater protection  
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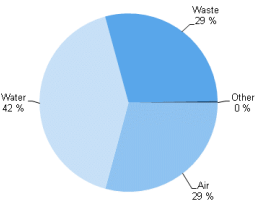
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Allocation of running and maintenance expenditure of environmental protection in 2012



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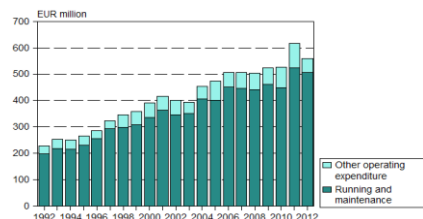
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## Current expenditure on environmental protection in industry



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## Publishing /Reporting

- Nationally
  - Statistics Finland's website
  - Environment Statistics Yearbook
  - Statistical Yearbook
- Eurostat / EU
  - According to the SBS regulation
- Eurostat /OECD
  - Eurostat/OECD Joint Questionnaire

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*Thank you*

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