

# Environmental activity accounts

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Statistics  
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# Content

- What are environmental activity accounts ?
- What is the EGSS ?
- Application: the EGSS in the Netherlands
- Exercise

# Environmental activity accounts

	Industries	Final demand	Assets		
Sectors			Financial and produced assets, opening balance	Natural resource assets, opening balance	Natural resource assets, opening balance
Commodities	Industrial output of goods and services EGSS output				
	Industrial intermediate demand Environmental protection expenditures	Final demand Environmental protection expenditures	Gross fixed capital formation Capital expenditures for environmental protection		
	Resource production by industries Resource use by industries	Resource production by households/gov't Resource use by households/gov't			
Wastes	Waste consumption by industries Waste output by industries	Waste consumption by households/gov't Waste output by households/gov't			
Sectors			Other changes in volume & holding gains/losses on financial & produced assets	Changes in and holding gains/losses on natural resource assets	Changes in natural resource assets
			Financial and produced assets, closing balance	Natural resource assets, closing balance	Natural resource assets, closing balance

# Scope and definition of environmental activities

- **The scope of environmental activities** *include those economic activities whose primary purpose is to reduce or eliminate pressures on the environment or to make more efficient use of natural resources.*
  - Environmental protection
  - Resource management
- **Primary purpose criterion**

# Classification of environmental activities

Group	Classes
I: Environmental protection (EP)	1 Protection of ambient air and climate
	2 Wastewater management
	3 Waste management
	4 Protection and remediation of soil, groundwater and surface water
	5 Noise and vibration abatement (excluding workplace protection)
	6 Protection of biodiversity and landscapes
	7 Protection against radiation (excluding external safety)
	8 Research and development for environmental protection
	9 Other environmental protection activities
II: Resource management (RM)	10 Management of mineral and energy resources
	11 Management of timber resources
	12 Management of aquatic resources
	13 Management of other biological resources (excluding timber and aquatic resources)
	14 Management of water resources
	15 Research and development activities for resource management
	16 Other resource management activities



# Environmental activity accounts in SEEA-CF

- Environmental protection expenditure accounts (EPEA)
- Environmental goods and service sector (EGSS)
- Environmental taxes
- Environmental subsidies and similar transfers
- Environmental permits

# Environmental goods and service sector: EGSS

- **Supply side** of environmental activities → production of environmental goods and services
- **Aim:** assessing the contribution of EGSS to the total economy and its employment potential
- **Key indicators:**
  - Total production, total employment, total value added, total exports, total gross fixed capital*
- **Europe:** EGSS part legislation on Environmental accounts (Regulation No 691 )

# Scope and definition

**The EGSS consists of producers of all environmental goods and services** → Thus, all products that are produced, designed and manufactured for purposes of environmental protection and resource management are within scope of the EGSS.

→ Environmental specific services, connected products, adapted goods and environmental technologies

→ 'Main purpose' criterion (technical nature of product or activity / intension of the producer)



# Table for the EGSS

		Producers			
		Specialist producers		Non-specialist producers	Own-account producers
		Government producers	Other specialist producers		
Output of environmental goods and services					
Environmental specific services	Environmental protection	3 000	6 500	2 400	1 600
	Resource management	3 100	4 500	300	1 600
Sole-purpose products	Environmental protection			250	
	Resource management			400	
Adapted goods	Environmental protection			1 000	
	Resource management			3 000	
End-of-pipe technologies	Environmental protection	100	200	1 200	100
	Resource management	100	300	1 500	
Integrated technologies	Environmental protection			800	
	Resource management			700	
<b>Total environmental goods and services produced</b>		<b>6 300</b>	<b>11 500</b>	<b>11 550</b>	<b>3 300</b>
Intermediate consumption		3 800	6 500	6 700	1 450
Gross value added		2 500	5 000	4 850	1 850
Compensation of employees		2 100	4 200	4 300	1 500
Gross fixed capital formation		1 500	1 820	1 500	590
Exports of environmental goods and services			200	2 300	
Employment (thousands of people)		120	210	220	80

# EGSS in the Netherlands: Overview

- Eight year experience in the field of EGSS
- Work carried out in national accounts department, as part of environmental accounts work programme
- Development in earlier years, statistic is since 2010 'in production' (annual publication of data).
- Work load: approximately 0,4 FTE every year.
- Further development is still going on. Learning by doing aspect is very important. Every year methods are fine tuned and populations have been changed due to new insights.

# Methodology: activity approach versus product approach

**Product approach:** → Identify environmental goods and services in source data

**Activity approach:** → Identify environmental activities in source data

**Data sources:** surveys (new or already existing), statistics, SNA, external reports

## ***Netherlands:***

→ Many different environmental activities have been identified by Statistics Netherlands as EGSS activities

→ For every activity a specific methodology has been developed in order to compile the data

# Overview: activities in EGSS (Netherlands)

1) Sewage and refuse disposal services (ISIC 37-39)



2) Recycling (ISIC 38.3)



3) Wholesale in waste and scrap



# Overview: activities in EGSS (Netherlands)

4) Renewable energy production



5) Production of energy saving and sustainable energy systems



6) Insulation activities





# Overview: activities in EGSS (Netherlands)

7) Production of environmental equipment



8) Environmental advise, environmental engineering



9) Environmental technical construction



# Overview: activities in EGSS (Netherlands)

10) Environmental related inspection



11) Second hand shops



12) Organic agriculture



# Overview: activities in EGSS (Netherlands)

13) Own account activities

14) Government governance related to the environment

15) Environmental non profit organisations

16) Environmental education





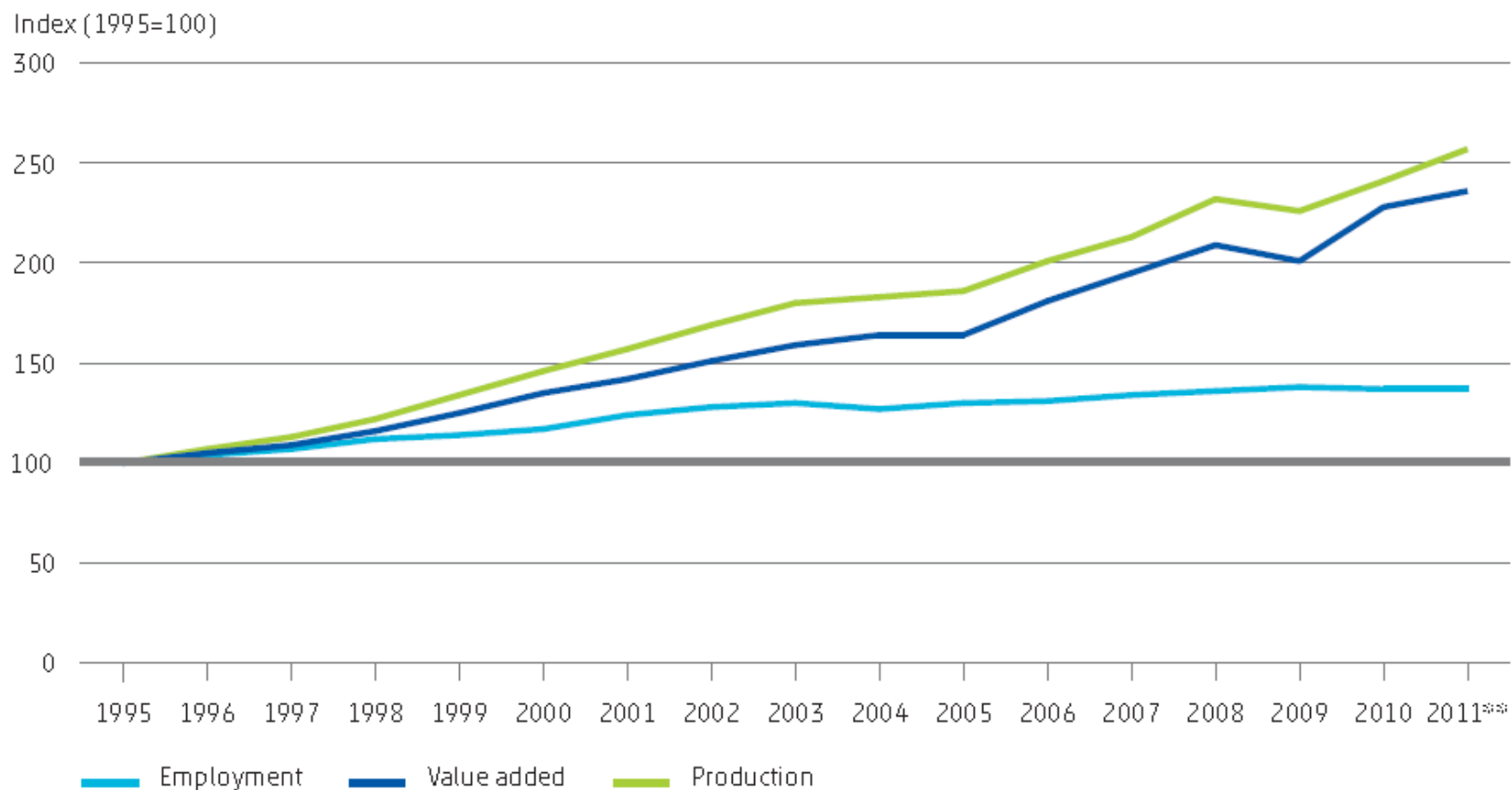
# Many different data sources.....

Activity	Main source
Sewage and refuse disposal services	National accounts, supply and use tables
Wholesale in waste and scrap	National accounts, supply and use tables
Environmental related inspection and control	Employment registers
Government governance related to the environment	Environmental Statistics, EPE statistics
Organisations and associations on the environment	Employment registers and business register
Internal environmental activities at companies	Environmental Statistics, EPE statistics
Renewable energy production	Energy Statistics, Renewable energy statistics
Energy saving and sustainable energy systems	Own constructed database and Production Statistics
Insulation activities	National accounts
Organic agriculture	Agriculture statistics, area of organic agriculture
Recycling	National accounts, supply and use tables
Second hand shops	Production Statistics
Water quantity control by waterboards	National accounts, Government accounts
Environmental advice, engineering and other services <sup>1</sup>	Own constructed database and Production Statistics
Industrial environmental equipment <sup>1</sup>	Own constructed database and Production Statistics
Environmental technical construction <sup>1</sup>	Own constructed database and Production Statistics
Environmental related education	Education statistics

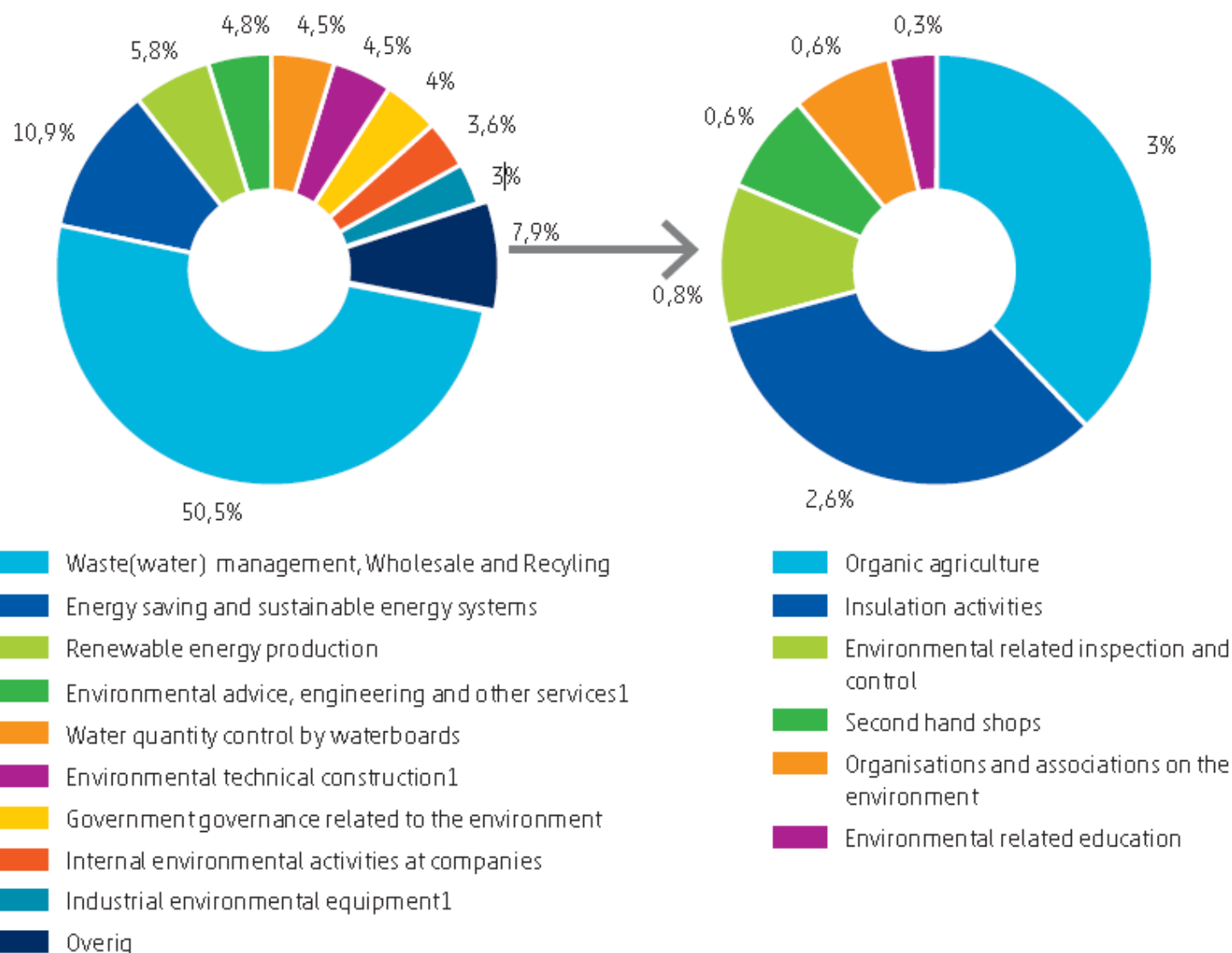
# Most important data sources

1. **SNA** data → environmental services
2. Own constructed data base of environmental companies plus **production statistics** (PRODCOM), international trade statistics etc.
3. Government statistics
4. Agricultural statistics
5. Labour registers
6. EPEA

# Employment, production and value added in the EGSS



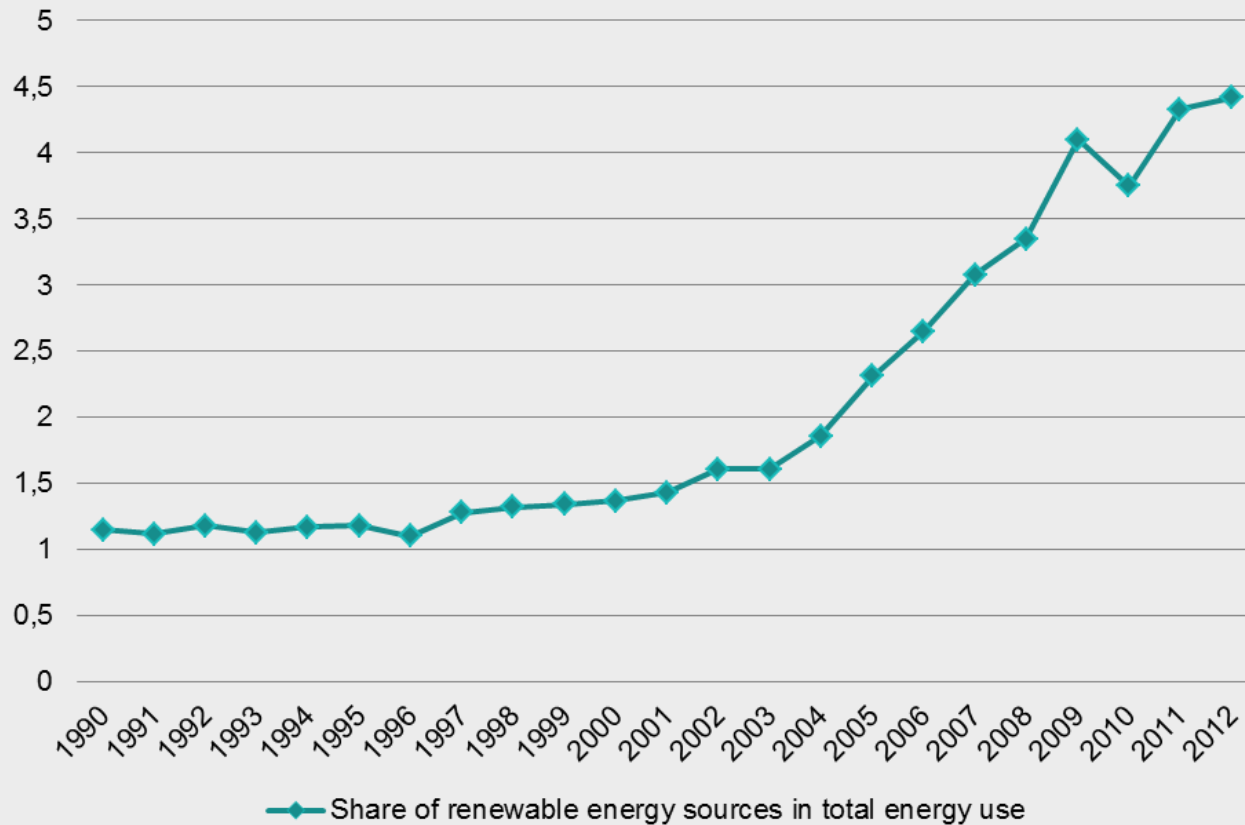
# Distribution of value added EGSS over different activities, 2011



# Example: Monitor sustainable energy sector

- The Ministry of Economic Affairs requested more detailed economic information on the sustainable energy sector
- In spring **2011** Statistics Netherlands executed an in depth study on the sustainable energy sector.
- Results will be updated every year and used for policy making and policy evaluation
- **2013:** National energy agreement between government, industries, other stakeholders
- **2014:** first National energy report

# Share of renewable energy (%)



# Scope: What is the sustainable energy sector ?

→ Energy related part part of the EGSS

– **The exploitation phase:** The actual production of renewable energy



– **The pre-exploitation phase:** The companies that are active in the value chain that precedes the production of renewable energy

E.g.:

- Production of solar panels
- R&D aimed on sustainable energy technologies
- Transport of wind turbines
- Trade in solid biomass
- Includes energy saving

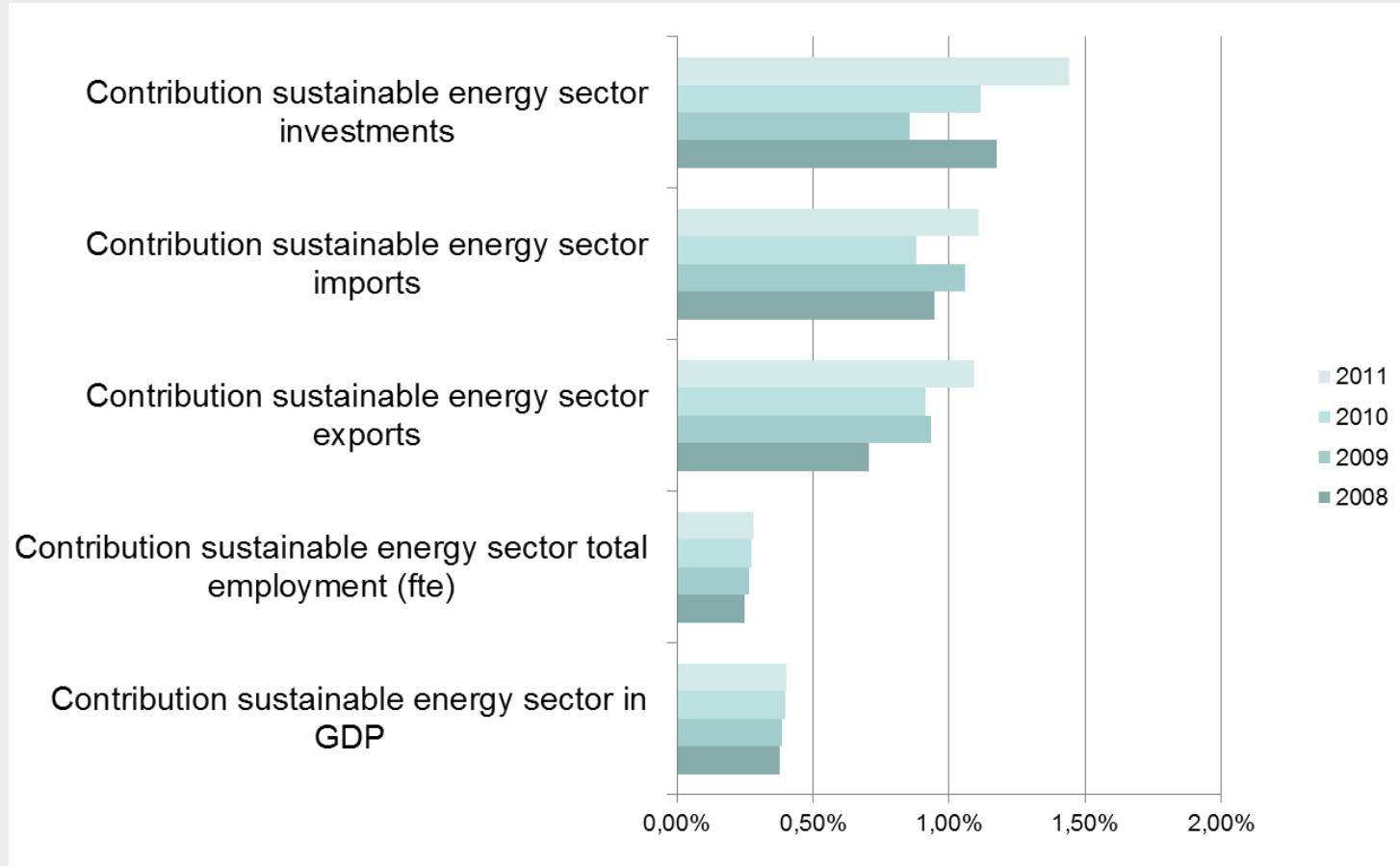


# Indicators

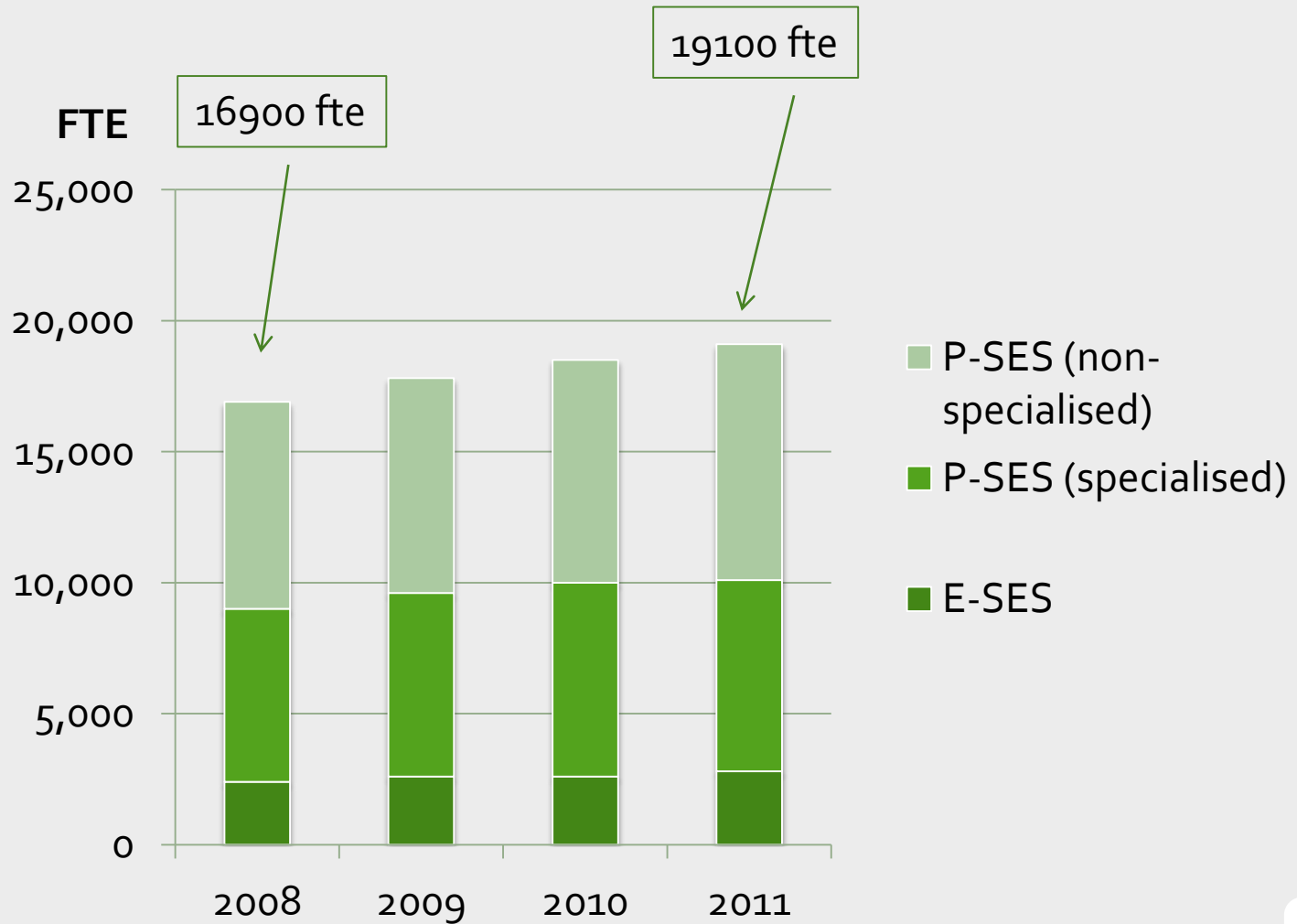
- Employment (fte)
- Monetary indicators (in current prices)
  - Gross value added = Production minus intermediate use
  - Production
  - Export and import
  - Investments
- Innovation
  - Patent requests



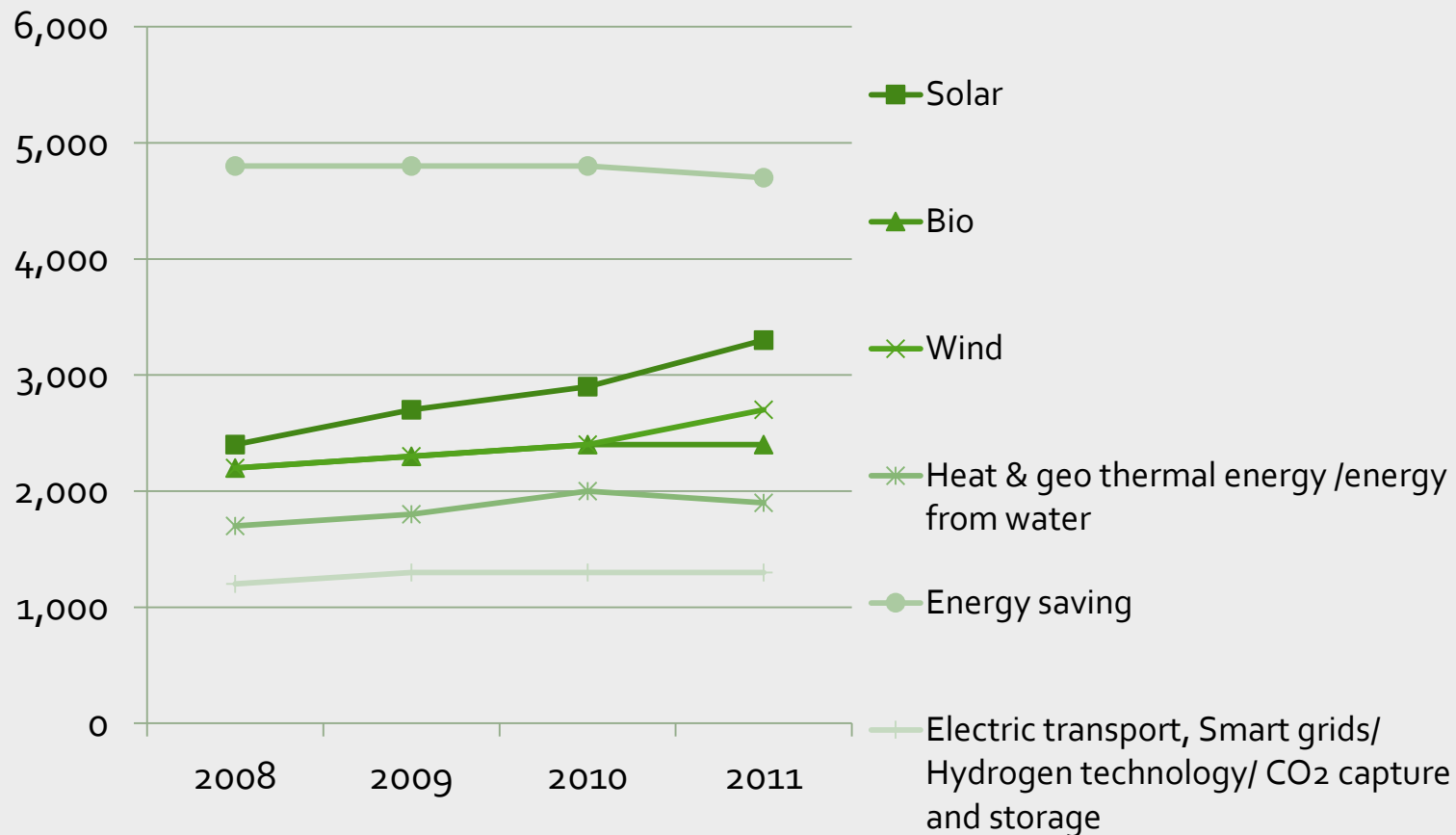
# Sustainable energy sector as part of the economy



# Employment +13%



# Employment per technology (pre-exploitation)



# Some key issues.....

- International comparison data
  - Scope
  - Methodology
  - Data sources
  - The more effort, the larger the EGSS ?
- Cleaner goods / resource efficient goods
- Integration in EPEA / ReMEA
- Dissemination of the results

# Questions ???

