

Background material for the seminar:

**The State of European Environment:  
How does Finland compare?  
Challenges and opportunities for Finland.  
Thursday 25.6.2015 at 8.30-11.30, Ministry of the Environment**

**The European environment — state and outlook 2015 (SOER 2015)**

<http://www.eea.europa.eu/soer-2015/about>

- Provides a comprehensive assessment of the European environment's state, trends and prospects, and places it in a global context.
- Informs European environmental policy implementation between 2015 and 2020
- Analyses the opportunities (and the knowledge requirements) to achieve the European Union's 2050 vision of living well within the limits of the planet.
- Concludes that reduced pollution, nature protection and better waste management have all contributed so that in many parts of Europe, the local environment is arguably in as good a state today as it has been since the start of industrialization.
- Concludes that the challenges today are considerable as European natural capital is being degraded by socio-economic activities and global pressures on the environment have grown driven by economic and population growth, and changing consumption patterns.
- Finally, concludes that the policies in place are delivering results, i.e. many of the 2020 targets will be achieved, but the long-term aim to ensure that Europeans will be 'living well, within the limits of our planet' will not be achieved with just current policies.
- Taken together, the analysis suggests that neither environmental policies alone nor economic and technology-driven efficiency gains are likely to be sufficient to achieve the 2050 vision. Instead, living well within ecological limits will require fundamental transitions in the systems of production and consumption that are the root cause of environmental and climate pressures.

**How does Finland compare?**

The main issue in Finnish environmental policy in the next few decades will be carbon-neutrality. Finnish government aims to reduce greenhouse gas emissions by 80–95 % by 2050. This means eliminating more or less all emissions from the energy consumption. Finnish government has prepared an Energy and Climate roadmap 2050 to determine actions needed to meet this goal. A number of Finnish municipalities are following a faster timetable for achieving carbon-neutrality. Currently, 26 municipalities have joined the Carbon Neutral Municipalities project (HINKU Forum), and made a commitment to an 80% emission reduction by 2030. When targeting carbon-neutrality, a key question, will be how to prevent the loss of biodiversity when the pressure on utilizing the country's forests and other renewable natural resources is expected to increase. In addition, topics such as ecosystem services, green economy, resource efficiency, water quality, and urban environment will be essential also in the future. (See: *The state of the environment in Finland 2013* <https://helda.helsinki.fi/handle/10138/42691> Hinku Forum <http://www.hinku-foorumi.fi/en-US>)

**Challenges and opportunities for Finland in SOER2015**

SOER 2015 Country comparisons mention Finland in following topics

***Positive change in Finland since SOER2010:***

**Energy efficiency and energy policy**

<http://www.eea.europa.eu/soer-2015/countries-comparison/energy>

Significant progress has been observed in most countries in the public and building sectors and in setting up appropriate governance structures for energy efficiency, such as energy agencies. **Finland** and Belgium are examples of good practice in the public sector: Finland is developing a coherent sectoral strategy and Belgium is implementing measures so that the public sector can act as a role model. For energy policy more broadly, good practice concerning education, capacity building and energy audits are found in Austria, Estonia and **Finland**.

**Negative or no change in Finland since SOER2010:**

**Emissions from NH<sub>3</sub> (ammonia)**

(See figure 1.) <http://www.eea.europa.eu/soer-2015/countries-comparison/air>

SOER 2015 cross-country comparison focuses on air pollutant indicators, especially emissions of a group of four pollutants that contribute to acidification, eutrophication, the formation of ground-level (tropospheric) ozone and particulate matter in the atmosphere, namely nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>), ammonia (NH<sub>3</sub>) and non-methane volatile organic compounds (NMVOC). Progress by 32 European countries in meeting the emission ceilings of the NEC Directive or Gothenburg Protocol of the UNECE/LRTAP Convention (2011 and 2012) Emissions of NO<sub>x</sub>, SO<sub>x</sub>, NH<sub>3</sub> and NMVOC have decreased over the last two decades. Emissions of NO<sub>x</sub> have decreased by 44%, SO<sub>x</sub> by 74%, NH<sub>3</sub> by 25% and NMVOC by 57% since 1990 within the EEA-33. In 2013, eleven countries reported emissions above their ceilings for NO<sub>x</sub> and five for NH<sub>3</sub> (Denmark, Finland, Liechtenstein, Norway and Spain) and one for NMVOC.

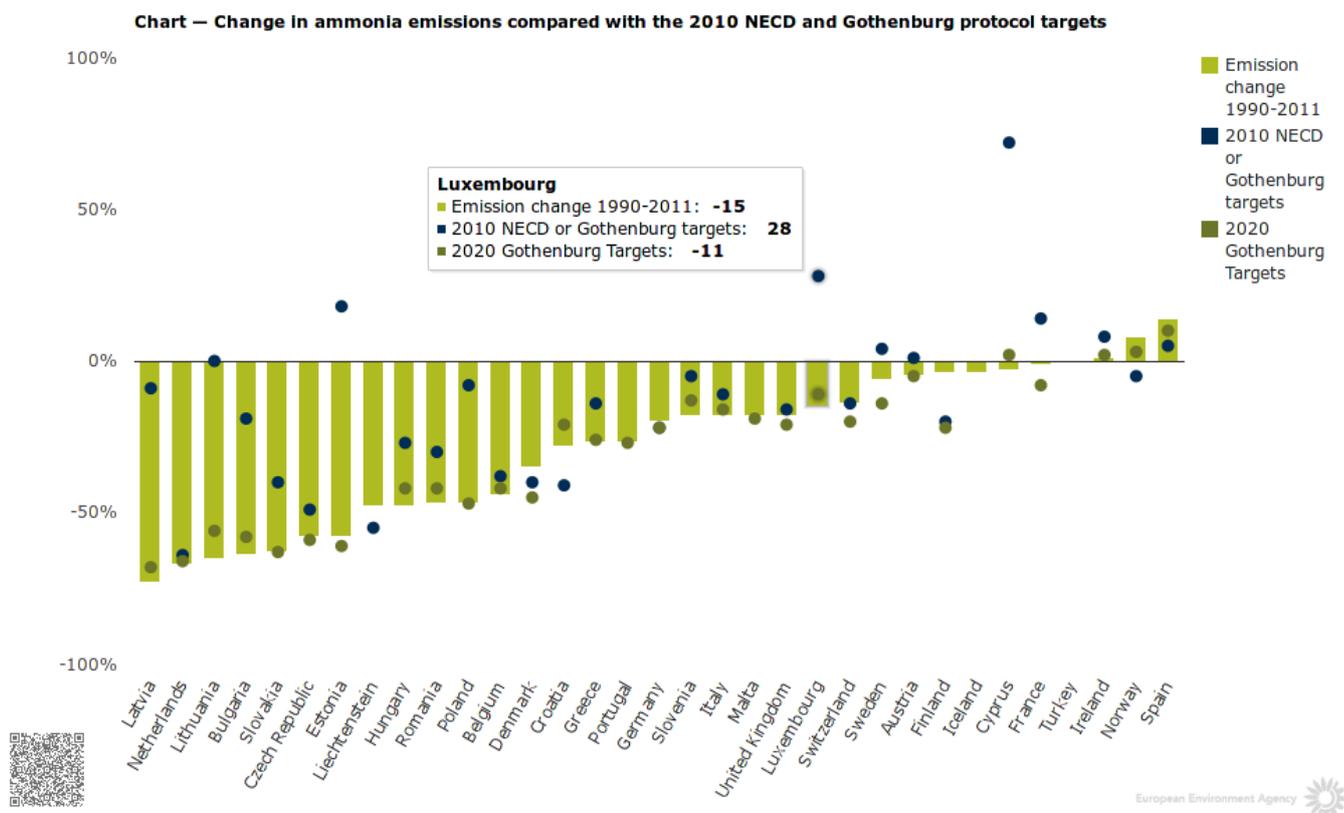


Figure 1. Change in ammonia emissions compared with the 2010 NECD and Gothenburg protocol targets

**Climate change mitigation**

(See figure 2.) <http://www.eea.europa.eu/soer-2015/countries-comparison/climate-change-mitigation>

The majority of Member States expect that their individual emission targets for the non-trading sectors (under the ESD) will be met through those policy measures already in place. However, for 13 Member States (Austria, Belgium, Bulgaria, Finland, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Slovenia and Spain), current projections indicate that 2020 emissions will not be below their respective 2020 targets. Further efforts to design, adopt and implement emission-reducing policies and measures are likely to be needed along with consideration of the use of flexibility mechanisms.

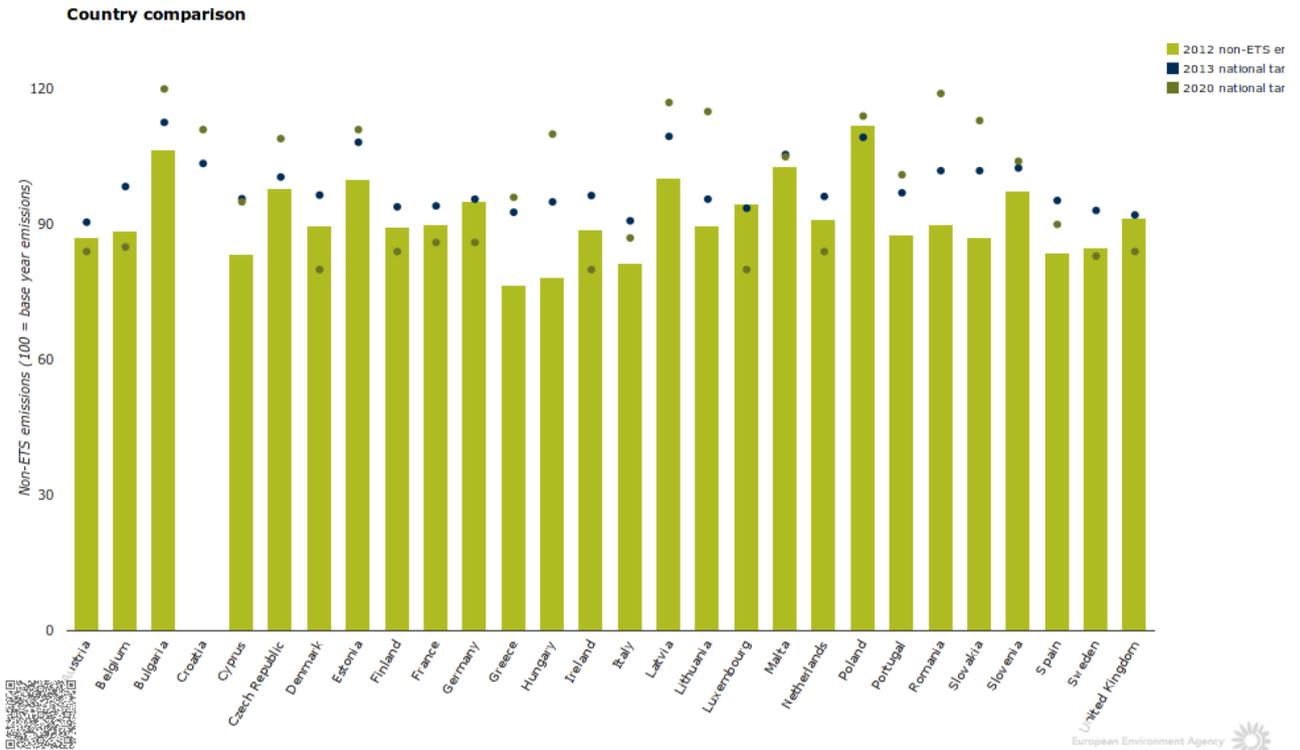


Figure 2. Progress towards 2013 and 2020 targets for EU Member States under the Effort Sharing Decision

### Resource efficiency

(See figure 3.) <http://www.eea.europa.eu/soer-2015/countries-comparison/resource-efficiency>

The economic crisis that started in 2008 has been a major factor shaping trends in resource use. In individual countries and at European level, the most significant changes in resource use took place during 2007–2011 (Figure 3.). In the EU-27, DMC\* grew from 15.6 tonnes/capita in 2000, peaked at 16.7 in 2007, before declining by 19% to the current figure of 13.7 in 2012 (Figure 3.). Significant increases were primarily due to large-scale infrastructure investments, with the largest declines related to the economic crisis and a collapse in construction activities. The

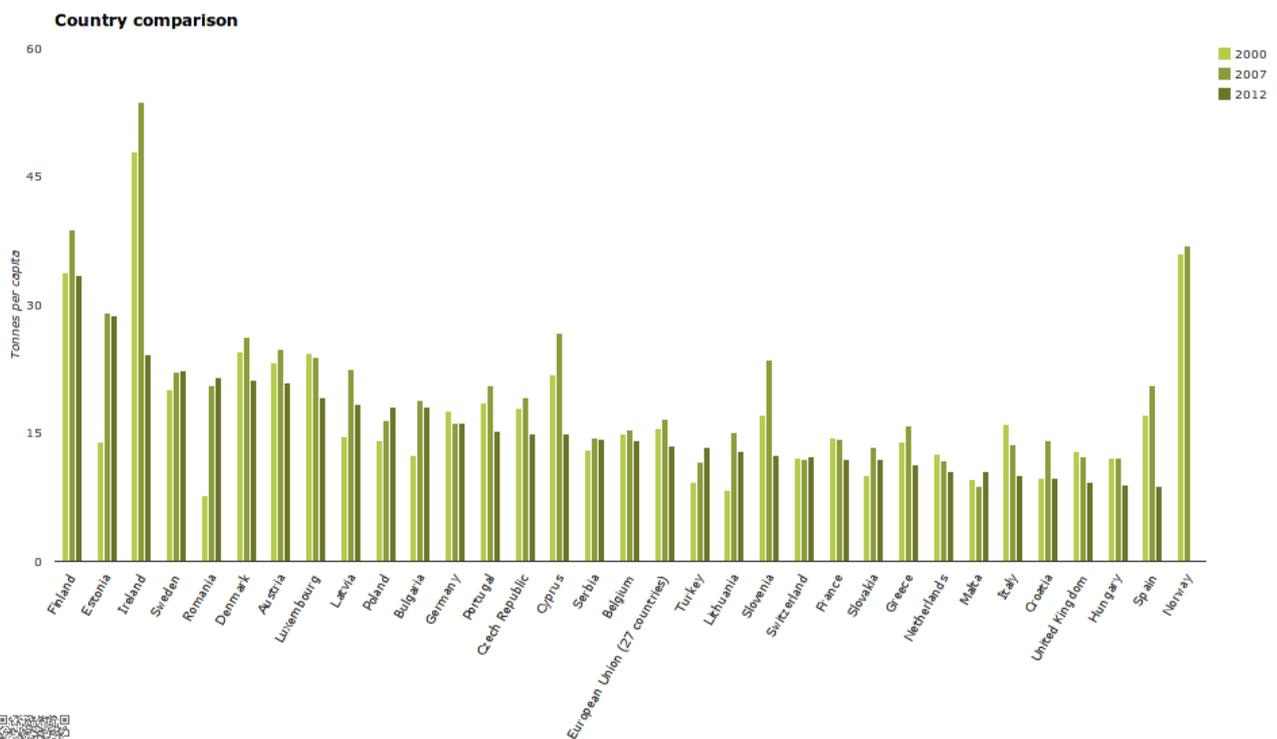


Figure 3. Material resource use (DMC) per capita in 32 European countries (2000, 2007 and 2012)

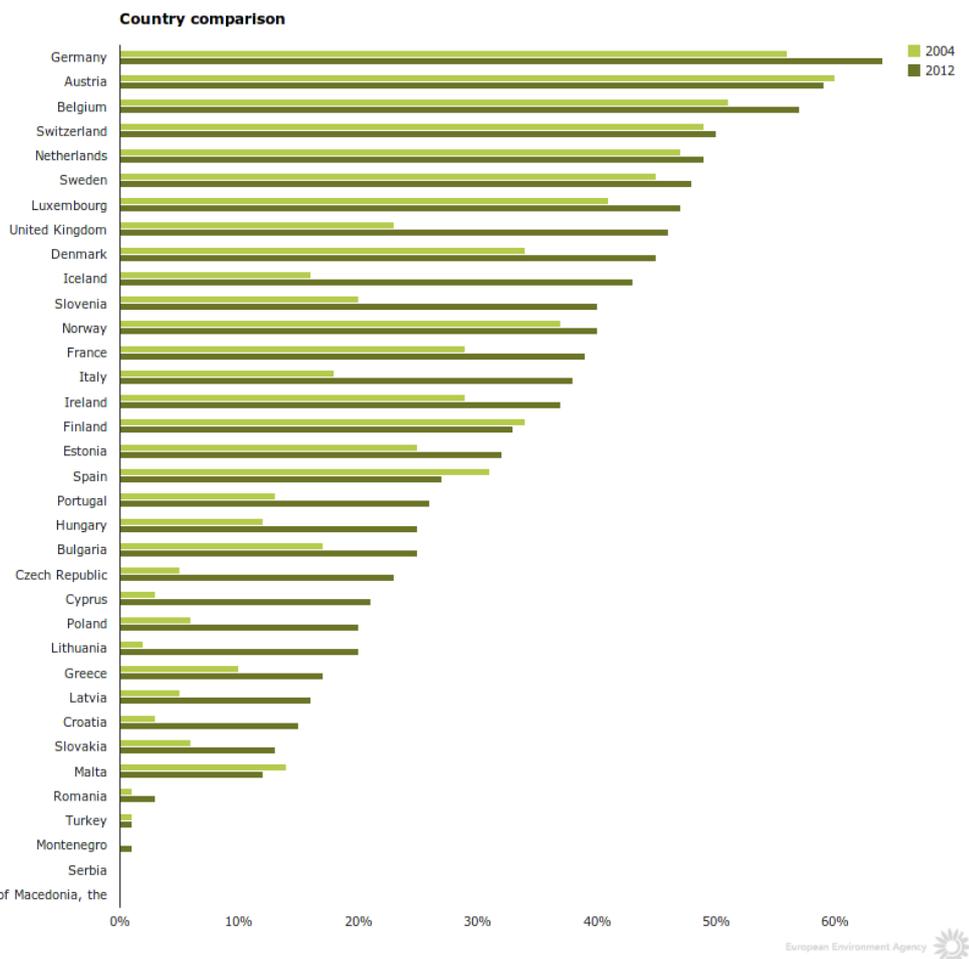
total use of material resources is strongly correlated with the population of a country and the size and structure of its economy. In 2012, the three countries with the largest **total DMC** were Germany, France, and Poland. However, in 2012, the countries with the highest **per capita DMC** were **Finland**, Estonia and Ireland, while the lowest were Spain, Hungary and the United Kingdom.

\*)Domestic Material Consumption (DMC) measures the total amount of materials directly used by an economy, and is defined as the annual quantity of raw materials extracted from the domestic territory, plus all physical imports minus all physical exports. DMC does not include upstream material use related to imports and exports originating outside of the local economy. Therefore Raw Material Consumption (RMC) has been proposed as a complementary indicator, as it better accounts for resource use embedded in trade. Modelling estimates for RMC have been produced by Eurostat for the EU-27 but are only available for a few individual countries.

### **Municipal Waste**

(See figure 4.) <http://www.eea.europa.eu/soer-2015/countries-comparison/waste>

There were large differences in performance amongst those countries with the highest and lowest recycling rates. Germany, Austria, Belgium and Switzerland recycled more than half of their municipal waste in 2012. The highest increase in recycling rates between 2004 and 2012 occurred in Iceland, the United Kingdom, Italy, Slovenia, Lithuania, Cyprus and the Czech Republic (18–25 percentage points). Overall, in 14 out of 35 countries, the increase in recycling rates exceeded 10 percentage points over this period. However, in six countries the share of recycled municipal waste barely changed (Austria, **Finland**, Serbia, the Former Yugoslav Republic of Macedonia, Montenegro and Switzerland). Recycling rates decreased in three countries, Malta, Turkey and Spain.



**Figure 4. Municipal waste recycling in 35 European countries (2004 and 2012)**