

# ECOFYS

sustainable energy for everyone



## EU energie- en klimaatdoelstellingen: op weg naar 2050

**EU-2050 Power Lab**  
**KIVI NIRIA en USI**

16/04/2013

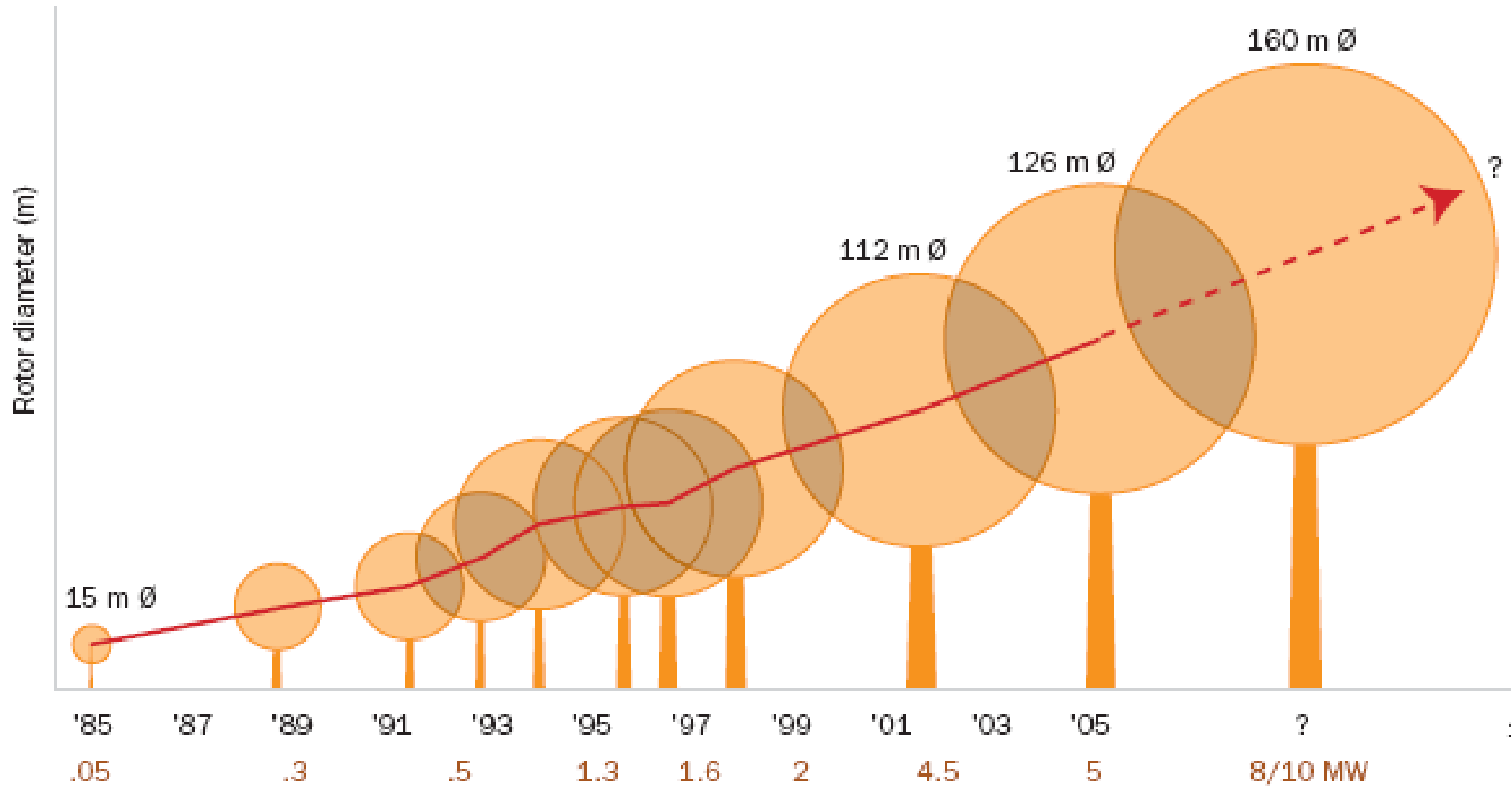
# Doelstellingen Europese Unie 2020

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- > 20% reductie van broeikasgasemissies
  - Ten opzichte van 1990
  
- > 20% bijdrage van duurzame energie
  - In finaal energiegebruik
  - Transportbrandstoffen minimaal 10%
  
- > 20% extra energiebesparing
  - Ten opzichte van een BaU referentie

Vastgelegd in Energie- en Klimaatpakket 2007/2008

# From early R&D to a large-scale market

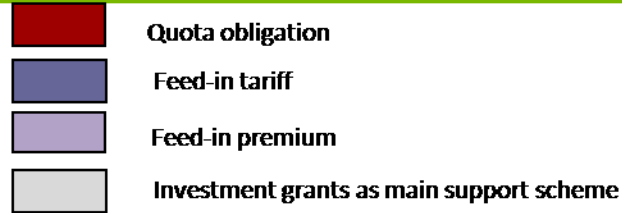


# Duurzame energiedoelstellingen voor 2010

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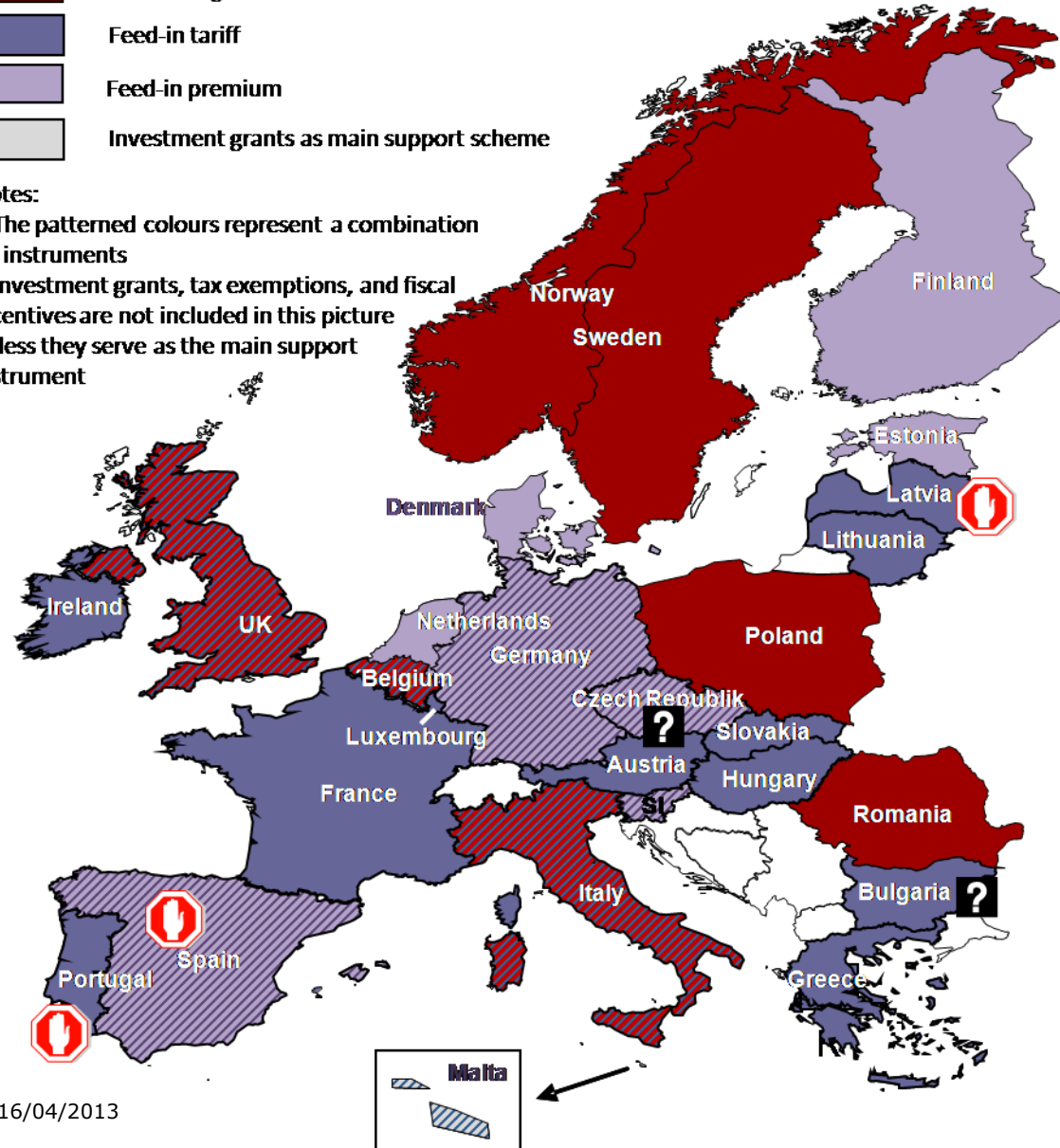
- > Elektriciteit: 22% in 2010
  - richtlijn van 1997
  - gedifferentieerd per lidstaat, non-binding
  - 21% inclusief nieuwe lidstaten
  
- > Transportbrandstoffen: 5,75% in 2010
  - richtlijn van 2003
  - geen differentiatie
  
- > Warmte: geen doelstelling

# Still diversity of support schemes in Europe but with some converging trends



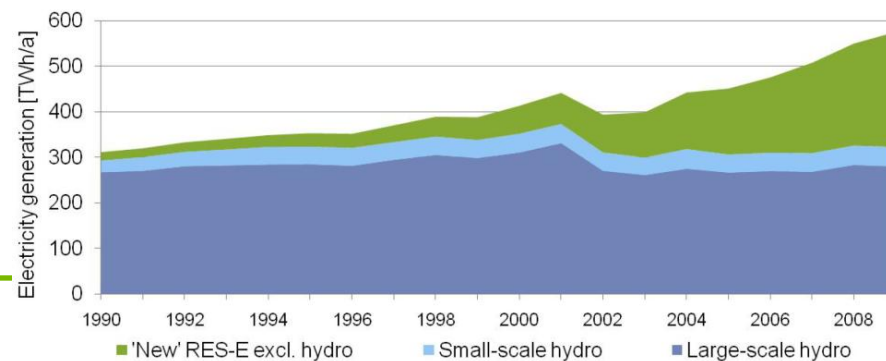
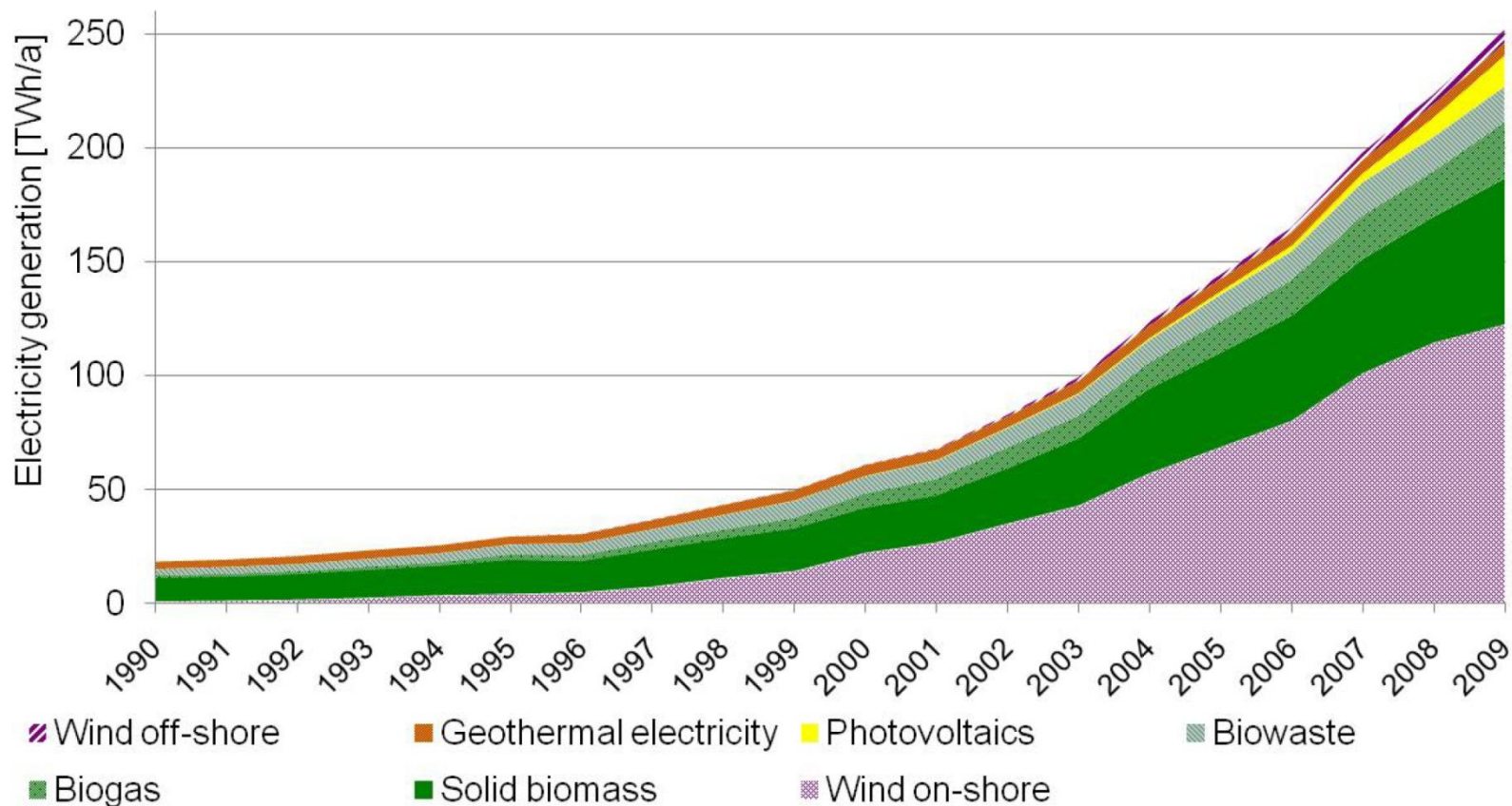
**Notes:**

- 1) The patterned colours represent a combination of instruments
- 2) Investment grants, tax exemptions, and fiscal incentives are not included in this picture unless they serve as the main support instrument

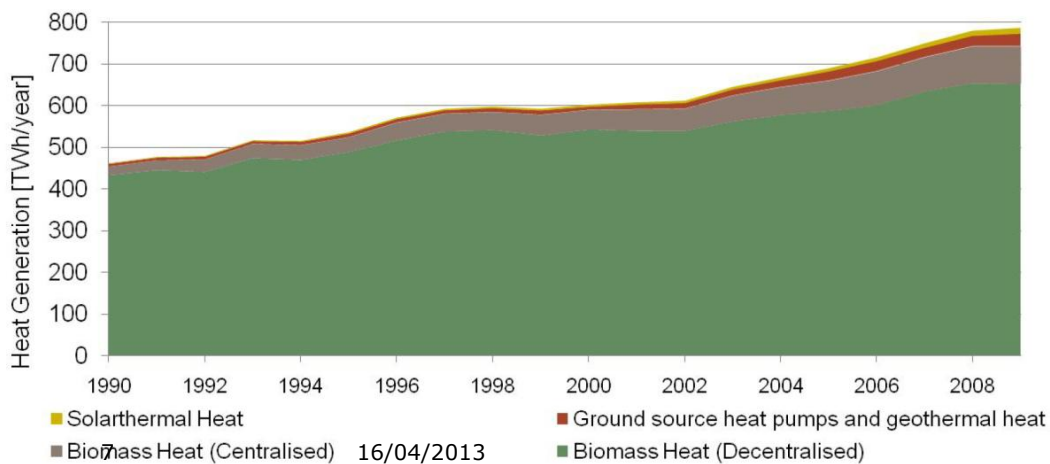
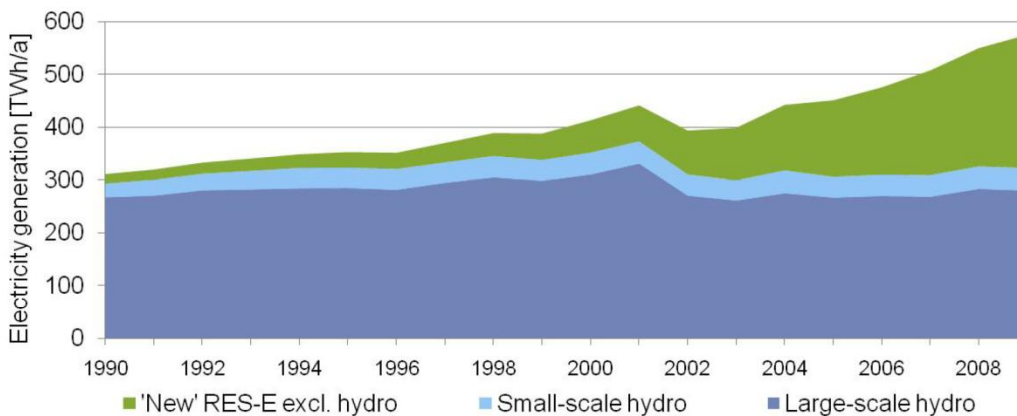
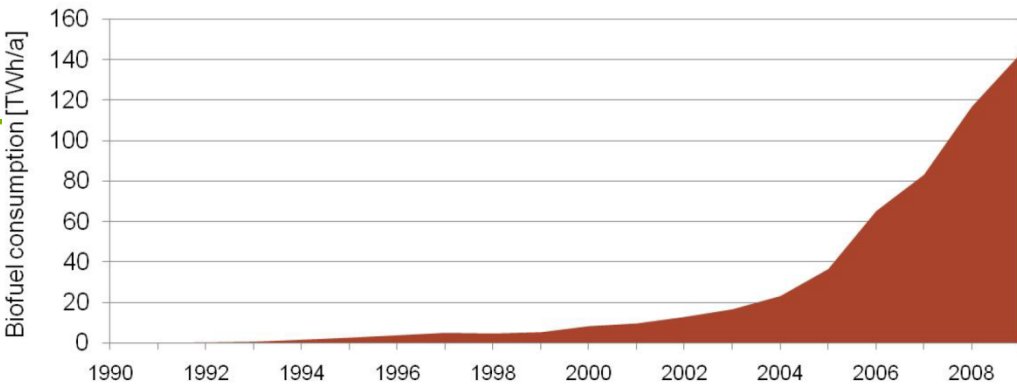


Source:  
 Ecofys based on  
 Ragwitz et al. (2012). RE-  
 Shaping  
 Ecofys et al. (2012). RE  
 progress and biofuels  
 sustainability.

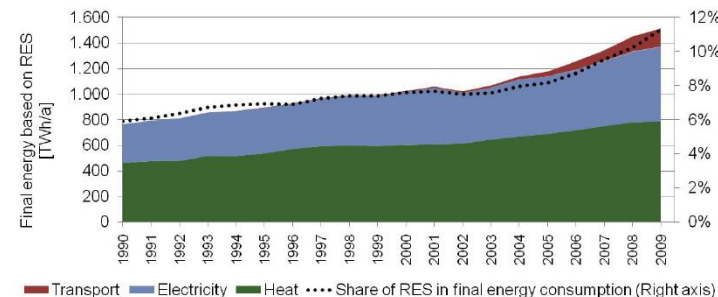
# Groei van duurzame elektriciteit in de EU



Source: RE-Shaping  
Report D17, 2011  
Fraunhofer-ISI – Ecofys



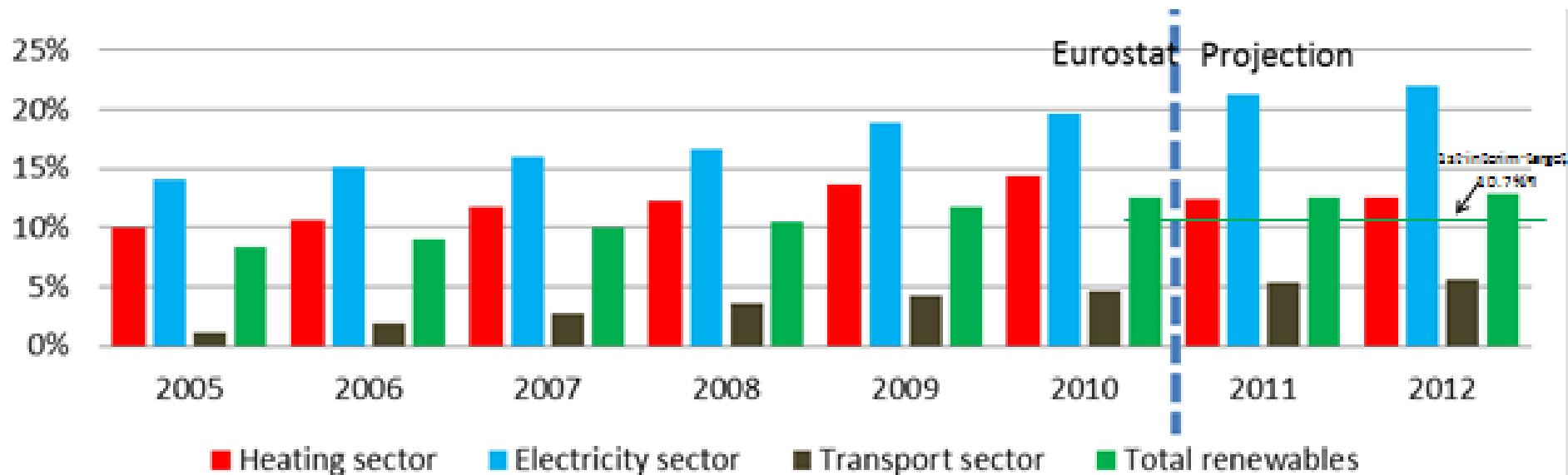
# Development of total renewable energy in the EU



Source: RE-Shaping Report D17, 2011

Fraunhofer-ISI – Ecofys

# Trends in EU renewable energy

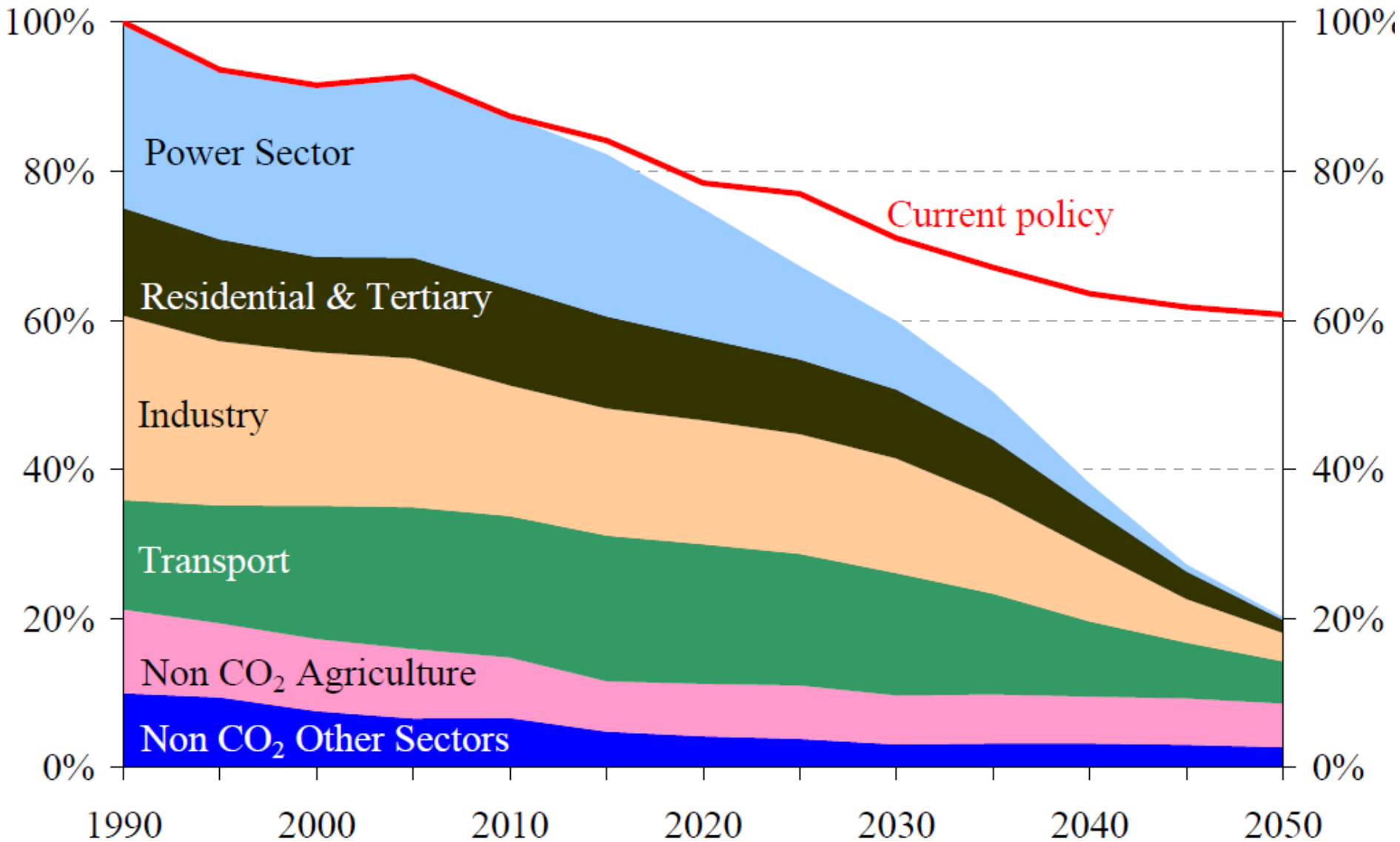


**Source: Renewable energy progress report, European Commission, March 2013**



# Scenario voor 2050 (Climate Roadmap)

Source: A Roadmap for moving to a competitive low carbon economy in 2050, European Commission, 2011



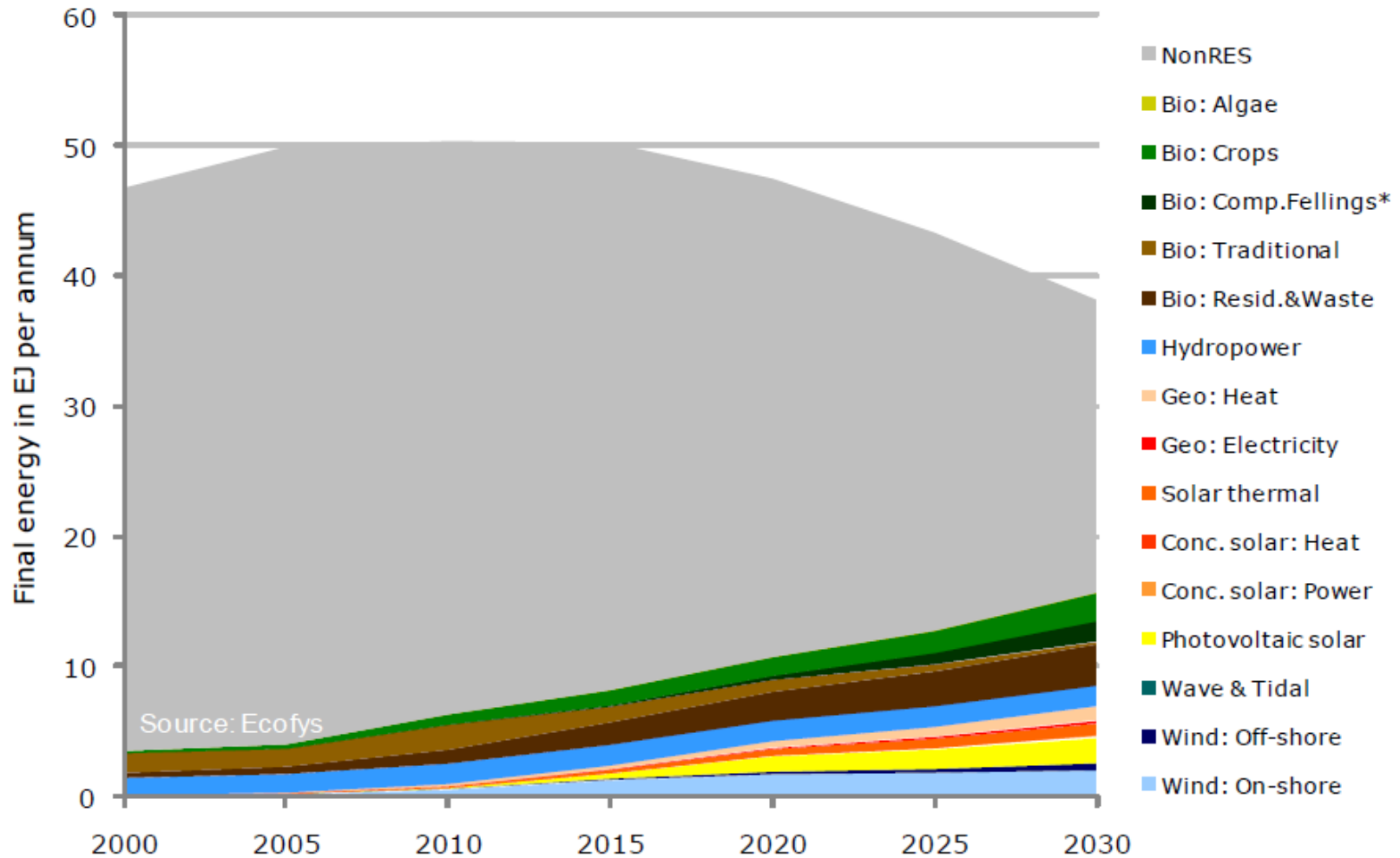
> 80-95% emissiereductie van  
broeikasgassen t.o.v. 1990

# De discussie voor 2030

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- > Doel voor broeikasgasemissies: -40% (?) t.o.v. 1990
- > Aparte doelen voor duurzame energie en energiebesparing?
- > Welke mate van Europees beleid?
- > Convergentie en harmonisatie?
- > Reparatie van EU ETS

# Naar 100% duurzaam in 2050?



Source: Heller et al.: Renewable energy: a 2030 scenario for the EU, Ecofys, 2012