



sustainable energy for everyone



EU energie- en klimaatdoelstellingen: op weg naar 2050

EU-2050 Power Lab
KIVI NIRIA en USI

23/04/2013
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Doelstellingen Europese Unie 2020

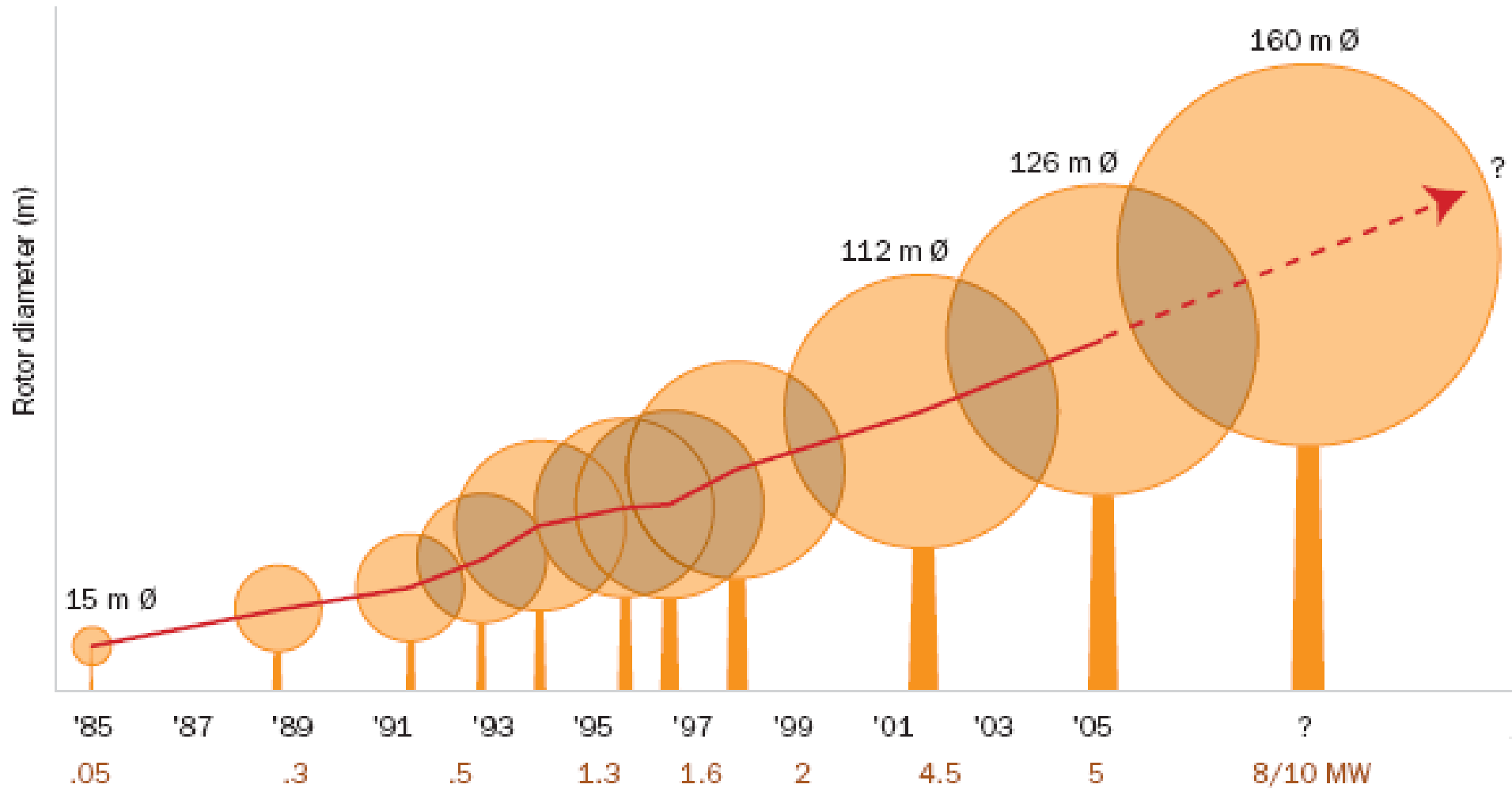
- > 20% reductie van broeikasgasemissies
 - Ten opzichte van 1990

- > 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



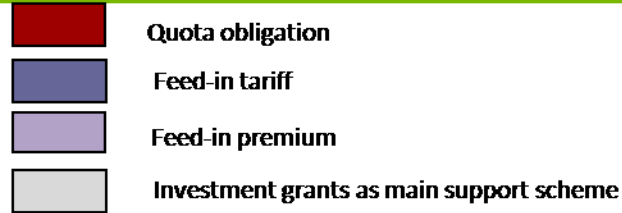
Duurzame energiedoelstellingen voor 2010

- > 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

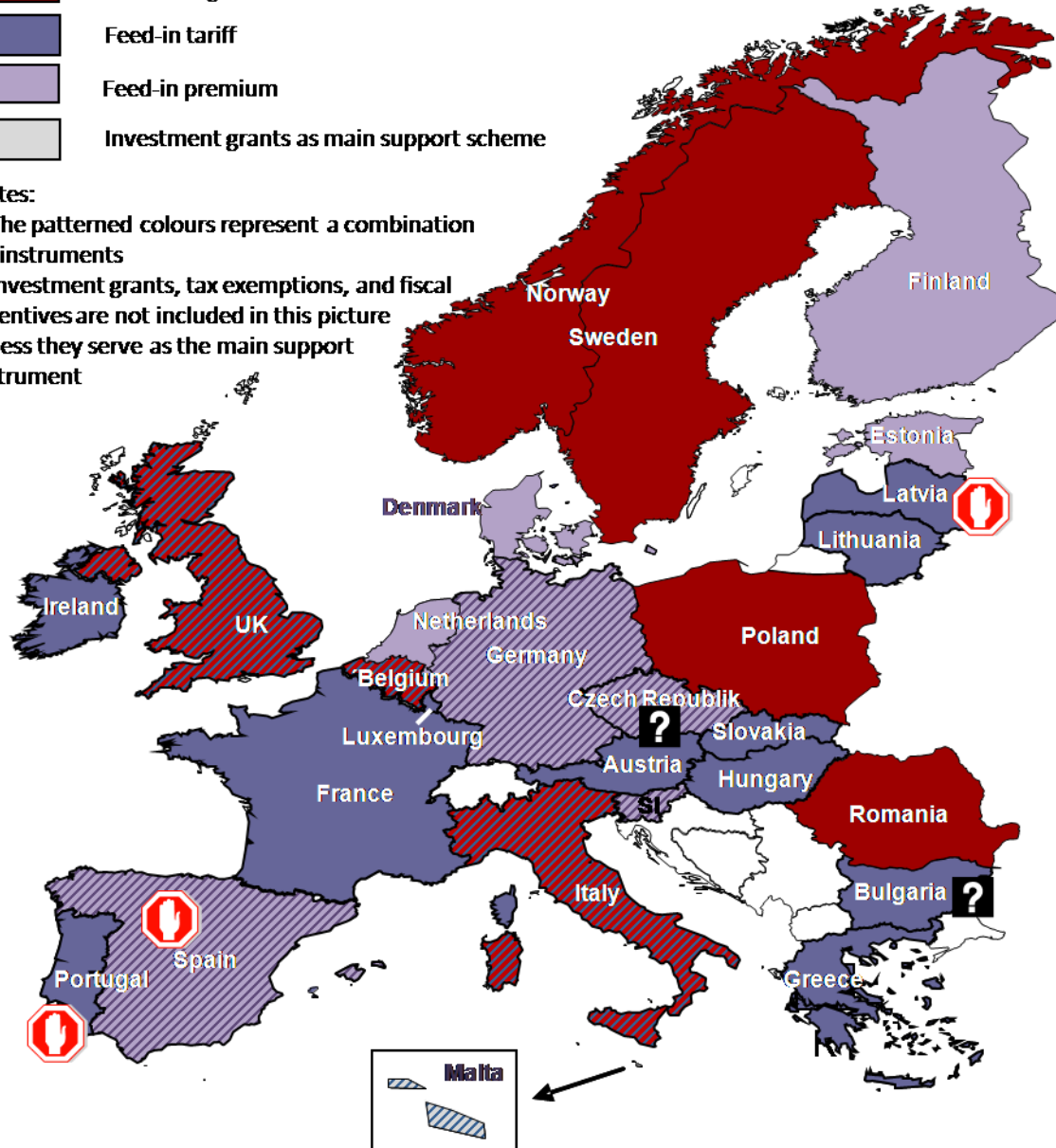
- > Warmte: geen doelstelling

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



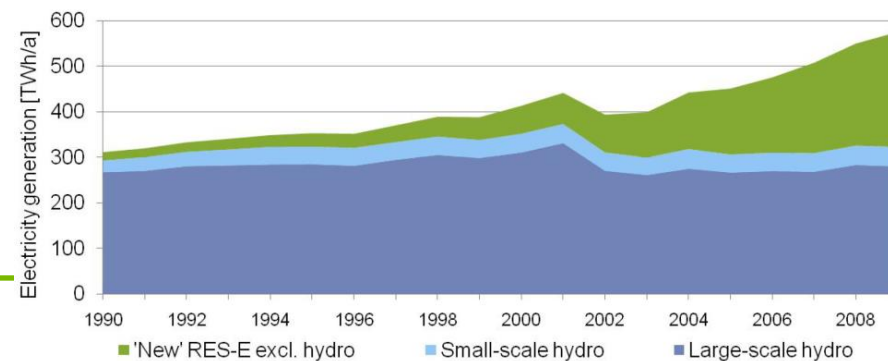
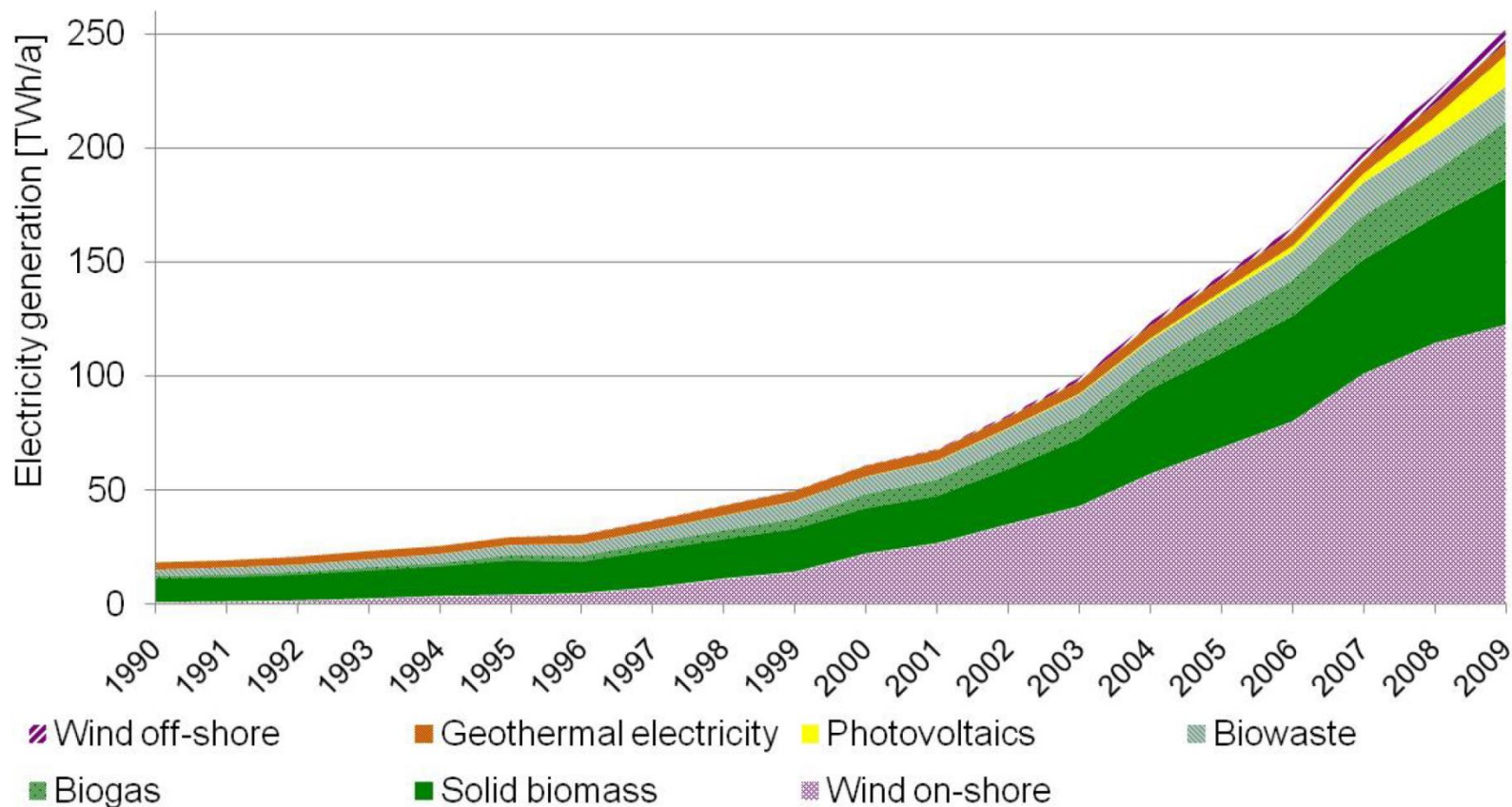
Notes:

- 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

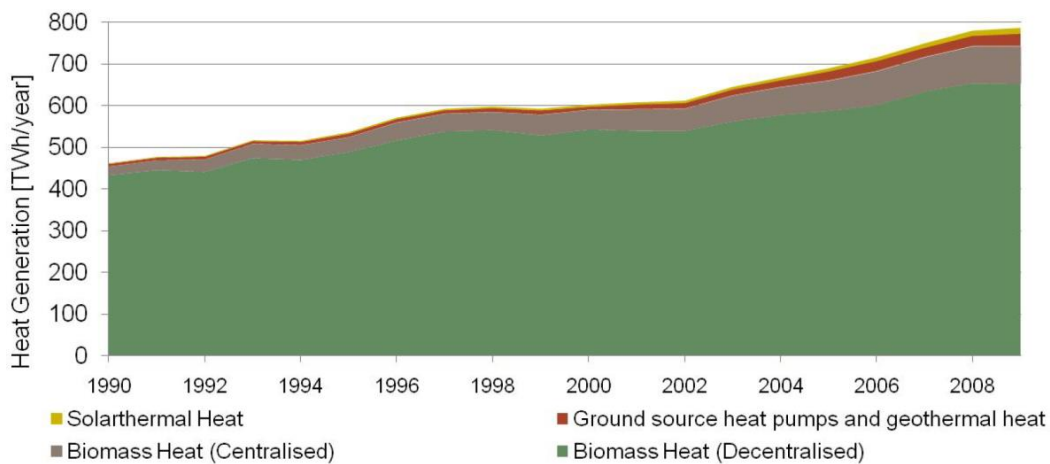
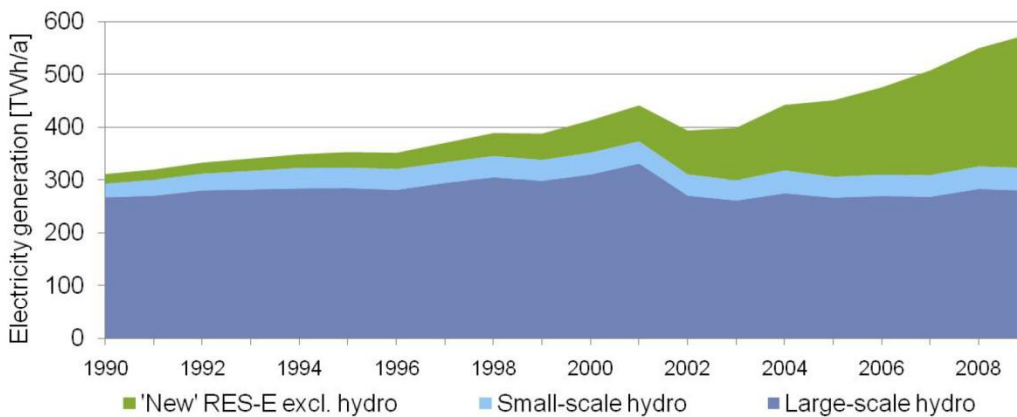
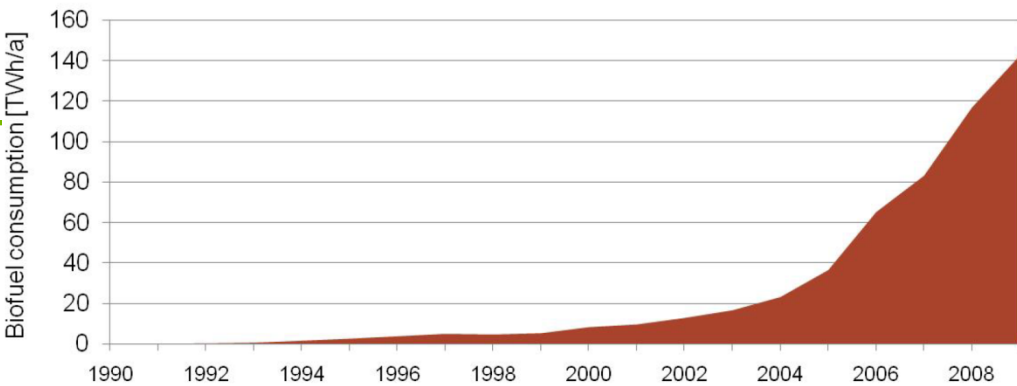


Source:
Ecofys based on
Ragwitz et al. (2012). RE-
Shaping
Ecofys et al. (2012). RE
progress and biofuels
sustainability.

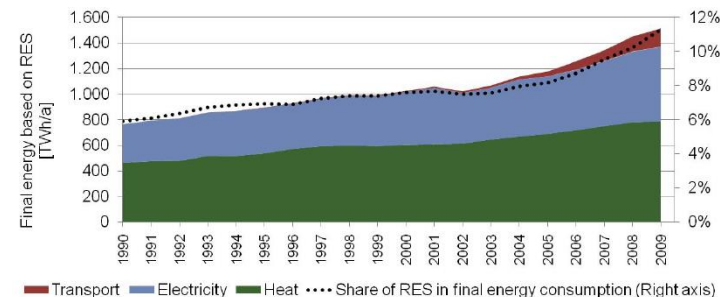
Groei van duurzame elektriciteit in de EU



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



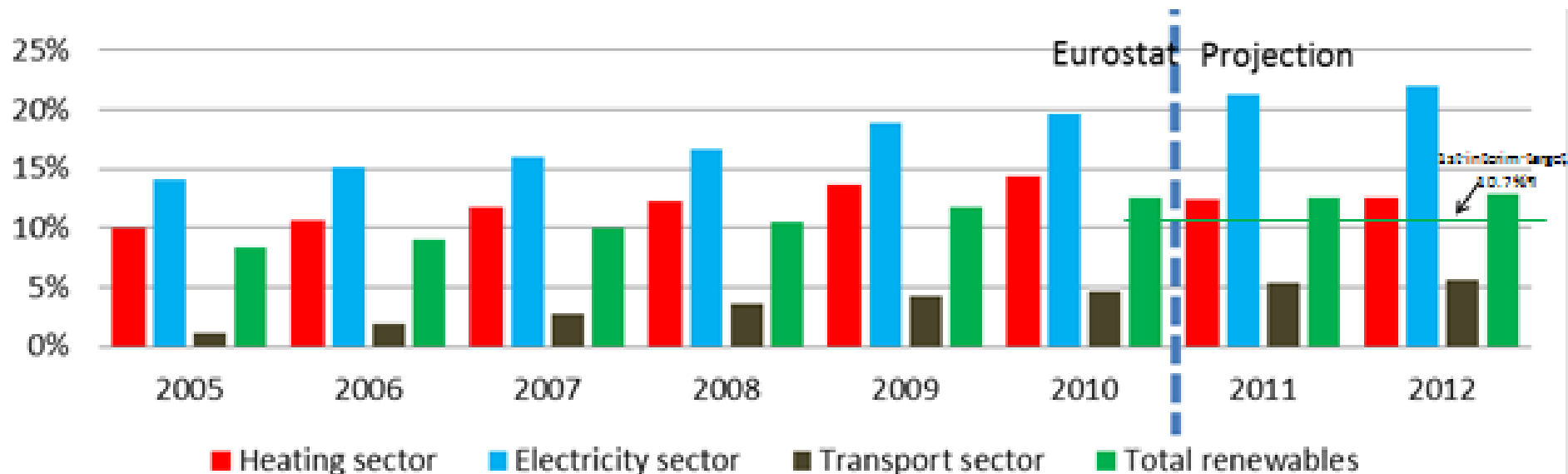
Development of total renewable energy in the EU



**Source: RE-Shaping
Report D17, 2011**

Fraunhofer-ISI – Ecofys

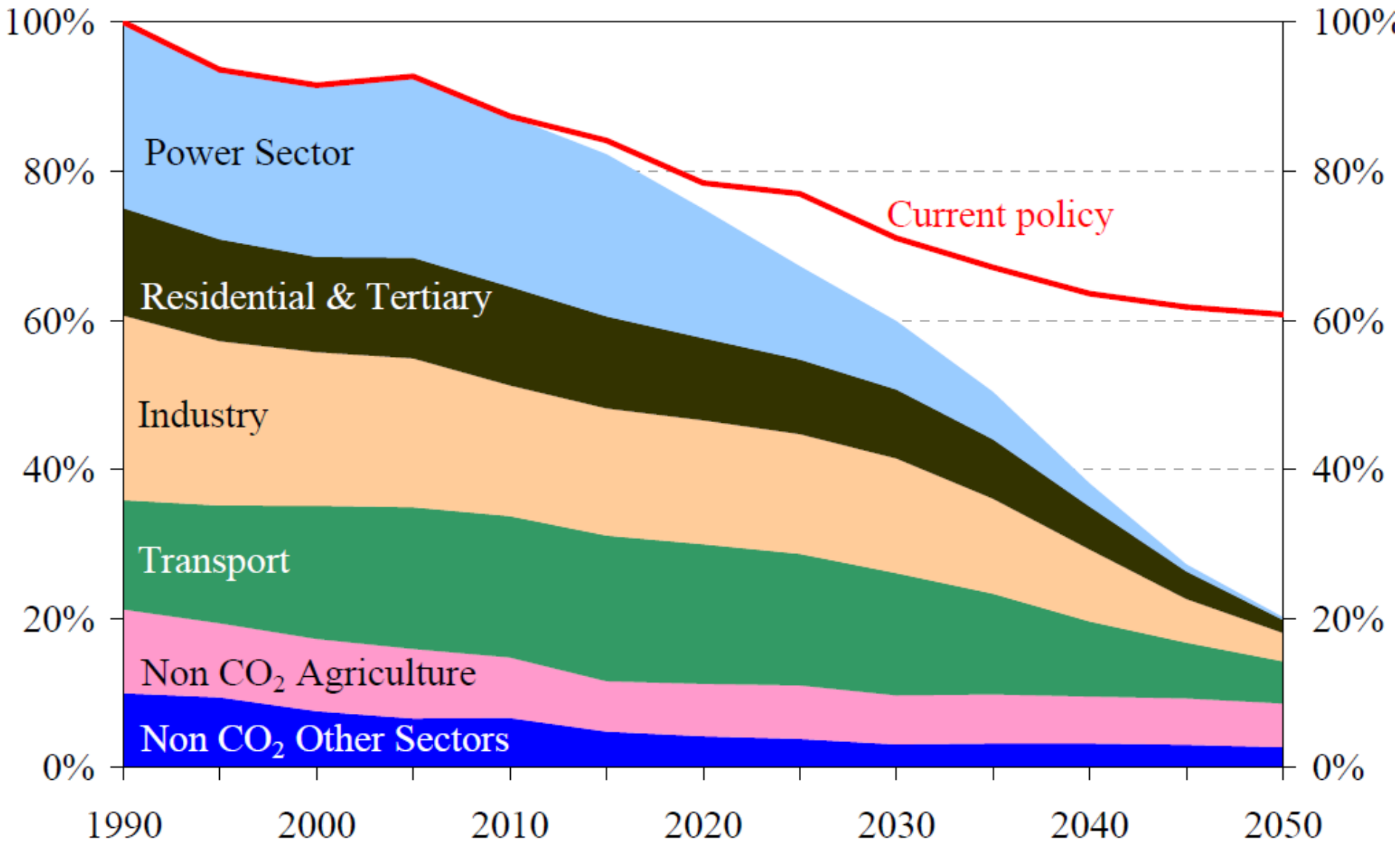
Trends in EU renewable energy



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

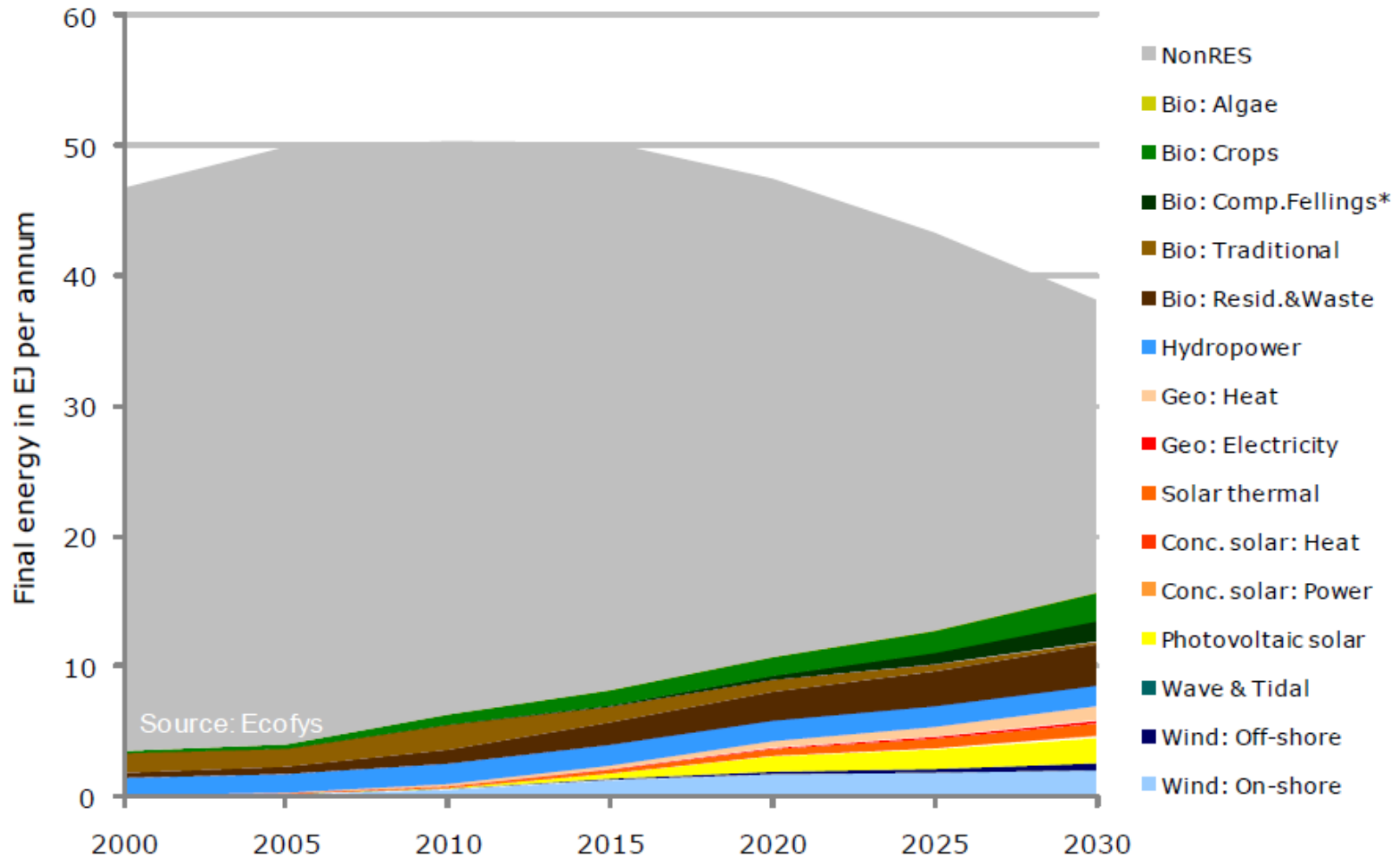


> 80-95% emissiereductie van
broeikasgassen t.o.v. 1990

De discussie voor 2030

- > 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