

Αγορά Ηλεκτρισμού και Χειμερινό Πακέτο ΕΕ

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Περιεχόμενα

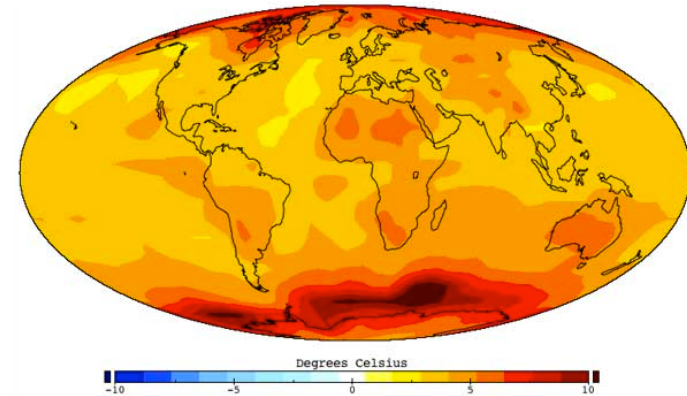
- **Ευρωπαϊκή Ενεργειακή Στρατηγική**
 - Μακροπρόθεσμη στρατηγική (2050)
- **Ευρωπαϊκοί στόχοι**
 - Ενεργειακή Ένωση (2030)
 - Χειμερινό Πακέτο
- **Προκλήσεις ΡΑΕΚ**

EU energy strategy

Long term strategy

Future energy systems

- **Climate change**

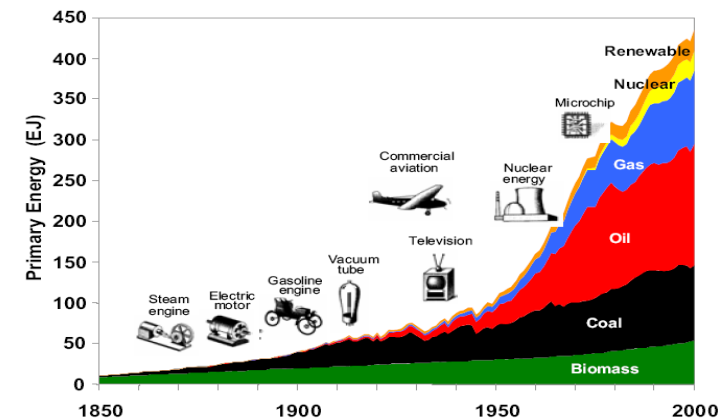


- **Third industrial revolution**

- **Future energy economics**

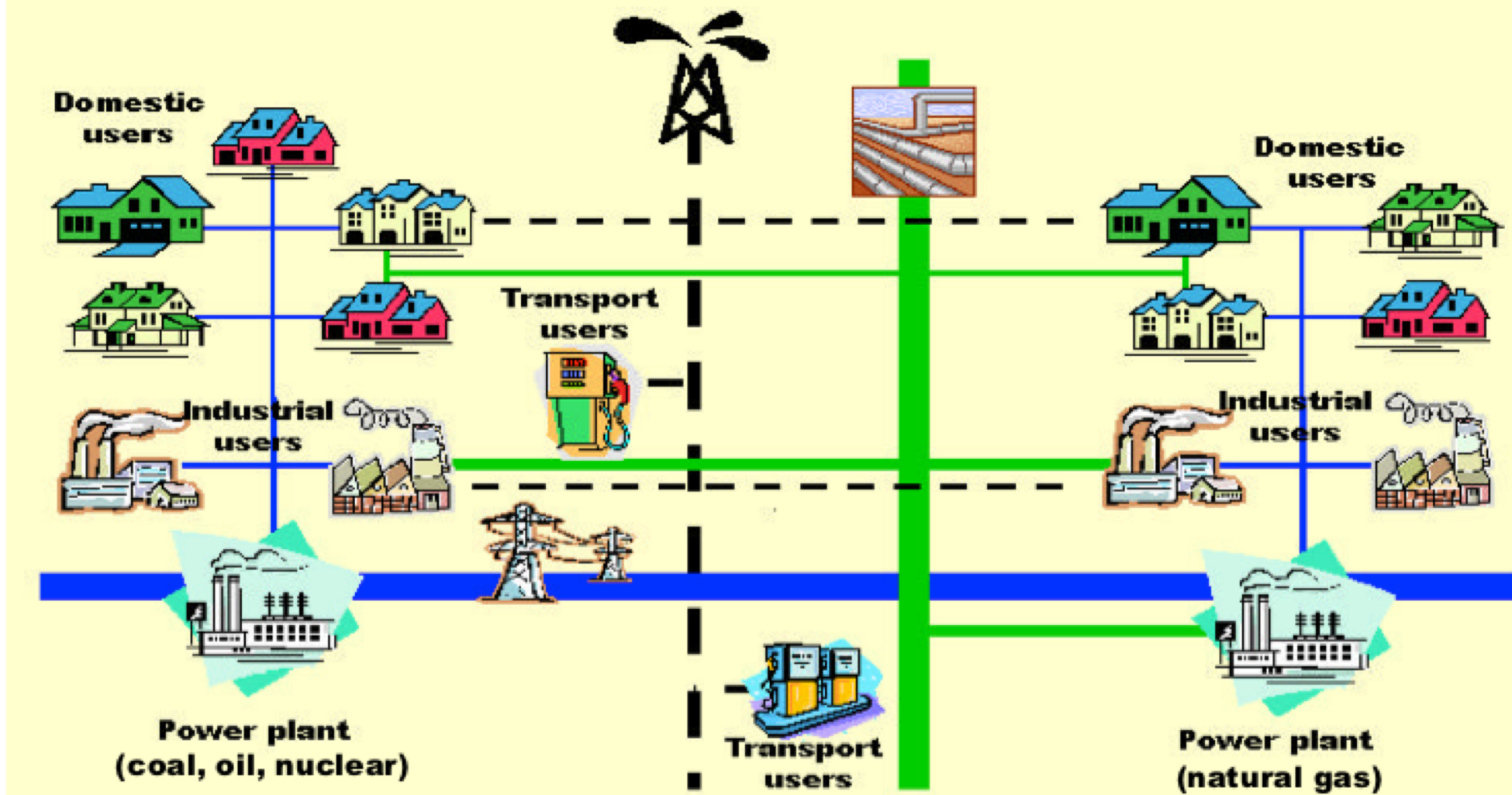
EU energy objectives

- **greenhouse gas reduction**
- **sustainable production and consumption**
- **competition in electricity and natural gas markets**
- **security of supply**



Current energy system

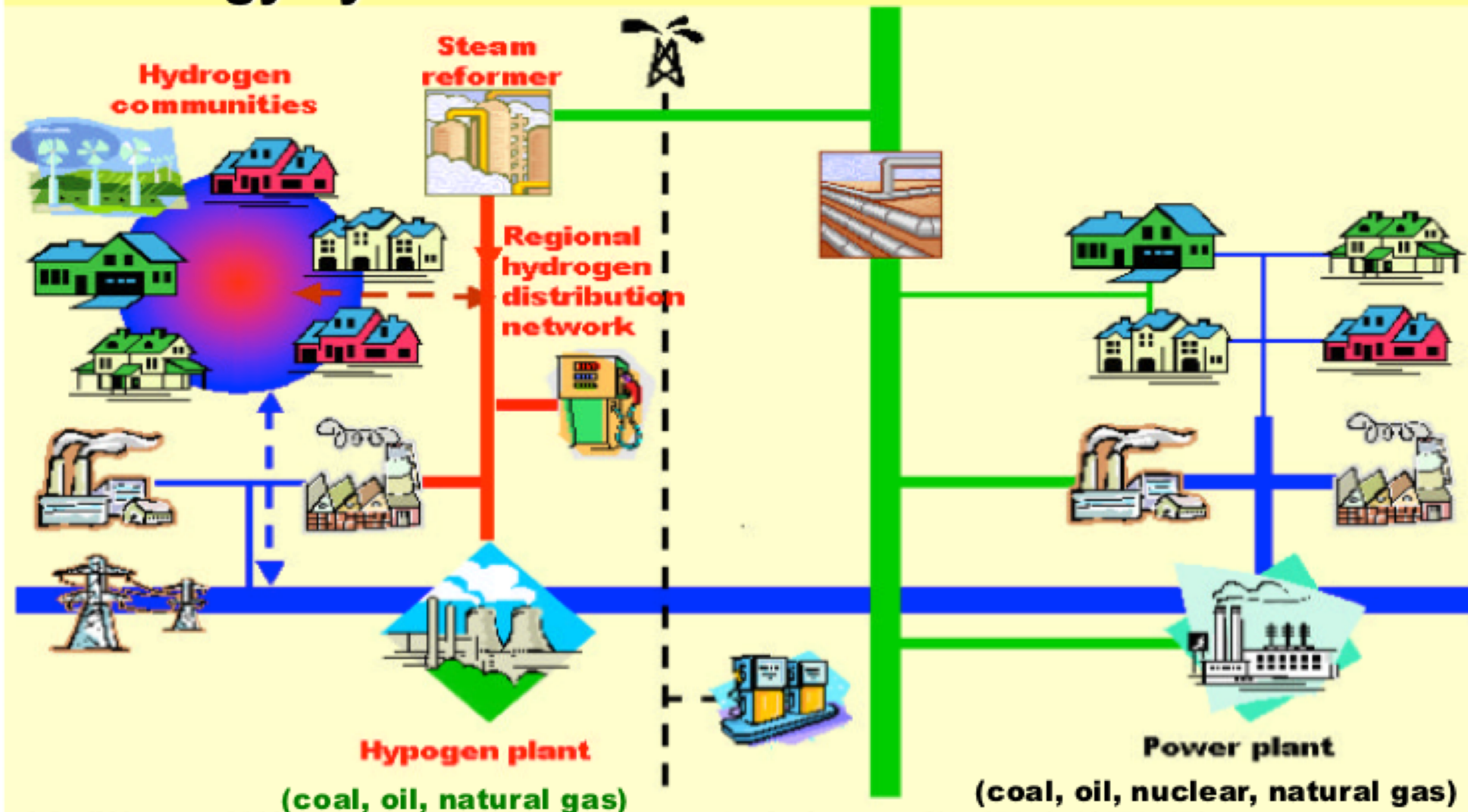
EU energy system today*



* Poulikkas A., 2009, *Introduction to Power Generation Technologies*, ISBN: 978-1-60876-472-3

Future energy systems (optimistic scenario)

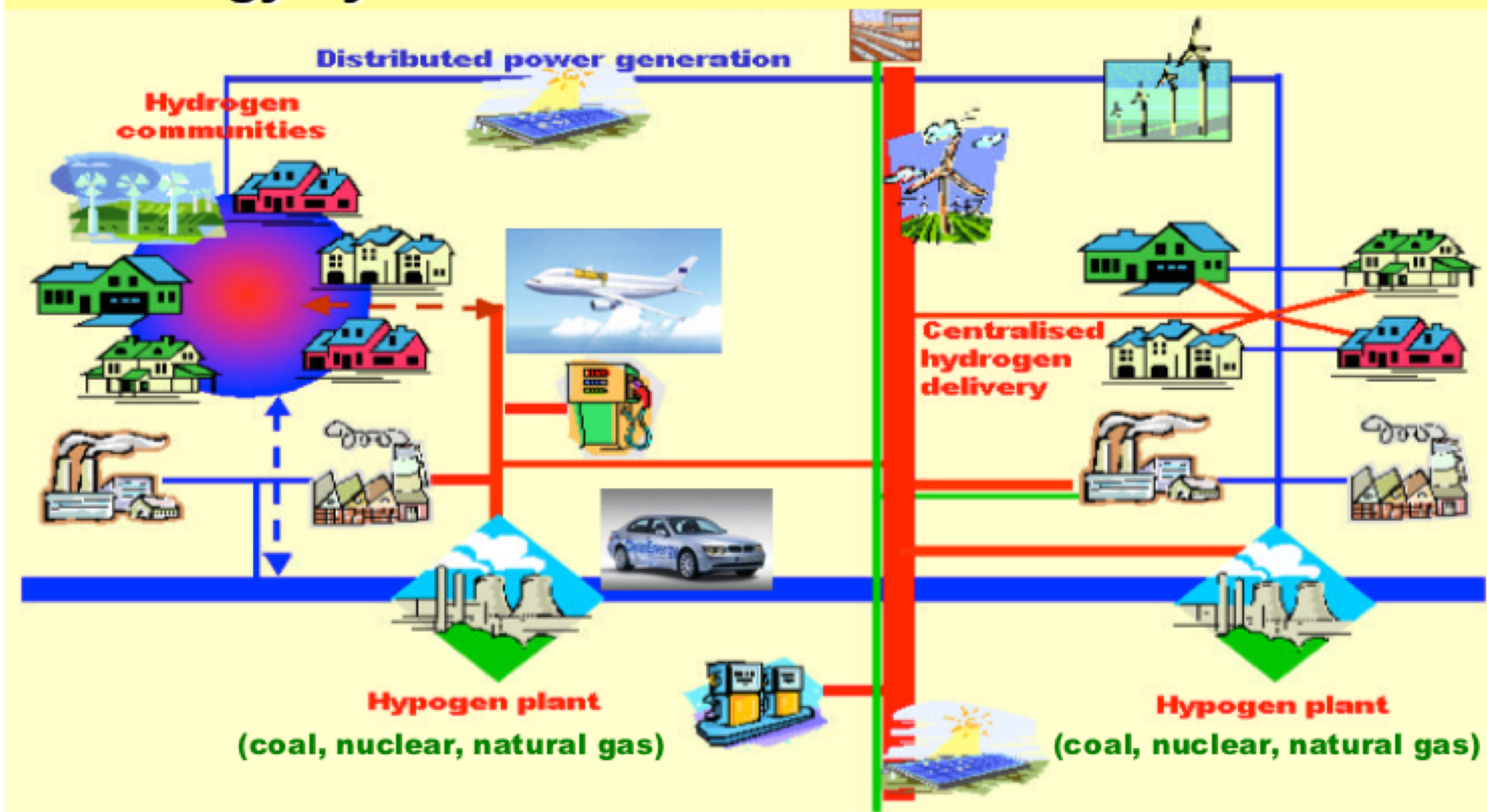
EU energy system in 2020-30*



* Poullikkas A., 2009, *Introduction to Power Generation Technologies*, ISBN: 978-1-60876-472-3

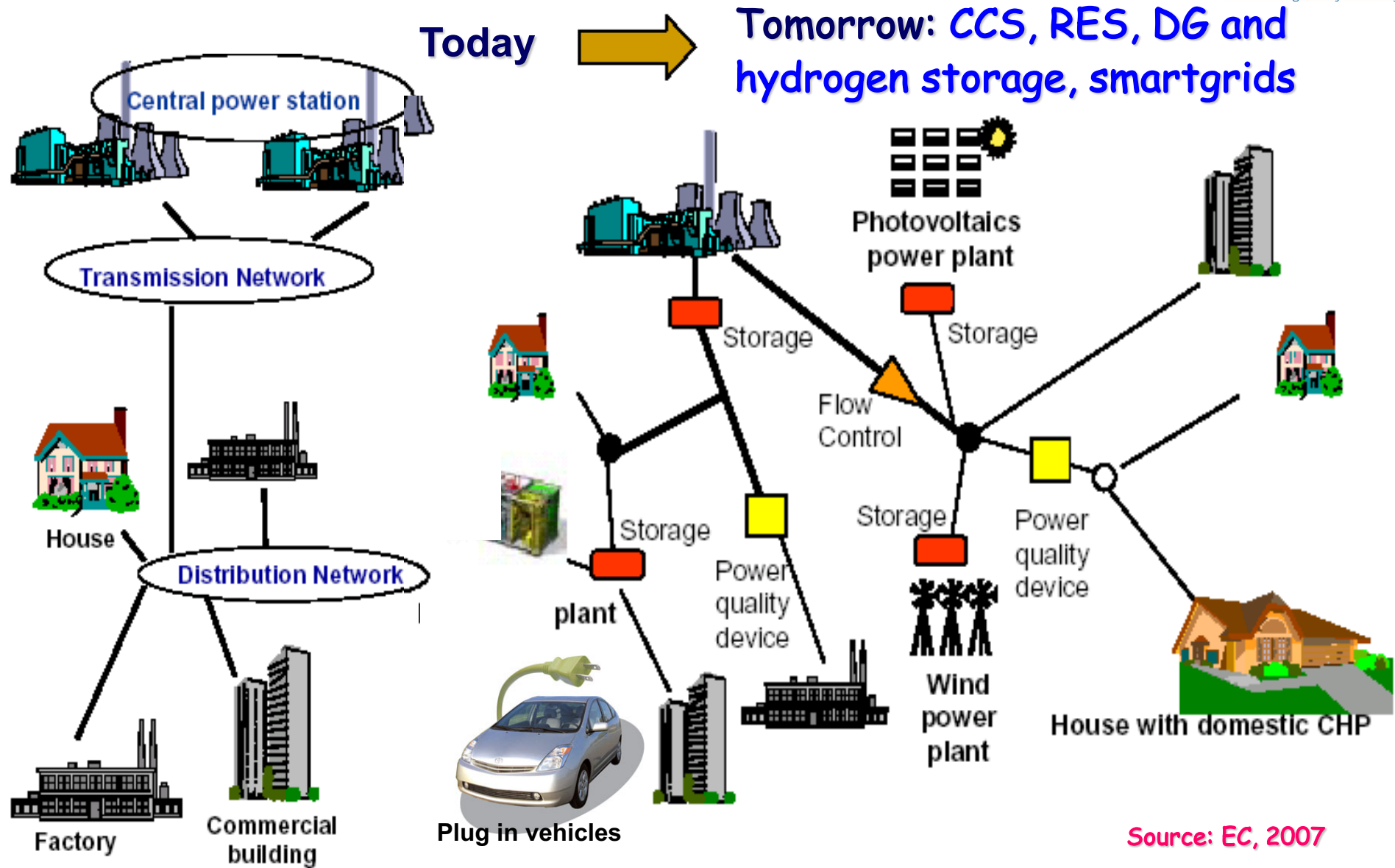
Future energy systems (optimistic scenario)

EU energy system in 2040-50*



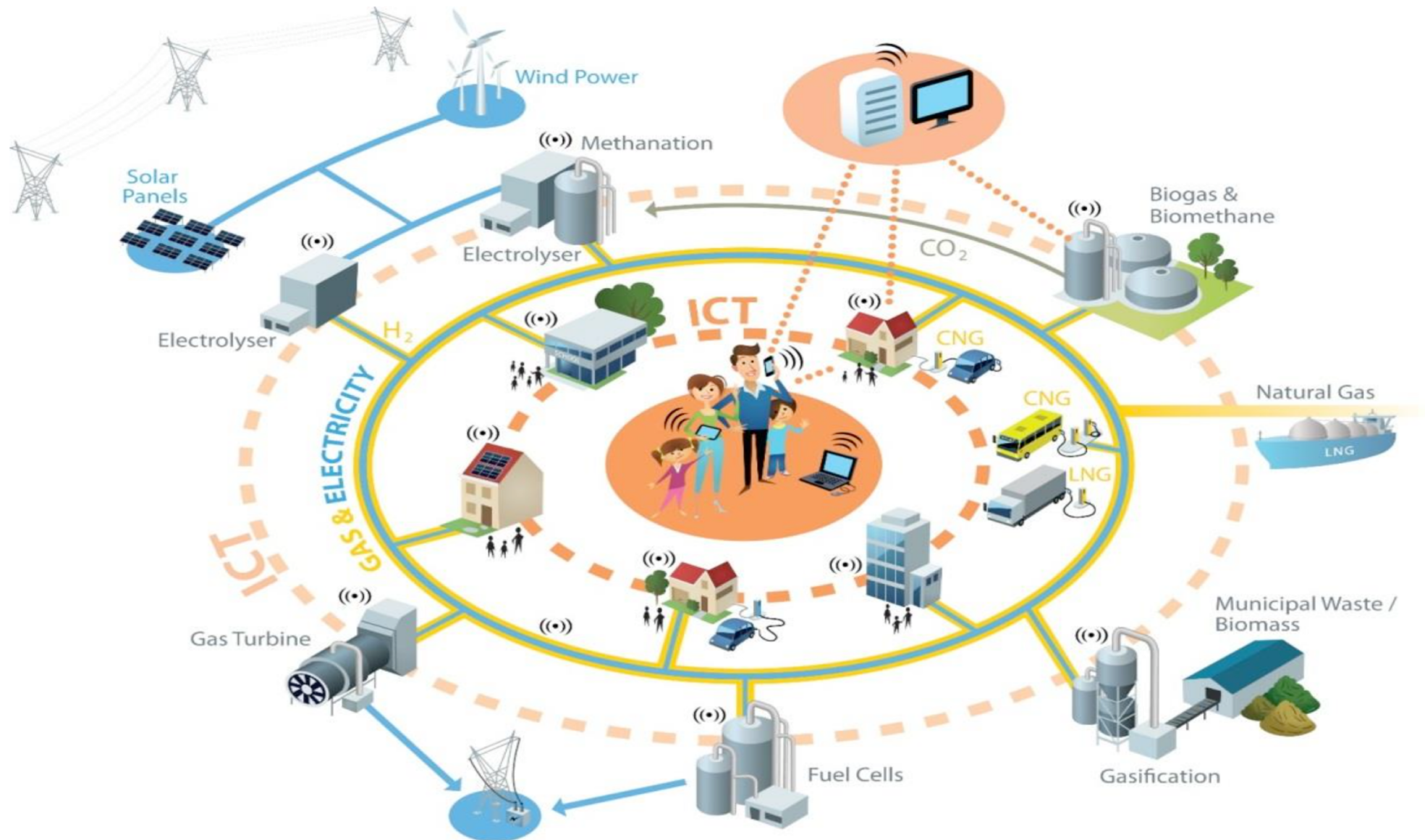
* Poullikkas A., 2009, *Introduction to Power Generation Technologies*, ISBN: 978-1-60876-472-3

Future power systems

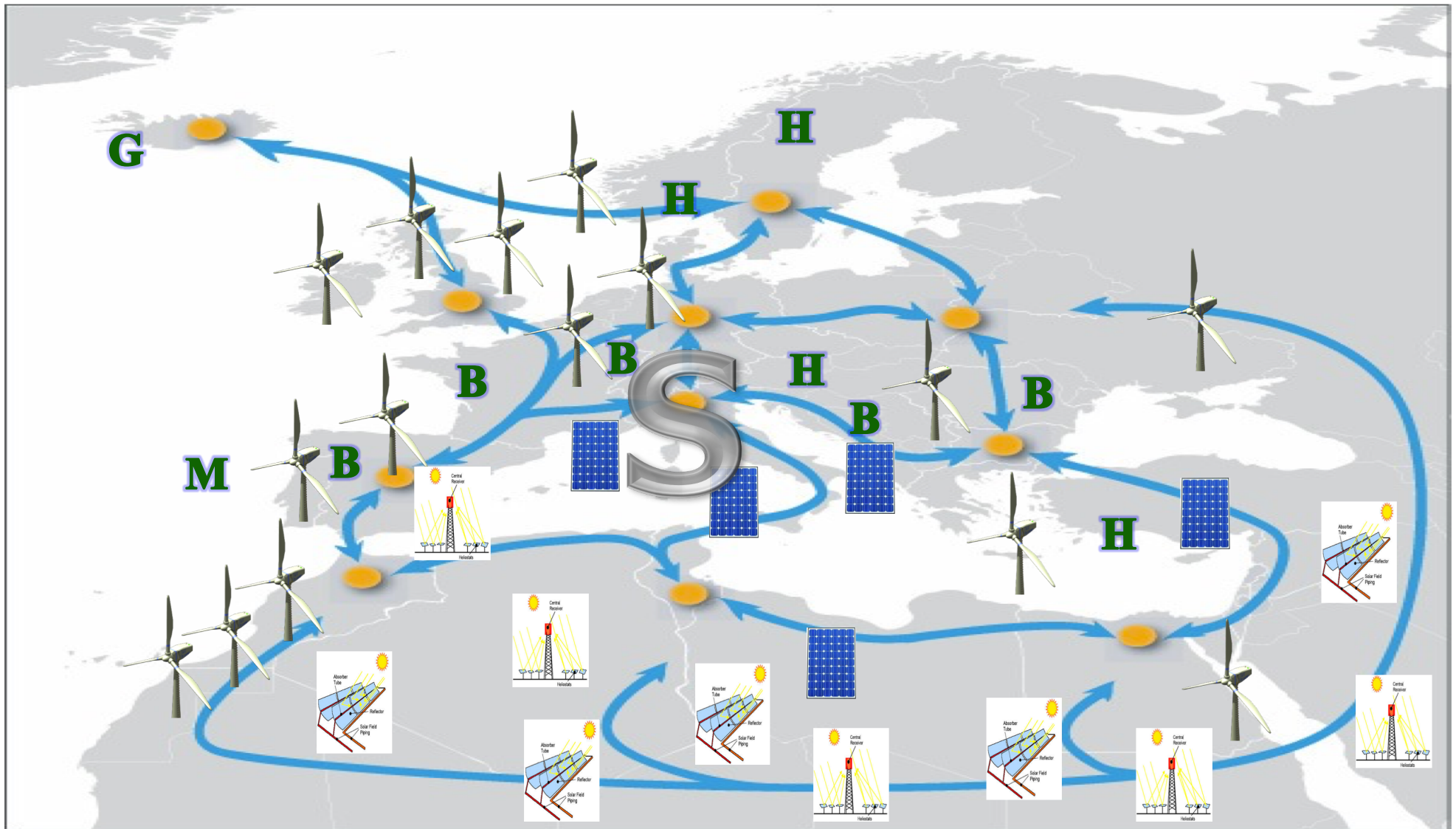


Source: EC, 2007

End goal – the smart future



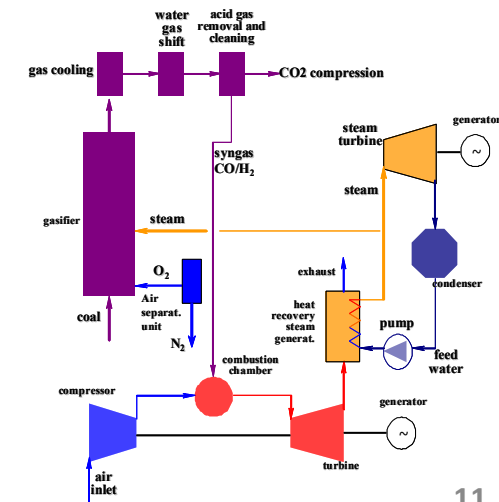
The Super Smart Grid after 2050* (may allow for 100% RES)



* Poulikkas A., 2013, *Sustainable Energy Development for Cyprus*, ISBN: 978-9963-7355-3-2

Long term EU energy strategy (2050)

- A vision of carbon free EU
- Main ingredients of future sustainable energy systems:
 - Large scale integration of renewable energy sources
 - Distributed generation
 - Carbon capture and storage
 - Smartgrids
 - Electric vehicles
 - Storage devices
 - Hydrogen

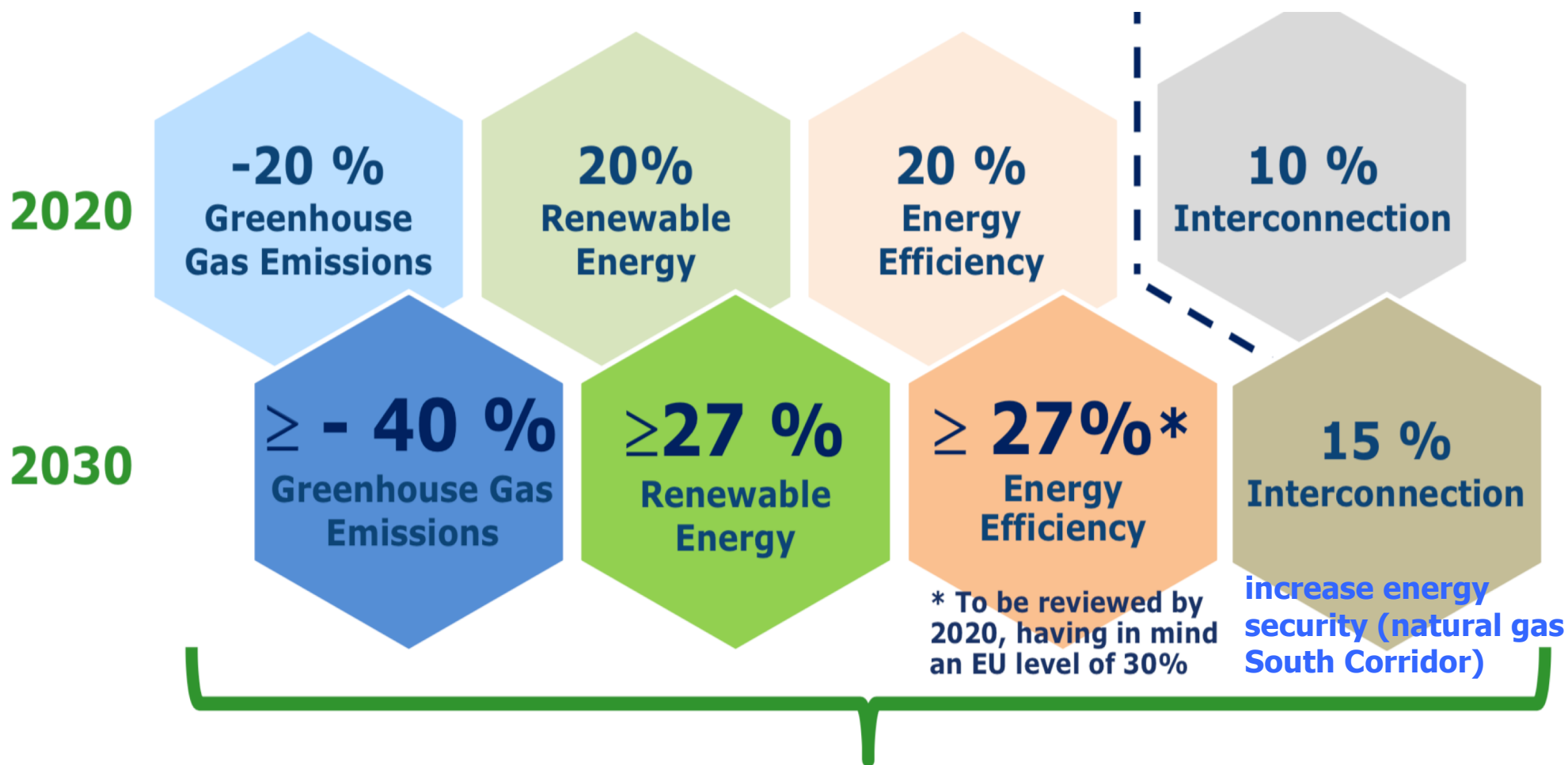


Need to develop advanced simulation tools, new sustainable technologies and infrastructure !!

EU energy targets

Energy Union – Winter Package

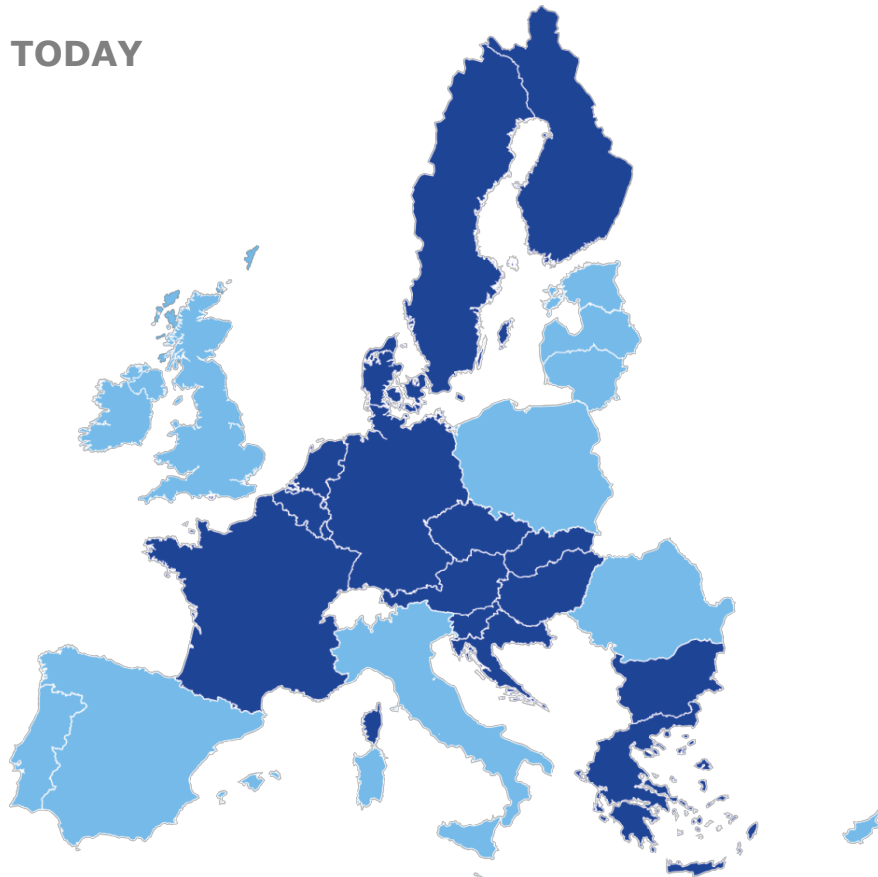
EU medium and long term targets



2050 **-80%** **Greenhouse Gas Emissions**

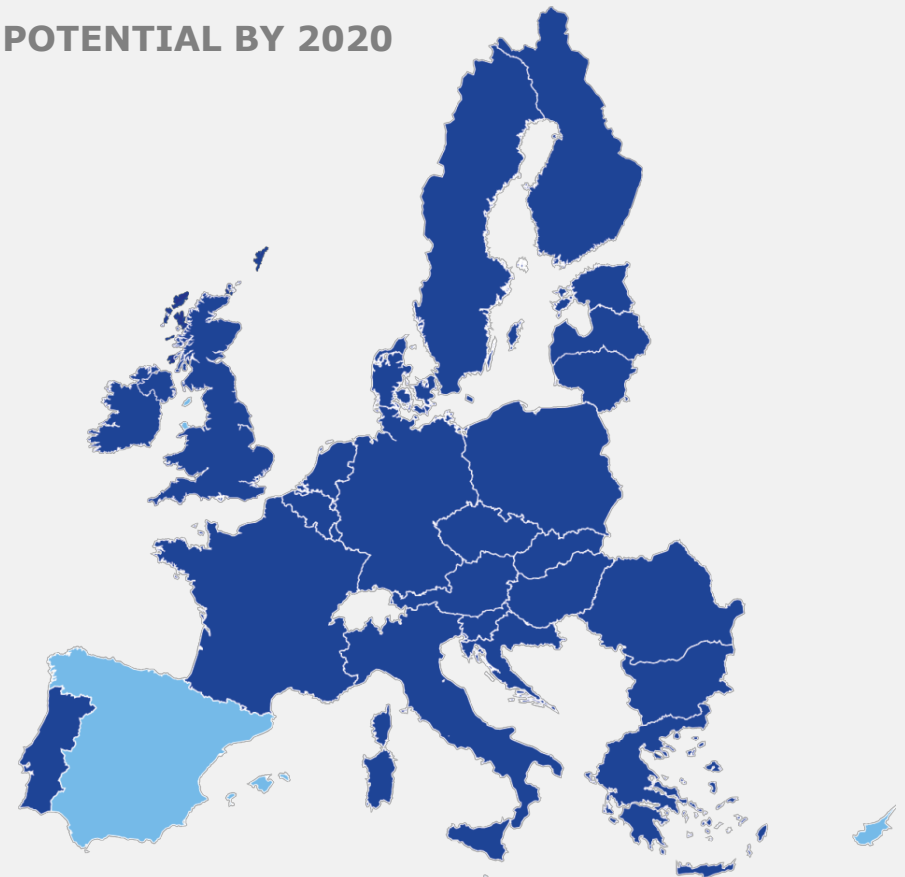
Connecting electricity markets

TODAY



- Countries meeting the 10% **interconnection** target
- Countries not meeting the 10% **interconnection** target

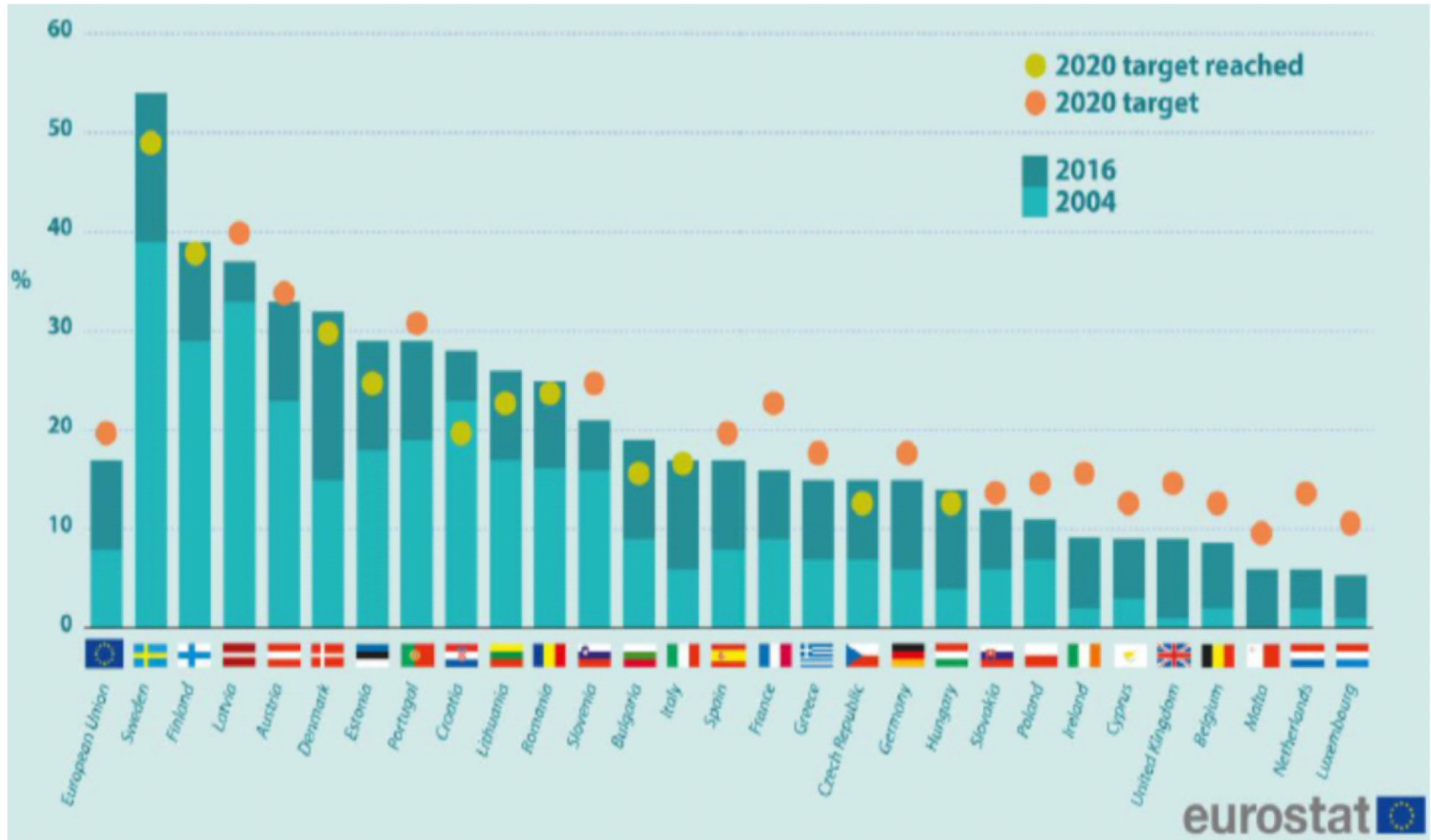
POTENTIAL BY 2020



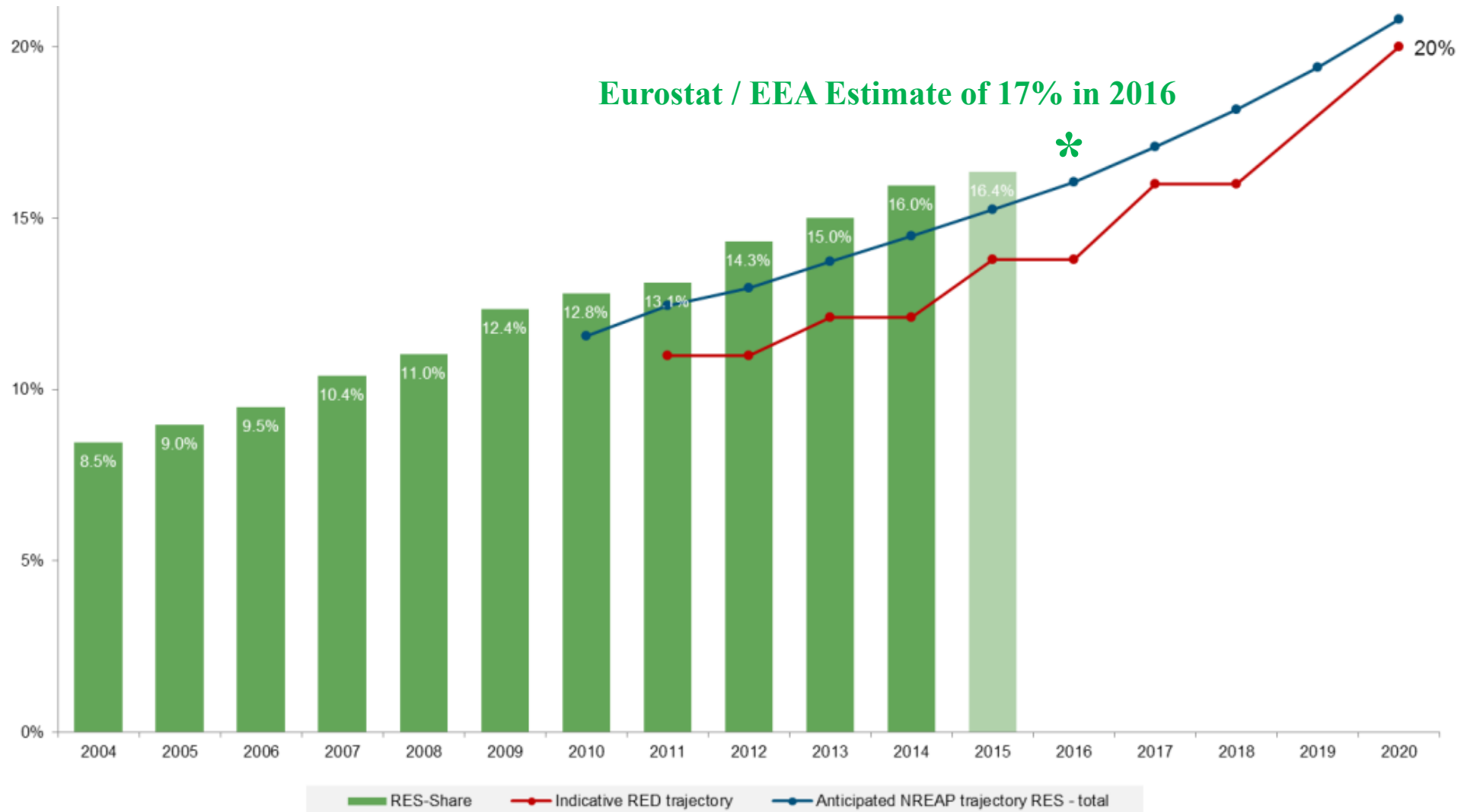
Efforts need to be stepped up for those below the 10% target by 2020, mainly Spain and Cyprus, and in view of achieving the 15% target by 2030.

Current RES share per MS

(in % of gross final energy demand)



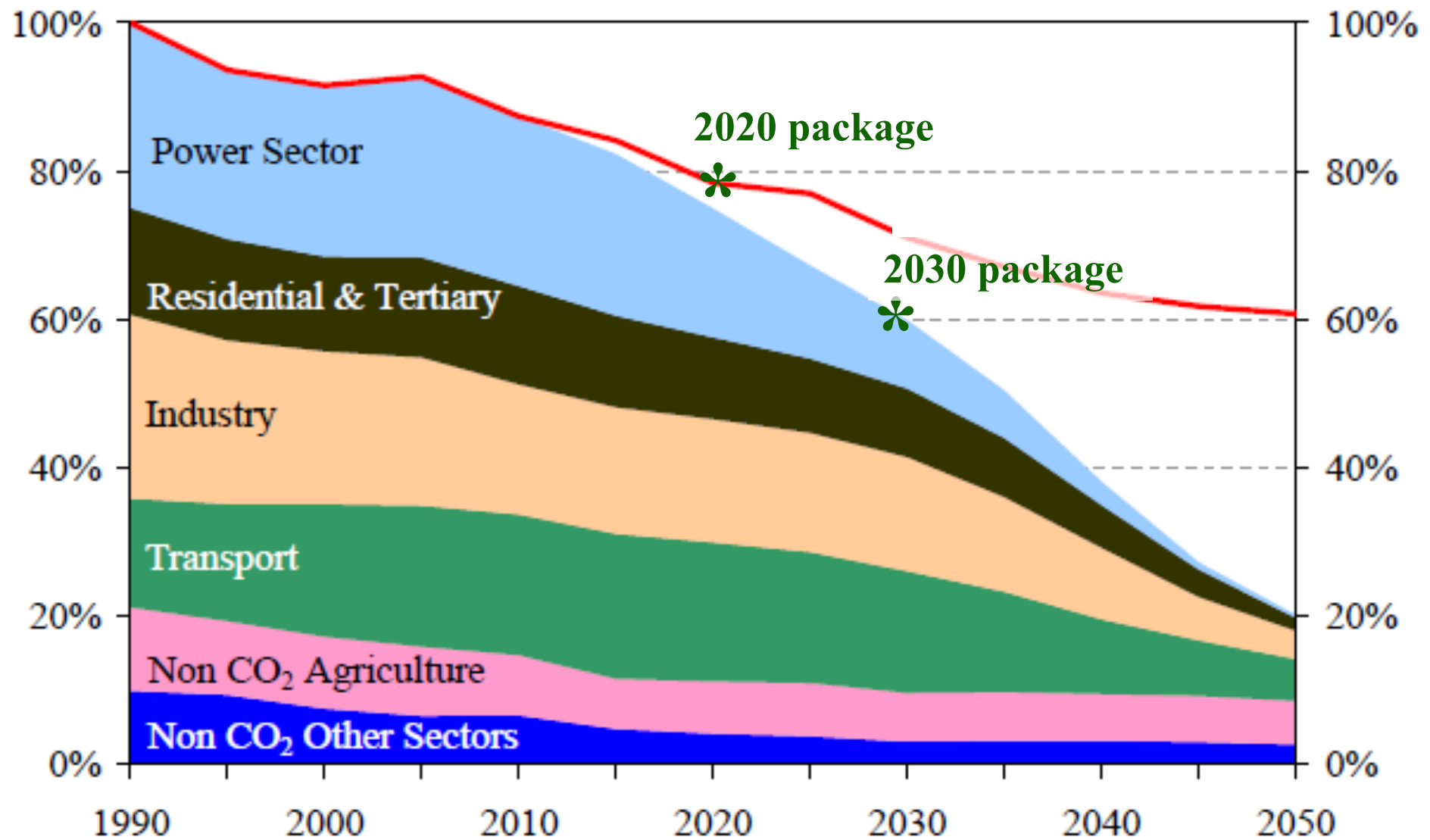
EU RES share by 2020



RED: Renewable Energy Directive

NREAP: National Renewable Energy Action Plan Trajectories

EU reduction in greenhouse gas emissions



Elements of Winter Package



**Energy Union
Governance**



Energy Efficiency
(Energy Efficiency
Directive, European
Performance of
Buildings Directive)



Renewables
(Revised Renewable
Energy Directive)



**New Electricity
Market Design**
(including Risk
Preparedness)



**Energy prices
and costs
report**

- **A set of coherent measures**

Clean energy for all Europeans

Citizens at the centre

- **Completion of the internal electricity market**
- **Common tariffs within EU**
- **More and more prosumers and definition of their basic rights**
- **Authorised to sell excess electricity to the grid, “without disproportionate procedures and charges that are not cost effective”**
- **Able to choose and change suppliers (like other consumers)**

Key aims of recent Winter Package

- **To establish a common power market design across EU and to ensure the adequacy power systems**
- **To promote the better integration of electricity produced from RES into the market**
- **To advance energy efficiency, energy cleanliness and energy performance**
- **To implement rules on the governance of the Energy Union**

Legislative proposals of Winter Package

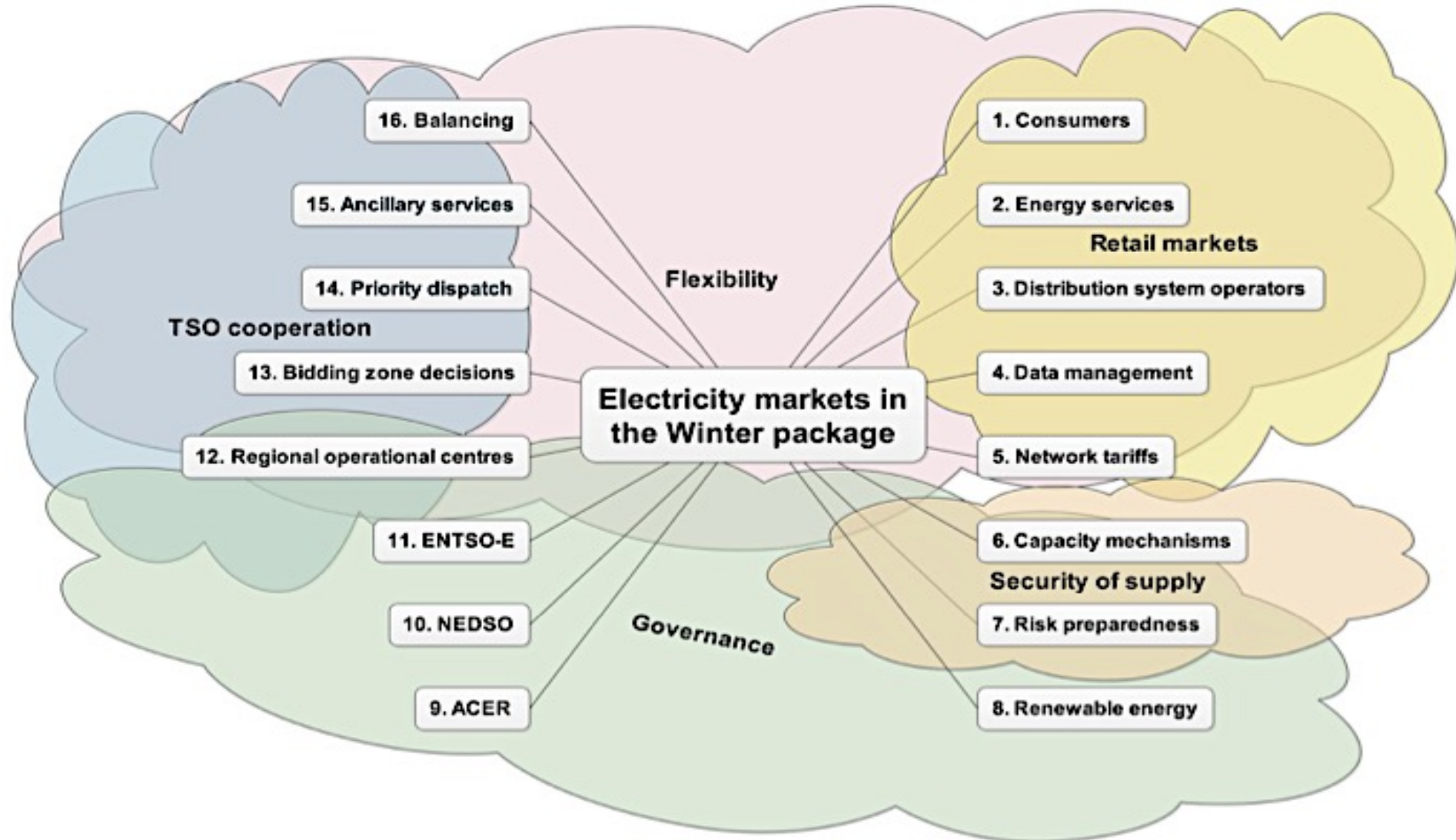
- **Proposals for a recast of the Internal Electricity Market Directive and Regulation**
- **Proposal for a recast of the Renewable Energy Directive**
- **Proposal for a recast of the ACER Regulation**
- **Proposal for a revised Energy Efficiency Directive**
- **Proposal for a Regulation on the Governance of the Energy Union**

• ...

Additional documents of Winter Package

- **Large number of Communications**
- **Large number of Commission Regulations**
- **Large number of memos, factsheets, reports, impact assessments**
- **Other documents covering various topics, ranging from capacity mechanisms to eco-design, bioenergy sustainability, energy prices and costs, energy funding, innovation and transport**

Electricity markets in Winter Package



CERA challenges

Towards 2030

Βραχυπρόθεσμες ενέργειες ΡΑΕΚ

- Υλοποίηση του νέου μοντέλου αγοράς ηλεκτρισμού
- Ολοκλήρωση του λειτουργικού και λογιστικού διαχωρισμού της ΑΗΚ
- Εκσυγχρονισμός κανονισμών αδειοδότησης ηλεκτρισμού και φυσικού αερίου
- Δημιουργία πλαισίου αγοράς φυσικού αερίου
- Καθορισμός επιλογών για την εισαγωγή και τη δημιουργία αγοράς φυσικού αερίου για χρήση σε όλους τους τομείς της οικονομίας
- Ένταξη συστημάτων αποθήκευσης ενέργειας
- **Εκπλήρωση στόχων ΑΠΕ για το 2020**