The Fate of the EU's Sustainable Energy Policy

Francis McGowan

The EU's Energy and Climate Impact

The EU's Record on Tackling Climate Change: How Much of a Leader?

The 202020 by 2020 targets

The Road to 2020: Easy Targets,….

…Or Growing Discord

After 2020: Sustainability Sustained?

Can the EU Recover a Leadership Role on Climate Change?

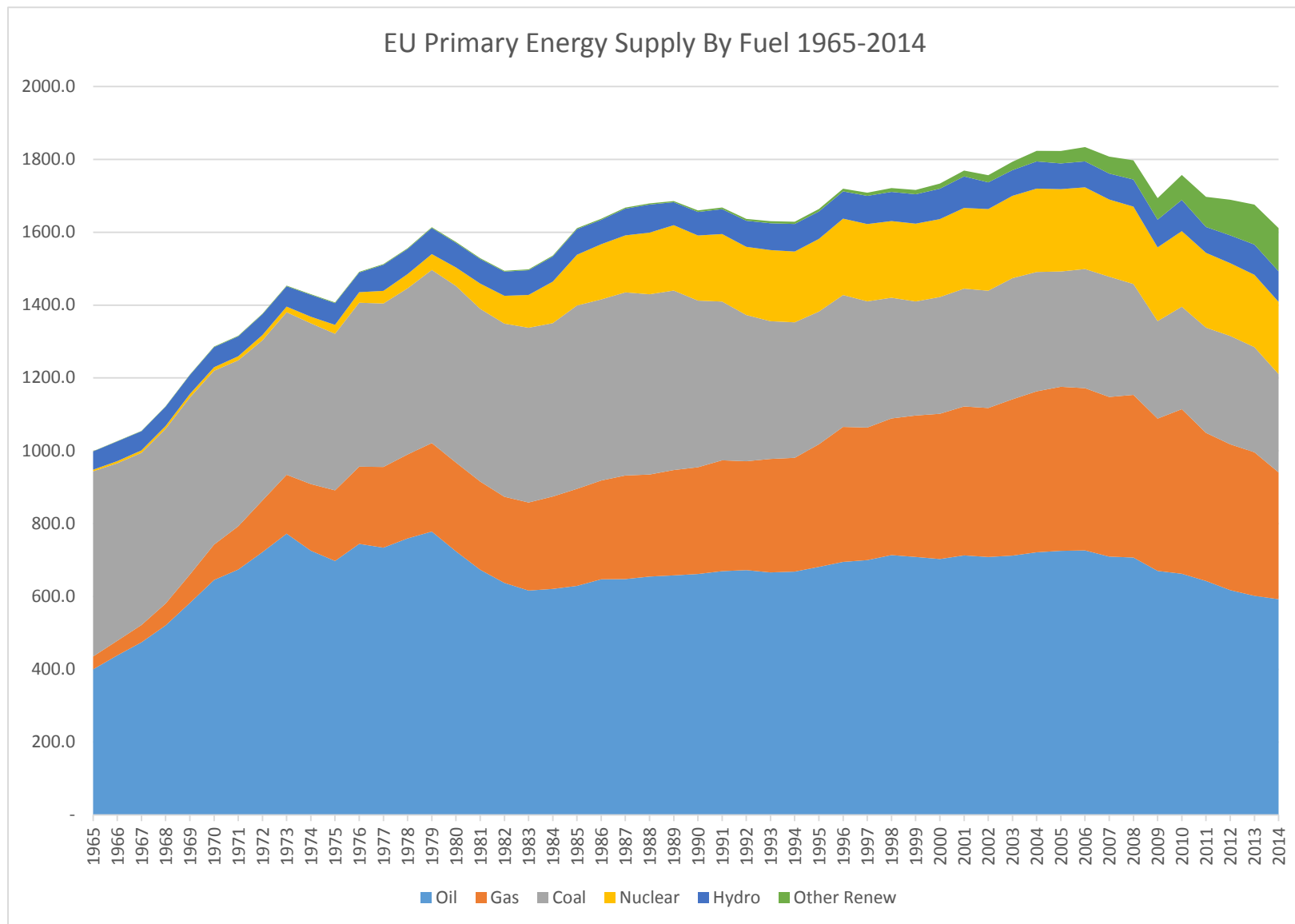**The EU's Energy and Climate Impact**
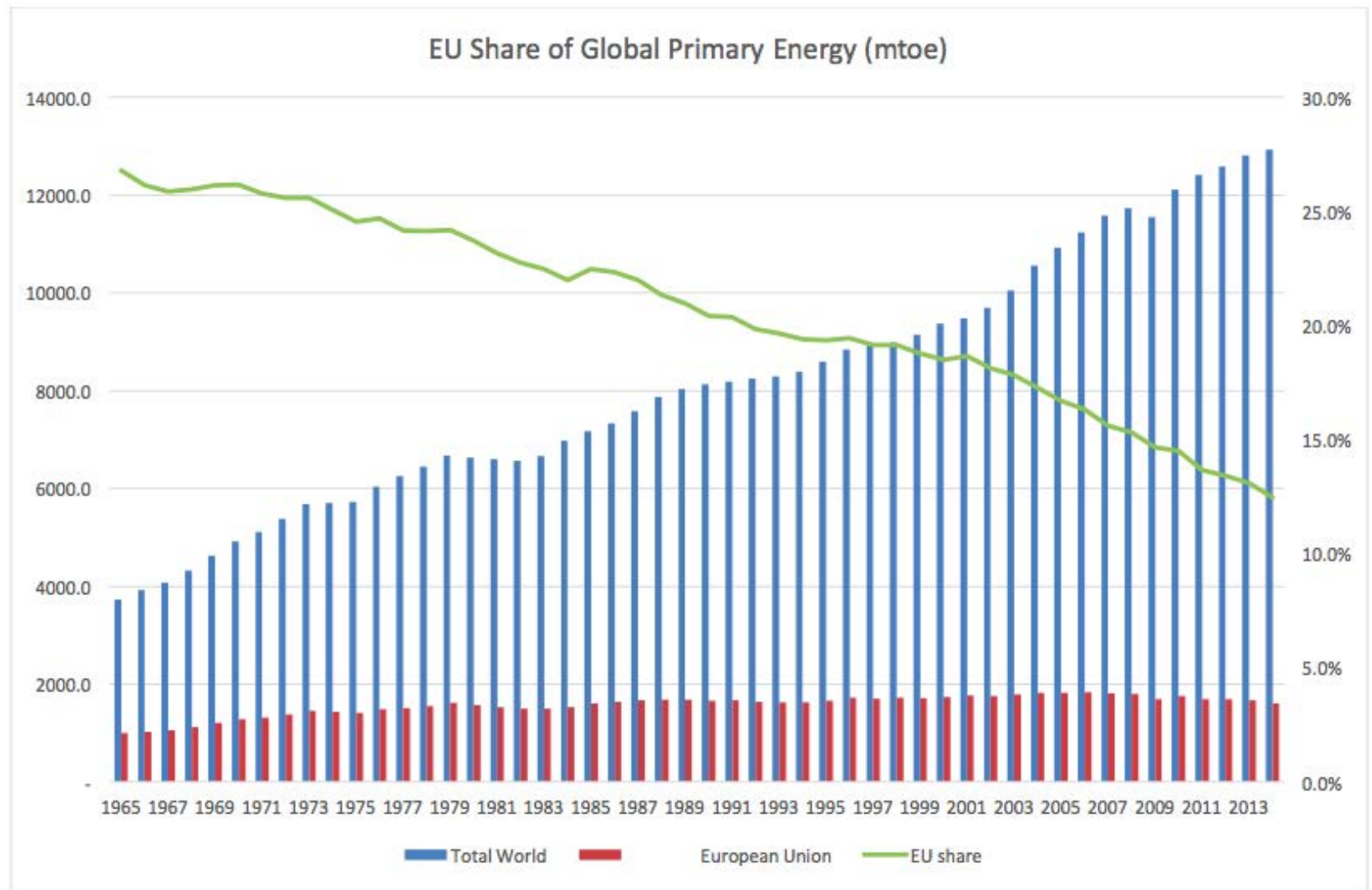
The EU's Energy Transition so far (1965-2014)

- Declining rates of growth over time; absolute fall in last decade
- Shifting energy mix
  - Coal slides from 50% to 16% (even more dramatic for production)
  - Oil oscillates around 40%
  - Gas increases from 4% to 25%
  - Nuclear rises to stabilize from 1980s at c.12%
  - Renewables rises to 13% in last decade (due to new renewables deployment)
- Growing energy dependence
  - Fossil fuel production decline outpaces renewable growth
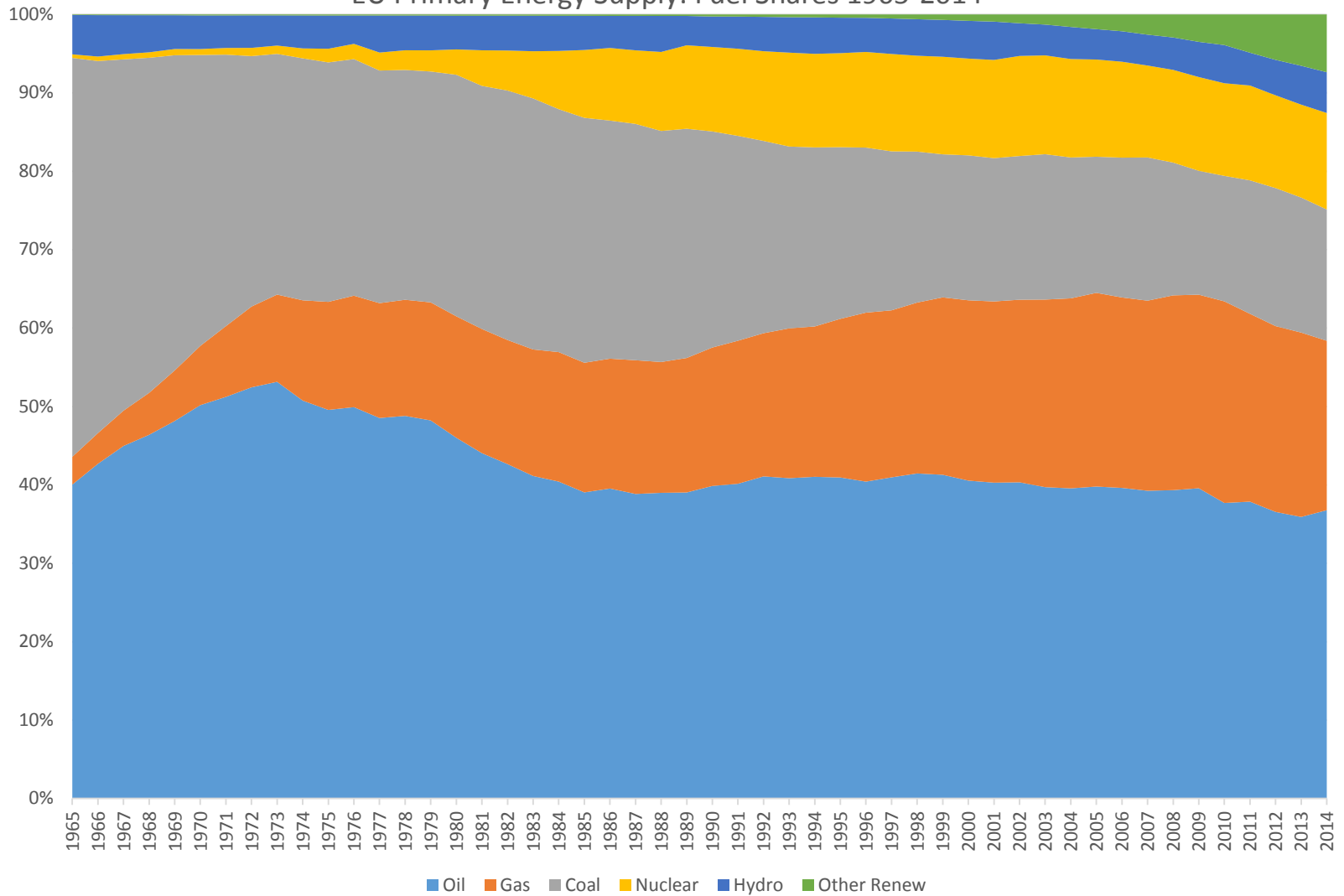- Diversity of national contexts

The EU's Carbon Impact

- Steady decline (structurally or policy driven?)

§

EU Primary Energy Supply By Fuel 1965-2014

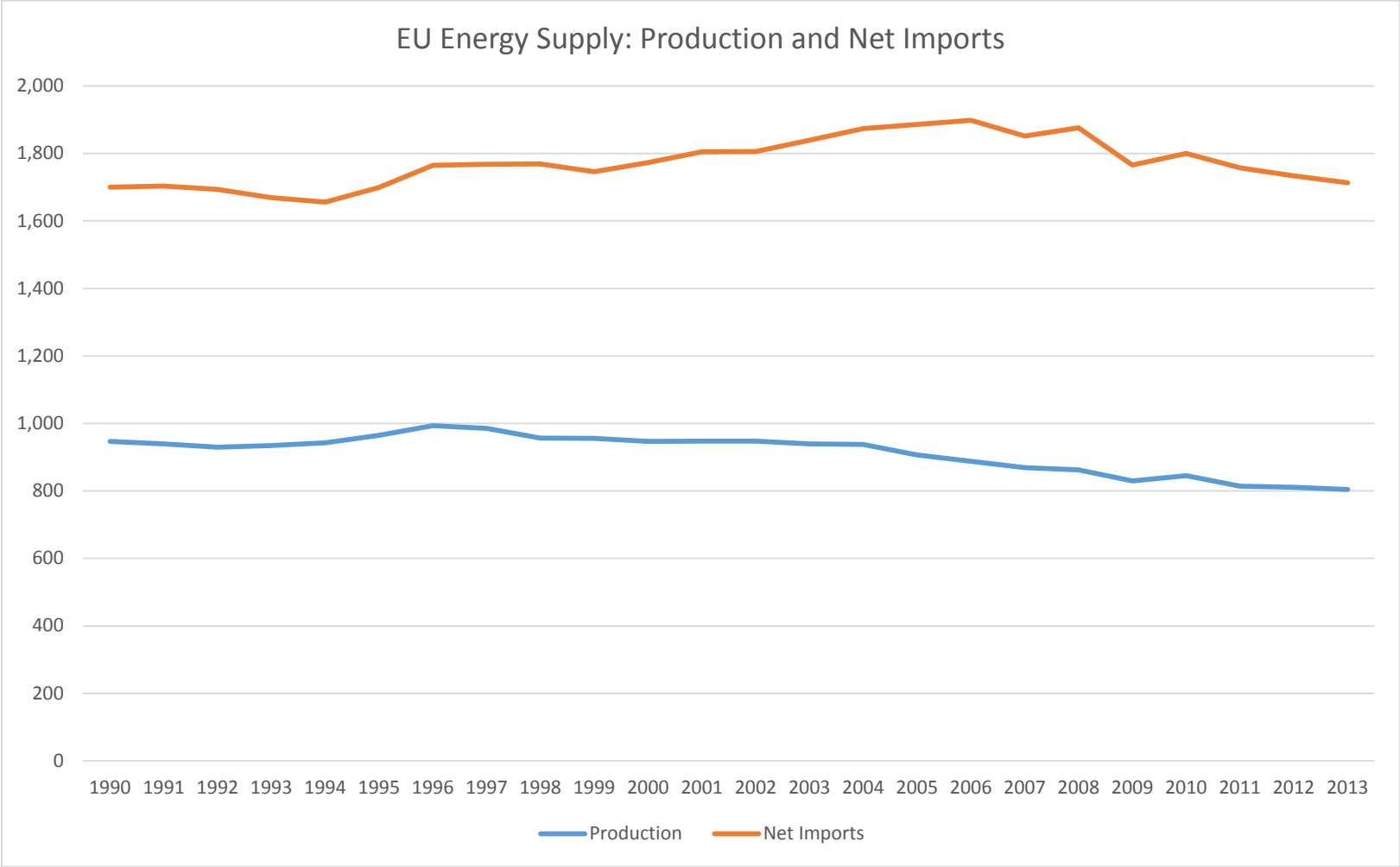Legend: Oil, Gas, Coal, Nuclear, Hydro, Other Renew

EU Share of Global Primary Energy (mtoe)

EU Primary Energy Supply: Fuel Shares 1965-2014

Oil Gas Coal Nuclear Hydro Other Renew

EU Energy Supply: Production and Net Imports

— Production   — Net Imports

Figure S 3 Total energy demand, shares by fuel (%) in each Member State, 2012

Source: ESTAT SIRENE v2, Final data as of 02 May 2014

Legend: Natural Gas, Solid Fuels, Crude Oil, Renewable energies, Nuclear
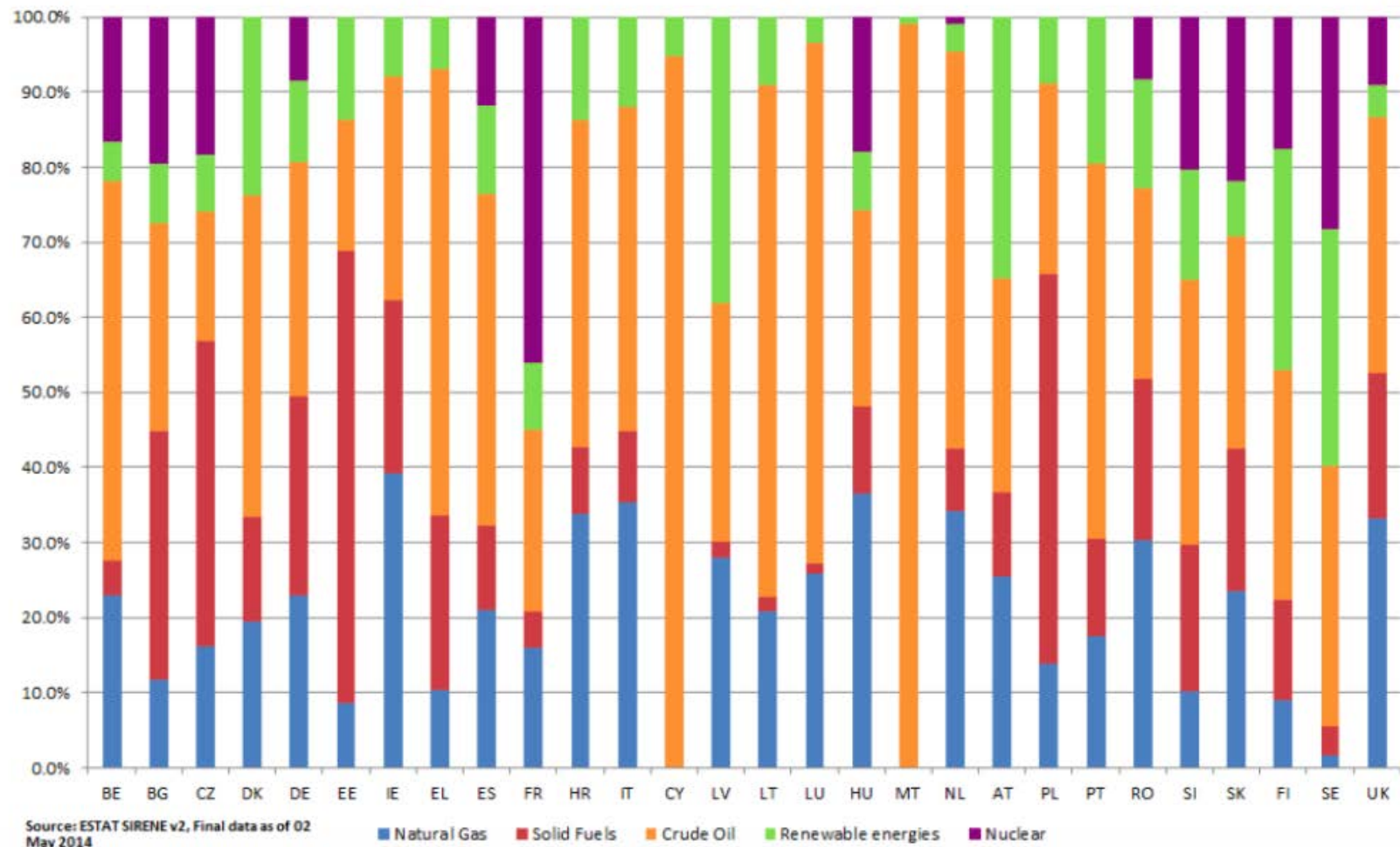
EU Greenhouse Gas Emissions 1990-2012

Legend: CO2 Emissions (m.tonnes CO2)) — GHG's Emissions (m.tonnes CO2) — CO2 per Capita - kg CO2/cap
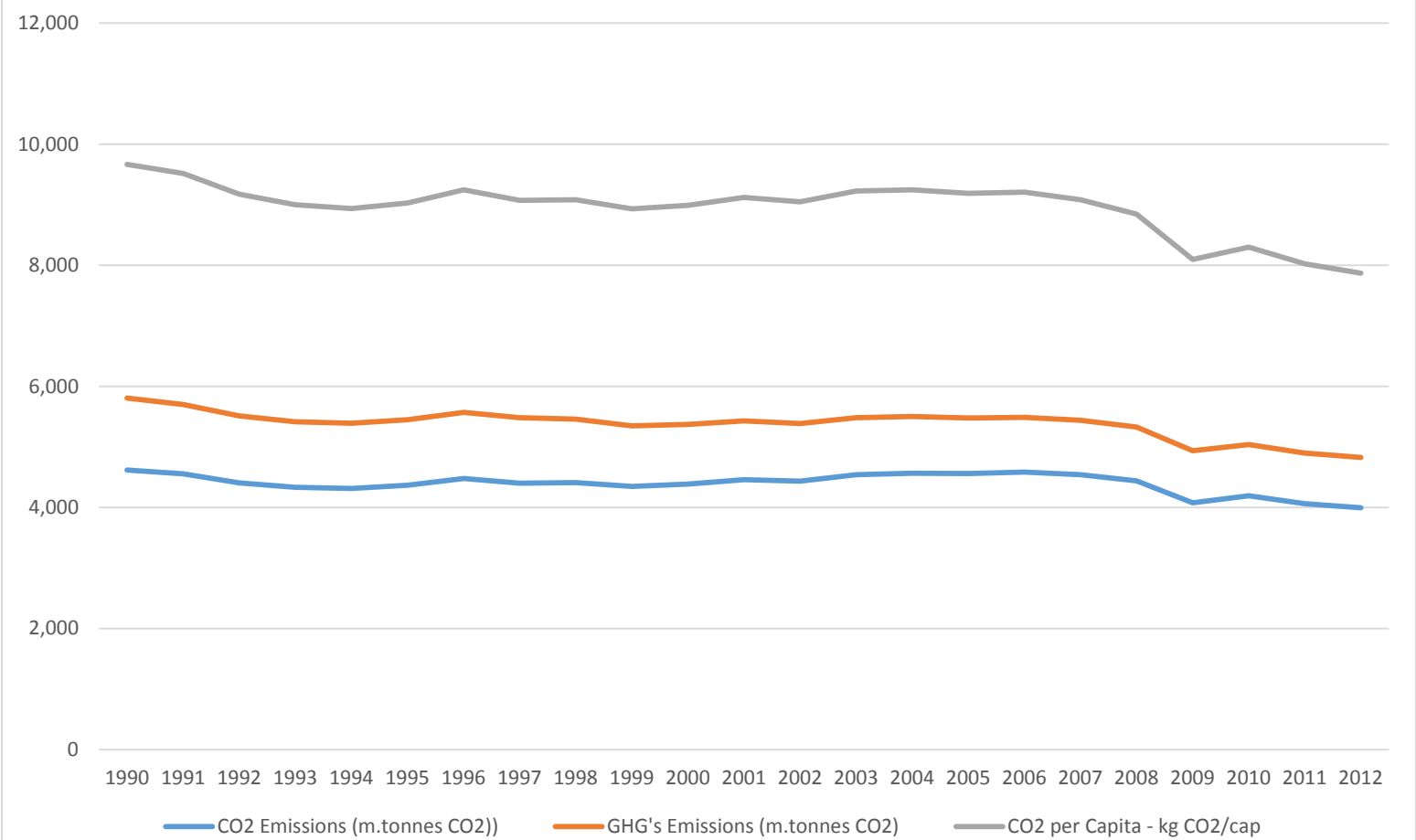
The EU's Record on Tackling Climate Change: How Much of a Leader?

The EU and Climate Diplomacy

- From Rio to Kyoto: internal initiatives raising external profiles
- After Kyoto: "the only game in town"?
- Leading by example? ETS, Energy Policies
- Multilevel Reinforcement: Internal Progress/External Credibility/Internal Progress

The Evolution of the EU's Climate and Energy Policies

- The EU Energy Policy Trilemma (security, sustainability, competitiveness)
- Historically a difficult dossier – national sovereignty prevails
- But some achievements (market liberalization, environmental protection)
- 2000s: Patchy progress (ETS, energy efficiency, renewables)

The Climate-Energy Package Context

- Growing security concerns (2006 gas disruption, rising oil and gas prices)
- President Barosso's "big idea" to revive the EU project
- Endorsement from all major member states (including UK)
- Scepticism from new (CEE) member states and energy intensive industry
- Clean/green technology as opportunity for EU industrial competitiveness

The 202020 by 2020 targets

Core elements of the package

- 20% cut in greenhouse gas emissions (on 1990 levels) (30% if strong international agreement)
- 20% share for renewable energy in total energy consumption (10% for transport)
- 20% improvement in energy efficiency (non binding)
- Commitment to CCS and Energy Technology more generally (SET Plan)

Negotiating the Package

- Copenhagen 2009 COP driving the debate
- Rapid progress on most fronts (binding targets) – agreed within a year
- Some concessions to sceptics
- Financial crisis (autumn 2008) – help or hindrance?

The package in place

- Relatively smooth implementation (less so for efficiency…)
- Reporting and monitoring processes in place, interim targets met
- Acceleration of RE policies in many member states (FIT effects)
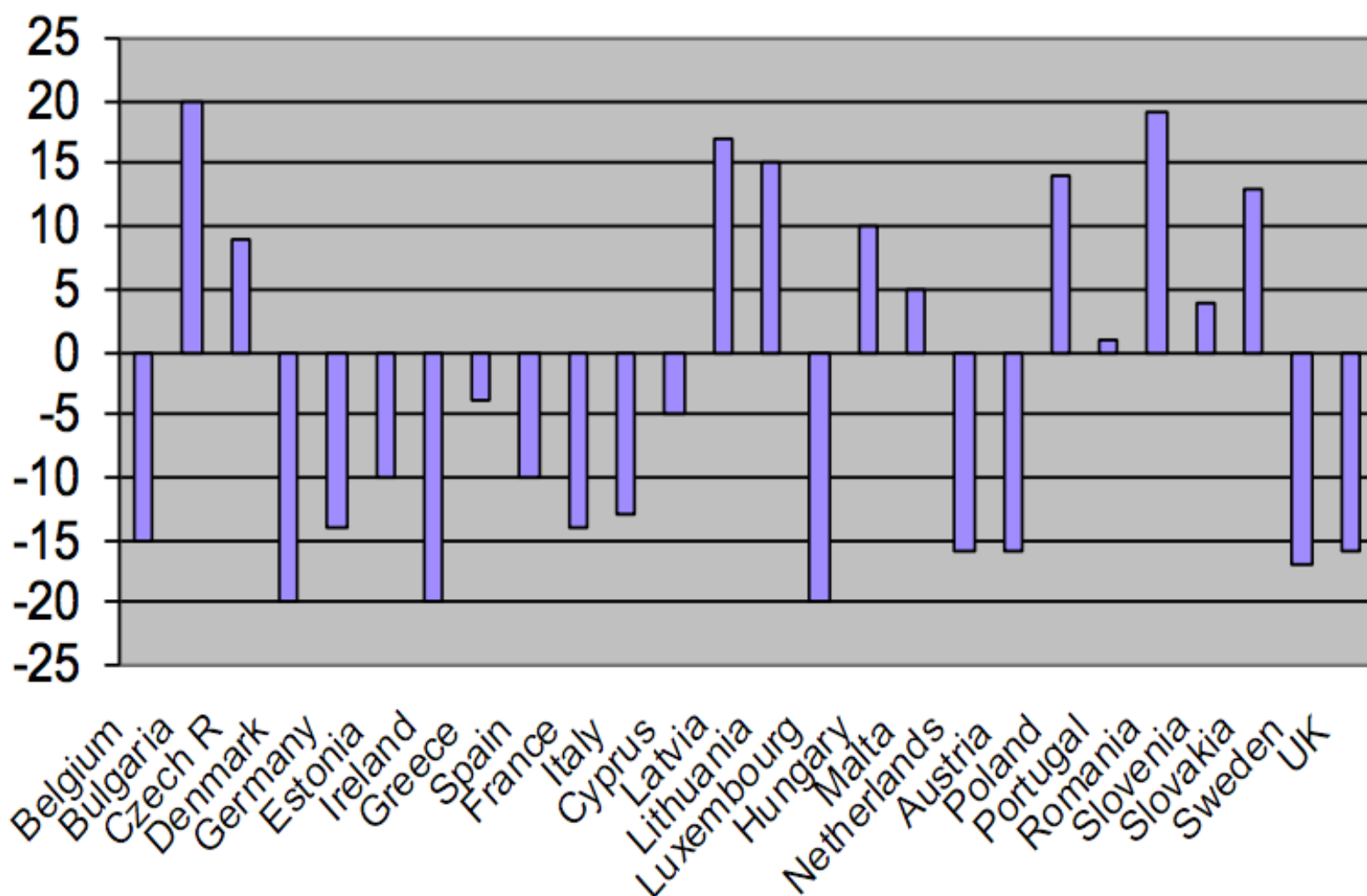- Commission outlining 2050 decarbonisation vision

Share of RES in gross final energy consumption (%)
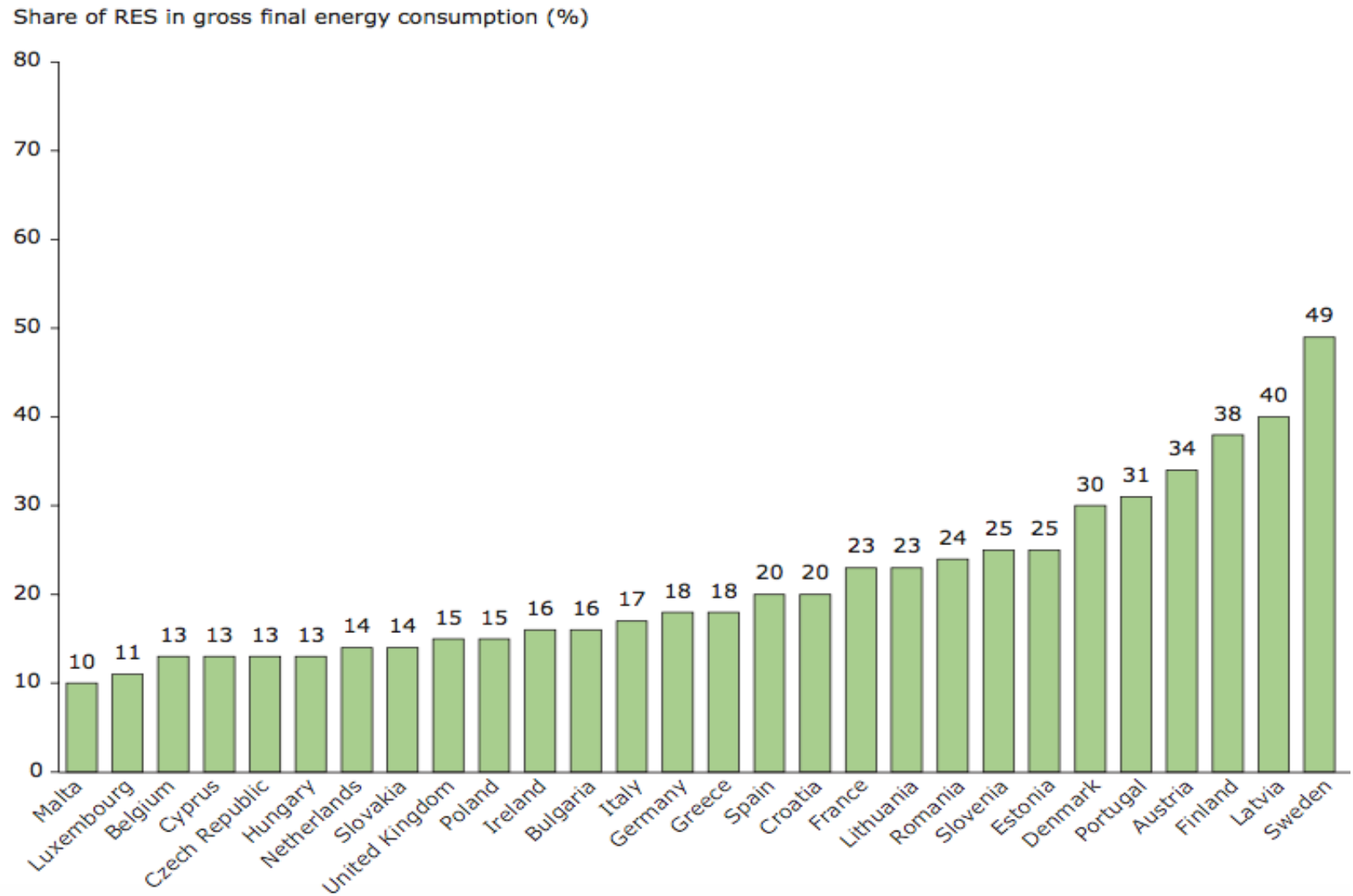
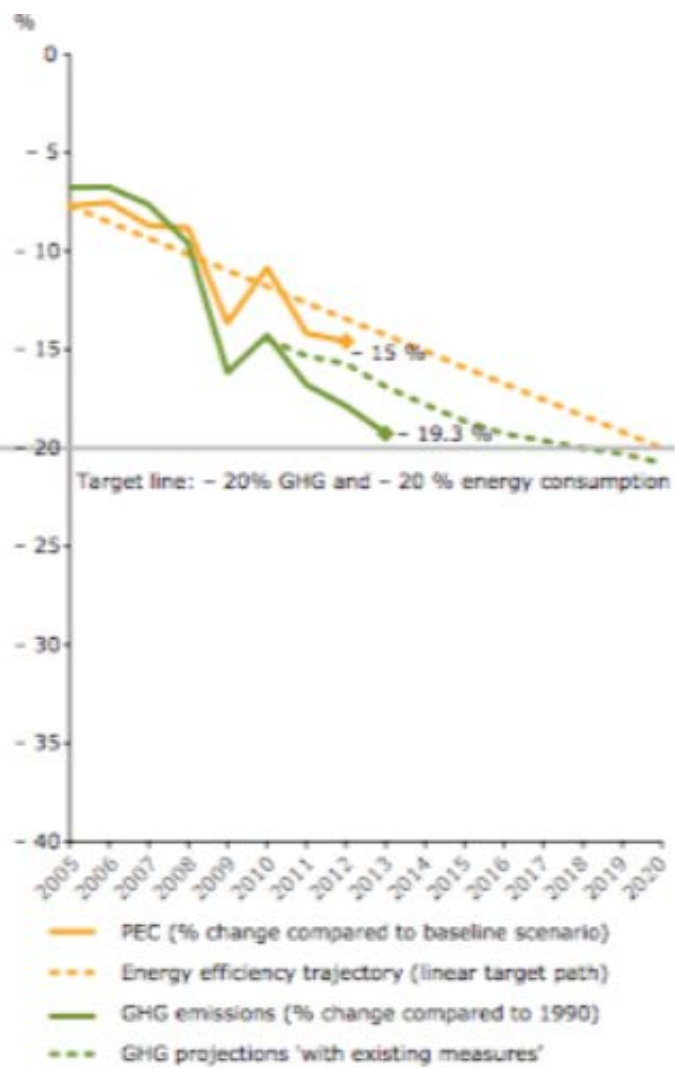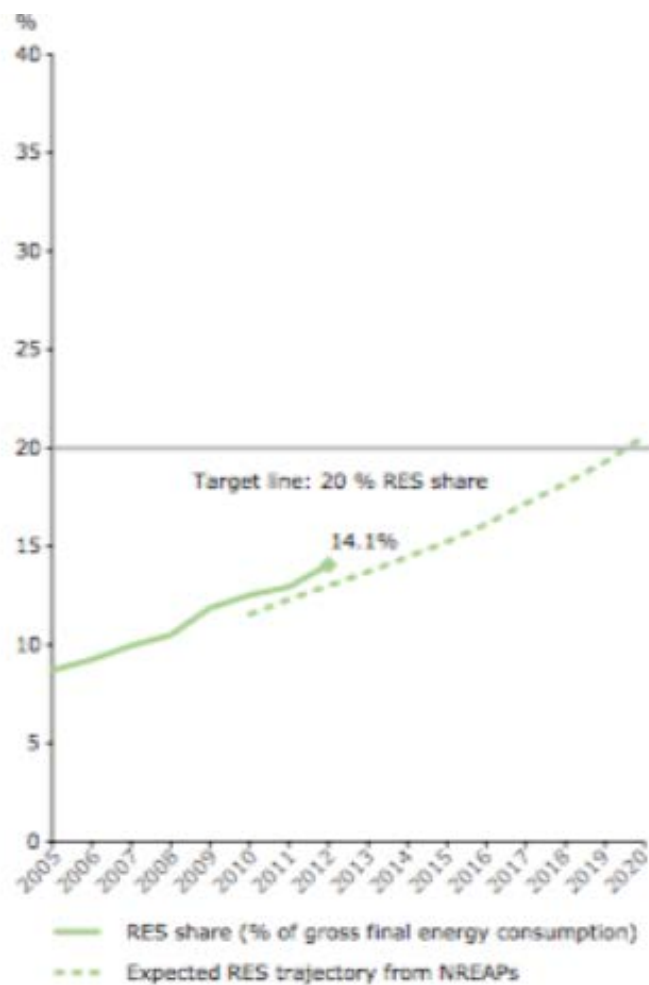**National Renewable 2020 Targets**

EU 27 Emission Reduction Targets 2020

The Road to 2020: Easy Targets....

Progress on the 2020 objectives: Mission Accomplished?

- 20% of what? Economic Stagnation and Declining Energy Consumption
- Carbon Reduction: more or less met – why?
    - o Falling cap but also falling demand
    - o The effect of multiple targets (renewables and efficiency effects)
    - o Effective rent-seeking in setting a low target
- Renewables: ahead of the curve?
    - o Rapid take-up thanks to (over) generous national policies
    - o Overall achievement but big divergences in national outcomes
    - o Risk of investment slump as national policies reined in/reversed?
    - o Transport target unlikely to be met
- Efficiency: the hardest ask?
    - o Arithmetic effect?

Left chart:

%

40
35
30
25 —————————————————————— Target line: 20 % RES share
20
15   14.1%
10
5
0

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

——— RES share (% of gross final energy consumption)
- - - Expected RES trajectory from NREAPs

Right chart:

%

0
− 5
− 10
− 15 %
− 15
− 19.3 %
− 20   Target line: − 20% GHG and − 20 % energy consumption
− 25
− 30
− 35
− 40

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

——— PEC (% change compared to baseline scenario)
- - - Energy efficiency trajectory (linear target path)
——— GHG emissions (% change compared to 1990)
- - - GHG projections 'with existing measures'

…. Or Growing Discord

EU Apparently still committed to maintaining policy momentum

But Policy atmospherics shifting

- Copenhagen 2009: EU sidelined as US and China return to the policy debate
- A (Fiscal) Crisis Effect: Austerity, Affordability, Competitiveness
- Growing criticisms of policy outcomes
  - Low carbon price reduces investment incentive & perverse effects (coal-lignite over gas)
  - Renewables displace clean(ish) power sources and "disrupt" systems
  - National policy changes reflected in EU stances

Commission response: more market, less subsidy for future policy

- State Aid Guidelines and Internal Market Design

But Intervention still required to address ETS problems

After 2020: Sustainability Sustained?

2030 Objectives

- Intended as EU's "offer" at Paris COP – recovering leadership?
- But industry and some member states opposed to EU "vanguardism"
- And UK seeks to limit scope of EU offer

2014: Agreement on Targets

- 40% binding target on cutting carbon emissions
- 27% binding EU target on renewable energy share (but no MS binding targets)
- 27% nonbinding target on energy efficiency improvement
- European Council to review policy progress (ie national vetoes)

Russia-Ukraine crisis and the Revival of Supply Security as a Policy Goal

- Two overlapping initiatives: Energy Security Strategy and Energy Union
- Energy Security Strategy: Infrastructure, Diversification, Efficiency, Domestic Supplies, Solidarity
- Energy Union: two visions – which will prevail?
  - Tusk Proposal stresses Fossil Fuels and Competitiveness
  - Commission Proposal reinstates Sustainability

Can the EU Recover a Leadership Role on Climate Change?

EU wants Paris to deliver a legally binding UN Agreement

How good is its offer?

- Better than most INDCs (Intended Nationally Determined Contribution)?
- But is a 40% cut sufficient?
- And is a 40% cut likely?

Can the EU maintain a cohesive position?

- Internal divisions (Old North versus New East)
- What kind of "governance" to uphold EU's own commitments?

Is the EU a credible global player?

- EU's wider crises (Eurozone, Refugees) reveal the limits of solidarity?
- And its capacity to act as one internationally
- What are the implications for its role at Paris?

Multilevel reinforcement in reverse?

- Internal Divisions/Diminished External Credibility/ Internal Deadlock