



# **Implementing Paris: Delivering the EU's "at least 40% GHG reduction" by 2030**

**Webinar Series on NDCs**

June 22, 2017

Tom van Ierland

Head of unit

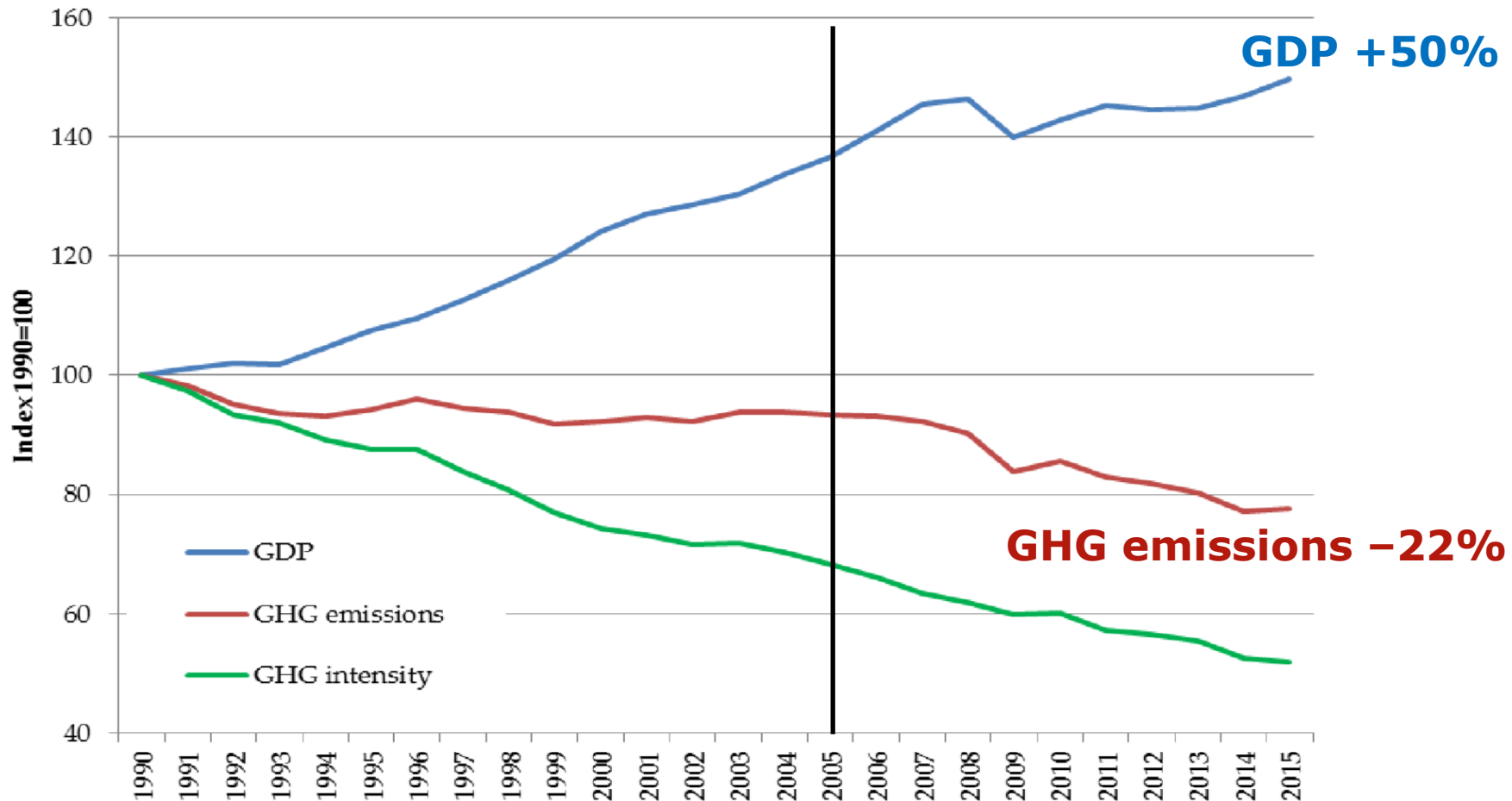
DG CLIMA

European Commission

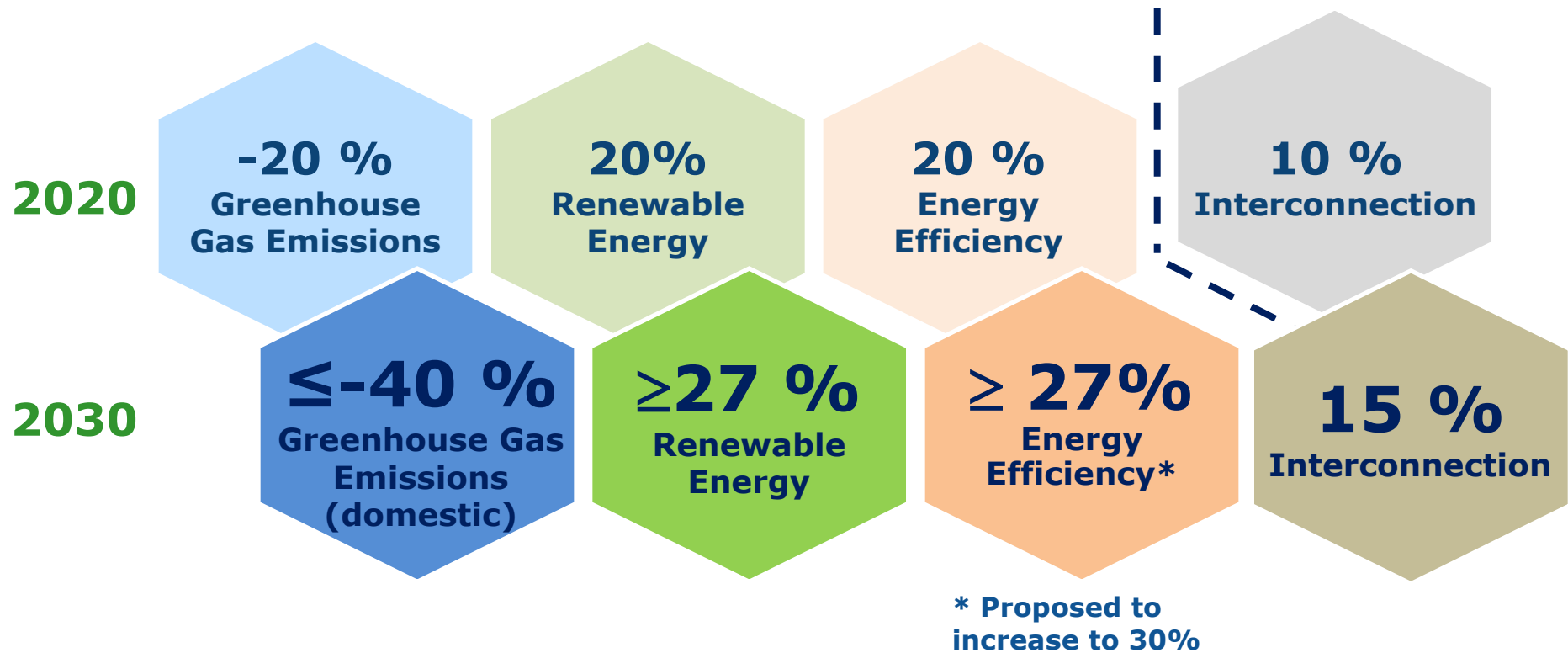
# Outline

1. *Overview*
2. *Economy-wide climate initiatives: Emissions trading, effort sharing, and land use*
3. *Sectoral legislation: Energy (renewables, energy efficiency, electricity market), transport, waste, fluorinated gases*
4. *Enabling environment*
5. *Outlook*

## State of Play: Decoupling EU economic growth from EU GHG emissions, 1990 - 2015



## At least 40% emission reductions compared to 1990... Achieved by a coherent set of climate and energy targets



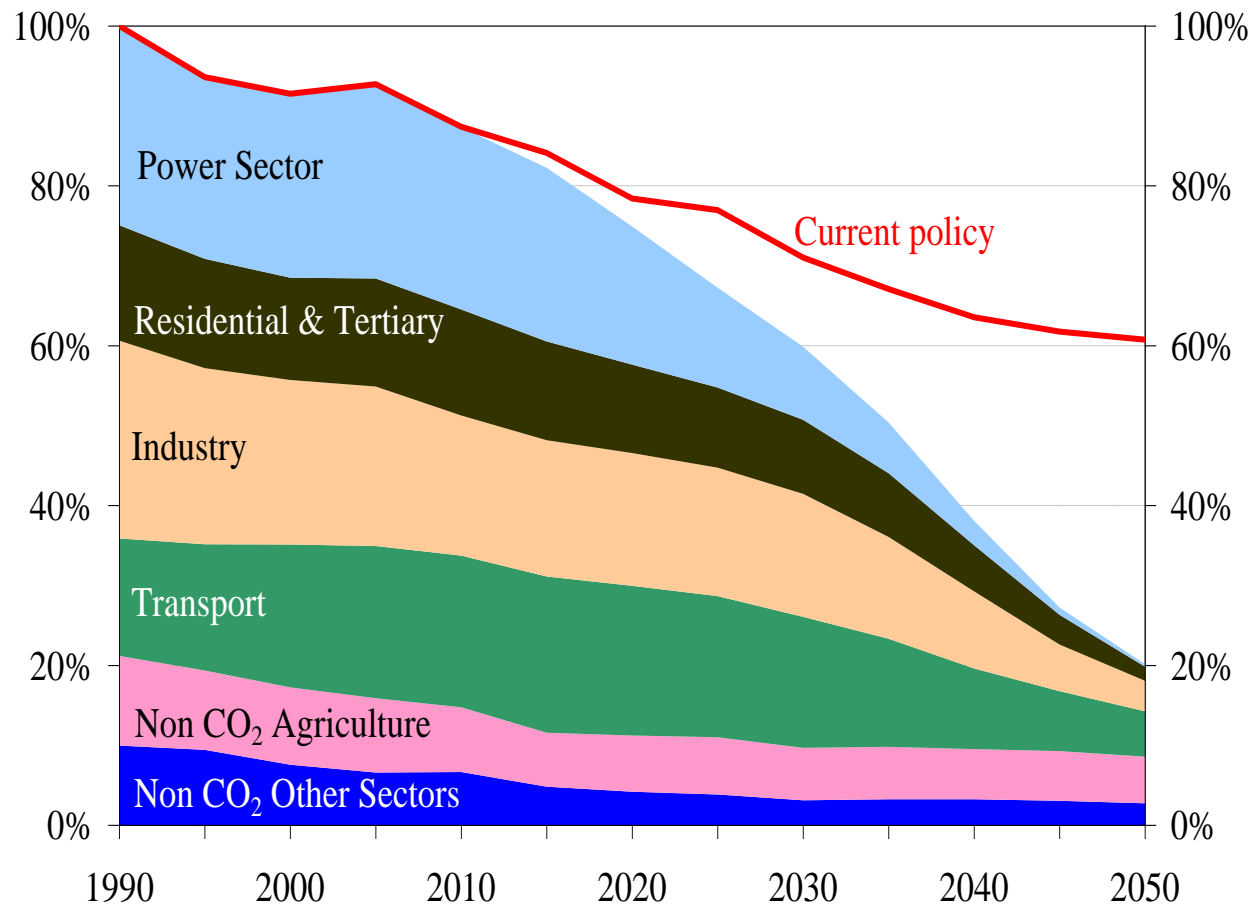
## ...getting the EU on track to well below 2 degrees Celsius

### 80% domestic reduction in 2050 is feasible:

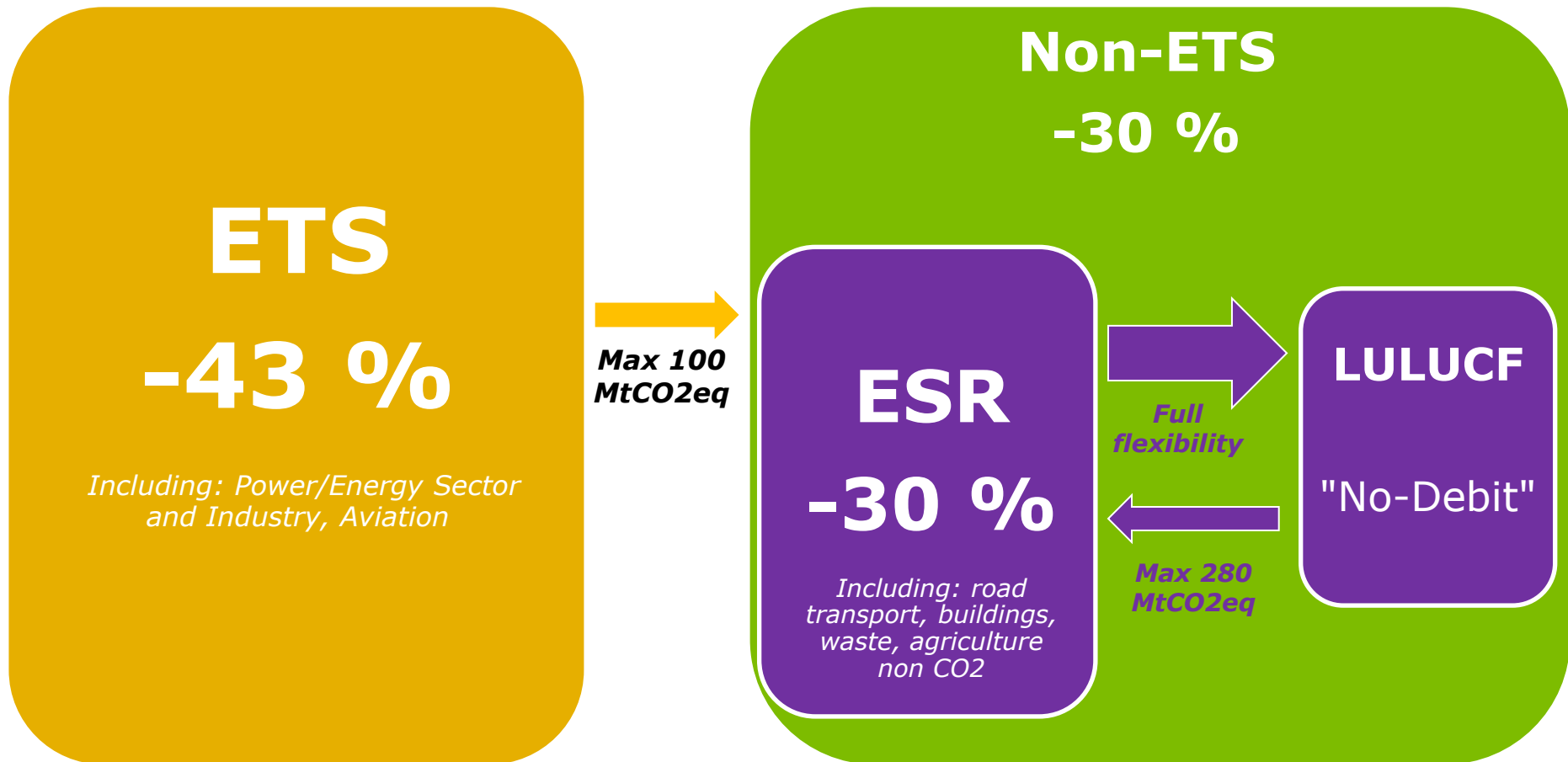
- With currently available technologies,
- If all economic sectors contribute to a varying degree & pace.

### Efficient pathway and milestones:

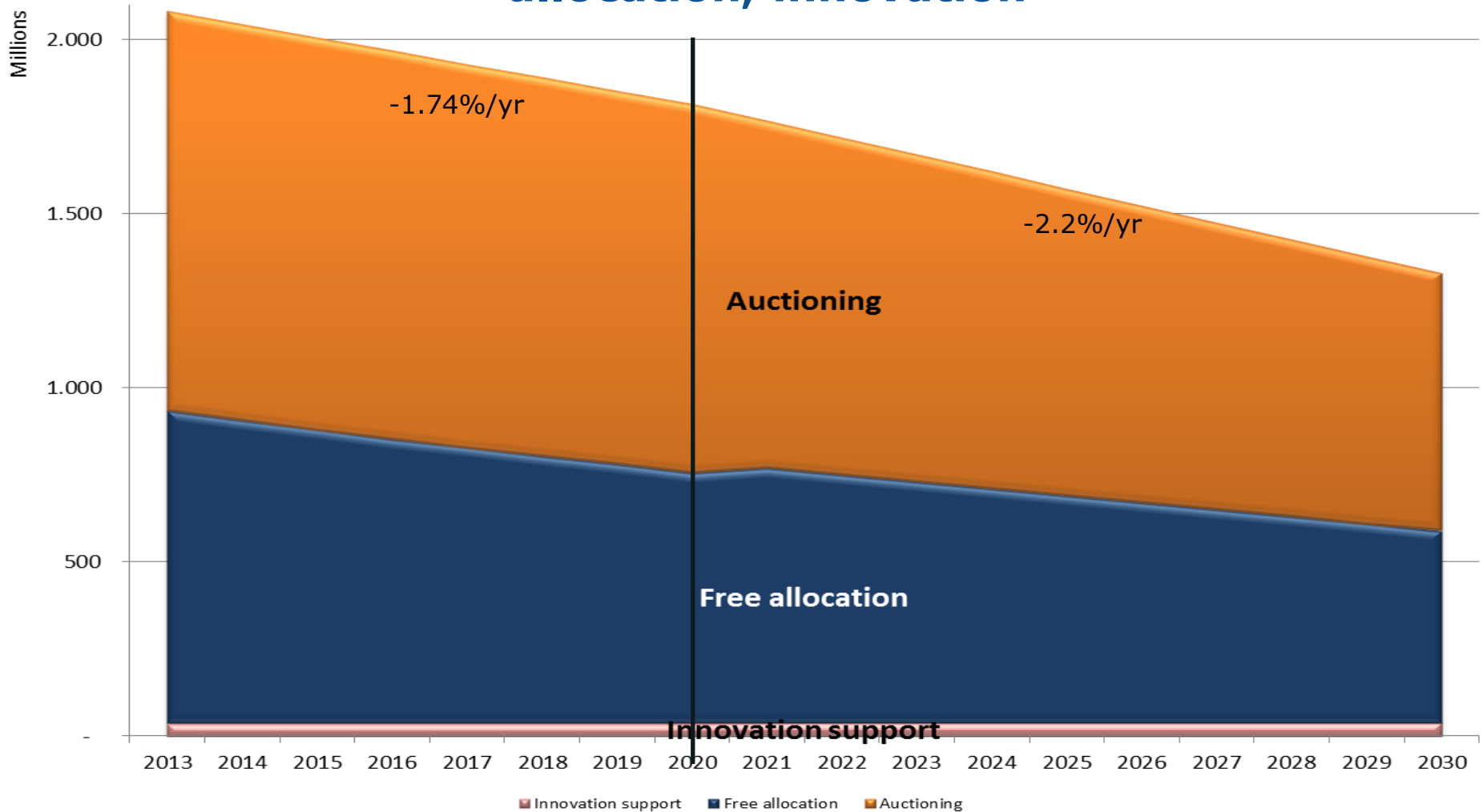
- -25% in 2020
- -40% in 2030
- -60% in 2040



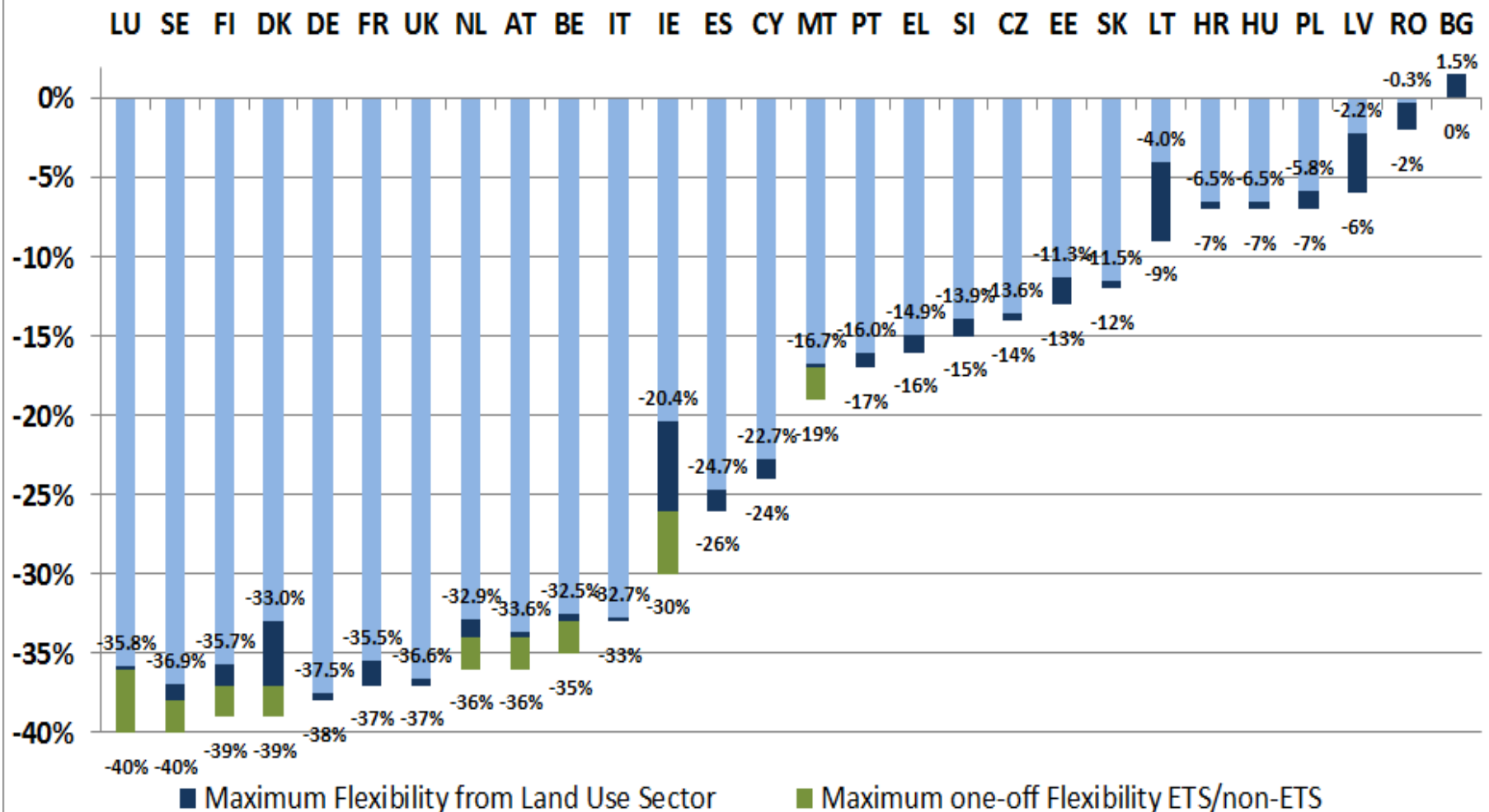
## Proposed overarching EU climate policy architecture



# Proposed emissions trading system (ETS): Auctioning, free allocation, innovation



## ESR targets and maximum one-off ETS/non-ETS and land use flexibilities





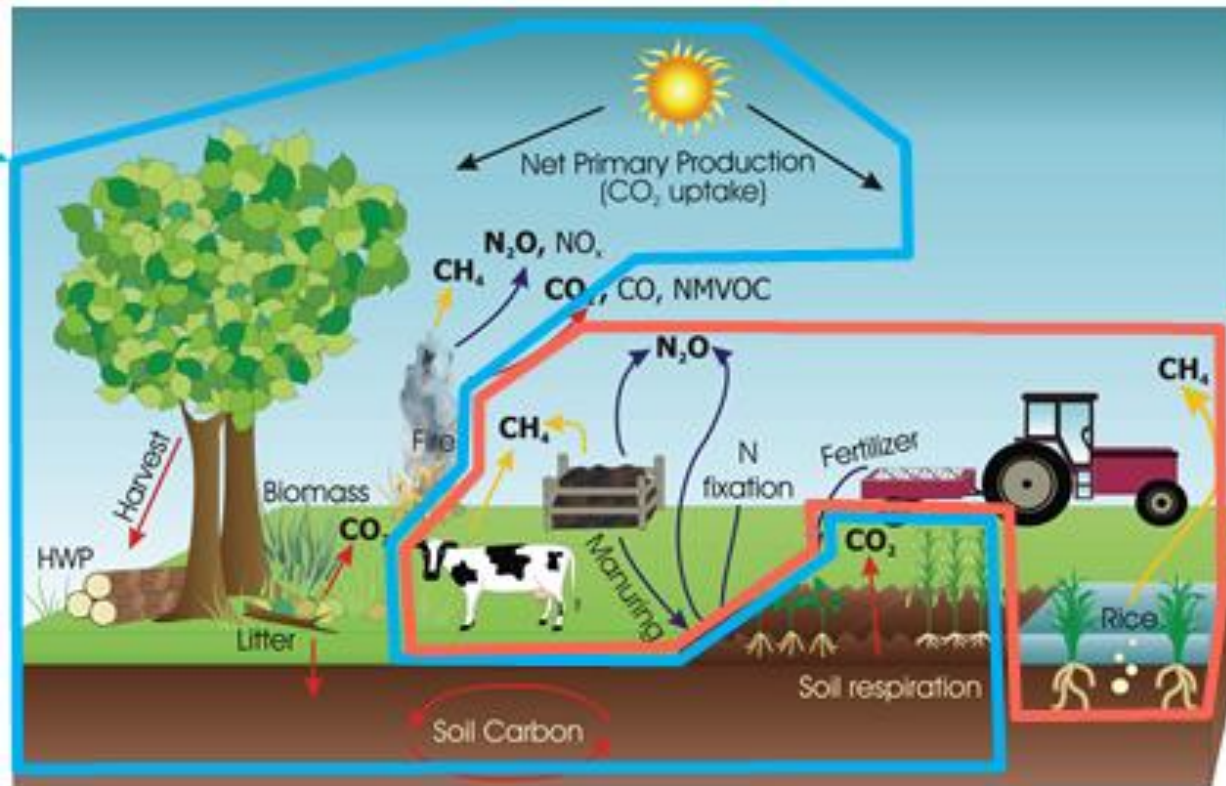
## Proposed land use: "No debits" rule

Land Use, Land Use Change and Forestry (LULUCF): mainly  $CO_2$

AGRICULTURE *non- $CO_2$*   
( $CH_4$ ,  $N_2O$ ) – in the ESR

Partly human induced  
(strongly linked to global natural carbon cycle)

Uncertainties?  
Additionality?  
Permanence?  
Leakage?



Mainly human-induced

=> More readily quantifiable

# Energy (1) Making energy more secure, affordable and sustainable

## Annual State of the Energy Union

## Clean Energy for All Europeans Package: a number of legislative proposals



**New Electricity Market Design**  
(Regulation internal market electricity)



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



**Renewables**  
(Revised Renewable Energy Directive)



**Energy Union Governance**  
(Governance Regulation)

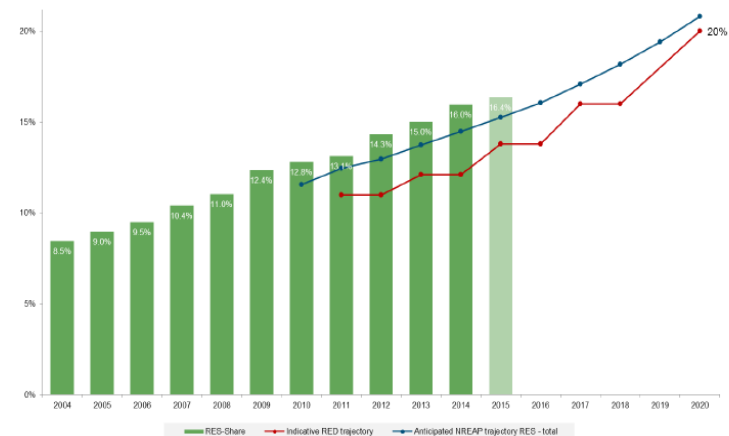
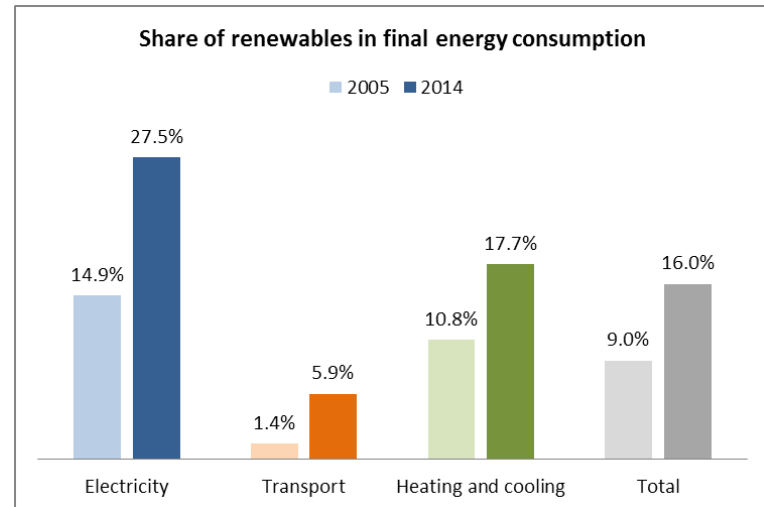
## Energy (2): Renewables' state of play

### Achievements

- drove down costs key technologies (PV, wind)
- accelerated deployment – strong impact on investments patterns
- important effects in terms of emission reductions

### Challenges ahead

- EU as technology provider ("renewable no. 1")
- Network development as enabler for RES penetration
- Market integration



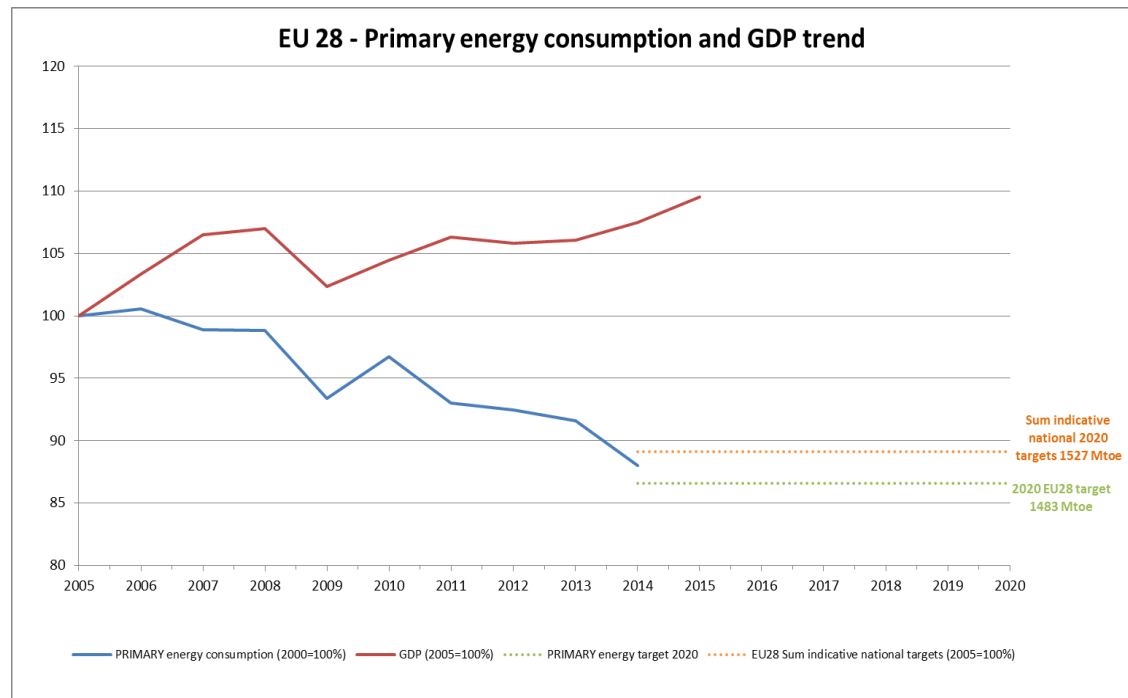
## Energy (3): State of play on energy efficiency

### Achievements

- Comprehensive policy framework (EED, EPBD, Eco-design,...)
- Significant progress towards 2020 target
- CO<sub>2</sub>&cars (130g/km in 2015, 95g/km in 2021)
- energy efficiency standards (light bulbs, appliances, electric motors...) & energy labelling (domestic appliances)

### Challenges ahead

- large untapped potential, e.g. existing buildings
- finance
- electrification (long term)



## Energy (4): Accelerating energy efficiency

### ACHIEVING THE BINDING 30% ENERGY EFFICIENCY TARGET BY 2030



#### Proposal Energy Efficiency Directive

- Binding 30% energy efficiency target for 2030;
- Create 400,000 new jobs;
- Reduce gas imports by 12% and save € 70 billion in fossil fuel imports.



#### Proposal Energy Performance of Buildings

- Clear vision for a decarbonised building stock by 2050;
- Smart & Efficient buildings (use of Information and Communication Technologies);
- Smart Finance for Smart Buildings initiative:



#### Ecodesign Working Plan 2016-2019

- List of new product groups;
- Outline on how ecodesign will contribute to circular economy objectives;

# Energy (5): Governance

PROPOSAL TO STREAMLINE AND INTEGRATE ENERGY AND CLIMATE PLANNING AND REPORTING

**National Integrated Energy and Climate Plans (2021 to 2030)**  
(preparation well before 2020)

**National progress reports**  
(from 2021, every two years)

**European Commission monitoring**  
(State of the Energy Union)

**TODAY**

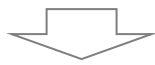
MS planning

MS reporting

EC monitoring / reporting



**NEW GOVERNANCE**



Integrated national energy and climate plan

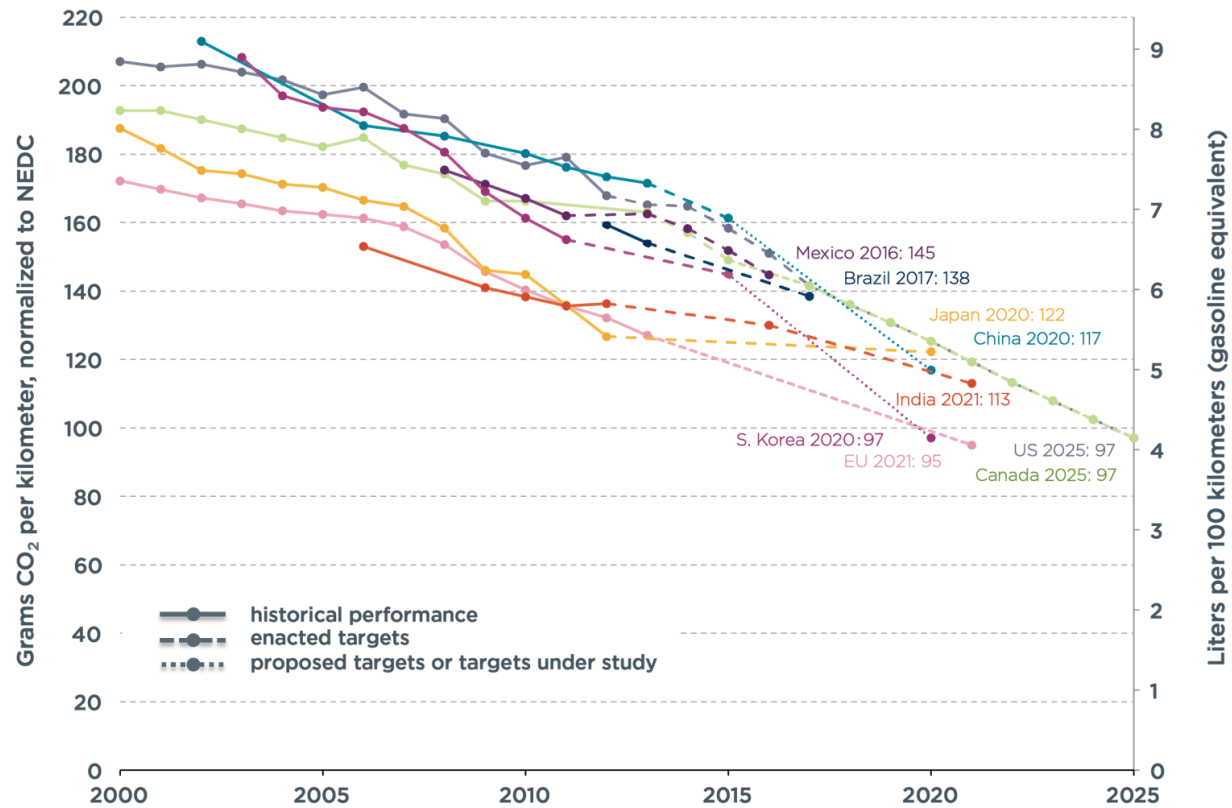
Periodic progress reports

Periodic State of the Energy Union

Synchronised with the Paris Agreement's review cycle

# Transport: Efficient cars are spreading

Passenger car CO<sub>2</sub> emissions and fuel consumption, normalized to NEDC



# Initiatives on low emission mobility

## ***Low Emission Mobility Strategy (July 2016)***

## ***Europe on the move (May 2017), including***

*Proposal on Monitoring and Reporting of CO2 emissions from Heavy Duty Vehicles*

## ***Upcoming initiatives:***

- *Post-2020 CO2 emission standards for cars and vans (end 2017)*
- *New CO2 emission standards for heavy duty vehicles (1<sup>st</sup> half 2018)*



## Fluorinated greenhouse gases

### Context

- *F-gases (HFCs, PFCs and SF<sub>6</sub>) are powerful greenhouse-gases with global warming effect of up to 23,000 times greater than the CO<sub>2</sub>.*
- *Account to 2% of the EU's overall GHG emissions and have risen by 60% since 1990*

### In the EU

- *Stabilized emissions at 2010 through first F-gas regulation (2006)*
- ***New regulation to cut EU's F-gas emissions by 2/3 by 2030 compared to 2014***

**Global Action:** *2016 Kigali Amendment to the Montreal Protocol introduced a mandatory phase-down of HFCs for developed and developing countries*

- *Developed countries to reduce to 15% of 2011-13 HFC levels by 2036*
- *Most developing countries (including China) to reduce to 20% of 2020-22 HFC levels by 2045; the rest (including India) to 15% of 2024-26 by 2047*

# Enabling environment (1): Integrating climate and energy objectives

## Energy Union and Climate Action

### Investment Plan

Attracting additional  
Investments

### Skills Agenda

Adapting the  
workforce

### Digital Single Market

Empowering citizens  
and consumers

### Circular Economy

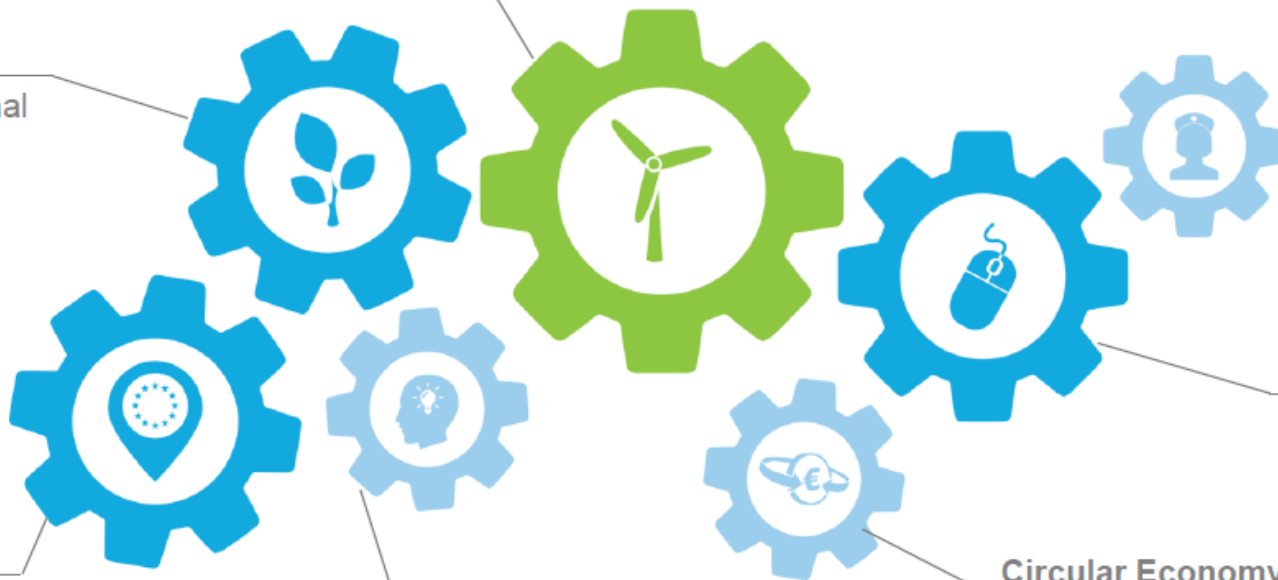
Achieving a resource efficient,  
low-carbon economy

### Innovation

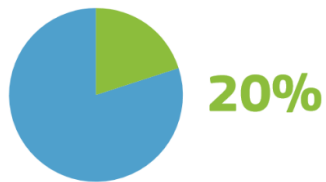
Bringing new technologies  
from research to market

### Capital Markets Union

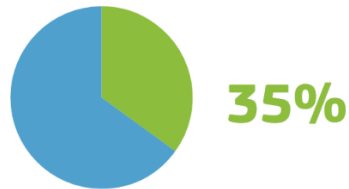
Triggering sustainable  
finance for the  
clean economy



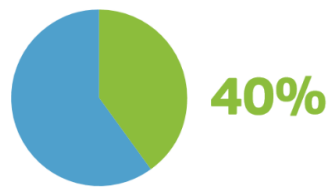
## Enabling environment (2): Financing the transition at EU level



20% of the EU budget should go to **climate-related expenditure** (180 bn €)



**Climate-related expenditure** will exceed 35% of the overall Horizon 2020 budget



At least **40%** of the infrastructure projects under European Fund for Strategic Investments (EFSI) will contribute to climate action, in line with the commitments under the Paris climate



European External Investment Plan will support energy projects in Africa and in the Neighbourhood

- \* New Climate Action sub-programme under LIFE Programme
- \* NER300 Programme – one of world's biggest demonstration programmes for low-carbon technologies
- \* EU largest contributor of climate finance to developing countries (€17.6 bn in 2015)

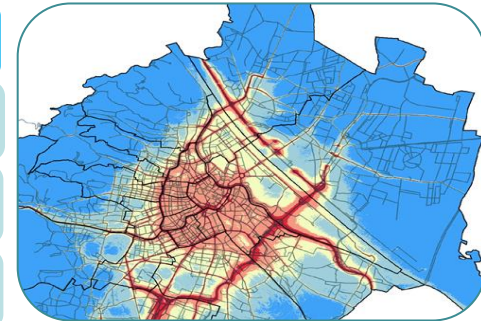
## Adaptation (1): 2013 EU Strategy

### Priority 1: Promoting action by Member States

Action 1. Encourage MS to adopt Adaptation Strategies and action plans

Action 2. LIFE funding, including adaptation priority areas

**Action 3. Promoting adaptation action by cities via the Covenant of Mayors initiative**



### Priority 2: Better informed decision-making

Action 4. Address knowledge gaps through research

Action 5. Develop 'one-stop shop' platform for adaptation information in Europe: Climate-ADAPT

### Priority 3: Adaptation in key vulnerable sectors

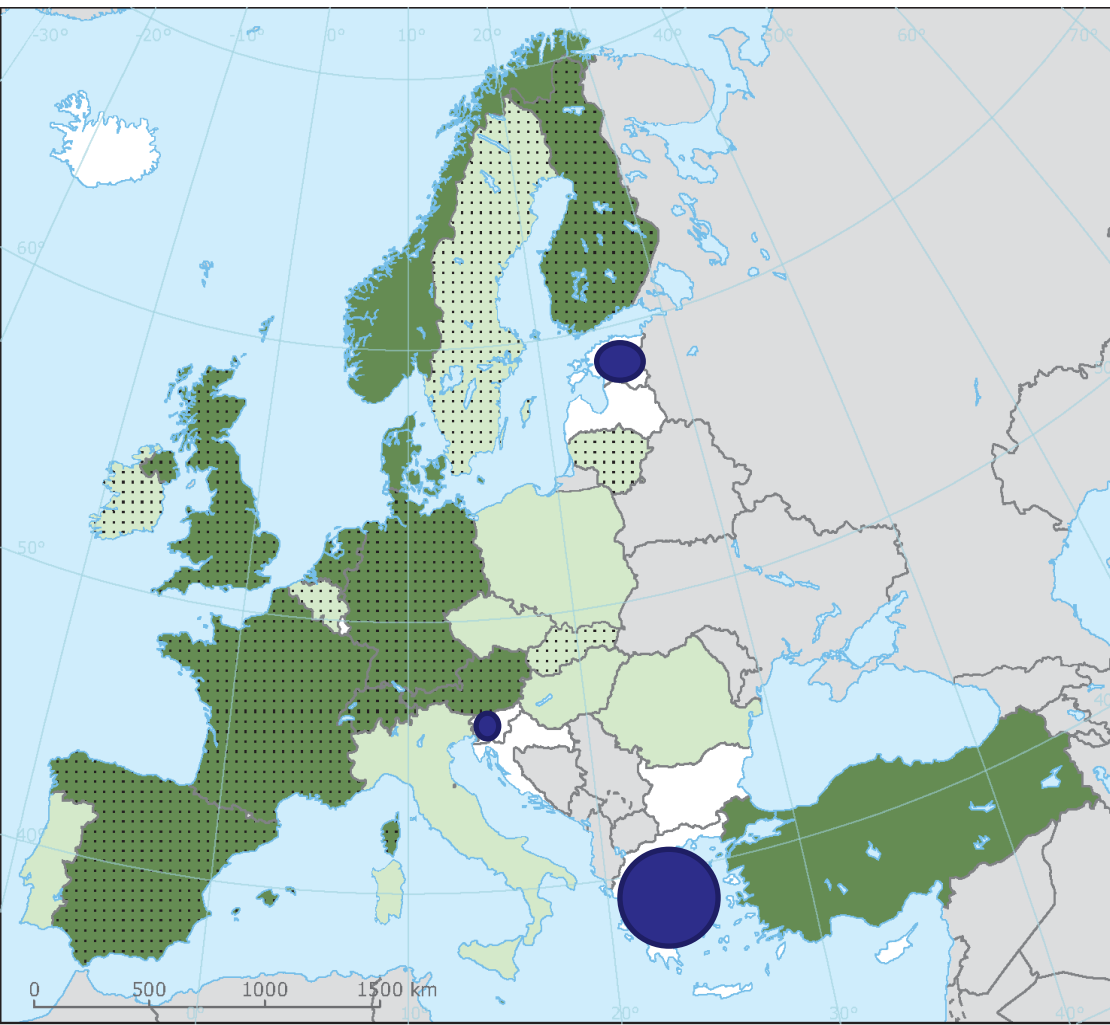
Action 6. Climate proofing the Common Agricultural Policy, Cohesion Policy, and the Common Fisheries Policy

Action 7. Making infrastructure more resilient

Action 8. Promote products & services by insurance and finance markets








## Adaptation (2): Most European countries have developed national adaptation strategies and/or action plans



### Overview of national adaptation strategies and plans and monitoring, reporting and evaluation systems (MRE) in Europe

#### Adaptation policy

-  National adaptation strategy (NAS) and national and/or sectoral adaptation plans (NAP/SAP)
-  National adaptation strategy (NAS)
-  MRE system of adaptation at national level or implemented under development
-  No policy
-  Outside coverage

State: May 2016

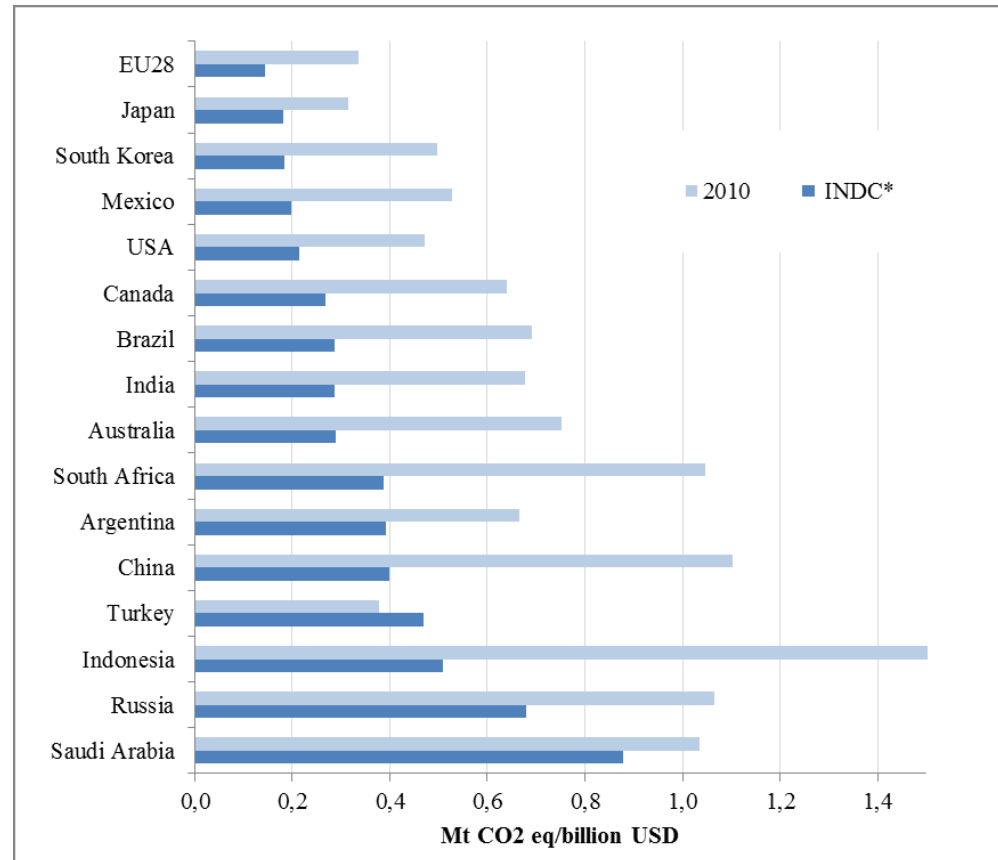
 NAS adopted after May 2016

# Outlook: Making the EU the most efficient and productive economy worldwide

Significant reduction of GHG intensity of EU economy

EU is one of the most GHG efficient major economies

EU is set to become the most GHG efficient economy in the G20 through the implementation of the 2030 climate and energy targets



Source: The emissions Gap Report 2016-2030 trends and ambition. UNEP, November 2016.



# Thank you!

## Visit DG Climate Action online:



[ec.europa.eu/clima/](http://ec.europa.eu/clima/)



[facebook.com/EUClimateAction](https://facebook.com/EUClimateAction)



[twitter.com/EUClimateAction](https://twitter.com/EUClimateAction)



[pinterest.com/EUClimateAction](https://pinterest.com/EUClimateAction)



[youtube.com/EUClimateAction](https://youtube.com/EUClimateAction)

## Read our book "EU Climate Policy Explained"

(published by Routledge, 2015)

English, French, Spanish, Chinese versions online :

[http://ec.europa.eu/clima/citizens/publications/index\\_en.htm](http://ec.europa.eu/clima/citizens/publications/index_en.htm)

