

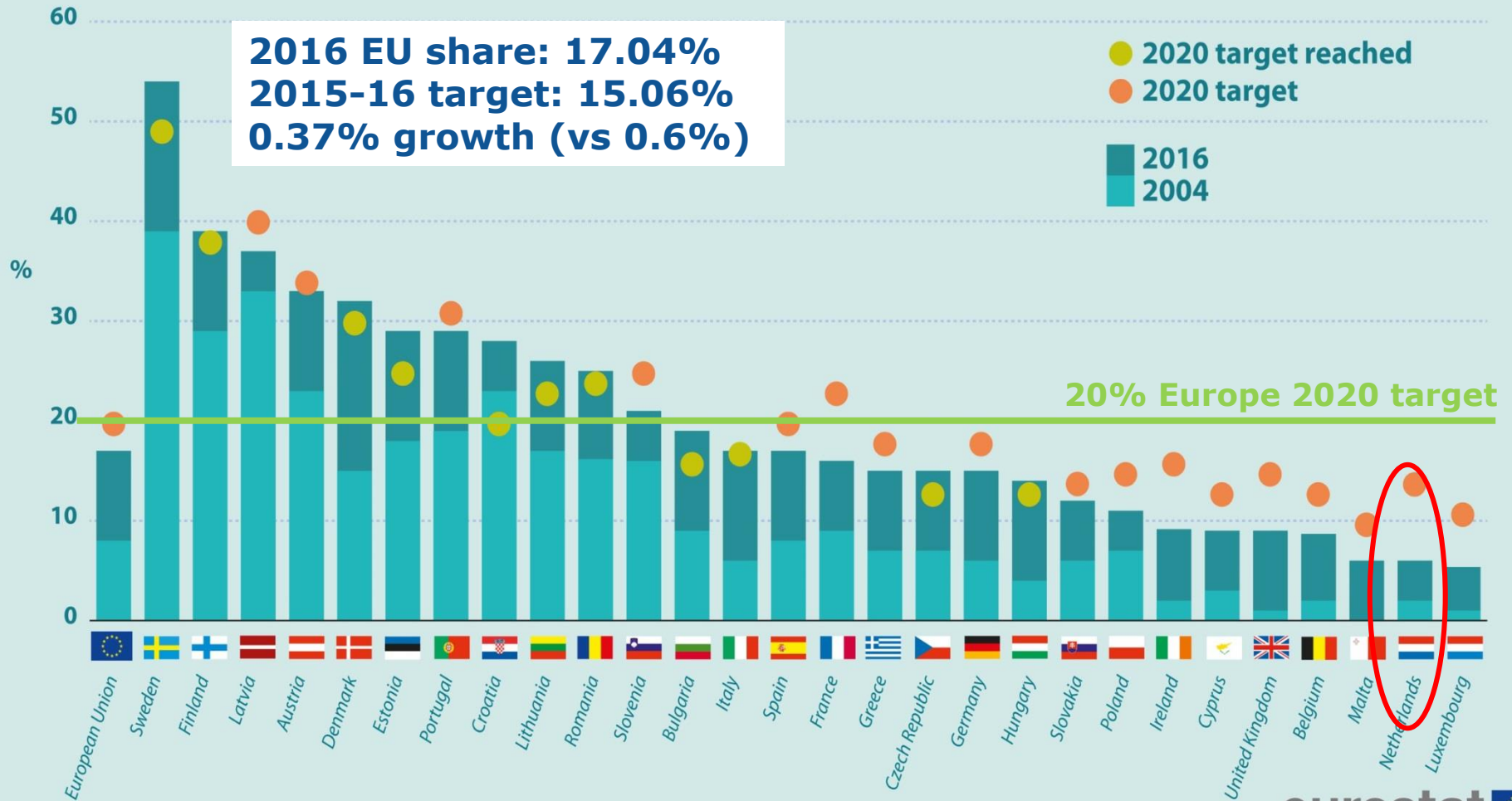


# EU renewable energy policy: measures on heating & cooling and bioenergy sustainability

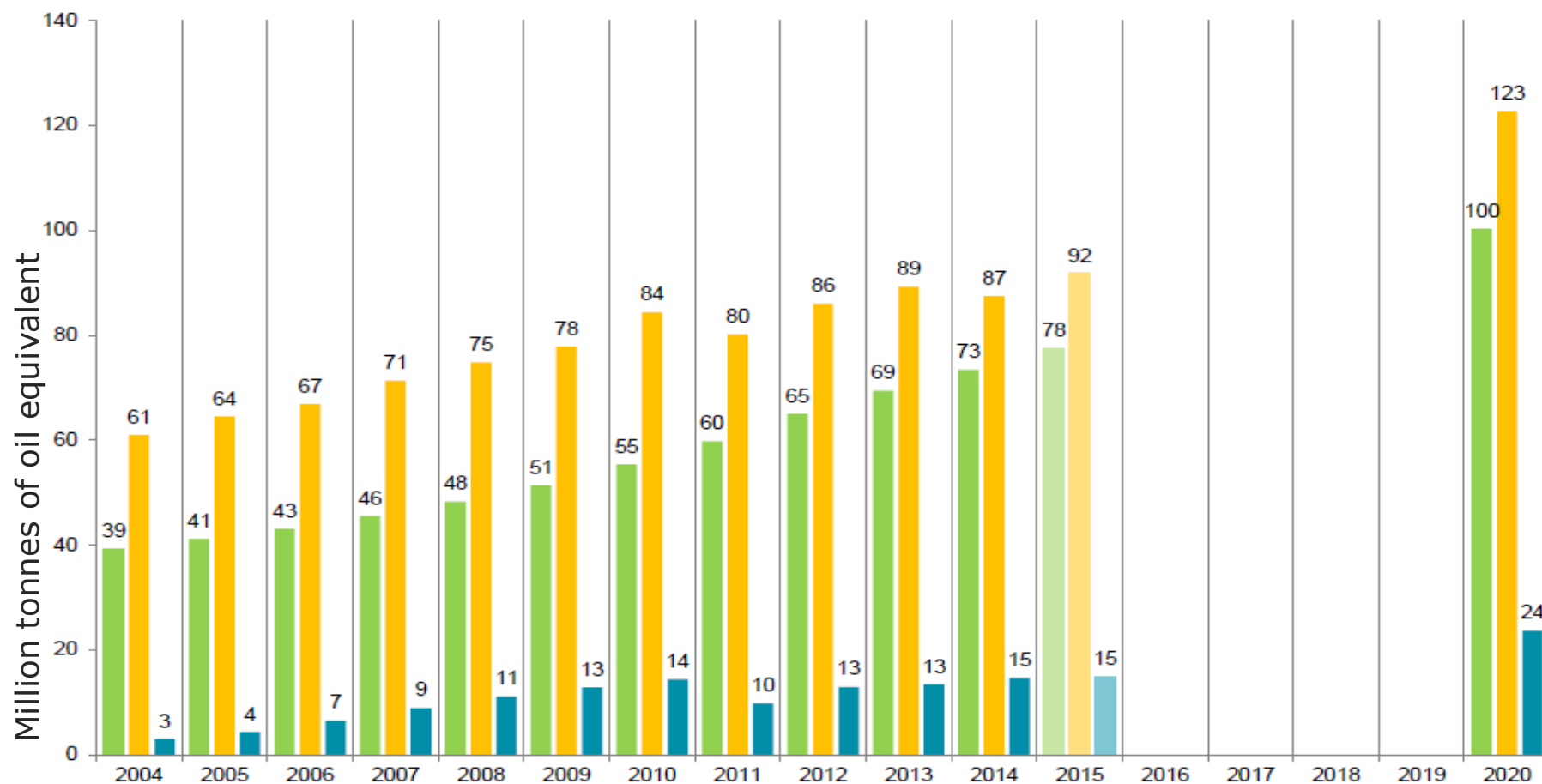
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Renewables & CCS policy  
DG ENER - European Commission

# PROGRESS TOWARDS 2020 RENEWABLES TARGETS

- Renewables share in energy consumption over 17% in 2016
- 11 Member States already achieved their 2020 targets

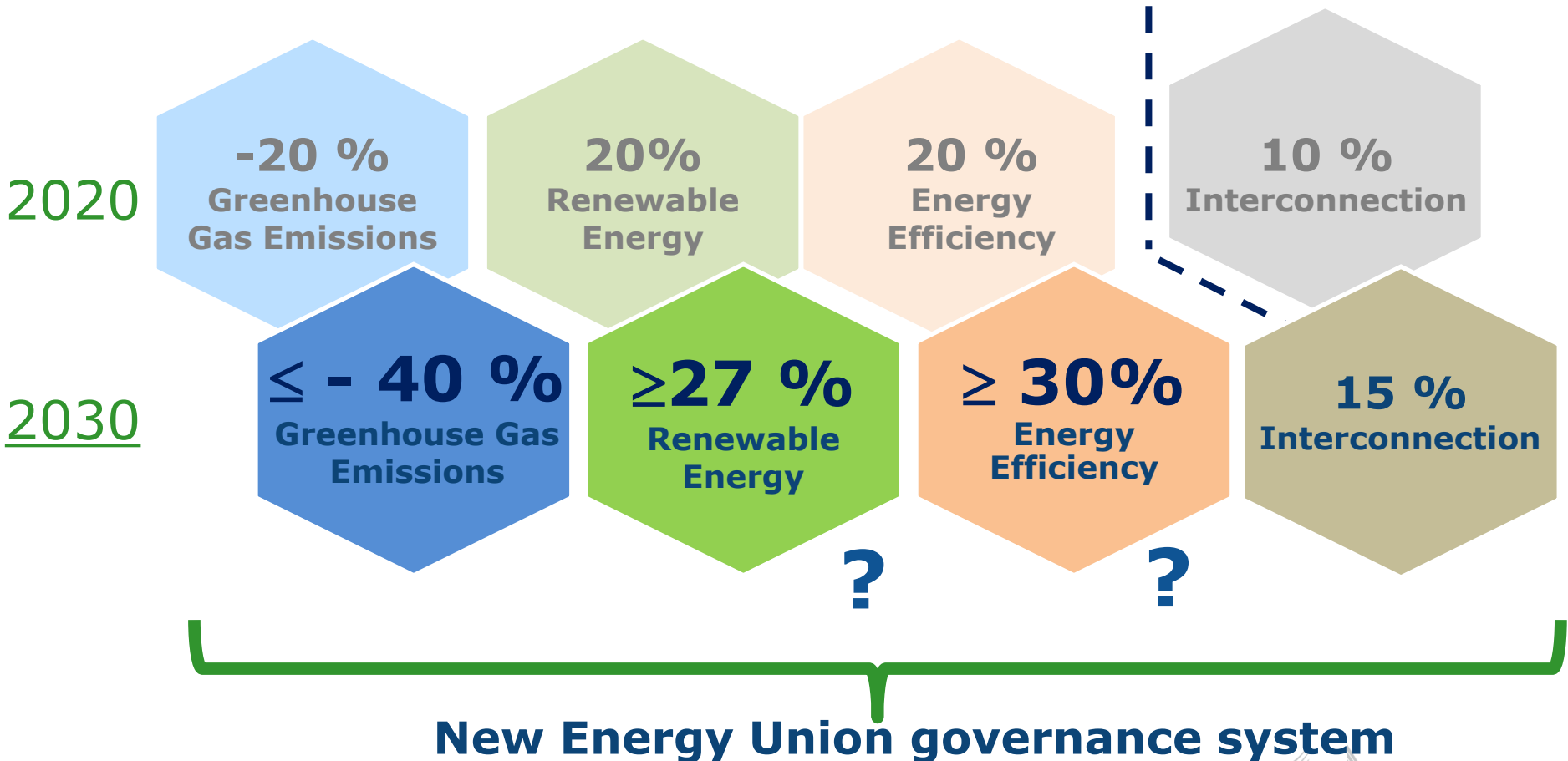


## EU renewable energy growth (2004-2015, Million toe)



 **Renewable power**  
 **Renewable transport**  
 **Renewable heating and cooling**

# EU climate and energy targets



# Energy Union Strategy



**Modernise our economy** by bringing down greenhouse gas emissions while creating jobs and growth

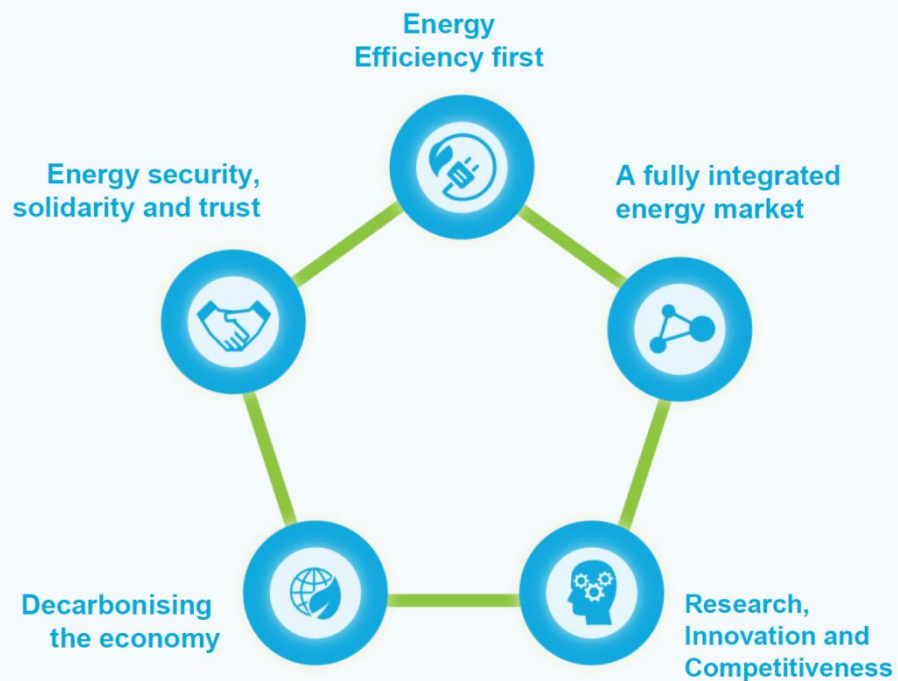


The EU as the **world leader on renewable energy and placing energy efficiency first** based on new technologies and industrial leadership

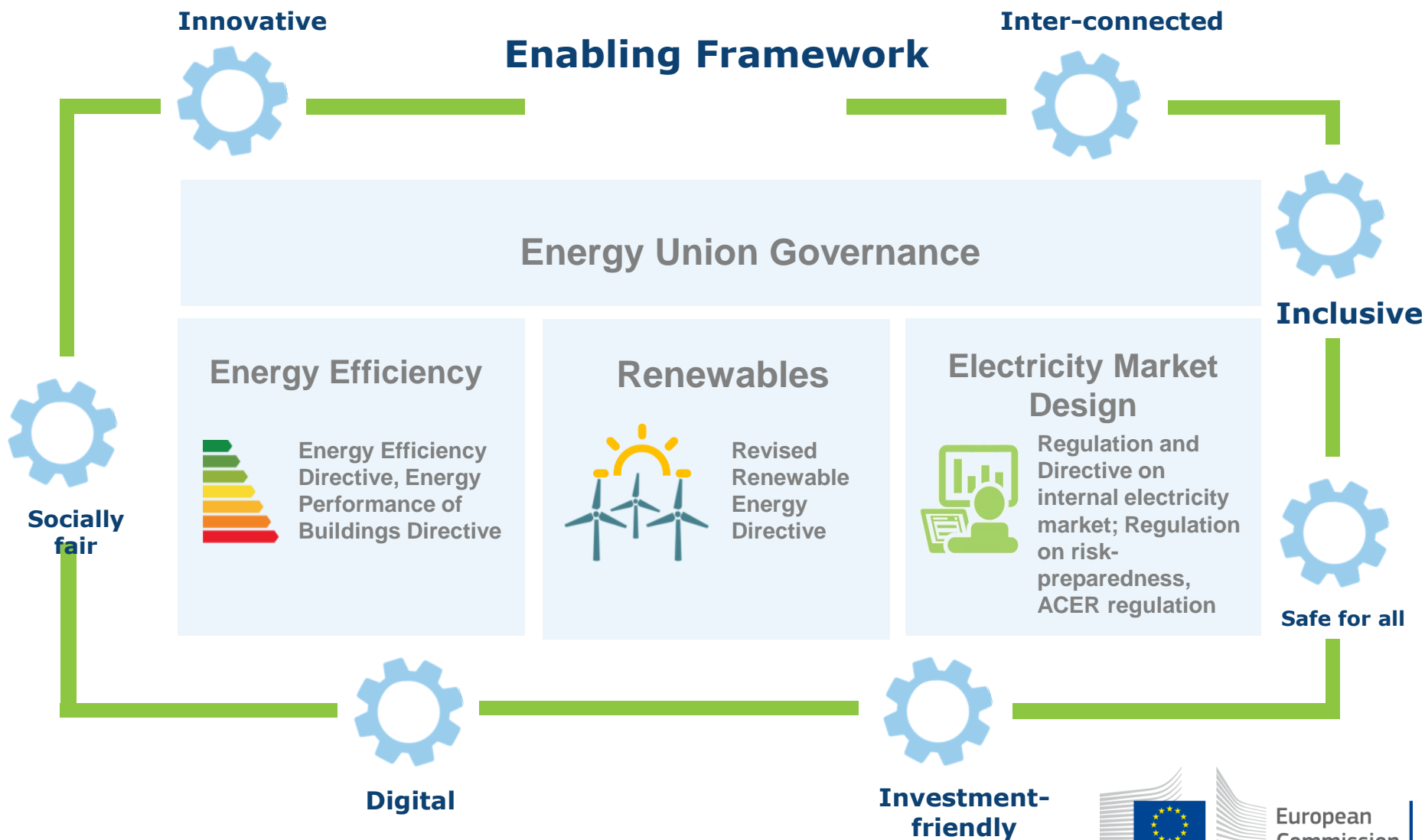


**Ensure a socially fair transition** where regions, cities and consumers play an active role

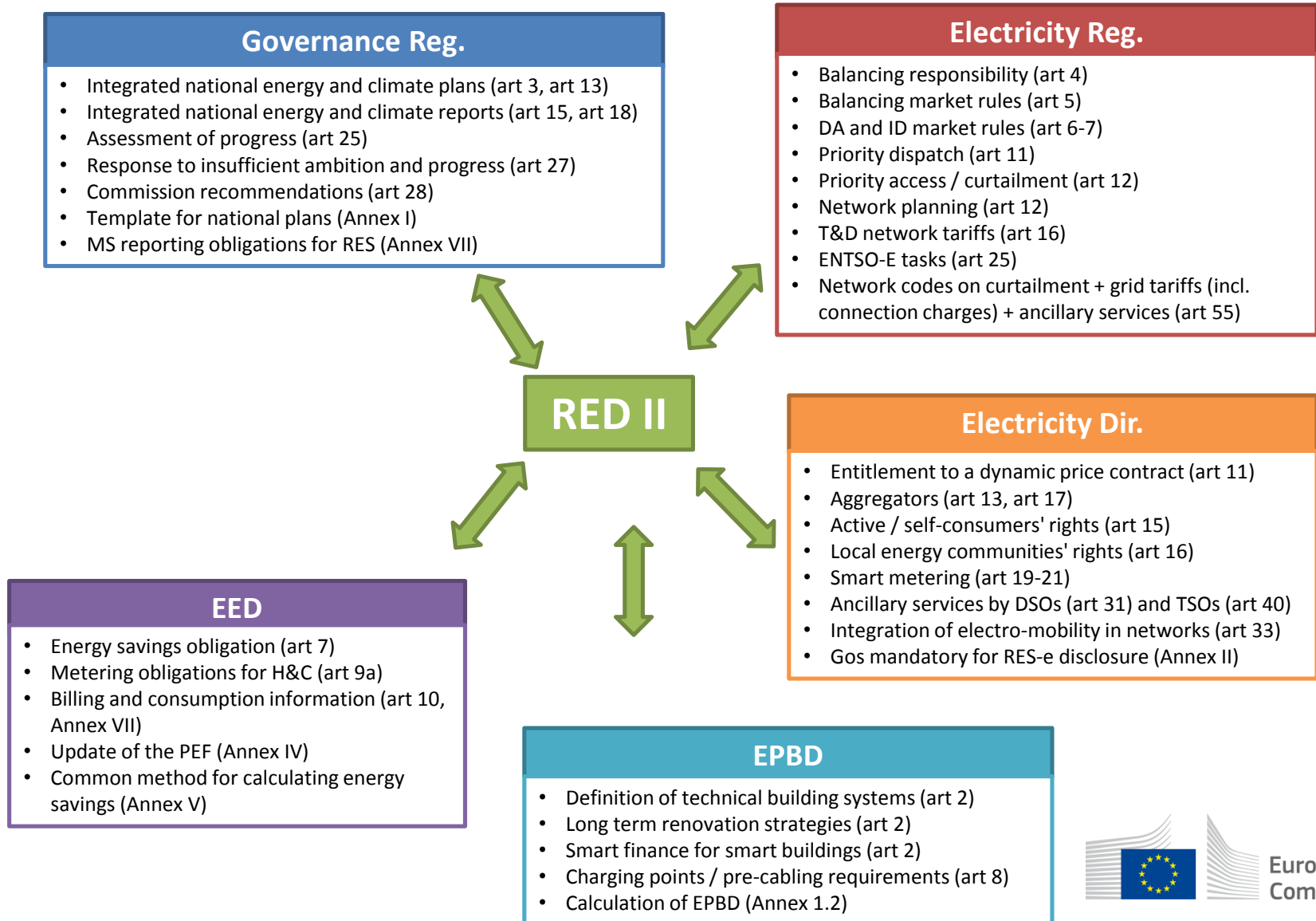
## ENERGY UNION STRATEGY



# 2016 Clean Energy Package

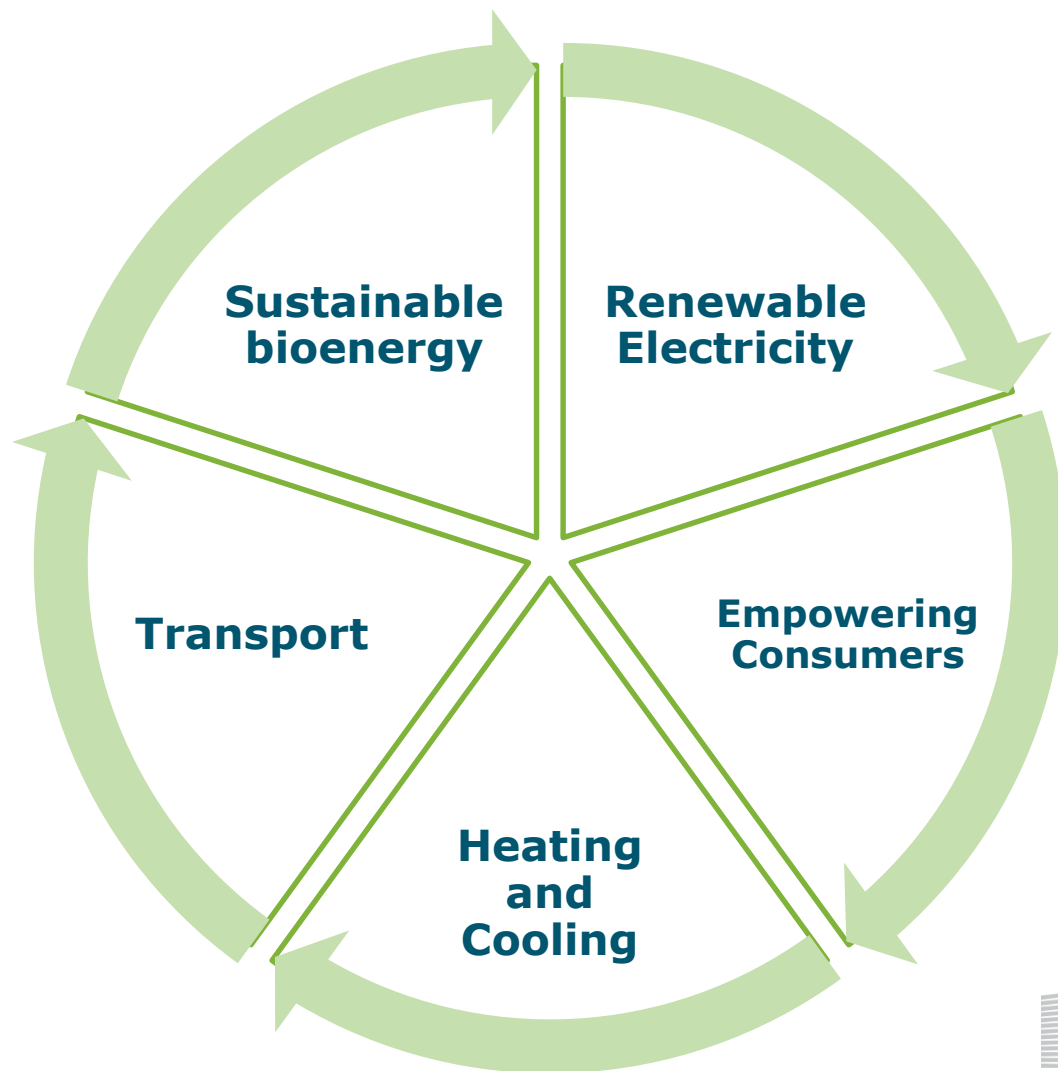


# Renewable energy policy framework post-2020



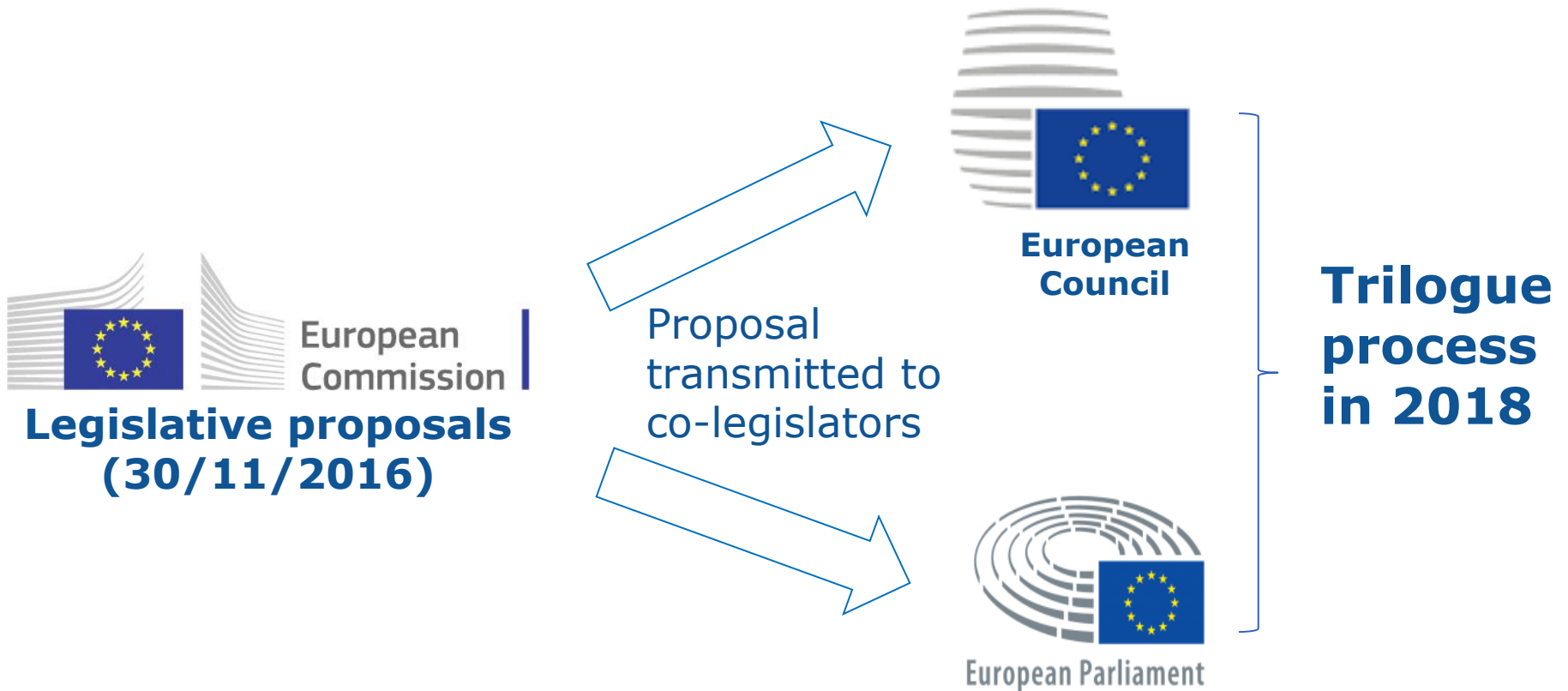


# Revised Renewable Energy Directive (RED II)





# EU legislative process (co-decision)



# 2030 target for renewables

2020

20 % RES  
share  
overall

National  
binding  
targets for  
RES

10% target  
for RES-  
Transport

2030

At least 27  
% RES  
share

Binding at  
EU level

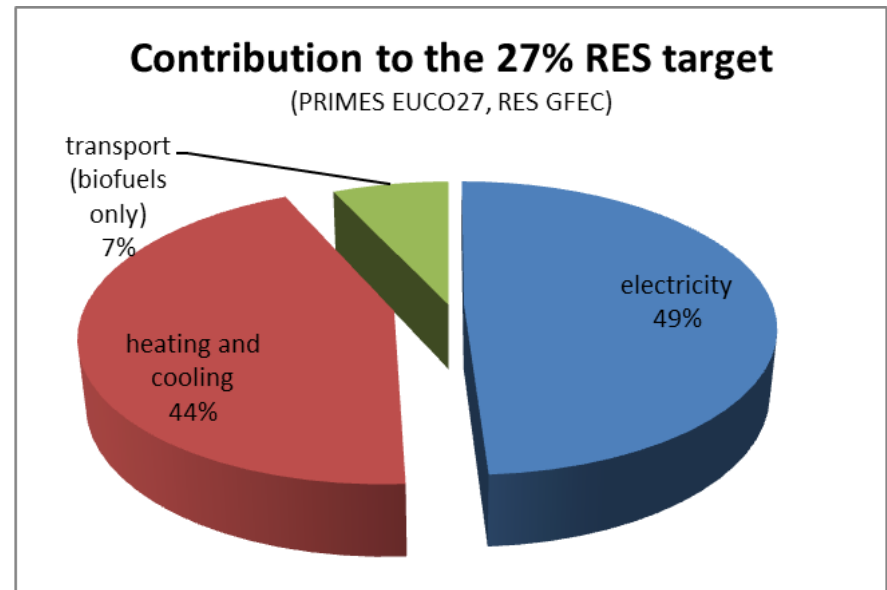
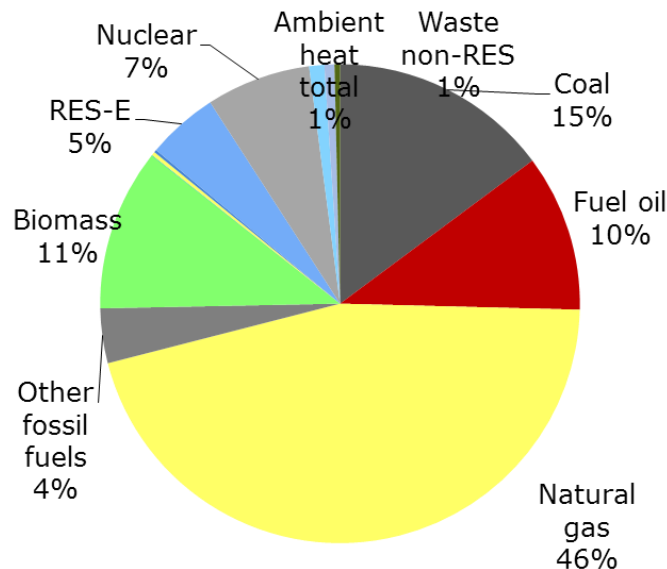
No national  
or sector  
specific  
targets

Dialogue

Institution	Target
Council	27%
European Parliament	35%
IRENA	34% cost-effective
COM (2018 updated modelling)	30% same costs as 27%

# The key role of heating & cooling (H&C)

- Heating & cooling= 50% EU energy consumption
- 68% of the EU's gas imports
- 18% renewable share today => 27% in 2030
- Risk of missing 2030 target without action in H&C
- Local, diverse, fragmented sector, low visibility/priority



# Renewables in heating & cooling (H&C)

## COM proposal (Article 23)

- **Indicative 1% p/y increase** of renewable energy in heating & cooling (*"shall endeavour"*)
- **Flexibility for Member States** to decide on the measures and to designate implementing entities, such as fuel suppliers
- **Limited administrative burden:** established structures under Art.7 of the Energy Efficiency Directive can be used (e.g. for designated entities, calculation, verification & reporting, overseeing designated authority)

## Dialogue

Institution	Position
COM	1% RES growth in H&C (indicative)
Council	1% with flexibilities (50% threshold, waste heat and cold, 5-year average)
European Parliament	2% with limited flexibilities (50-80% shares, accounting of waste heat & cold capped at 50%, 3/year average)

# District heating and cooling (DHC)

## COM proposal (Article 24)

- **Information on energy performance** of DHC, including the share of renewables
- **Right to switch and/or disconnect** from inefficient networks (if significantly better energy performance achieved at building level)
- **Third party access** for producers of renewables heating & cooling and waste heat or cold
- **Authorities** to oversee DHC systems

## Triologue

Institution	Position
COM	- Right to switch & disconnect
Council	- Switching subject to compensation - 3 <sup>rd</sup> party access strongly limited
European Parliament	- No right to switch Disconnection right: - 5 year transition period for efficient systems

# Existing EU sustainability criteria for biofuels

## 1. **No go-areas** for biofuel production

- High biodiversity (primary forest, protected areas etc.)
- High carbon stock (peatland etc.)

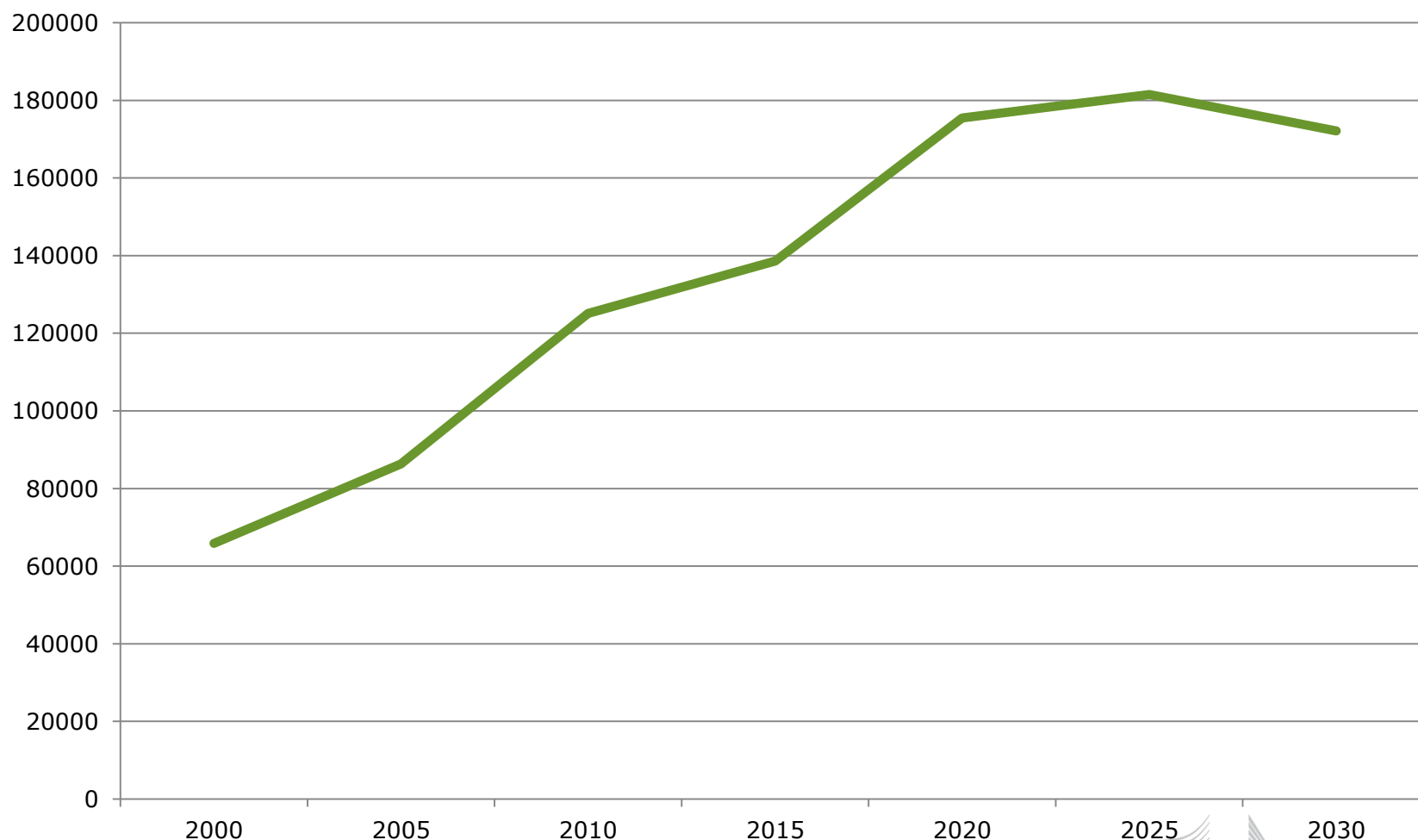
## 2. **GHG saving thresholds** (minimum)

35%, increasing to 50% in 2018, 60% for new plants in 2017



## 3. **ILUC Directive**: 7% cap on conventional biofuels share

## EU bioenergy use projections (ktoe, 2005-2030)



Source: PRIMES EUCO scenarios



# EU bioenergy sustainability criteria post-2020

- *Covering biofuels, biomass for heat & power*
- *Feedstock based criteria (forest biomass)*

## Land criteria

### 1 AGRI BIOMASS



'no-go areas':

- ✓ high carbon stocks
- ✓ high biodiversity values

### 2. FOREST BIOMASS



Risk-assessment ensuring:

- ✓ Forest regeneration
- ✓ Biodiversity and soil protection
- ✓ Forest long-term productivity
- ✓ LULUCF accounting

## End use criteria

### 3. GHG SAVINGS CRITERIA

- 70% for new biofuels/biogas for transport (all plants)
- 80% (85% in 2026) for biomass in heat and power
- (only for large plants equal/above 20 MW)



### 4. EFFICIENCY CRITERIA

- Cogeneration requirement for biopower (only large plants)
- 3-year transition period after adoption of Directive
- Exceptions for national risks of security of electricity supply



## New criteria for forest biomass



### What is the objective?

- ✓ Guarantee that forest biomass is sustainably harvested and subject to LULUCF reporting/accounting

### How does it work?

- ✓ Economic operators can use two types of evidence for compliance
  - Evidence A. National or sub-national legislation meeting minimum SFM standards (defined in article 26 of RED II)
  - Evidence B. If evidence (A) is not available, additional evidence from forest holding level (e.g. certification or equivalent proof)

### What are the benefits?

- ✓ Follows a risk-based approach, avoiding unnecessary admin burden
- ✓ Builds on existing regulations/standards (EU Timber Regulation, national sustainable forest management laws, existing voluntary SFM standards)

## EP and Council positions on sustainability

Article 26	EP	Council
<i>Land criteria</i>	<ul style="list-style-type: none"> <li>• <b>Stricter land criteria</b> (waste hierarchy, soil quality &amp; soil carbon, highly biodiverse forests)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Opposed to new criteria</b> (particularly waste hierarchy)</li> </ul>
<i>Forest biomass</i>	<ul style="list-style-type: none"> <li>• <b>Stricter forest biomass criteria</b> (forest harvesting &amp; carbon stock)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Weaker forest criteria</b> (no 'long-term production capacity' of forests)</li> </ul>
<i>GHG savings</i>	<ul style="list-style-type: none"> <li>• Biofuels: 65%</li> <li>• Biomass: 70%</li> <li>• MS can increase GHG thresholds</li> </ul>	<ul style="list-style-type: none"> <li>• Biofuels: 70%</li> <li>• Biomass: 70%</li> </ul>
<i>Biopower CHP requirement</i>	<ul style="list-style-type: none"> <li>• <b>Flex CHP criterion</b> (derogation for units with 40% elect. efficiency)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Weaker CHP criteria</b> (limited to co-firing &amp; larger units - 75 MW)</li> </ul>
<i>Harmonization</i>	<ul style="list-style-type: none"> <li>• <b>Partial harmonization</b> for biomass</li> <li>• Full harmonization for biofuels</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Full harmonization</b> for biofuels and biomass fuels (with derogations)</li> </ul>

# Bioenergy relevant EU legislation

## ✓ **LULUCF Regulation**

- Reporting/accounting emissions from agriculture and forestry against EU/national GHG reduction targets

## ✓ **Industrial Emissions Directive (IED)**

- BAT Indicative Energy Efficiency Levels (equal/more 50 MW)

## ✓ **Ecodesign Regulation (2015/1189)**

- Efficiency and emission standards (PM, OGC, CO, NOx) for biomass boilers (equal/more 500 kW) and biomass stove (equal/less 50 kW)

## Next steps

- ✓ Agreement on **Clean Energy Package** (end 2018)
- ✓ **National plans** on energy and climate (end 2018)
- ✓ **Clean Energy Industrial Forum** (ongoing)
- ✓ Mid-century **EU climate strategy** (Q1 2019)



# THANK YOU!

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