



EU Regulatory Framework for 4DHC

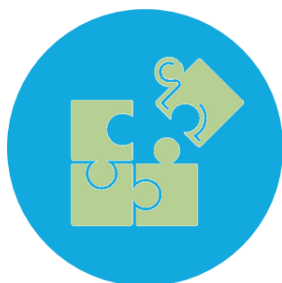
**HeatNet Webinar
9 December 2019**

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Renewable Energy & CCS**

Objectives of European Energy Policy



Solidarity and energy security



An integrated market



Energy efficiency



Research and innovation



Decarbonisation

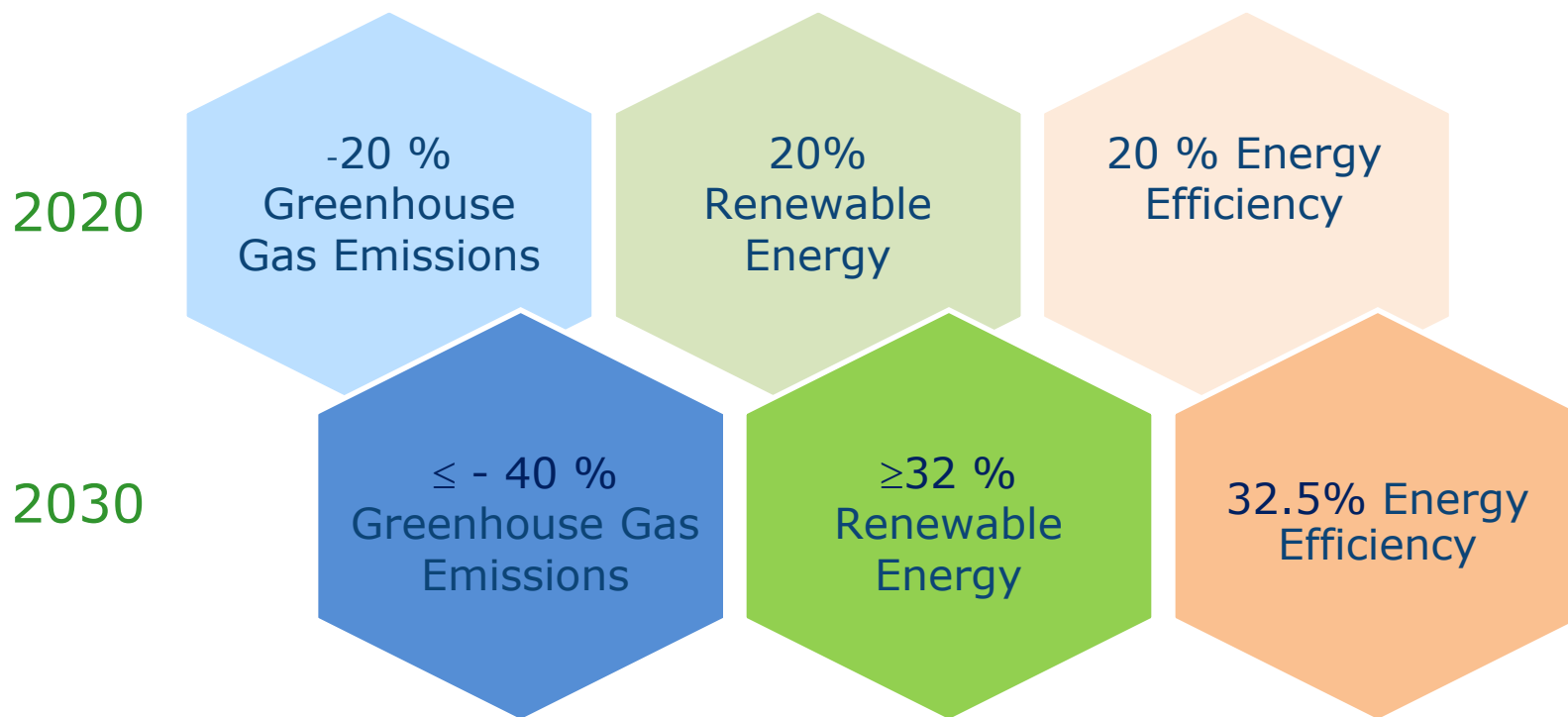


PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11



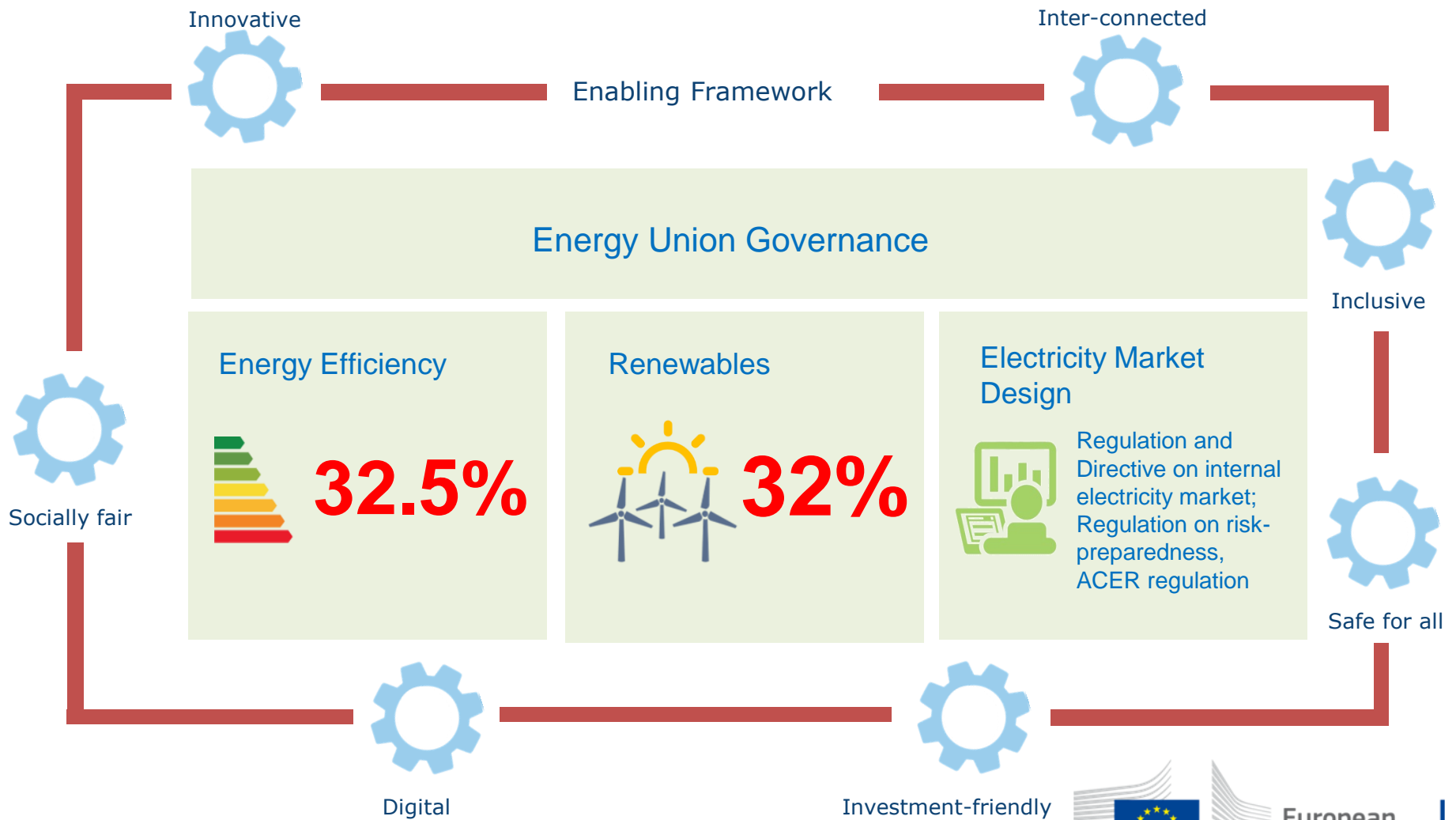
European
Commission

Energy and Climate Targets



2050: Climate neutrality

The Clean Energy Package



European
Commission

Relevant legislation & policies (1):

Core legal instruments:

- New Renewable Energy Directive (2018/2001/EU)
- Energy Efficiency Directive (2012/27/EU and its amendment 2018/2002/EU)
- Energy Performance of Buildings Directive (2010/31/EU and its amendment 2018/844/EU)
- New electricity market design (in particular the new electricity directive and regulation - agreed, not published yet)
- New Governance Regulation (2018/1999/EU)
- Ecodesign Directive (2009/125/EC) and Energy Labelling Regulation (2017/1369/EU)

Relevant legislation & policies (2)

Core Financing Instruments (2014-2020):

- European structural and investment funds (ESIF), in particular
 - European Regional Development Fund (ERDF)
 - Cohesion fund (CF) (for 15 MS: BG, HR, CY, CZ, EE, GR, HU, LV, LT, MT, PL, PL, RO, SK, SL)
- European Fund for Strategic Investments (EFSI or Juncker Fund): 315 billion EUR
- Horizon 2020 (EU Research programme)

Relevant legislation & policies (3)

Core Financing instruments(2021-2027) – The Commission's new budget *proposal* for the next Multiannual Financing Framework (MFF)

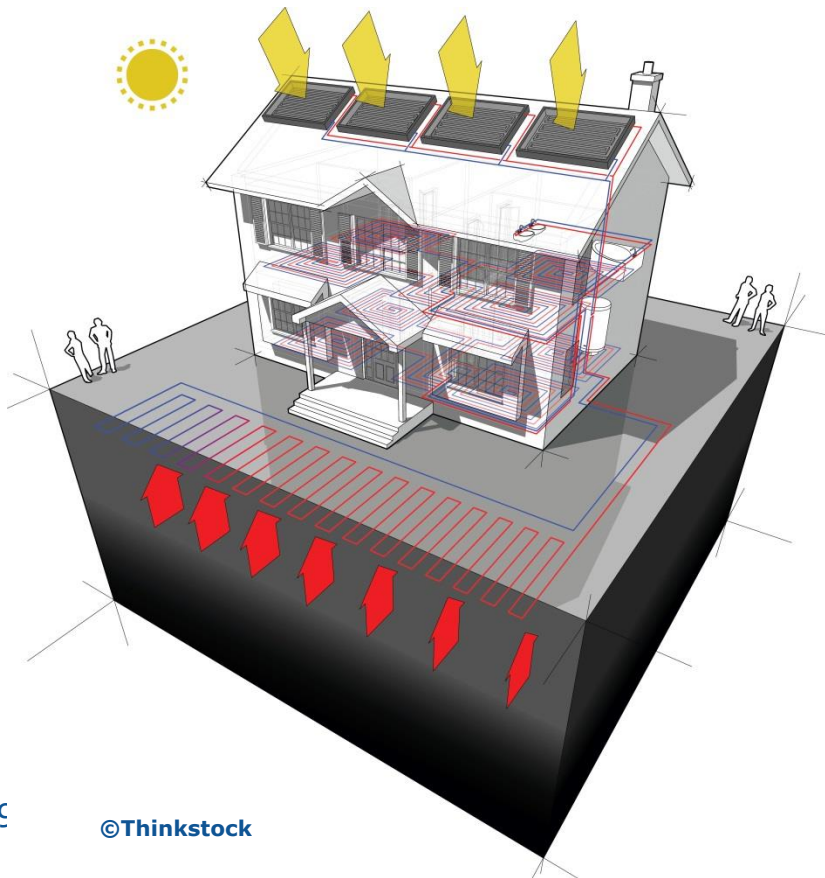
- European Regional and Cohesion Funds: 273 billion EUR, 30% ring-fencing for clean energy and climate
- InvestEU fund (new EFSI or Juncker Fund): 15,2 billion EUR
- Horizon Europe (EU Research & development Programme) – 97,6 billion EUR total, 15 billion EUR for energy, climate, mobility
- Connecting Europe Facility (CEF) - new window of 865 million EUR for cross border renewable projects (generation + infrastructure)
- LIFE (Environment & Climate Action): 5,4 billion EUR, 1 billion EUR for small scale EE and RES projects

New Renewable Energy Directive

2018/2001/EU

ADDRESSING THE UNTAPPED POTENTIAL OF HEATING & COOLING

- Target to **increase** renewables in heating and cooling by **1.3 percent point per year** (2020-2030):



- **Flexibilities:** high RES MS, high natural gas or cooling shares, dispersed settlement structures, 40% allowance for waste heat/cold
- **Illustrative** list of **measures** leaving flexibility for Member States and accessibility

District heating and cooling

- **1 ppt increase** in renewables and waste heat/cold
- **Third Party Access** for suppliers of renewables and waste heat/cold
- **Right to disconnect** from inefficient networks for consumers
- **Right to be informed** for consumers on renewables share and energy performance

Renewables in heating and cooling

A New Article for post-2020

Key provisions (Article 23):

- ❖ *1.3 ppt average annual increase in renewables in 2020-2030 (shall endeavour)*
- ❖ *1.1 ppt average annual increase if waste heat cold is not used due to an MS situation*
- ❖ *Flexibilities (waste heat can be used up to 40%, high RES countries, high gas or cooling countries, sparsely populated countries)*
- ❖ *Indicative list of measures*
- ❖ *Optional: designate implementing entities and establish a list of measures*
- ❖ *Optional: annual reporting by implementing entities*

District Heating And Cooling

A New Article for post-2020

Key provisions (Article 24):

- Consumer information
 - Disconnection
 - 1 ppt annual increase in renewables & waste heat/cold (shall endeavour) or
 - Third Party Access
 - Assessment of electricity flexibility potentials
 - Waivers & Exemptions
- ➔ *Key principle: "efficient district heating & cooling" = at least 50% renewable energy or 50% waste heat or 75% cogenerated heat or a 50% combination of such energy and heat*

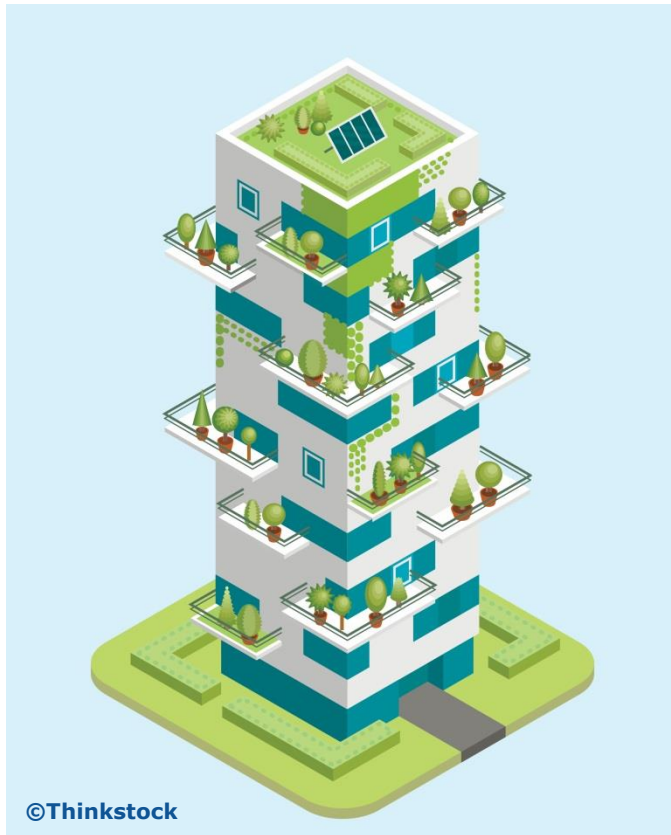
EMPOWERING ENERGY CONSUMERS: SELF-CONSUMPTION

Consumers entitled to become self-consumers, including multi-apartment blocks

- **No discrimination or disproportionate charges**
- Electricity **behind the meter not be charged. Exemptions:**
 - Installations larger than 30 kWp
 - Risk of financial instability of the system (after December 2026)
 - Electricity that benefits from support schemes
- **Remuneration** when feeding into the grid
- Self-consumers **active in the market:**
 - Power Purchase Agreements
 - Peer-to-peer trading
 - Other possibilities of MDI (demand response)
- **Enabling framework** by the end of 2019



EMPOWERING ENERGY CONSUMERS: RENEWABLE ENERGY COMMUNITIES



Entitled to generate, sell and store renewable energy

- **Definition** for the first time in EU legislation
- Increased **participation** of citizens in the energy transition
- Communities can directly reap the **environmental, economic and social benefits** of renewable energy
- Any final energy customer can become member (while maintaining all rights and obligations)
- **Enabling framework** by the end of 2019

ENSURING BIOENERGY SUSTAINABILITY

- Reinforced **EU bioenergy sustainability criteria**:
 - Enhanced ***synergies with the circular economy*** (e.g. waste hierarchy principles)
 - EU criteria extended to cover **biomass for heat/cooling and power**
 - New risk-based criteria for **forest biomass** (ensuring sustainable harvesting & proper LULUCF accounting)
 - Higher **GHG emission saving targets**
- New energy efficiency criteria for **large-scale biopower**
- Enhanced EU and national **verification of the implementation** of the sustainability criteria
- Full **EU harmonization for biofuels**, partial harmonization for biomass in heat & power



Energy Efficiency Directive

2012/27/EU
2018/2002/EU

Core relevant provisions:

- Comprehensive national heating and cooling assessment (unchanged article 14 of 2012/27/EU)
 - amended by Article 15 of RED II
 - next due by 31 December 2020
- Revised Articles 9-11 on metering and billing (Articles 1(5)-(10) of 2018/2002/EU)
- Revision of the Article 14 related Annexes VIII and IX of 2012/27/EU is on-going
- Definition of « *efficient district heating and cooling* » (Article 2(41) of 2012/27/EU)

Energy Performance of Buildings Directive

**2010/31/EU
2018/844/EU**

Core relevant provisions

- Minimum energy performance requirements (unchanged 2010/31/EU)
- Cost-optimal methodology for calculating the energy performance of buildings (unchanged 2010/31/EU)
- Nearly zero-energy buildings (unchanged 2010/31/EU)
- Long-term building renovation Strategies – 1st by 30 April 2014 and updated every three years (article 2a of 2018/844/EU)
- Technical building systems, electromobility and smart readiness indicator (article 8 of 2018/844/EU)

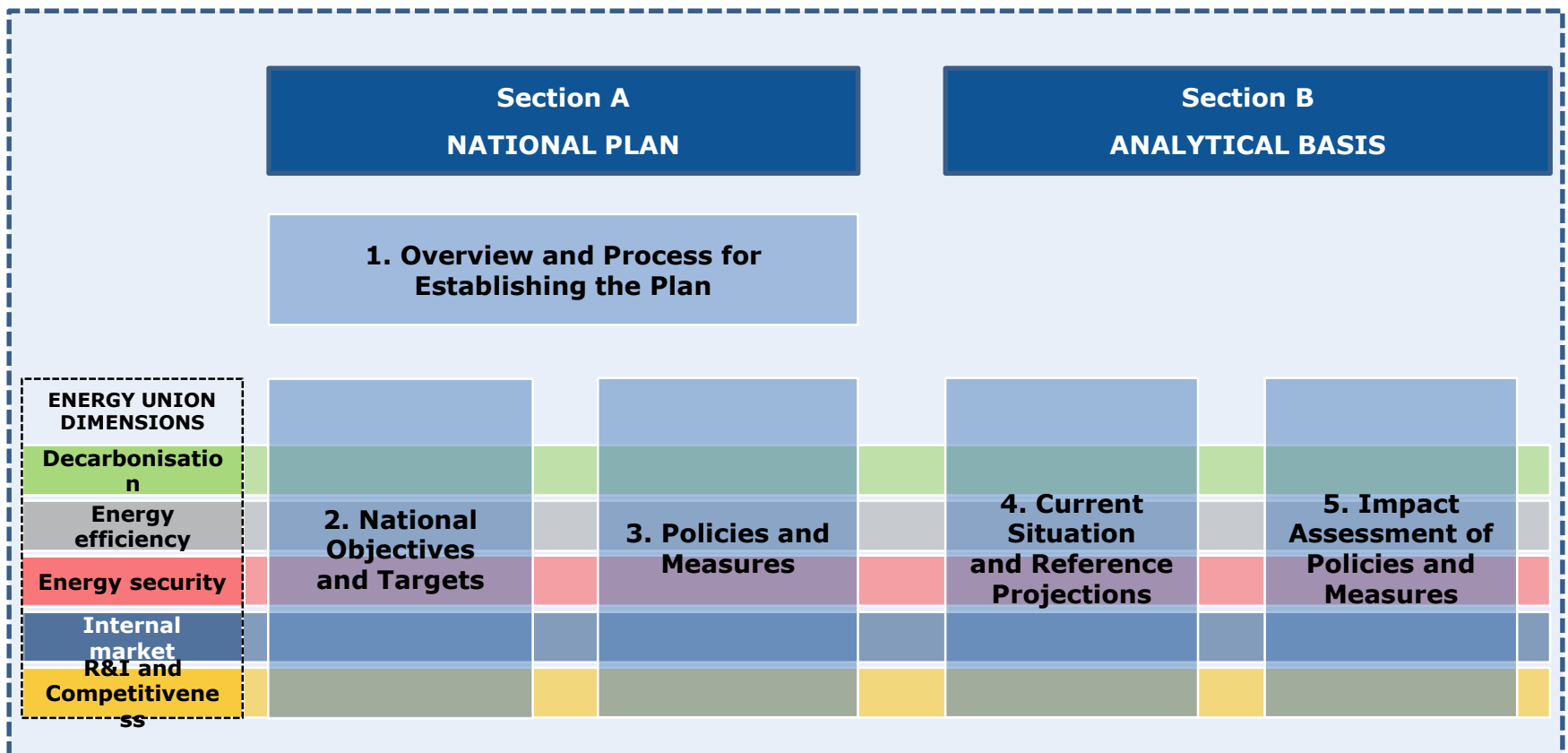
New Governance Regulation

2018/1999/EU



Draft and final integrated national energy and climate plans

Proposed structure: 2 sections covering all 5 Energy Union dimensions

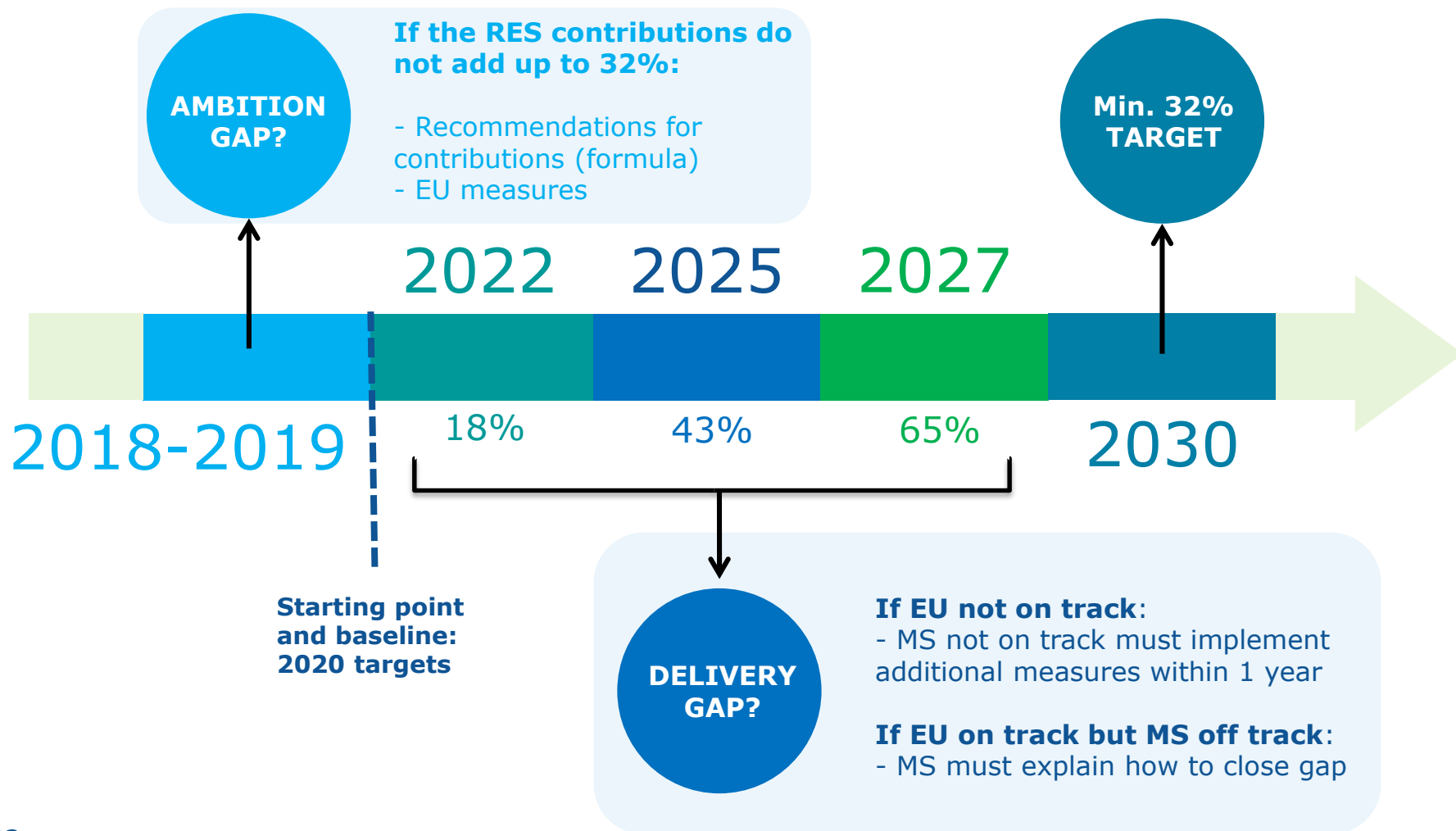


PLANNING AND REPORTING



- Planning and reporting obligations on renewables and energy efficiency are now integrated in **energy and climate plans and progress reports** (Governance Regulation)
- **Integrated national plans:**
 - **RES and EE Objectives and trajectories** (e.g. overall and sectoral RES trajectories)
 - **Policies and measures** to promote renewables (e.g. in electricity, heating and cooling, transport)
- **Integrated national progress reports:**
 - Assessment of the implementation of the plans
- **Monitoring by the Commission**

ENSURING THE TARGET IS ACHIEVED – GOVERNANCE REGULATION

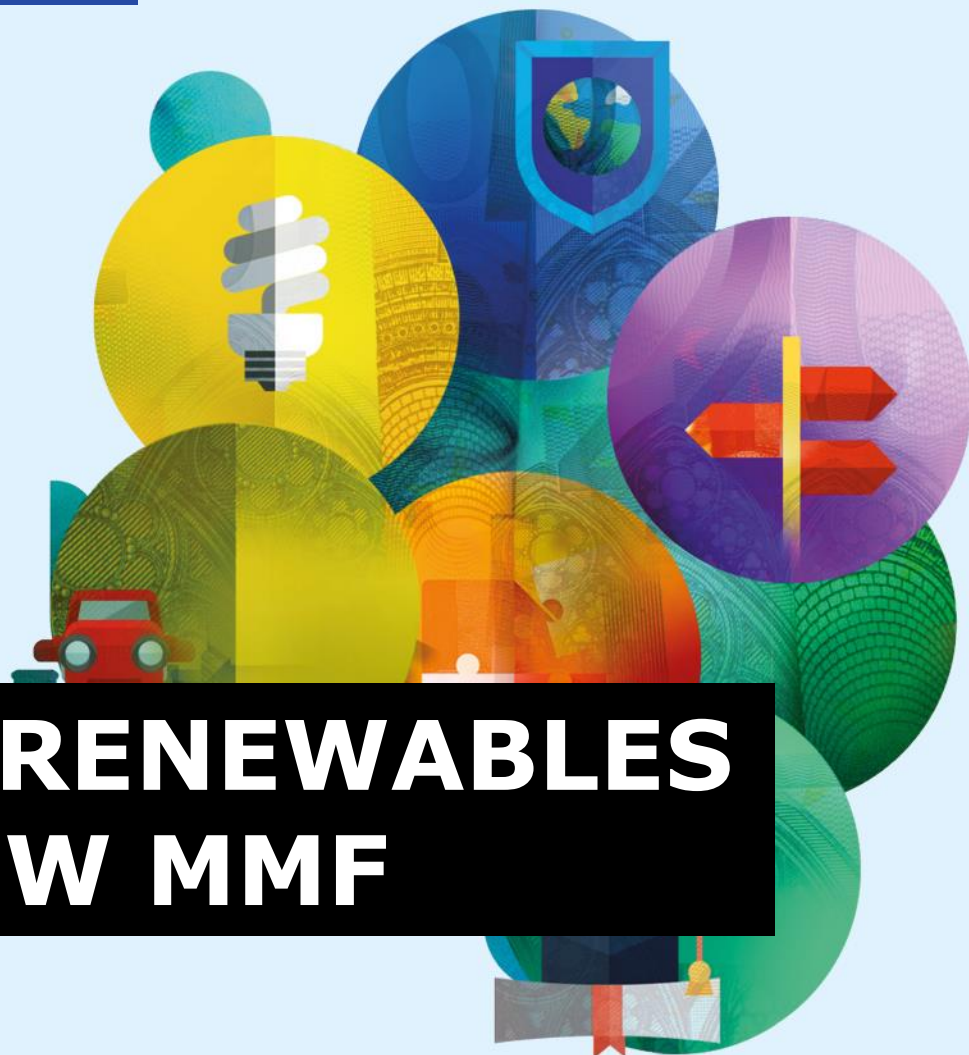




EU BUDGET FOR THE FUTURE

SUPPORT FOR RENEWABLES UNDER THE NEW MMF

#EUBudget



ENHANCED FINANCING TOOLBOX TO SUPPORT RENEWABLES



**EU Funding Instruments supporting
RES in the next MFF**



INCREASED CLIMATE MAINSTREAMING ACROSS EU BUDGET (25%)

**Cohesion
Funds**

Invest EU

**Horizon
Europe**

**Connecting
Europe
Facility**

**LIFE
Clean Energy
Transition
Program**

**Innovation
Fund***

- + Low Carbon Investments kept as priority for Member States under **Cohesion funds** with **higher ring fencing** (30%)
- + **New Invest EU Fund** with a € 11.5 bln Sustainable Infrastructure window to unlock private investment through financial instruments and **tailor made products**
- + **Increased Funds** under **Horizon Europe** for R&I in climate, energy and mobility (€15 bln)
- + **New Window under CEF to support cross border RES Projects (€ 865 mln)**
- + **New Programme** (CEPE) under LIFE for RES & Energy efficiency capacity building and policy implementation
- + **New Innovation Fund** targeting market uptake of innovative RES, CCS and solutions for Energy Intensive Industries (€ 2bln-€12 bln)

Cohesion policy support for district heating and cooling

Cohesion Policy 2014-2020

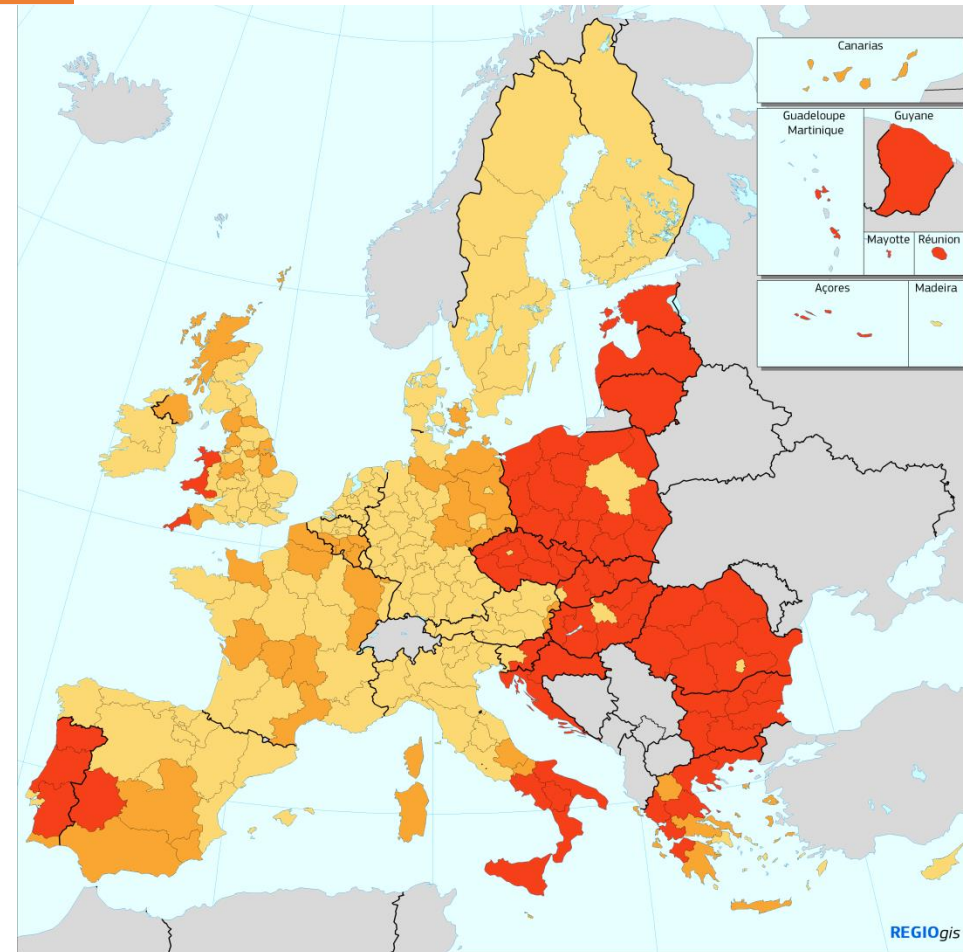


Three funds:

- European Regional Development Fund (ERDF)
- European Social Fund (ESF)
- Cohesion Fund (CF)

€352 billion over 2014-2020 concentrated in less developed regions, aiming to:

- Reduce disparities between Europe's regions strengthening economic, social and territorial cohesion
- Contribute to the Europe 2020 Strategy for smart, sustainable and inclusive growth



Structural Funds (ERDF and ESF) eligibility 2014-2020

Category

- Less developed regions (GDP/head < 75% of EU-27 average)
- Transition regions (GDP/head between $\geq 75\%$ and < 90% of EU-27 average)
- More developed regions (GDP/head $\geq 90\%$ of EU-27 average)

Under shared management



**Legal
Framework**

**Partnership
Agreements**

**Operational
Programmes**

**Management of
programmes/
Selection of
projects**

**Monitoring/
Annual
reporting**

List of Programmes:

http://ec.europa.eu/regional_policy/en/atlas/programmes/

Managing authorities

http://ec.europa.eu/regional_policy/en/atlas/managing-authorities/

**THANKS A LOT FOR YOUR
ATTENTION!**



District Heating & Cooling:

Increase by 1 ppt of RES/Waste heat or cold

- Can be applied instead of Third Party Access
- Member States shall endeavour to increase the share of renewable energy and waste heat or cold by at least 1 ppt as an annual average for the periods 2021-2025 and 2026-2030, starting from the shares of those energy sources in the district heating and cooling sector in 2020
- By implementing measures
- Measures must be included in NEAPs
- Any ppt above 60% in 2020 can be counted for the 1 ppt

District Heating & Cooling: consumer information

Important new right for consumers

Final consumers must be provided information on:

- **the energy performance,**
- **the share of renewable energy**

in their district heating and cooling systems

- in an easily accessible manner (e.g. suppliers' websites, annual bills), or
- upon request

District Heating & Cooling: **disconnection**

Important new right for consumers

- ➔ Applies for non-efficient systems only
- ➔ Transition period until 31 December 2025 (approved plan needed)
- ➔ A whole building can disconnect, not individual apartments
- ➔ Customers, their joint undertaking and parties acting on their behalf can exercise the right
- ➔ Can be done by terminating or modifying the contract
- ➔ Can be made conditional on:
 - customers changing for a significantly better performing alternative
 - compensation payment if there is physical disconnection

District Heating & Cooling: Third Party Access

- ❑ *Obligation to connect, or to offer to connect and purchase from renewables' and waste heat/cold' suppliers in order to:*
 - **meet demand from new customers;**
 - **replace existing heat or cold generation capacity;**
 - **expand existing heat or cold generation capacity.**
- ❑ *Possibility to refuse access*
 - **Lack of capacity due to RES, HE CHP, waste heat/cold**
 - **Technical parameters are not fulfilled**
 - **Excessive cost increase for final customers**
- ❑ *Exemptions*
 - **1.) Efficient district heating/cooling, 2.) efficient DHC with high-efficiency CHP, 3.) systems becoming efficient by 31 December 2025 based on an approved plan, 4.) > 20 MW**

District Heating & Cooling:

Assessment of flexibility potentials

- Assessment of the potential of DHC systems to provide balancing and other system services, including demand response and storing of excess electricity from renewable sources, and whether the use of the identified potential would be more resource- and cost-efficient than alternative solutions.
- Electricity DSO must do the assessment at least every four years in cooperation with DHC operators in their respective area

District Heating & Cooling: **Waivers**

A MS is not required to apply the Article except for information provision (paragraph 1), where

(a) its share of district heating and cooling is less than or equal to 2 % of the overall consumption of energy in its heating and cooling sector on date of entry into force of the Directive;

(b) its share of district heating and cooling is increased above 2 % by developing efficient district heating and cooling based on its integrated national energy and climate plan or the assessment referred to in Article 15(7) of this Directive; or

(c) its share of efficient district heating and cooling constitutes over 90 % of total sales of its district heating and cooling.

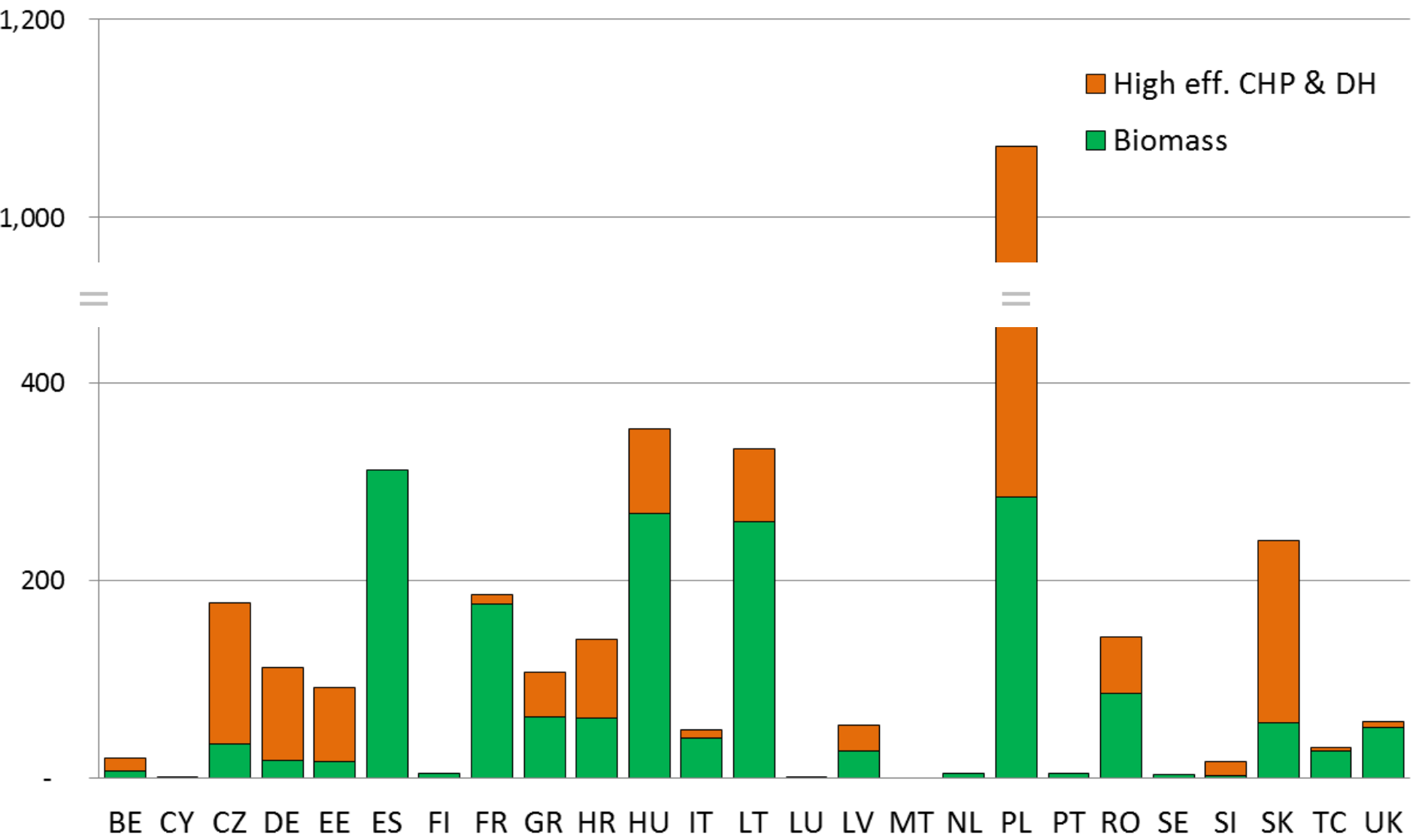
Key features: Cohesion policy 2014-2020



- Result orientation and performance framework
- Thematic concentration of funds: 11 thematic objectives linked to the Europe 2020 Strategy
- Pre-conditions for funding (ex-ante conditionalities)
- Increased use of financial instruments and synergies
- Horizontal mainstreaming of climate/environment
- Partnership principle
- Enhanced urban dimension
- Increased emphasis on capacity building

ERDF/CF support: examples

million EUR



Transparency



New open data platform:

<https://cohesiondata.ec.europa.eu>

http://ec.europa.eu/regional_policy/en/policy/evaluations/data-for-research/

Project examples:

<https://ec.europa.eu/budget/euprojects/>

http://ec.europa.eu/regional_policy/EN/projects/

<http://ec.europa.eu/esf/main.jsp?catId=46>