



Welcome

Workshop on National Energy and Climate Plans and Long-term Strategy

Platform for Coal Regions in Transition

#CoalRegionsEU

Energy

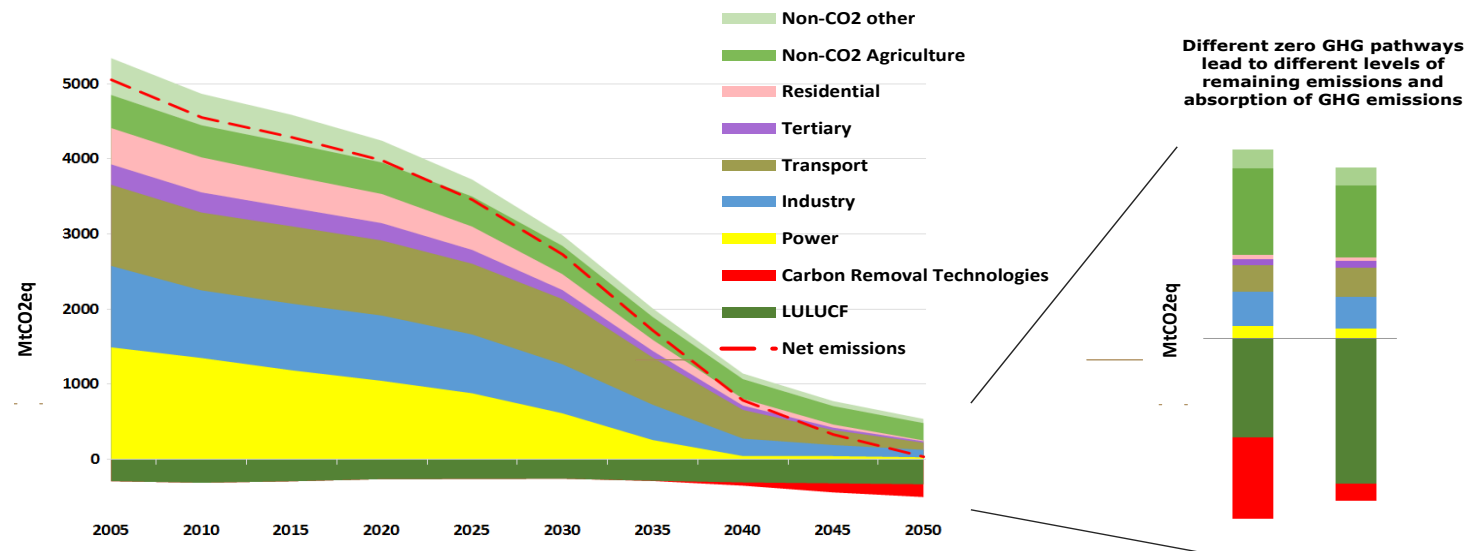


Political context

- Parties of the Paris Agreement to present long-term low greenhouse gas emission development strategies by 2020
- In October 2017 the European Parliament also invited the Commission "*to prepare by COP24 a mid-century zero emissions strategy for the EU*"
- In March 2018, European Council invited the Commission "*to present by the first quarter of 2019 a proposal for a Strategy for long-term EU greenhouse gas emissions reduction*".
- Regulation on Governance of the Energy Union calls on the Commission to present an EU long-term strategy by April 2019, including pathways that achieve net zero GHG emissions by 2050 and negative emissions thereafter

Our Vision for a Clean Planet by 2050

- EU leads in clean energy transition and GHG emissions reduction. Ambitious 2030 targets. 60% reductions in 2050 with current policies – not in line with the Paris Agreement.
- Radical transformations necessary: central role of energy system.
- There are a number of pathways for achieving a climate neutral EU, challenging but feasible from a technological, economic, environmental and social perspective.
- The Long Term Strategy shows transforming our economy is possible and beneficial.



Detailed assessment supported by scenario analysis

Long Term Strategy Options								
	Electrification (ELEC)	Hydrogen (H2)	Power-to-X (P2X)	Energy Efficiency (EE)	Circular Economy (CIRC)	Combination (COMBO)	1.5°C Technical (1.5TECH)	1.5°C Sustainable Lifestyles (1.5LIFE)
Main Drivers	Electrification in all sectors	Hydrogen in industry, transport and buildings	E-fuels in industry, transport and buildings	Pursuing deep energy efficiency in all sectors	Increased resource and material efficiency	Cost-efficient combination of options from 2°C scenarios	Based on COMBO with more BECCS, CCS	Based on COMBO and CIRC with lifestyle changes
GHG target in 2050	-80% GHG (excluding sinks) ["well below 2°C" ambition]					-90% GHG (incl. sinks)	-100% GHG (incl. sinks) ["1.5°C" ambition]	
Major Common Assumptions	<ul style="list-style-type: none"> Higher energy efficiency post 2030 Deployment of sustainable, advanced biofuels Moderate circular economy measures Digitilisation 				<ul style="list-style-type: none"> Market coordination for infrastructure deployment BECCS present only post-2050 in 2°C scenarios Significant learning by doing for low carbon technologies Significant improvements in the efficiency of the transport system. 			
Power sector	Power is nearly decarbonised by 2050. Strong penetration of RES facilitated by system optimization (demand-side response, storage, interconnections, role of prosumers). Nuclear still plays a role in the power sector and CCS deployment faces limitations.							
Industry	Electrification of processes	Use of H2 in targeted applications	Use of e-gas in targeted applications	Reducing energy demand via Energy Efficiency	Higher recycling rates, material substitution, circular measures	Combination of most Cost-efficient options from "well below 2°C" scenarios with targeted application (excluding CIRC)	COMBO but stronger	CIRC+COMBO but stronger
Buildings	Increased deployment of heat pumps	Deployment of H2 for heating	Deployment of e-gas for heating	Increased renovation rates and depth	Sustainable buildings			CIRC+COMBO but stronger
Transport sector	Faster electrification for all transport modes	H2 deployment for HDVs and some for LDVs	E-fuels deployment for all modes	Increased modal shift	Mobility as a service			<ul style="list-style-type: none"> CIRC+COMBO but stronger Alternatives to air travel
Other Drivers		H2 in gas distribution grid	E-gas in gas distribution grid				Limited enhancement natural sink	<ul style="list-style-type: none"> Dietary changes Enhancement natural sink

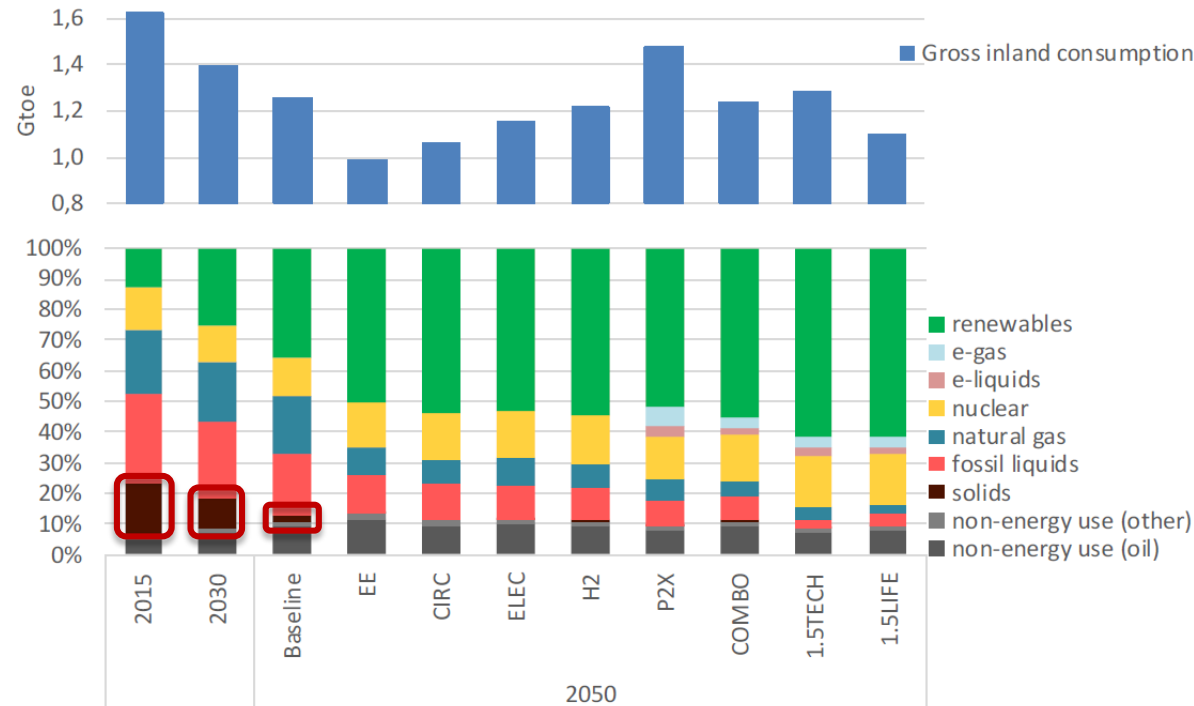


7 Building Blocks

1. Energy efficiency
2. Deployments of renewables
3. Clean, safe & connected mobility
4. Competitive industry and circular economy
5. Infrastructure and inter-connections
6. Bio-economy and natural carbon sinks
7. Tackle remaining emissions with carbon capture and storage

Building Block 2 Deployment of renewables

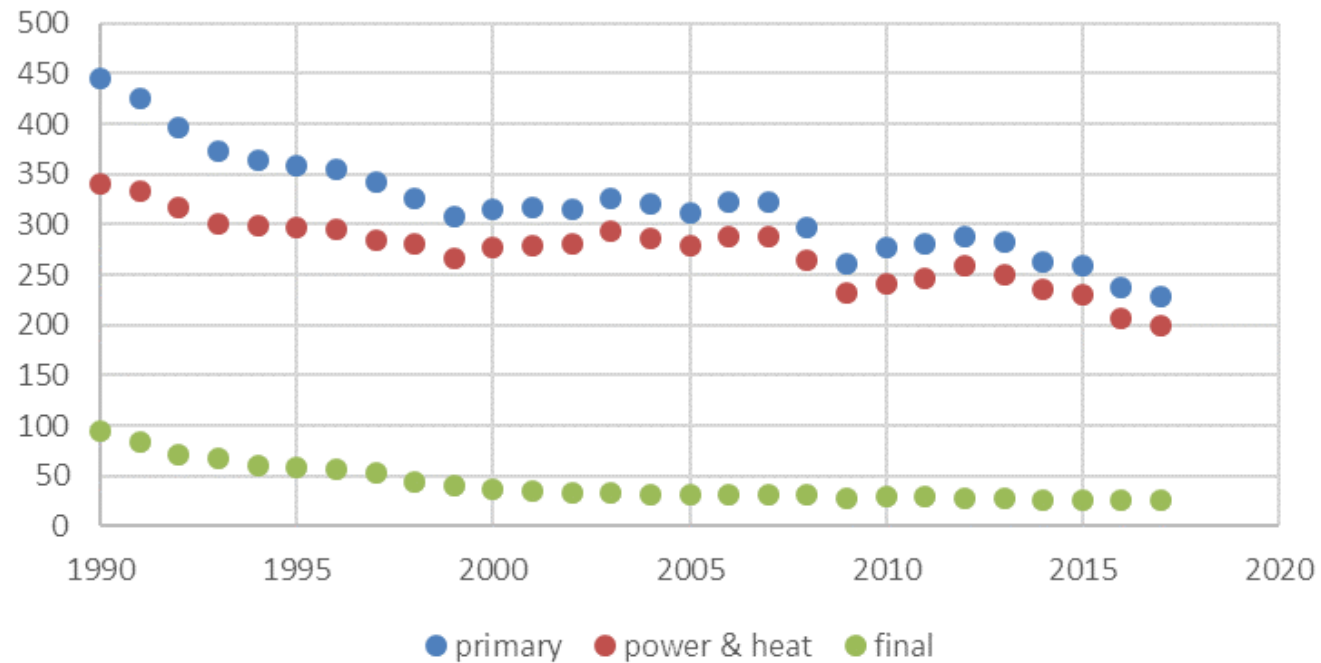
Primary energy in 2050 largely coming from renewable sources



Reduction of energy import dependence, cumulative savings from reduced import bill of € 2-3 trillion over the period 2031-2050.

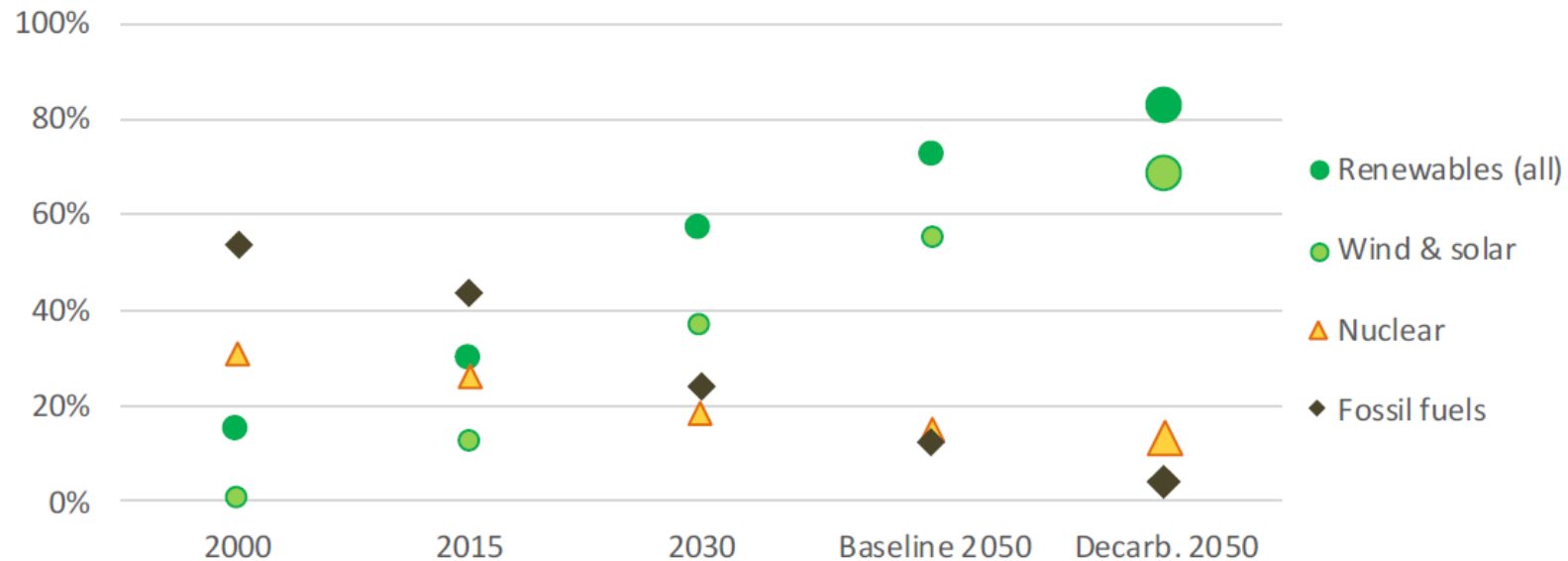
Solid fossil fuels mostly consumed in transformation sector

Solid fossil fuels consumption in the EU



Renewables more than 80% of total electricity production

Share in electricity production





Building Block 7 Carbon Capture and Storage

Rapid deployment of renewable energy and new options to decarbonize industry reduced the need for CCS.

But to achieve net-zero greenhouse gas emissions, CCS still required for certain **energy-intensive industries** and eventually to generate negative emissions.

CCS today is facing barriers: lack of demonstration plant and proof of economic viability, regulatory barriers in some MS, public acceptance.

Coordinated action needed on demonstration and commercial facilities to overcome the obstacles

Conclusions on Solid Fossil Fuels

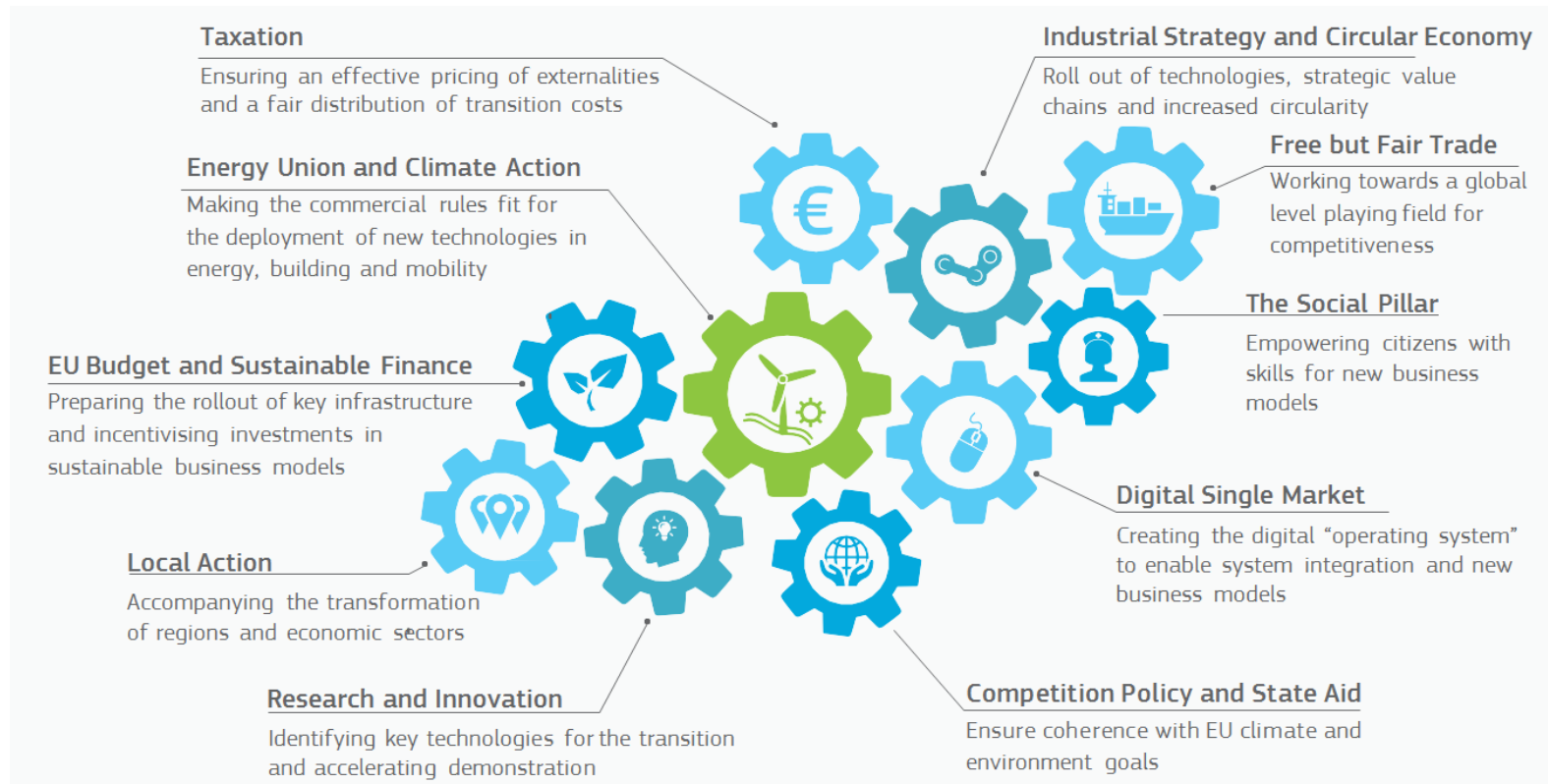
In-line with the Paris Agreement and aiming notably at reducing GHG emissions, and thus CO₂ emissions, to net zero by 2050, the Long Term Strategy does not see “coal” in the EU energy system by 2050.

Even CCS plays a limited role, in industrial process or to generate “negative” CO₂ emissions if coupled with biomass.

However there are many opportunities for the further deployment of new “domestic” energy sources in the EU regions, including wind, solar or biomass.

This will go hand in hand with the further electrification and the uptake of new “e-fuels” (hydrogen, e-gas, e-liquids) as energy carriers in our energy system.

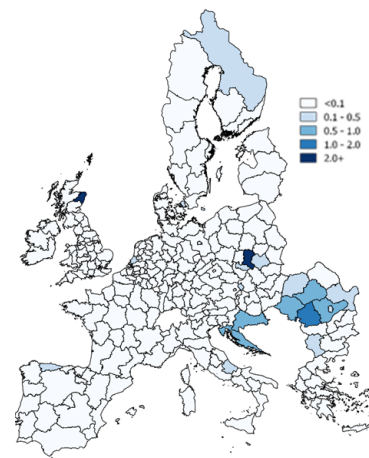
Enabling framework crucial to deliver transformation



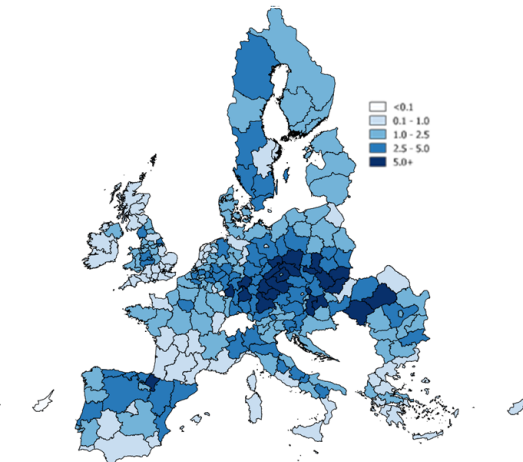
Just transition

- Overall economic impacts of the deep transformation are positive.
- The transition will spur growth in new sectors. 'Green jobs' already represent 4 million jobs in the EU.
- But some sectors will face challenges (e.g. coal mining and fuel extraction) and others will transform (e.g. energy-intensive industries and automotive sector).
- This will affect some regions often in lower income MS, more than others.
- Modernisation process has to be managed, no-one left behind, relevant policies must be deployed to the fullest. EU budget, employment and cohesion policies have a role.
- Platform and pilots for coal and carbon-intensive regions to play a key role.
- Skill training is crucial.

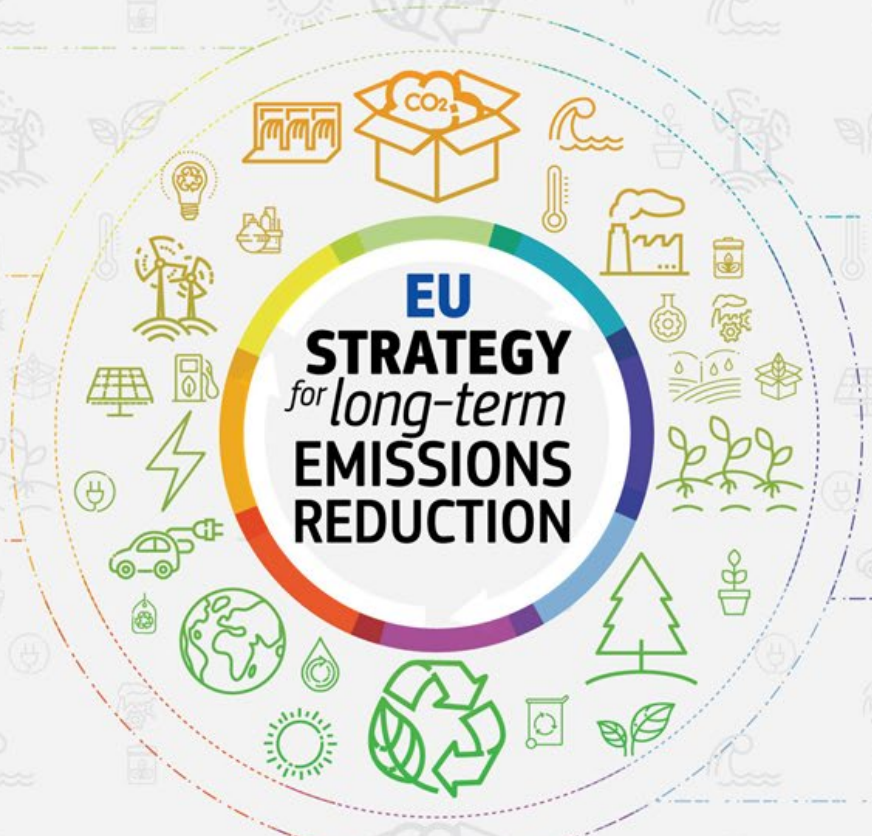
Share of employment
fossil fuel extraction and mining



Share of employment
Energy Intensive Industries &
Automotive Manufacturing



Thank you!





CAN

CLIMATE ACTION NETWORK

Europe

JUST TRANSITION OR JUST TALK?

Draft National Energy and Climate
Plans reveal some EU countries are
planning to stick with coal power
beyond 2030



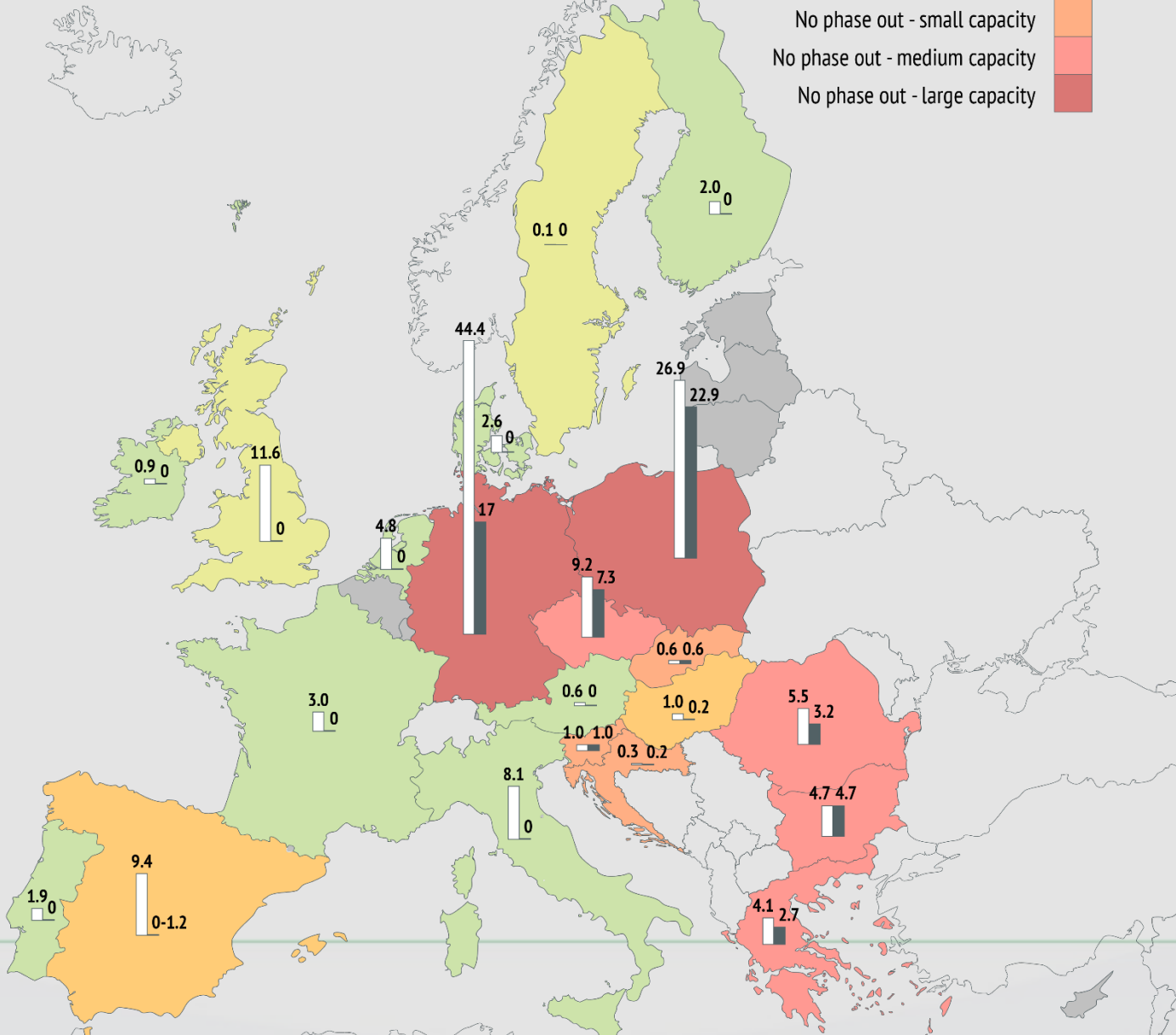
sandbag
smarter climate policy



2030 Total Coal: 60GW

2019 Coal (GW) 143

2030 Coal (GW) 60



Member States with no coal phase out by 2030	2019 installed coal capacity [Net GW]*	NECP 2030 installed coal capacity [net GW]**
Spain	9.4	0-1.2***
Hungary	1.0	0.2
Croatia	0.3	0.2
Slovakia	0.6	0.6
Slovenia	1.0	1.0
Greece	4.1	2.7
Romania	5.5	3.2
Bulgaria	4.7	4.7
Czechia	9.2	7.2
Germany	44.4	17.0
Poland	26.9	22.9

Time to walk



the talk
of the Just Transition

Timely planning for this inevitable energy transition brings a number of benefits, namely:

- Increased investor certainty
- Predictability for the coal utilities, giving them time to plan for coal closures and develop new business models.
- Sufficient time for proactive measures to support affected communities who are currently dependent on the coal industry, to ensure that no one is left behind.
- A framework that enables public funding to support the energy transformation and the just transition i.e. through the new EU budget for 2021-2027.

Cohesion Policy funding 2014-2020; planned allocations; 2014 prices; source: own calculation based on 'Categories of Intervention', <https://cohesiondata.ec.europa.eu>

Financial measures for reporting and planning within National Energy and Climate Plans (NECPs) under the Energy Union Governance regulation': EU funds - financial allocations in relation to achieving 20/20/20 EU Climate and Energy targets

Policies and measures: Financial measures, use of EU funds 2014-2020	3.1.1 GHG emissions and removals (environmental measures)	3.1.2 Promotion of the production and use of energy from renewable sources in electricity, heating and cooling, and transport	3.2 Energy Efficiency	3.3 Energy security (here: financing of gas infrastructure; overlapping with 3.4.2.)	3.4.1 Electricity infrastructure	3.4.2 Energy transmission infrastructure	3.5. Dimension Research, Innovation and competitiveness	Share of GHG reduction, renewable energy, energy efficiency, electricity transmission and storage, research and innovation, on total Cohesion Policy spending 2014 -2020
BG	€62,336,199	€0	€471,486,714	€38,250,000	€0	€0	€14,195,000	7.4%
CZ	€0	€53,439,383	€1,966,794,585	€0	€236,951,838	€0	€102,655,805	10.9%
HU	€0	€875,953,631	€1,159,078,520	€0	€0	€0	€0	9.4%
ES	€0	€649,661,113	€1,096,458,444	€0	€234,704,874	€0	€0	7.1%
GR	€64,629,826	€93,563,498	€461,762,523	€120,135,697	€211,310,455	€0	€68,788,213	5.9%
PL	€13,849,190	€938,928,986	€2,501,919,373	€620,000,000	€781,261,716	€0	€444,539,462	6.1%
RO	€0	€94,787,234	€1,251,170,213	€46,750,000	€66,372,340	€0	€15,000,000	6.3%
SI	€0	€12,000,000	€267,953,527	€0	€19,897,800	€0	€68,157,411	12.2%
SK	€0	€169,000,000	€698,775,034	€0	€0	€0	€8,358,341	6.4%
DE	€123,567,298	€121,513,627	€1,388,224,372	€0	€59,563,084	€0	€232,580,242	10.5%

Costs of keeping coal

Where is the remaining coal capacity in 2030?

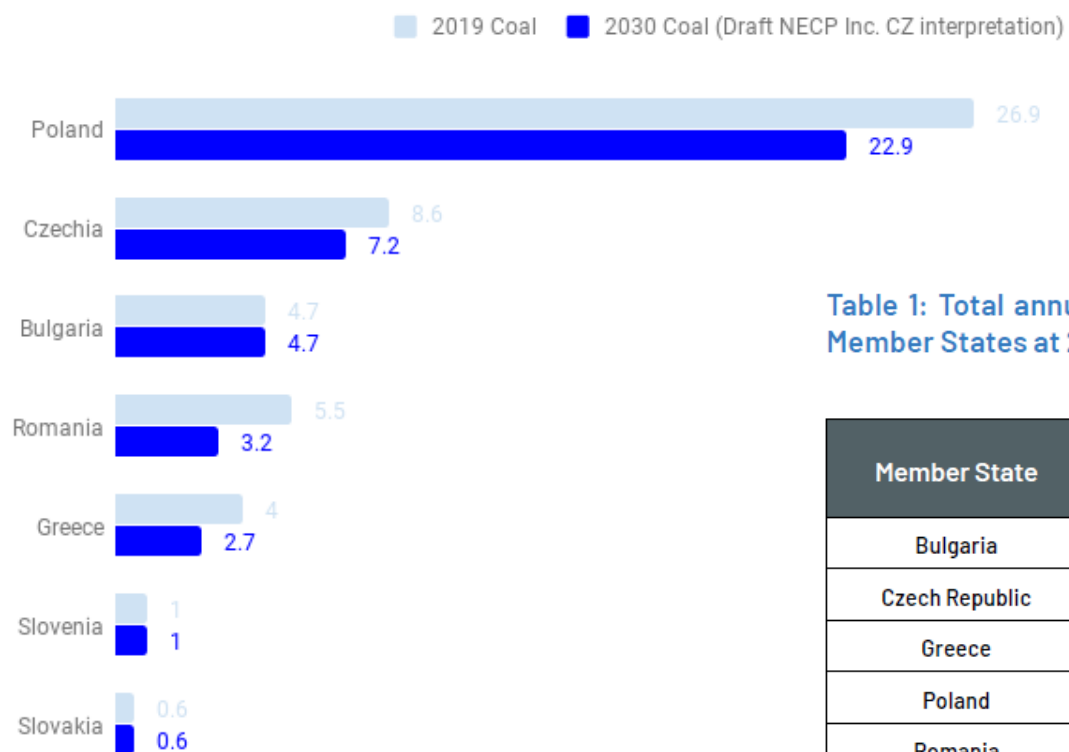


Table 1: Total annual carbon costs for coal power station operators in selected Member States at 27 EUR/tonne

Member State	Emissions from coal-fired electricity generation 2018 [Mt] ¹⁸	Annual Carbon Costs at 27 EUR/tonne [EUR Million]*
Bulgaria	25	675
Czech Republic	46	1,242
Greece	24	648
Poland	128	3,456
Romania	16	432
Slovakia	3	81
Slovenia	5	135

*Excludes the impact of hedging behaviour or any free allocation.

Recommendations

EU Member States should clearly outline in their NECPs the timeline and process for developing and implementing concrete just transition plans for their coal regions as well as the corresponding funding needs - and treat the just transition as one of the priorities.

EU support provided for the just transition in the coal regions should be conditional on credible and ambitious energy transition commitments by Member States, including significant decreases in coal-fired electricity generation,



Thank you for your attention

Joanna Flisowska
Senior Coal Policy Coordinator
joanna@caneurope.org

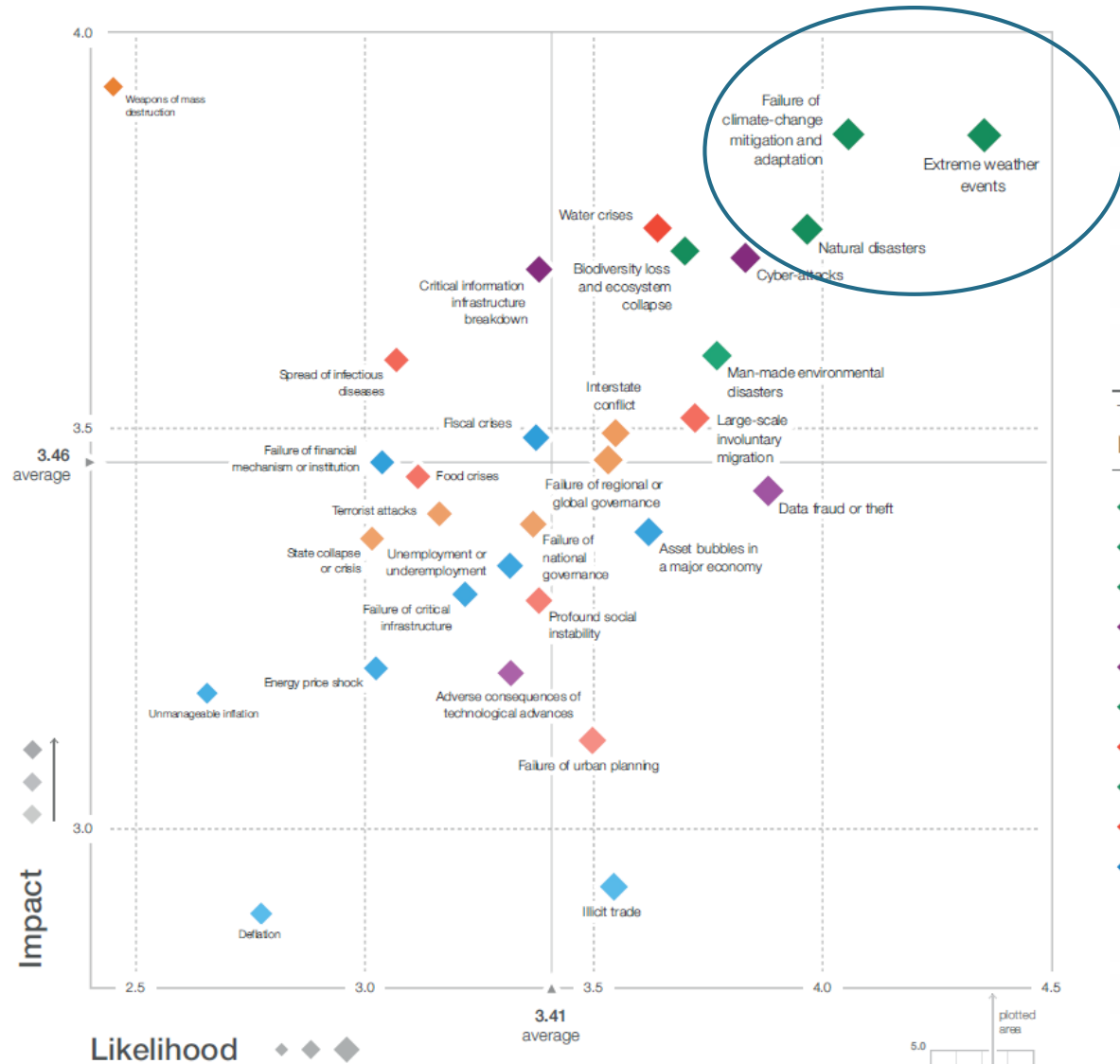
Platform for Coal Regions in Transition

Spanish NECP

Víctor Marcos Morell
Brussels, July 16th, 2019



0. Global risks



Top 10 risks in terms of Likelihood

- 1 Extreme weather events
- 2 Failure of climate-change mitigation and adaptation
- 3 Natural disasters
- 4 Data fraud or theft
- 5 Cyber-attacks
- 6 Man-made environmental disasters
- 7 Large-scale involuntary migration
- 8 Biodiversity loss and ecosystem collapse
- 9 Water crises
- 10 Asset bubbles in a major economy

Top 10 risks in terms of Impact

- 1 Weapons of mass destruction
- 2 Failure of climate-change mitigation and adaptation
- 3 Extreme weather events
- 4 Water crises
- 5 Natural disasters
- 6 Biodiversity loss and ecosystem collapse
- 7 Cyber-attacks
- 8 Critical information infrastructure breakdown
- 9 Man-made environmental disasters
- 10 Spread of infectious diseases

Categories

- ◆ Economic
- ◆ Environmental
- ◆ Geopolitical
- ◆ Societal
- ◆ Technological

Source: The Global Risks Report 2019- 14th Edition
World Economic Forum



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2. National Energy and Climate Plan:
 - A. Objectives
 - B. Results
 - C. Impacts
3. Just Transition Strategy
4. NECP to help transition planning in coal regions and energy from coal

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1. Energy and Climate Strategic Framework

- ▶ **International framework:**
 - ▶ Paris Agreement 2015
 - ▶ UN 2030 Sustainable Development Agenda
 - ▶ 1.5° C IPCC report, GEO 6, Davos & G-20
 - ▶ September 2019: UN's Secretary-General
- ▶ **National framework:**
 - ▶ Draft bill on Climate Change and Energy Transition
 - ▶ Draft National Energy and Climate Plan (NECP) 2021-2030
 - ▶ Just Transition Strategy

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2.A. Spain's NECP Objectives

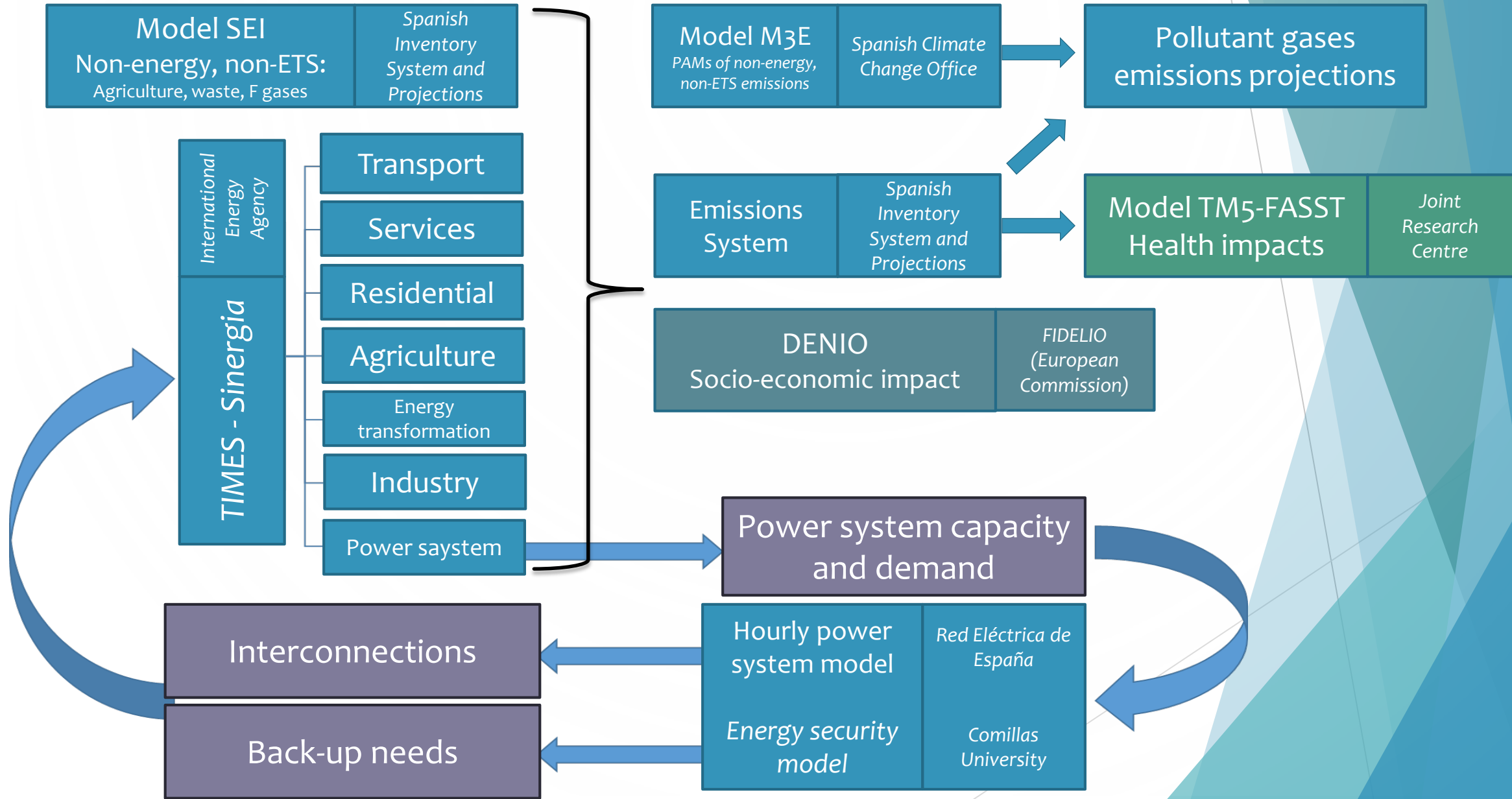
- 21% GHG emissions reduction (vs. 1990)
- 42% renewable energy penetration
- 39,6% increase of energy efficiency

2030

- At least, 90% GHG emissions reduction (vs. 1990)
- 2040 objective in line with NECP
- 100% renewable energy in the power sector

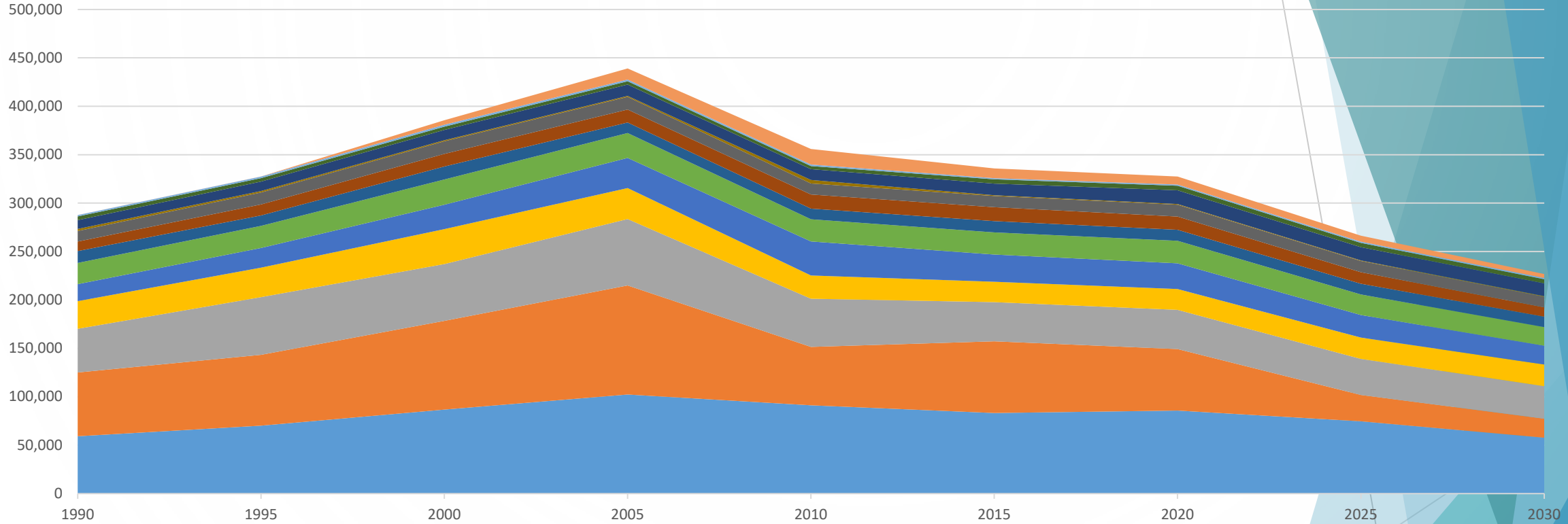
2050

2. NECP - Analytical Models



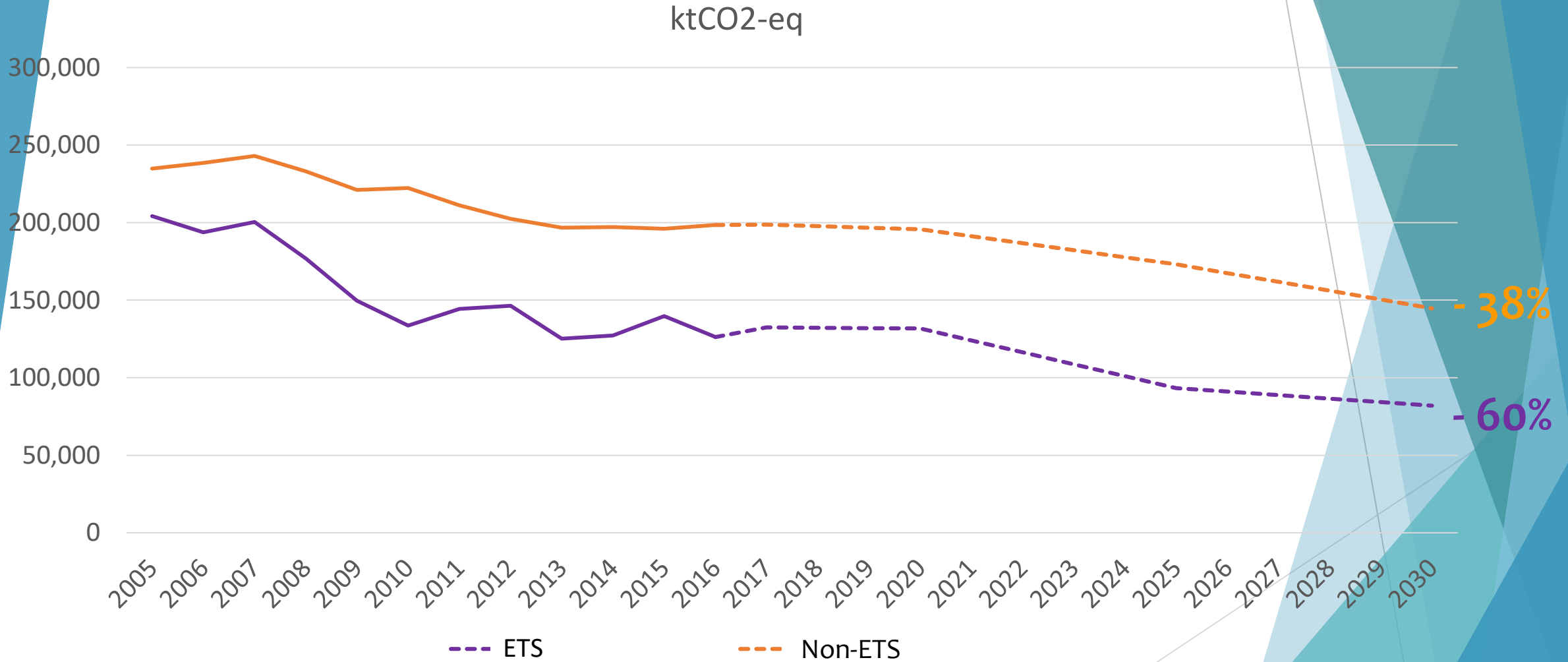
2.B. NECP Results - GHG emissions - 1990-2030

Emissions CO2-eq (kt) per sector



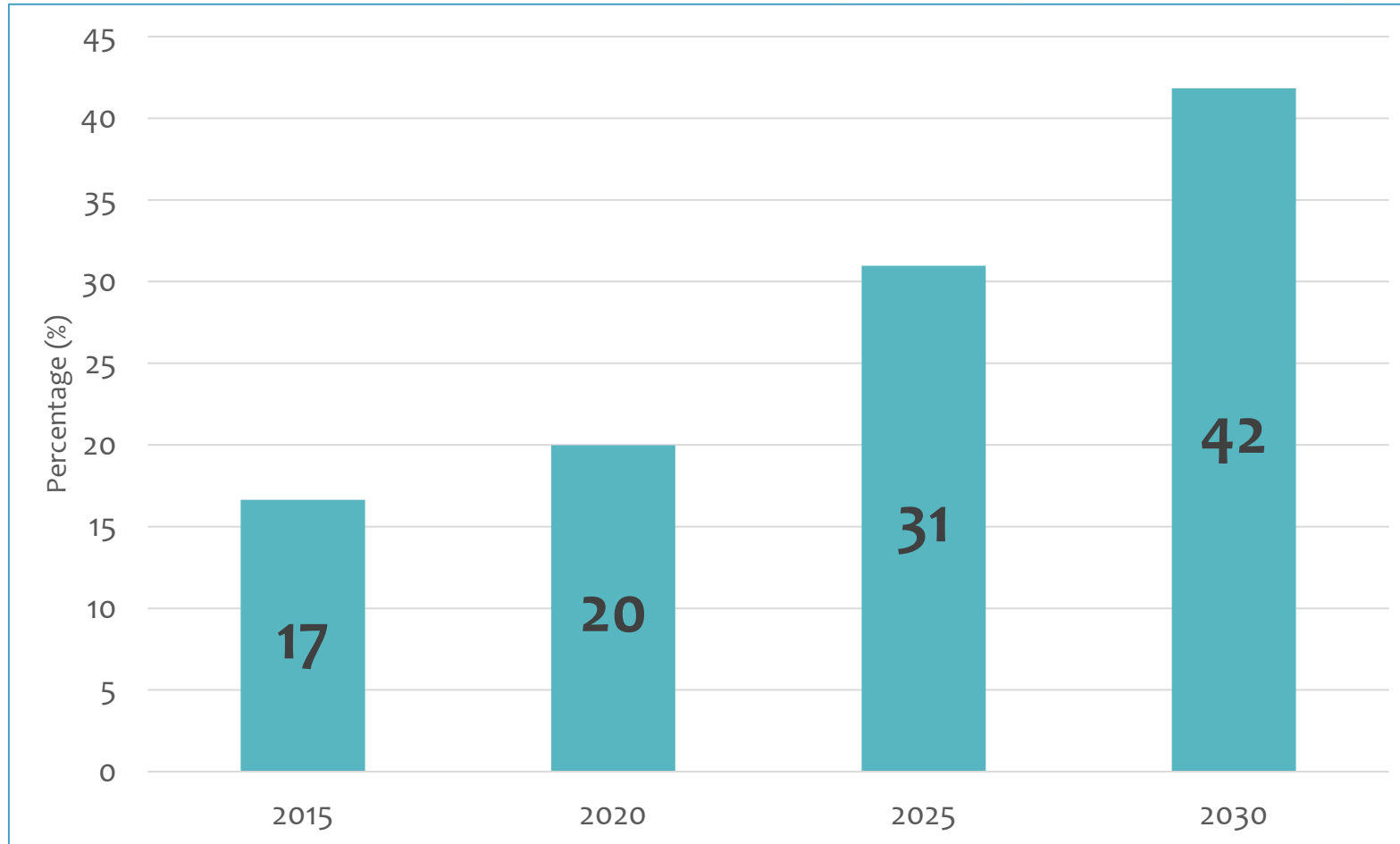
Context: Carbon neutrality by 2050 (90% GHG emissions reduction vs. 1990)

2.B. NECP Results - GHG emissions ETS and Non-ETS



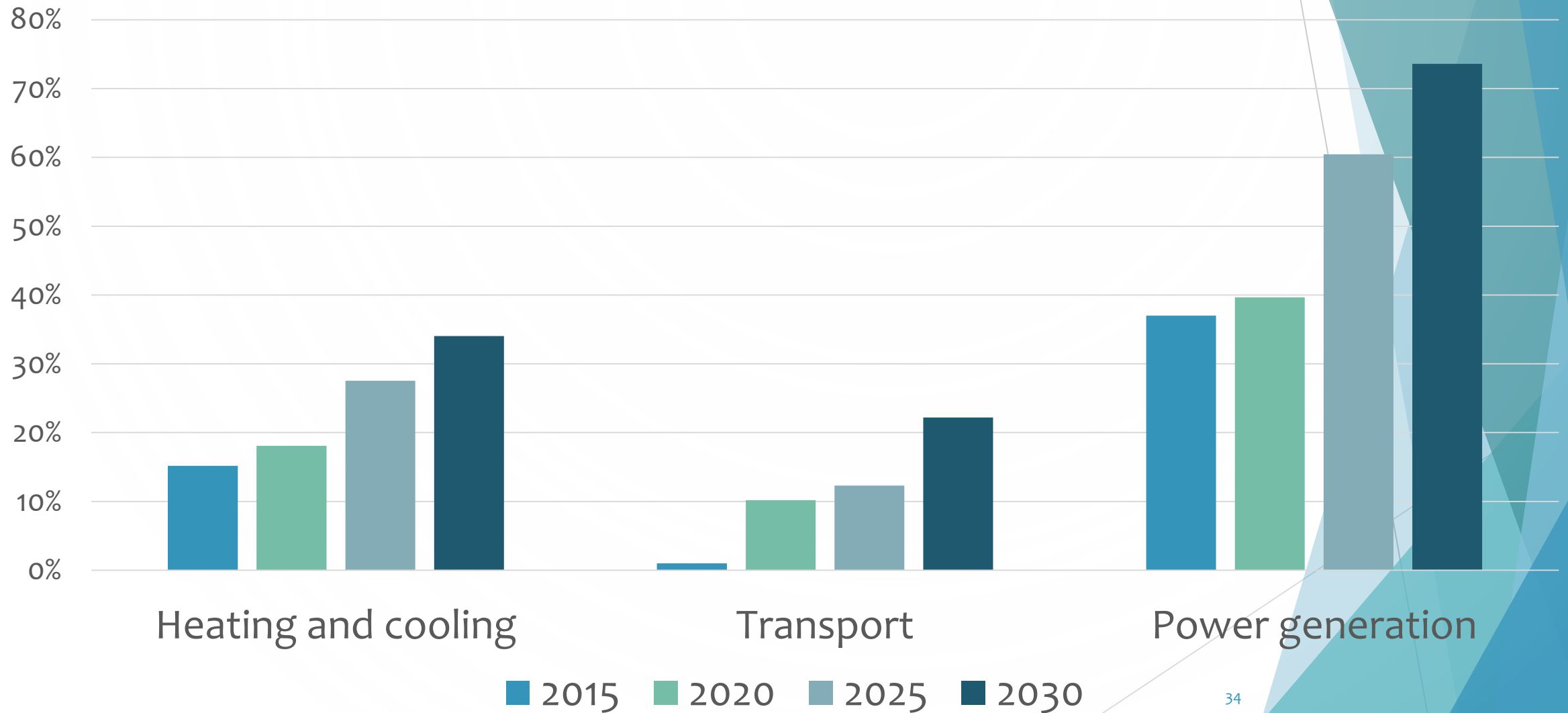


2.B. NECP Results - Renewable energy (% final energy consumption)



Energy efficiency plays a key role in the renewable energy outcomes

2.B. NECP Results - Renewable energy



2.B. NECP Results - Power sector - Installed capacity



Installed capacity (Units MW)				
	2015	2020	2025	2030
Wind	22.925	27.968	40.258	50.258
PV	4.854	8.409	23.404	36.882
CSP	2.300	2.303	4.803	7.303
Hydro	14.104	14.109	14.359	14.609
Pumped hydro	2.687	2.687	2.687	2.687
Pumped hydro (pure)	3.337	3.337	4.212	6.837
Biogas	223	235	235	235
Geothermal	0	0	15	30
Marine	0	0	25	50
Biomass	677	877	1.077	1.677
Coal	11.311	10.524	4.532	0-1.300
CCGT	27.531	27.146	27.146	27.146
Coal CHP	44	44	0	0
Natural gas CHP	4.055	4.001	3.373	3.000
Oil CHP	585	570	400	230
Fuel/Gas	2.790	2.790	2.441	2.093
Renewable CHP	535	491	491	491
Waste CHP	30	28	28	24
Waste	234	234	234	234
Nuclear	7.399	7.399	7.399	3.181
Total	105.621	113.151	137.117	156.965

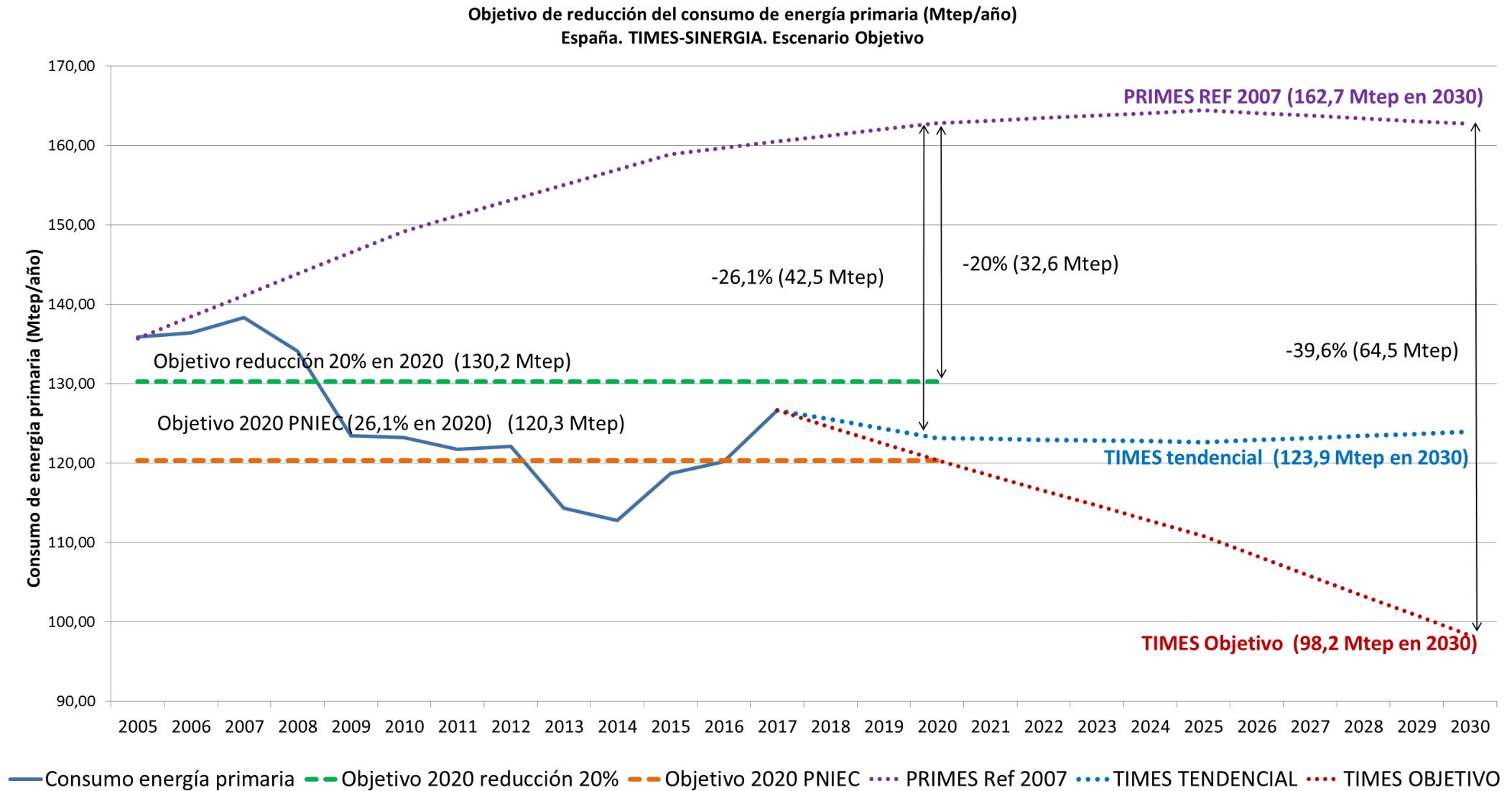
- **57 GW of new renewable capacity installed** (28,5 GW solar PV, 22,3 GW wind, 5 GW CSP, 0,8 GW biomass, 0,5 GW hydro)
- **6 GW of new storage facilities** (3.5 GW pumping and 2.5 GW batteries)
- 3.2 GW of nuclear power in 2030 (2017: 7.4 GW)
- No new back-up installations.
- **Coal to phase out due to lack of competitiveness.**

2.B. NECP Results - Energy efficiency



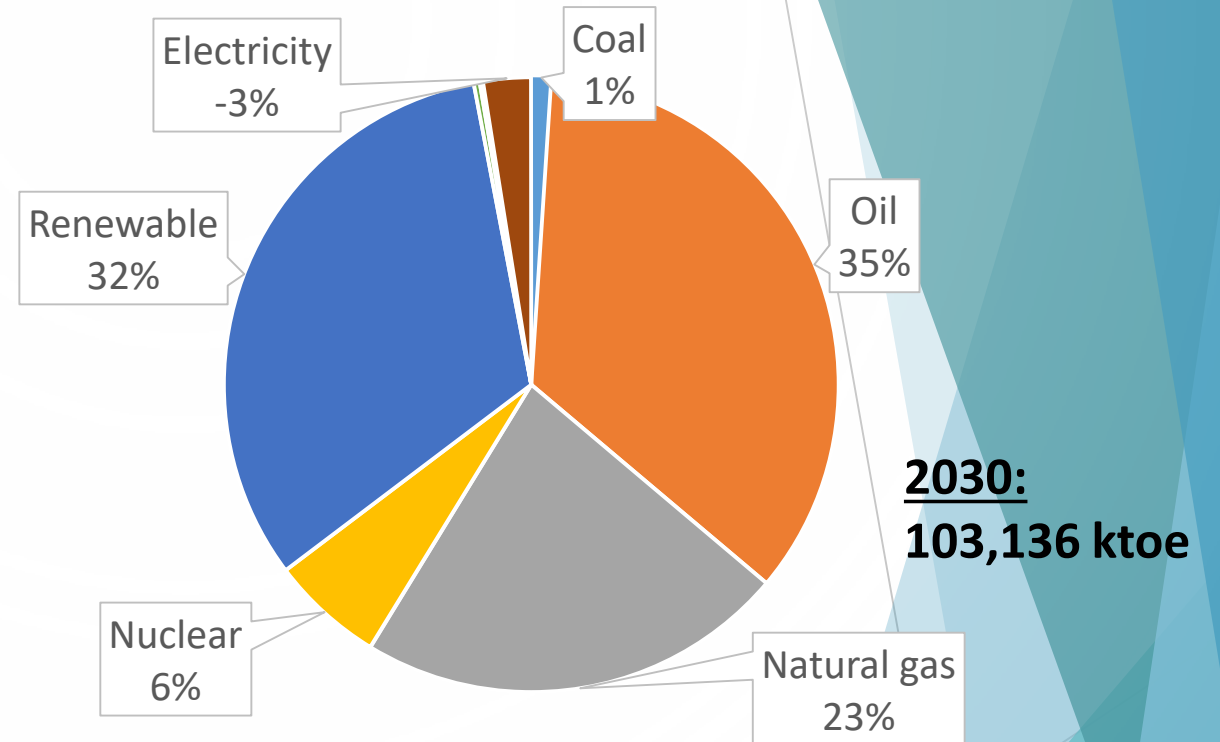
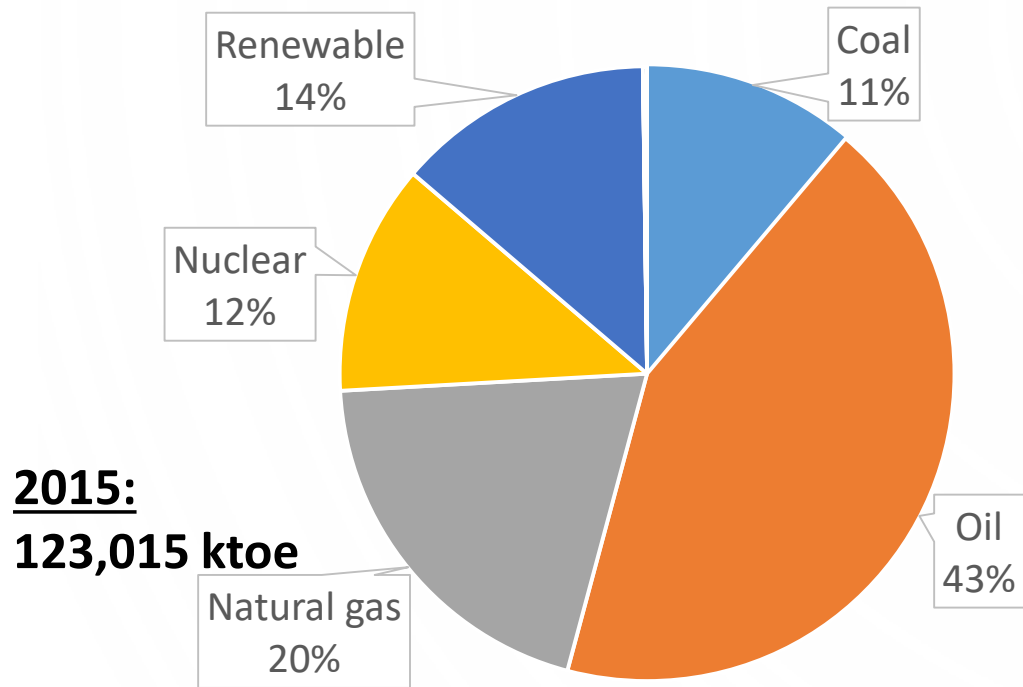
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Energy efficiency increase of 39.6% related to the scenario PRIMES 2007

2.B. NECP Results – Energy efficiency – Gross inland Consumption



The energy intensity improves a 37% related to 2015

Main trends are (2020-2030):

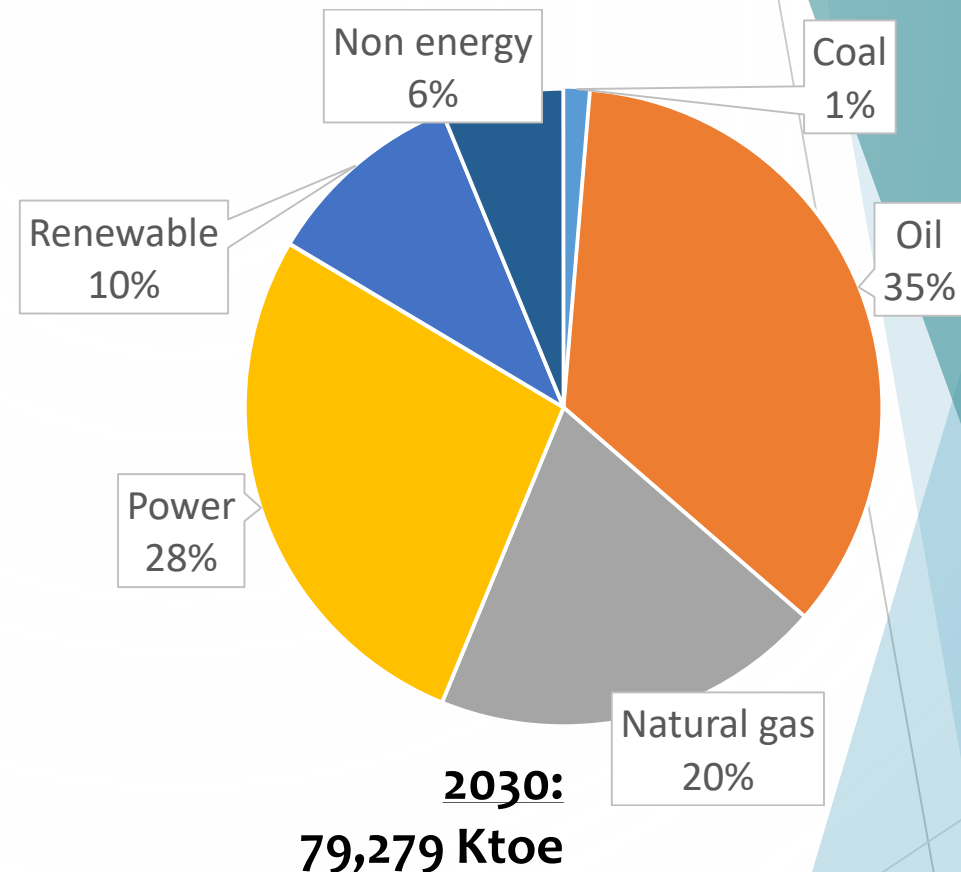
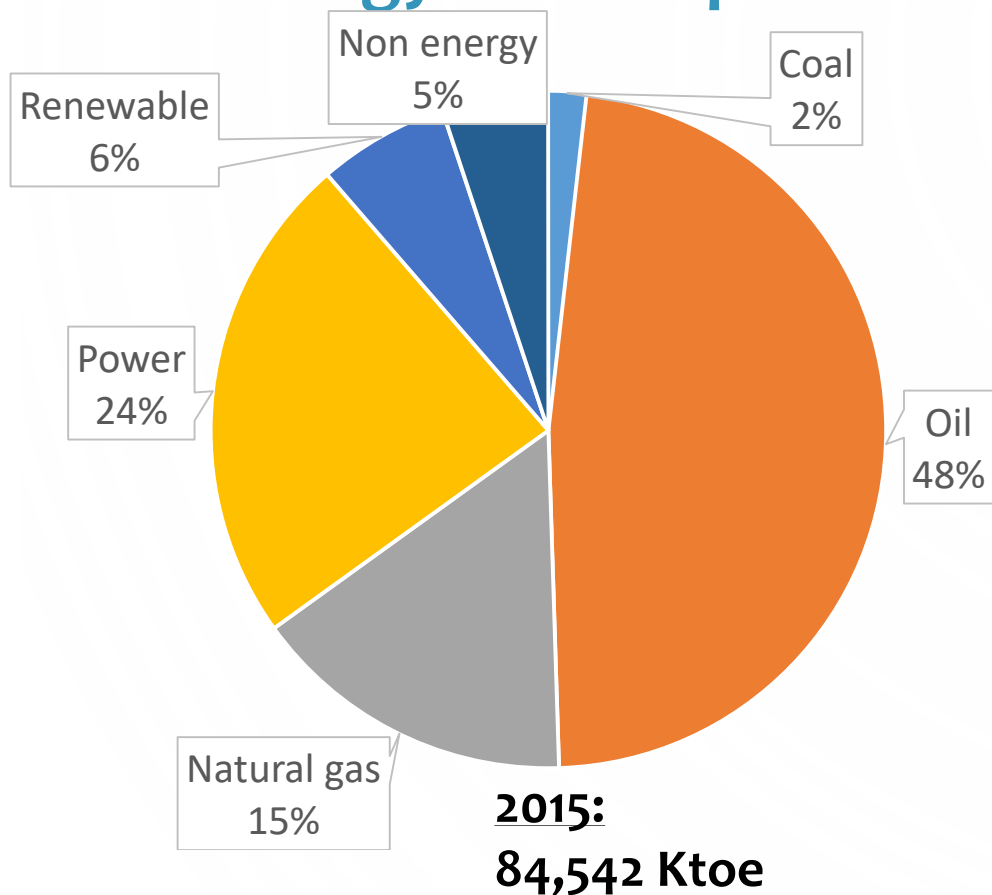
- **Total Gross Inland consumption reduces whereas GDP increases**
- **Oil and coal consumption reduces about a 37%**
- **Renewable energy: relevant increase (68%)**

2.B. NECP Results – Energy efficiency – Final energy consumption



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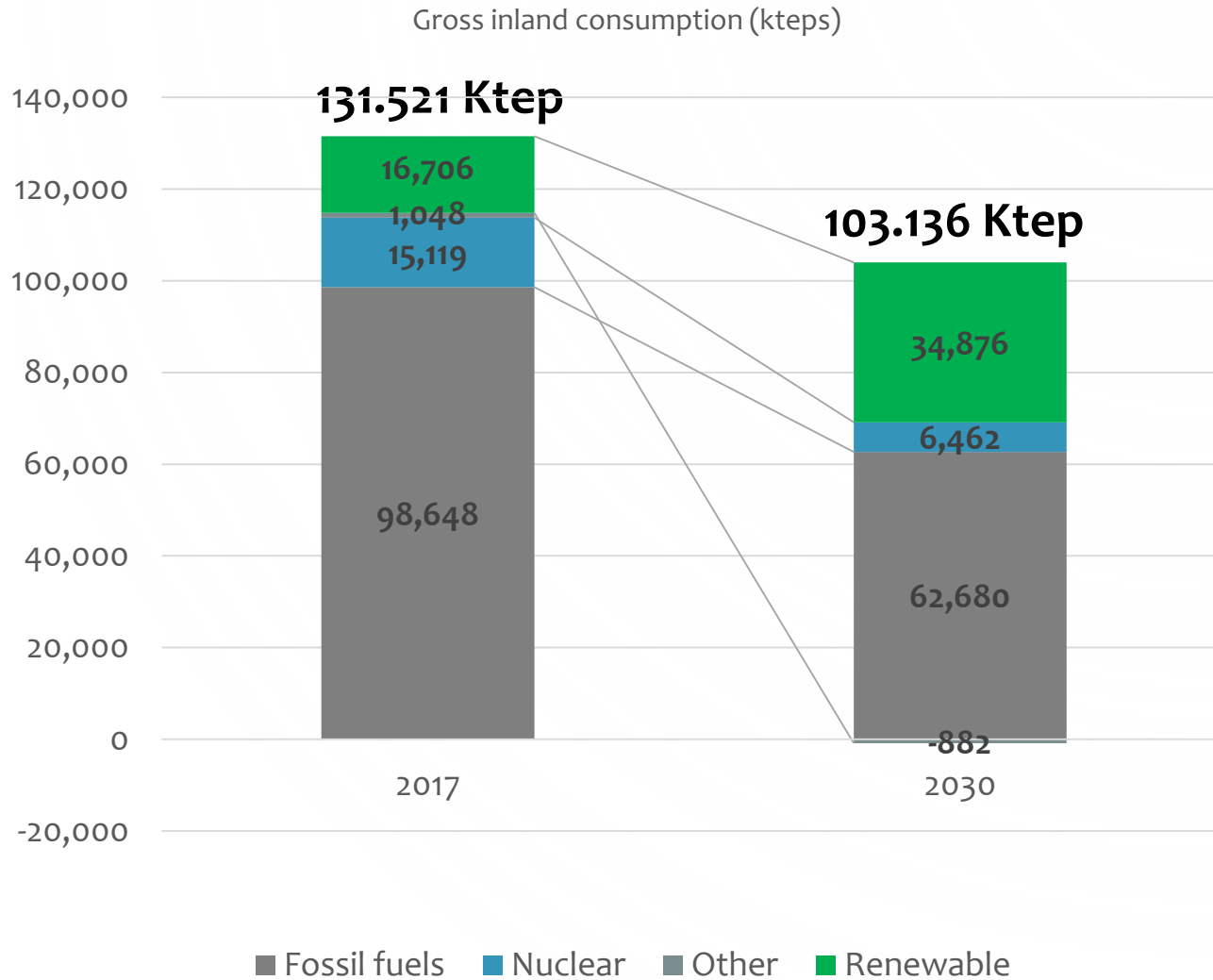


Electricity consumption increases from 24% in 2015 to 27% in 2030, while the **final energy consumption decreases a 6.2%**

Electricity demand increases approximately a 7.3% over the decade

Final consumption of oil is reduced by 31% between 2015 and 2030

2.B. NECP Results - Energy security / Energy dependency



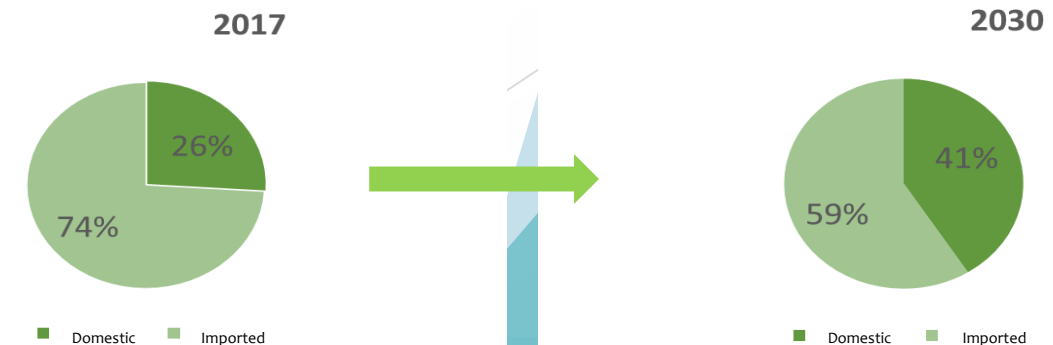
Energy dependency: from 74% in 2017 to 59% in 2030.

The main drivers are:

- **Reduction of oil consumption**
- **Energy efficiency**

Savings on fossil fuels imports of more than 13,305 M€ (2030)

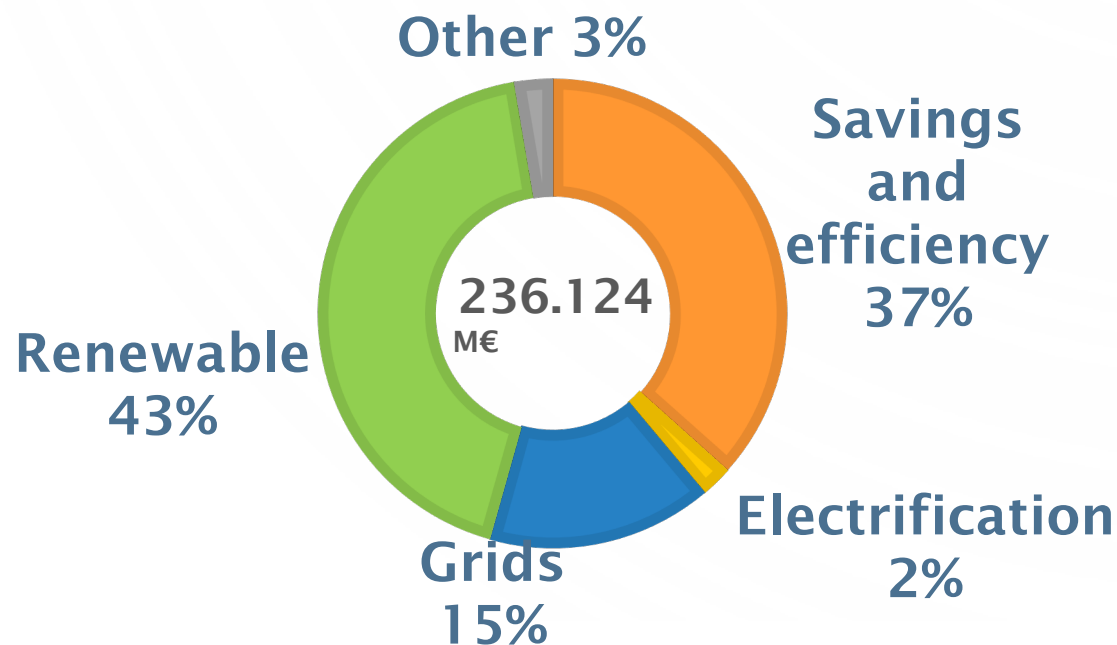
Over 75,000 M€ savings (in the decade).



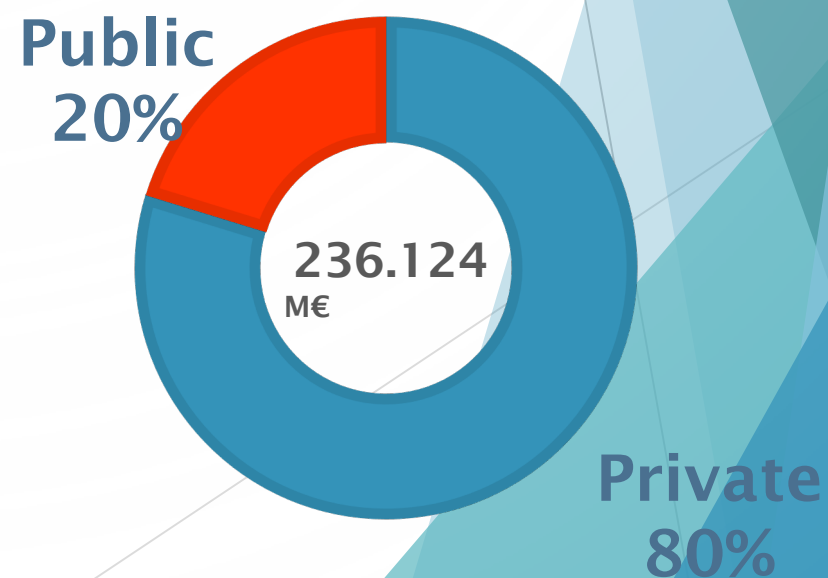
2.C. NECP Impacts - Investment

- Total investments needs: **236.124 € M** as announced by **Primer Minister Sánchez** in his official **statement**
- 80% of investments will be carried out by the private sector. The main sectors leading these investments are renewable energy (power sector) and energy efficiency

INVESTMENTS

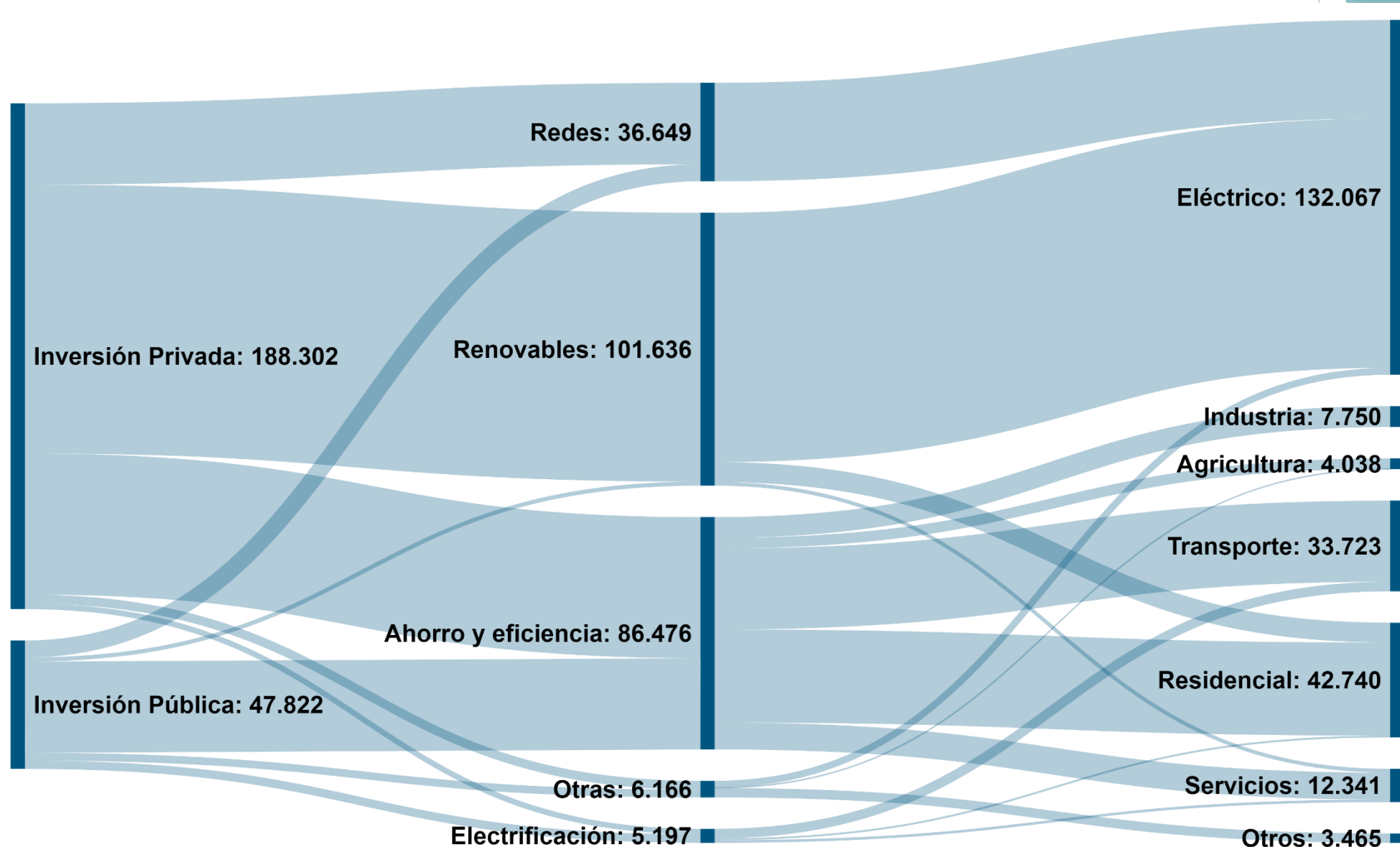


SOURCE





2.C. NECP Impacts - Investment flows

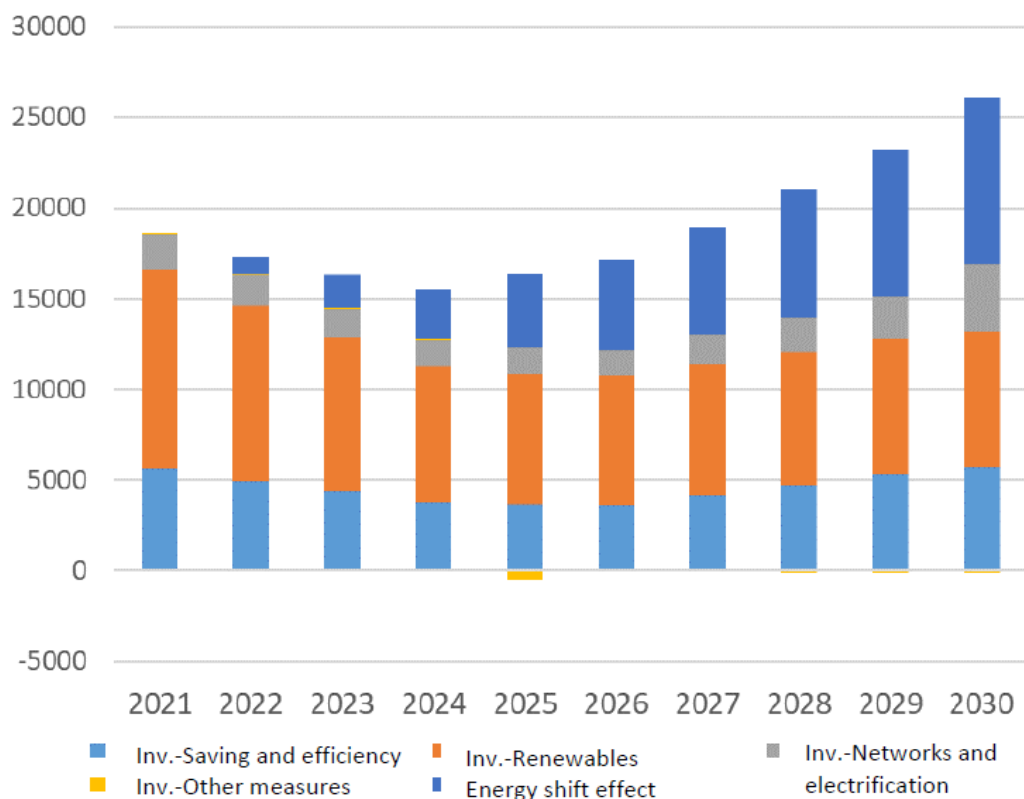


2.C. NECP Impacts – Macroeconomic impacts

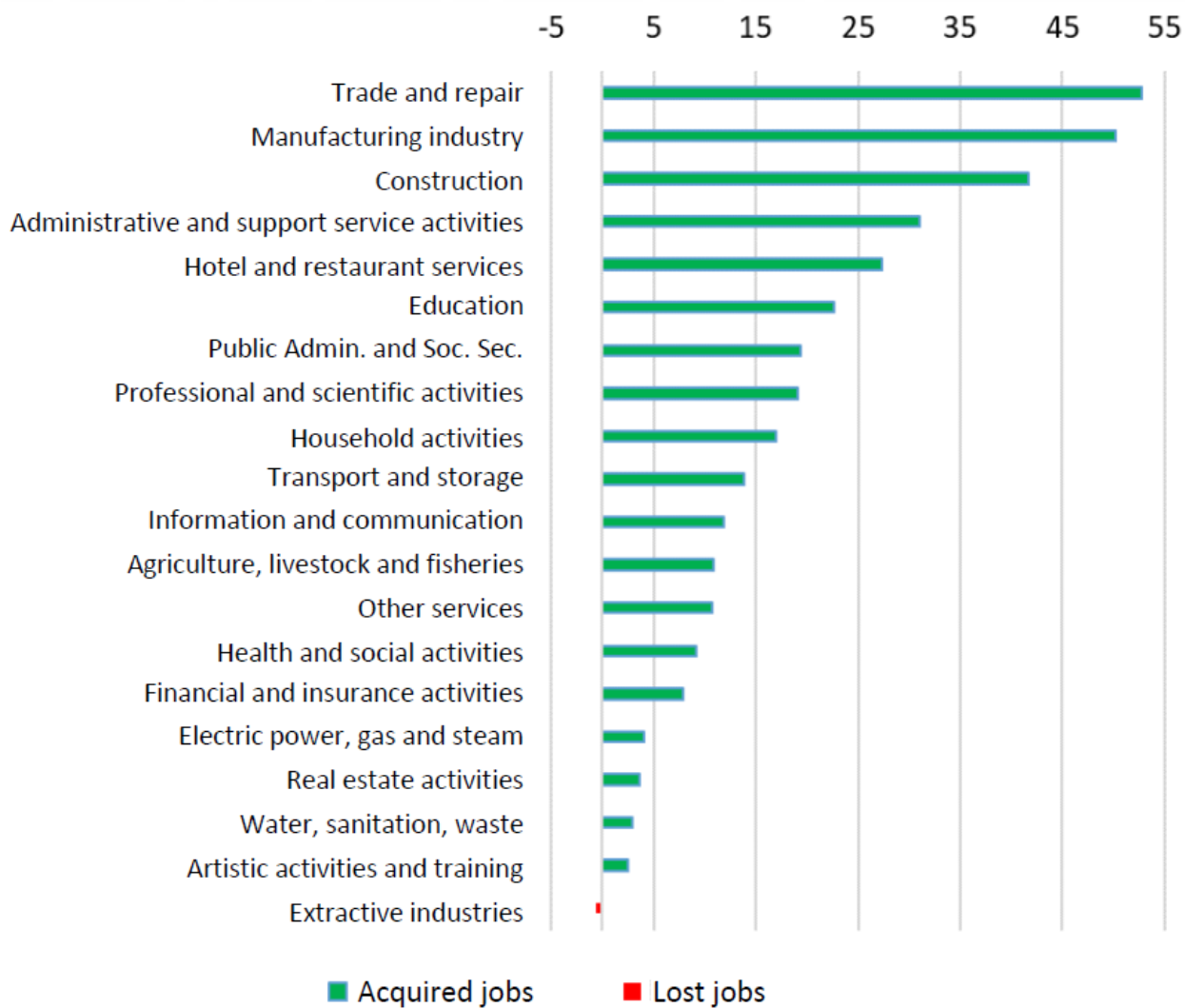
GDP

GDP is to increase between € 19,300 and 25,100 M/year (+ 1,8% in 2030 comparing the PAMS scenario and the reference scenario). Thanks to investments and NECP associated effects

Impact on GDP by type of measure (M€)



2.C. NECP Impacts - Macroeconomic impacts – Employment by sector (thousands of jobs/year)

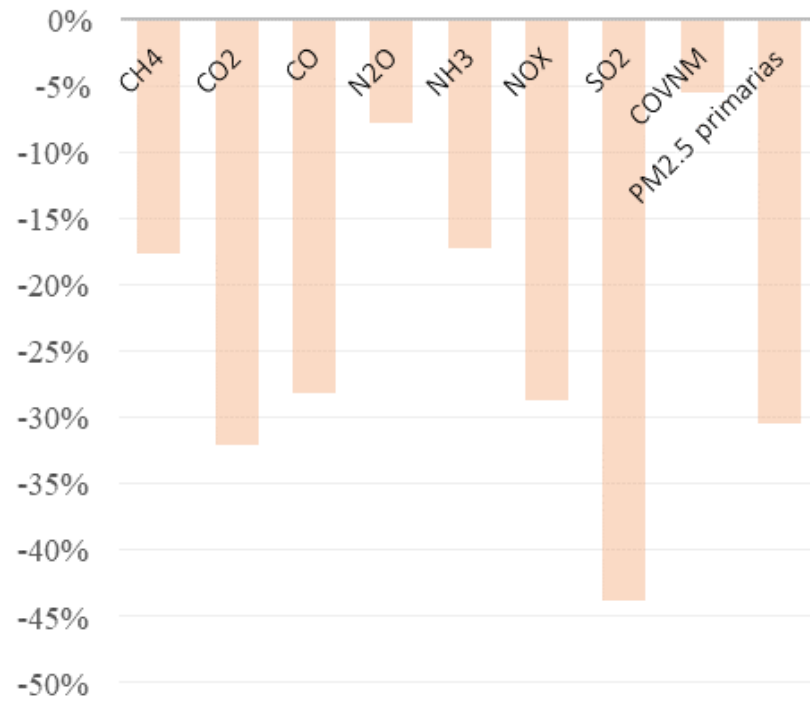


Employment
increase between
250.000 and
350.000 of new
jobs

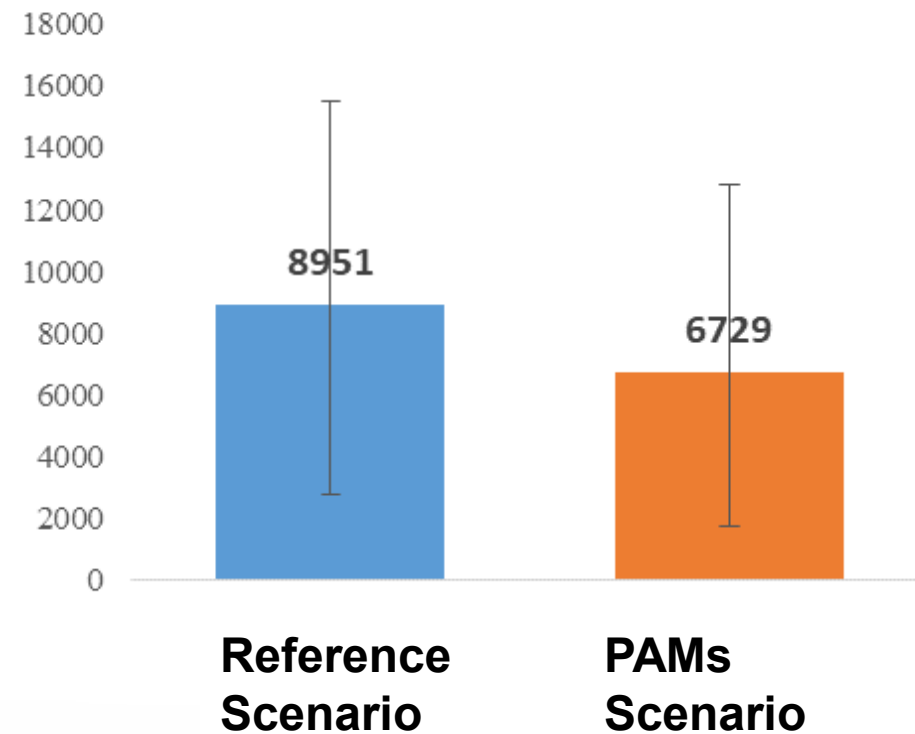


2.C. NECP Impacts - Health impacts: premature deaths by 2030 due to air pollution

Change of emission (compared with the reference scenario) (%)



Premature deaths due to air pollution in 2030



Reduction of 2,222 premature deaths by 2030 through air pollution reduction

2. NECP - Summary



- ▶ PAMs included in the NECP will make it possible to reach the following results by 2030:
 - ▶ **21% GHG emissions reduction (vs. 1990)**
 - ▶ **42% of renewable energy over final energy demand**
 - ▶ **39,6% energy efficiency improvement**
 - ▶ **74% of renewable energy in the power sector**
- ▶ The 2050 objective is to reach the carbon neutrality, with a GHG emissions reduction of more than 90%. And a 100% renewable energy power sector.
- ▶ The macroeconomic impacts of the NECP are positive:
 - ▶ **Total investment: € 236.000 M** between 2021-30
 - ▶ **Energy imports of fossil fuels:** reduced by €75.000 M (2021-2030)
 - ▶ **GDP: will rise between € 19.000-25.000 M** every year (+1.8% GDP in 2030)
 - ▶ **Employment:** 364.000 new jobs roughly by 2030
 - ▶ **Premature deaths reduction:** 2,222 per year in 2030



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3. Just Transition Strategy.

Optimize results from ecological transition on economic activity and employment, while reducing negative results

- ▶ Ecological transition has to come hand by hand with social and territorial cohesion. **Leave no one behind.**
- ▶ Coherent with other governmental priorities
- ▶ Economy wide (all sectors) + strong focus on decarbonization + energy transition
- ▶ Framework for modernization on Spanish Economy: employment growth, enterprises competitiveness.
- ▶ Link to other processes: digitalization, automatization



3. Just Transition Strategy

The ecological transition creates jobs

Most studies demonstrate the case for ambition. Clean Energy Package for all Europeans. Circular Economy Package. World Employment and social Outlook (ILO)

Unemployment rate Spain (15%). Euro area (8,1%). EU-28 (6,7%)

Negative effects

Targeted strategies for pollutant/carbon intensive regions/sectors.

Employment quality.

Just Transition

Guidelines for a just transition towards environmentally sustainable economies



3. Just Transition Strategy - priorities

Political commitment

- Ecological transition has to come hand by hand with social and territorial cohesion. **Leave no one behind.**
- Hand by hand with other governmental priorities: Climate Change Law and National Energy and Climate Plan.

Urgent issues

- National delay in Energy Transition + social and labour transition policies.
- **Coal regions:** Council Decision 2010/787/EU Most mines closed by December 2018. Directive 75 2010. Many coal power plants will close by 2020.



3. Just Transition Strategy. Measures

- ▶ **Foster ecological transition in economy sectors** (NECP, green jobs, business, etc.)
- ▶ **Strategic industrial sectors** (Automotive, transport, electro-intensive, etc.)
- ▶ **Inequality reduction and consumer protection** (Energy poverty, impact assessment, etc.)
- ▶ **Re-activation** (ecological transformation, agreements, etc.)
- ▶ **Green jobs and social protection** (yearly employment plans, vulnerable areas).
- ▶ **R&D** (public procurement, etc.)
- ▶ **Employment impact analysis**



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1. Spanish Strategic Framework on Energy and Climate
2. National Energy and Climate Plan:
 - A. Objectives
 - B. Results
 - C. Impacts
3. Just Transition Strategy
- 4. NECP to help transition planning in coal regions and energy from coal**



4. NECP to help transition planning – Just transition agreement for coal regions

- ▶ **NECP helps to anticipate effects on employment**
- ▶ **Defines most urgent actions**
- ▶ **Timeline: power plants phase-out**
- ▶ **NECP implementation: estimation of new jobs**
- ▶ **Most important sectors for employment**



Thank you

Víctor Marcos Morell

Technical Advisor at the Renewable and Studies Unit

Ministry for the Ecological Transition

vmarcosm@miteco.es



Federal Ministry
for Economic Affairs
and Energy



German Phase-out of Coal-based Electricity Generation and the National Energy and Climate Plan

Platform for Coal Regions in Transition
Brussels, 16th of July 2019



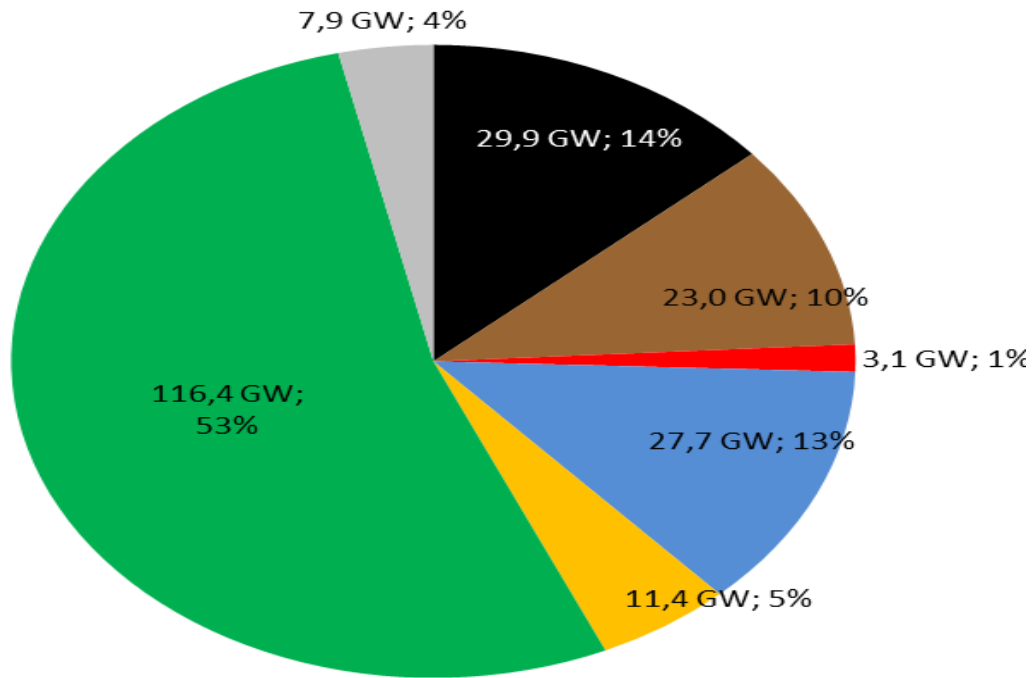
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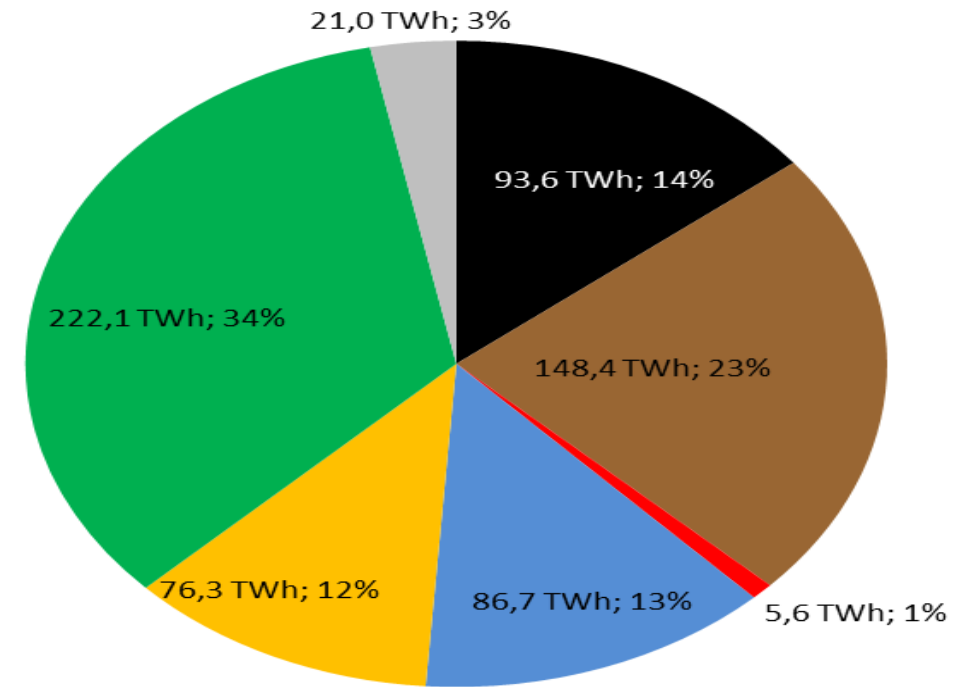
Recommendations of the Commission on Growth, Structural Change and Employment

Current German energy mix

Capacity mix in 2017
(219 GW in total)



Generation mix in 2017
(654 TWh in total)



- Hard coal
- Lignite
- Mineral oil
- Gas
- Nuclear
- RES
- Others

All relevant stakeholders involved

4 Chairpersons

Commission on Growth,
Structural Change and
Employment

- ✓ 8 months of intense work including inspection of the affected regions
- ✓ 26th February: final recommendations

Representatives of
the Parliament, the
Federal States and
Ministries (with speaking
rights but no voting rights)

Labour Unions

Industry & Business Associations

Environmental
Organisations

Scientists

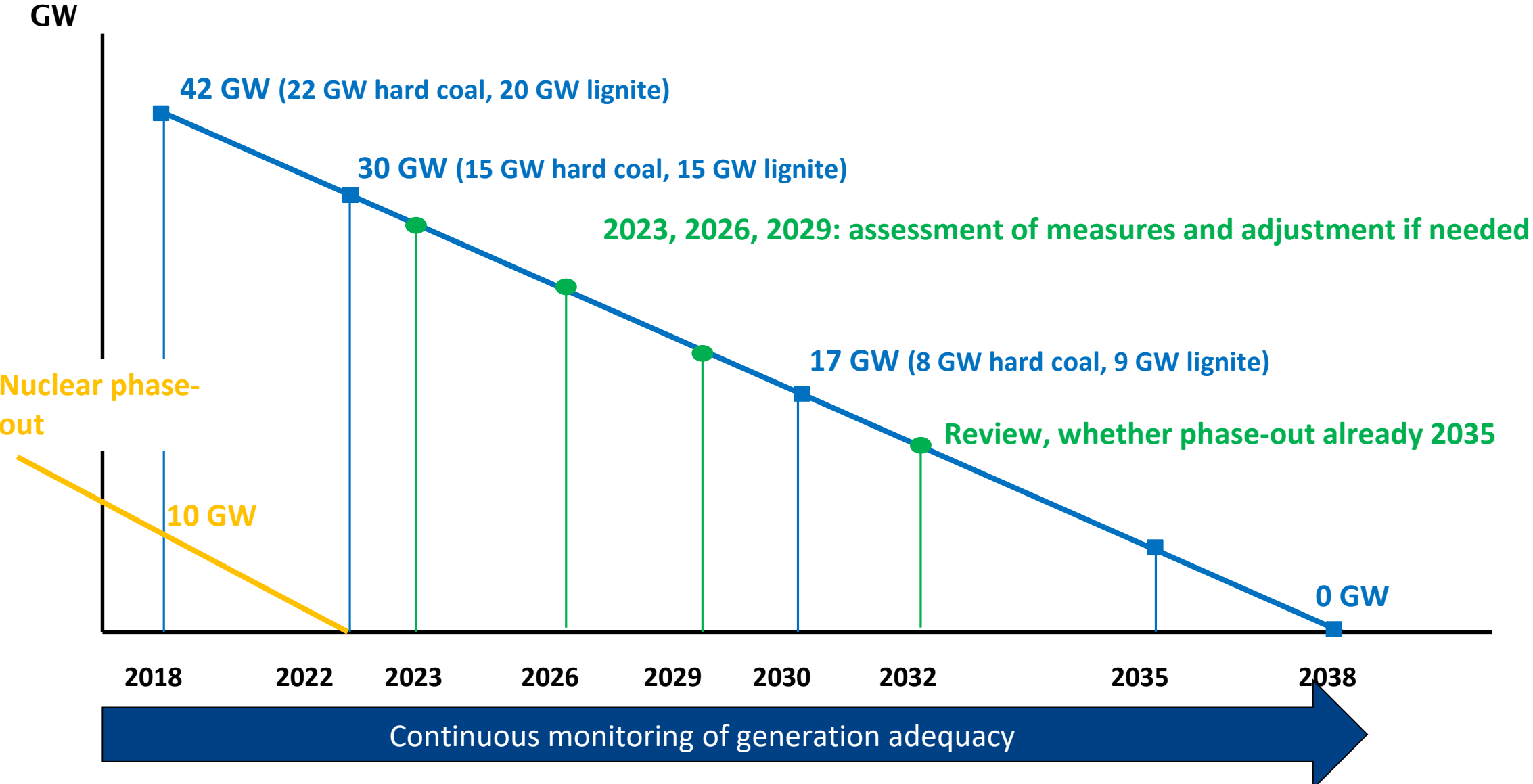
Regional Representatives

Comprehensive set of recommendations

- **Consensual agreement**
- Concrete **coal phase-out path** with end date
- Recommendations on **electricity** (*e.g.*)
 - Compensations for **CO2 allowances** in the EU-ETS
 - Set of recommendations as regards **energy security**
 - Keeping **electricity affordable**, e.g. through electricity price compensation for energy-intensive industry
- **Integrated approach**: concrete set of measures and projects in the regions affected
 - **40 bn €** envisaged to be invested in the affected regions
 - Building on energy competence and making these regions **future energy regions**



Gradual coal phase-out until 2038



Source: Own schematic display

Closer look to energy security (top priority)

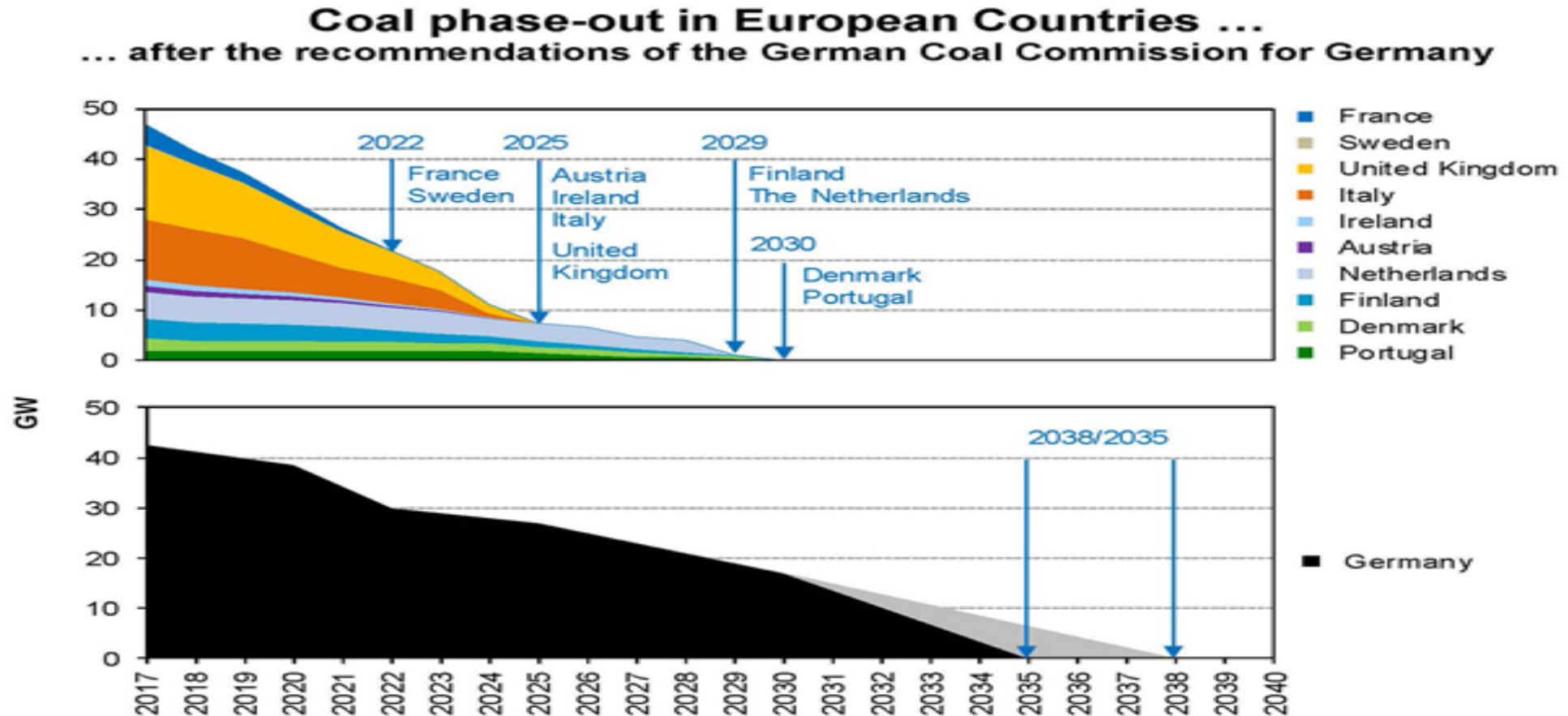
Recommendations (selection):

- **Replacing coal with RES:** increase RES-*E* share **from 55% to 65%** until 2030
- Key for RES is system integration: **Grid reinforcement and optimisation and sector coupling** (wide range of measures recommended)
- Continuing **support for combined heating and power (CHP)** including **switch from coal- to gas-based CHP**
- Strengthening **electricity market and strategic reserve as a back-up**
- **Continuous and close monitoring of generation adequacy assessment**

➤ Next step on the way:

- Ambitious **grid action plan** (grid is key!)
- Generation adequacy assessment with additional sensitivities
- Closer look on situation in South Germany in 2023 (nuclear phase-out and grid highways not yet implemented)

Regional context is key: 2/3 of European coal is going to leave the market



- **Regional consultation is key and under way** (first meeting with electricity neighbours in April; follow-up meetings in autumn)

Consequences of coal-phase-out for Energy security in the region

- First **generation adequacy assessment** by BMWi based on CEP methodology:
 - ✓ **Holistic, probabilistic calculations** for the cross-border region until 2030
 - ✓ **Coal and nuclear phase out in neighbouring countries** considered (2018)
 - ✓ **60 Mio different situations assessed**
- **Results show: Energy security remains high** in DE and neighbours due to:
 - Replacing coal with **RES** and coal fired CHP with **gas fired CHP**
 - Current **overcapacities** in Europe of around **80-90 GW**
 - **European synergy effects** and **efficiency of the internal market** which are increasing with stepwise phase-in of interconnector capacity to at least 70% by 2025 (CEP)
- **However: close and continuous monitoring** of further development needed
- **Gradual coal-phase out gives time** to follow closely and keep consulting with neighbours



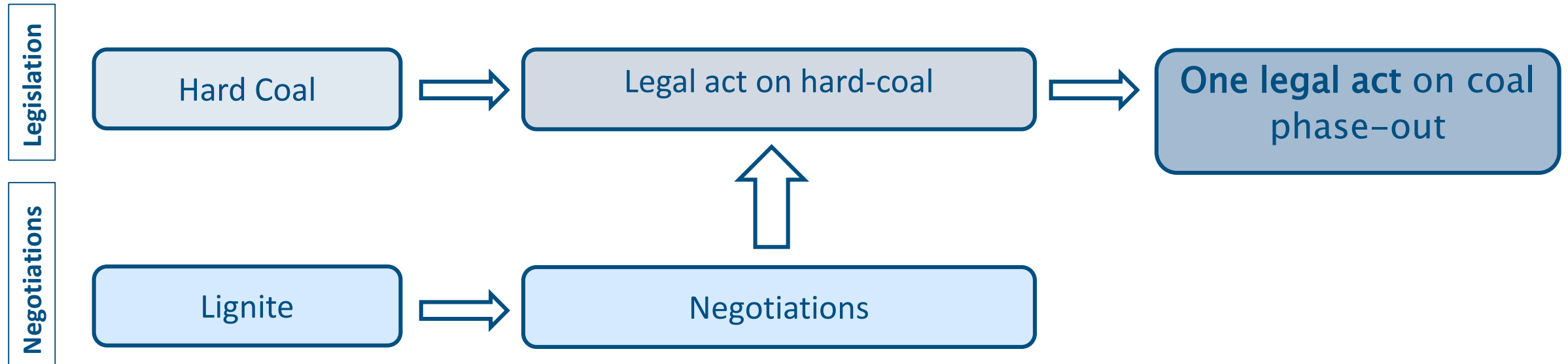
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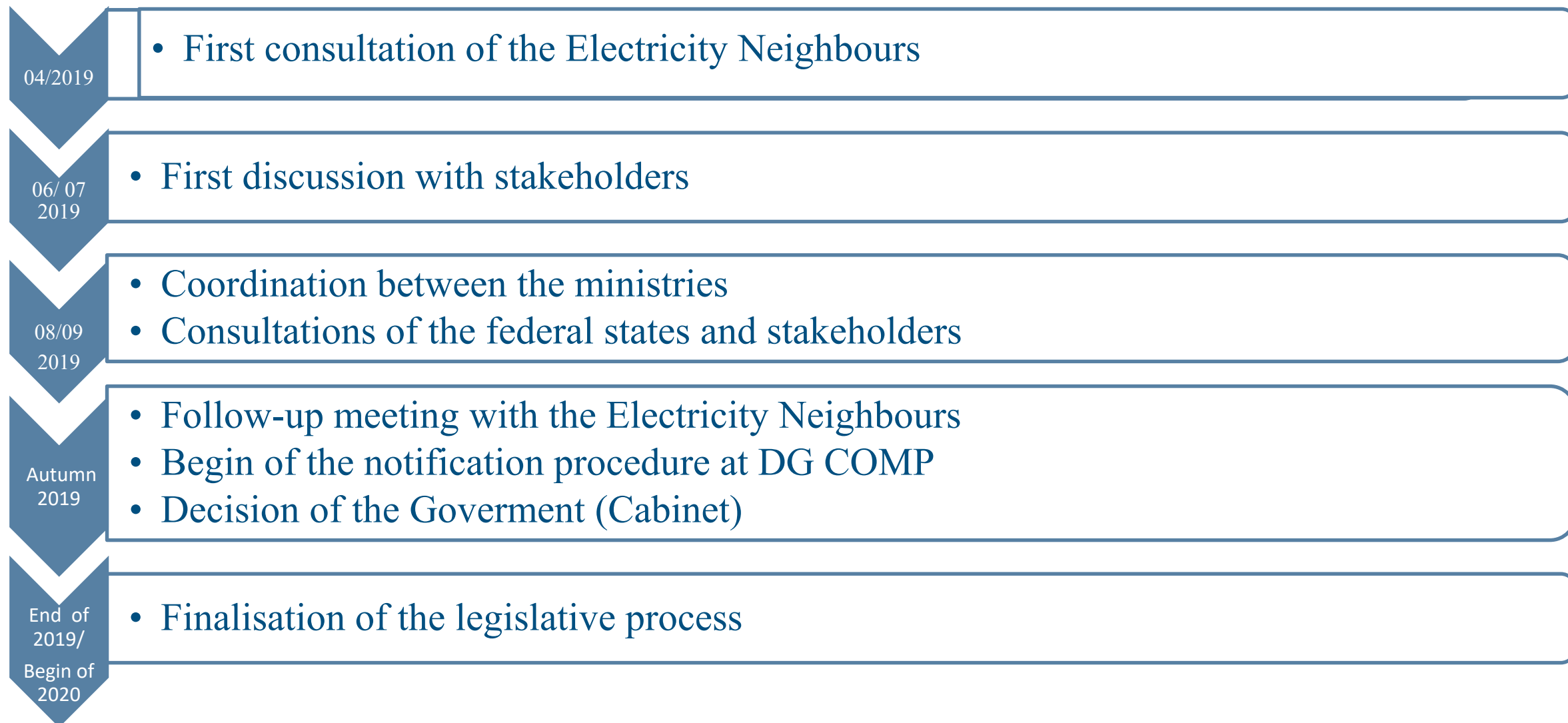
Implementation and National Energy and Climate Plan (NECP)

Different implementation tools

- Hard coal: **shut-down premium** based on a competitive process (e.g. tender)
- Lignite: **individual negotiations** with operators on compensation to be legally fixed
- Back-up for both cases in case of no agreement: **legal obligation** for shut-down



Implementation time table (preliminary)



What does this mean for the NECP?

- Coal phase-out not yet included in draft NECP (recommendation by coal commission submitted after finalisation of draft NECP)
- Public and regional consultations on NECP ongoing
- Update in final NECP: Key parameters of coal phase-out will be included (phase-out pathway etc.)
- Further details as regards measures depend on progress in national debate



You can find the German Generation Adequacy Report here:

<https://www.bmwi.de/Redaktion/EN/Publikationen/Studien/definition-and-monitoring-of-security-of-supply-on-the-european-electricity-markets-from-2017-to-2019.html>

For further questions : BUERO-IIIB3@bmwi.bund.de



Federal Ministry
for Economic Affairs
and Energy



Thank you!



"Supporting the green energy transition of the EU's coal-producing regions"

South West Oltenia Regional Development Agency

Laura Buzatu- project expert
laura.buzatu@adroltenia.ro

Brussels, July 15 -16 2019

GENERAL PRESENTATION

INTERREG EUROPE 2014-2020 Program - call no. 3 (2017)

Priority Axis 3: "Low-carbon savings".

Specific objective 3.1: "Improving the implementation of regional development policies and programs, in particular investment programs for growth and jobs and, where appropriate, European territorial cooperation programs aimed at the transition to a low-carbon economy, especially in the framework of smart specialization strategies "

The INTERREG Europe Program 2014-2020, aims to improve the implementation of regional development policies and programs, mainly the programs under the Investment for growth and jobs and, where appropriate, the programs of the within the European Territorial Cooperation objective by promoting the exchange of experience and learning new policies among regional actors.

INTERREG Europe is active in 30 countries: the 28 member states of the European Union, Switzerland and Norway.

The managing authority of the program is the Nord-Pas de Calais Regional Council (France).

Interreg Europe: a unique programme

- At the heart of the EU cohesion policy:
 - Dedicated to improving regional development policies in particular Structural Funds programme;
 - Mix between more and less advanced regions;
 - High participation of peripheral regions.
- Based on local needs: importance of stakeholders
- Focused on results: 2 phases implementation
- Innovative programme: lump sum for phase 2

INTERREG



**an accelerator for regional
development**

Study on INTERREG IVC results

Early 2018:

- 117 projects;**
- 200 completed responses from 27 countries**

- 80 % policy change took place in their region**
- 71 % their project lead to an implementation of a new initiative**

Emphasis on improving regional policies & programmes

Interreg Europe improves the implementation of regional development policies and programmes, in particular **Investment for Growth and Jobs** and European Territorial Cooperation (ETC) programmes.

Four topics were selected in order to make the best use of limited funds. The more focused the actions, the higher the chances they deliver effective results.



Research & innovation



SME competitiveness



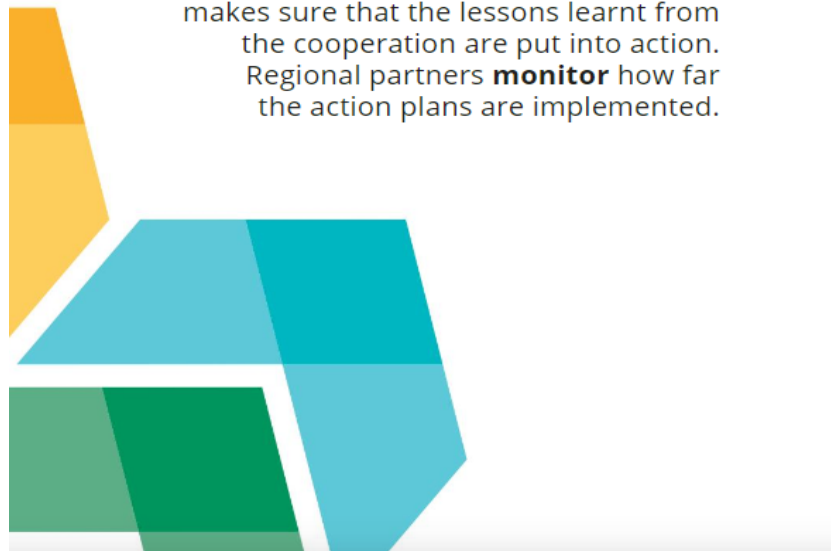
Environment & resource efficiency



Low-carbon economy

Public organisations from different regions in Europe work together for 3 to 5 years on a shared policy issue.

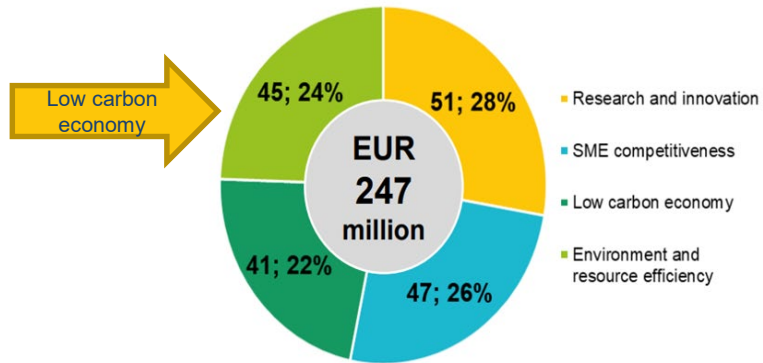
An **action plan**, specific for each region, makes sure that the lessons learnt from the cooperation are put into action. Regional partners **monitor** how far the action plans are implemented.



258 projects work on the four topics and provide inspiration to all regions in Europe.

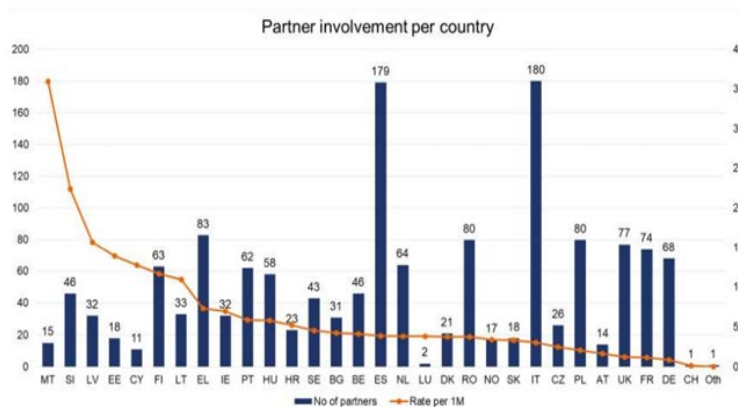
Projects overview

Three calls



➤ High participating of lagging behind/ peripheral regions

Projects: country involvement



➤ Mix of less and more advanced regions

DeCarb - SUPPORTING THE CLEAN ENERGY TRANSITION OF COAL-INTENSIVE REGIONS

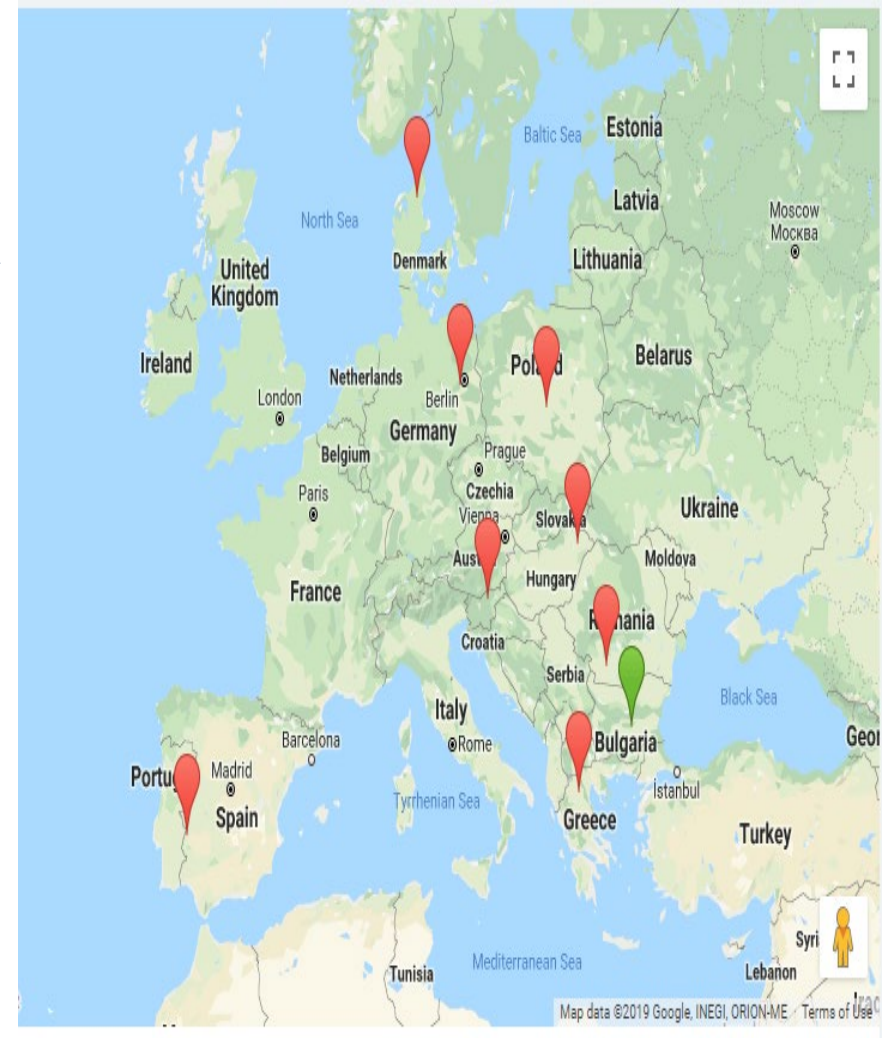
The low-carbon energy shift of EU economies will have a profound economic & social impact on regions extensively involved in coal value chains. It is however acknowledged that this transition needs to be fair; EC's "Clean Energy For All Europeans" package was set in place to speed the clean energy transition and growth & job creation. To this end, DeCarb will support public authorities to initiate efforts, join forces and exchange experiences to:

- a) identify growth strategies to mitigate the impact of decarbonisation,
- b) make the most of EU funds & financing tools, and
- c) promote public dialogue on conflicting interests.

9 Regions – 1 Goal

DeCarb brings together 9 partners, to exchange experiences & transfer knowledge on how to transition from the carbon-intensive era towards the clean energy future.

It will support regions to secure sustainable development, economic & societal stability, and a role in the 2030 energy mix.



1. **Leading partner:** Stara Zagora Regional Economic Development Agency

•**Partners:**

2. Lodzkie Region- Poland

3. ENEREA Eszak-Alfold Regional Energy Agency Nonprofit Ltd.- Hungary

4. South-West Oltenia Regional Development Agency- Romania

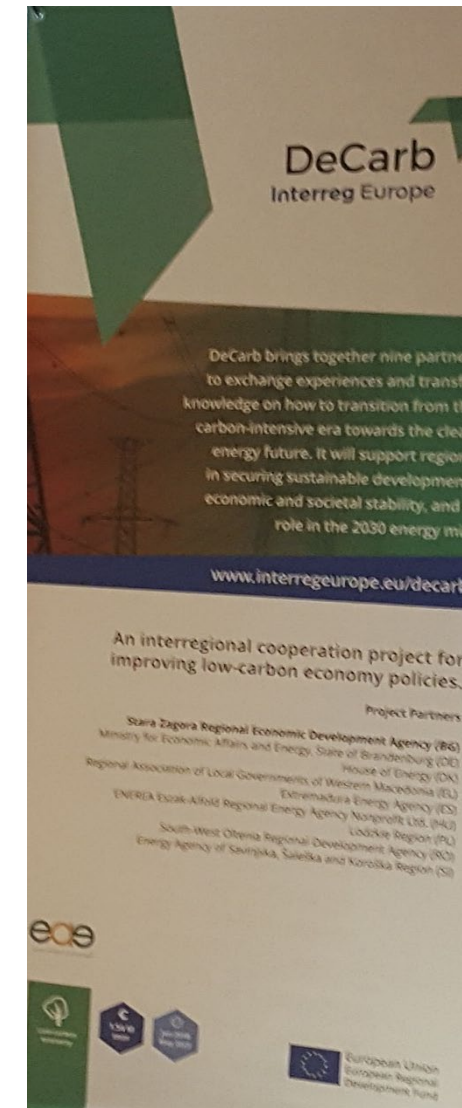
5. Ministry for Economic Affairs and Energy, State of Brandenburg- Germany

6. House of Energy DK-Denmark

7. Regional Association of Local Governments of Western Macedonia- Greece

8. Energy Agency of Savinjska, Saleska and Koroska Region- Slovenia

9. Extremadura Energy Agency-Spain



The overall objective of the DeCarb project

The project aims to support the coal-intensive regions to:

- a) pass through the transition of ecological energy without having a negative impact on economic and social stability;
- b) assess regional specificities (strengths, weaknesses, opportunities and threats) innovation policies to stimulate growth, and
- c) to meet its CO₂ emissions targets and to play its role in the 2030 energy mix.

Specific objectives:

- assess and analyze the territorial impact and increase the knowledge and capacities of public authorities in exploiting the opportunities for territorial growth;
- to support the development of private investment plans in the green energy sector and public subsidies, as well as investment in green solutions for coal mining;
- to ensure public dialogue on conflict resolution, building consensus and raising awareness on how to implement the transition of green energy at regional level.

IMPLEMENTATION PERIOD

The project is to be implemented over a 60-month period, run in two phases.

Phase 1, lasting 36 months, involves an interregional learning process that will be completed by developing a mobility plan (action).

Phase 2, with a duration of 24 months, will monitor the implementation of the Plan.



Project budget :

	Partner	FEDR	Partner's Contribution	TOTAL
P1 (LP)	SZRDA	206.066,35	32.364,65	242,431
PP2	Lodzkie Region	142.762,60	25.193,40	167.956
PP3	ENEREA	147.465,65	26.023,35	173.489
PP4	SWO RDA	131.279,10	23.166,90	154.446
PP5	MWE Branderburg	208.647,80	36.820,20	245.468
PP6	House Of Energy	209.238,55	36.924,45	246.163
PP7	Regional Association Of Local Governments Of Western Macedonia	133.407,50	23.542,50	156.950
PP8	Energy Agency Of Savinjska	154.450,10	27.255,90	181.706
PP9	Extramedura	203.260,50	35.869,50	239.130
TOTAL BUDGET		1.536.578,15	271.160,85	1.807.739

EXPECTED IMPACT

- Increase the capacity of 200 public administration employees to effectively support new growth paths and energy security
- ~ 19 million euros unlocked to support renewable energy projects, re-qualification of workforce and land use after exploitation
- Raise awareness and strengthen consensus between the energy sector, workforce and citizens to support clean energy transition measures (over 1000 individuals).

The innovative character of DeCarb comes from the following:

1. It addresses a problem for the first time in contextual terms EU-funded interregional cooperation (phasing-out of coal-based energy production)
2. **Reacts to a very recent EC regulatory package (November 2016), which is also not covered by previous calls from Interreg Europe;** in addition, at the national, regional and local level, the responses to the Clean Energy for All European Package are still being developed, thus placing DeCarb at the heart of emerging pressures that have not been addressed before

3. The link between clean energy transition and growth and employment trajectories in an integrated approach that goes beyond the definition of objective emissions and policies for the introduction of renewable energies
4. Early contributions are looking forward and expanding to the energy mix of the next three decades.
5. Previously relevant thematic projects did not address the territorial particularities of the intensive coal regions

BENEFITS OF INERREGIONAL COOPERATION

The pressures faced by DeCarb regions are common in economic, social and environmental terms.

However, in present, DeCarb partners have progressed decarbonisation at a different level and have focused on the different aspects of this transition.

This reality forms a favorable cooperation policy for learning, sharing experiences and jointly exploring solutions and developing plans, maximizing the dissemination of political, operational and technical knowledge, saving both effort and time.

BENEFITS OF INERREGIONAL COOPERATION

The most advanced will benefit by learning policies on different paths followed by other partners; those who are left behind will begin their transition by developing capacities based on the most effective practices.

In turn, this cooperation and harmonization of the partners' political approach is expected to make a significant contribution to the achievement of emission targets in a larger EU area.

PREPARING FOR THE 2020 STRATEGY

DeCarb is directly linked to the EU 2020 climate and energy strategy because it is driven by the requirement to reduce greenhouse gas emissions and to increase the role of renewable energy in the energy mix of partners.

DeCarb also focuses on how to promote smart, sustainable growth during the transition to clean energy for territories that most need it.

Project activities

- Develop stakeholder groups and stakeholder meetings;
- Exchange of experience through joint interregional activities;
- Identifying good practice and development strategies;
- Elaboration of guidelines and roadmaps for advancing the transition of clean energy;
- Elaborating regional action plans to improve and/or reorient policy tools to address decarbonisation;
- Defining the social policy actions needed to address employment issues;
- Monitoring action plans and policy tools in implementing changes to support decarbonisation;
- Dissemination activities.

DeCarbonisation the energy sector is one process with multiple social ramifications, requiring a integrated planning to avoid unsustainable social pressures. Coal regions have historically played a key role in many countries economic and social development. Consequently, they have a strong political and societal influence, which makes structural change processes difficult. For these countries, coal regions are not only significant political powers in themselves, but also major economic assets, which they will not give up lightly.



Interregional cooperation is about finding better solutions. Through the project, the regions will be able to keep informed, discover what works, learn from each others, and identify valuable approach.

Four research activities aim to explore the field and providing the basis for policy planning.

Partner countries will collect data from their territories, the process finalizing with the development of four studies:

- Analysis of economic and social impact of decarbonisation;
- Good practices on decarbonisation and clean energy transition;
- Identifying ways to increase decarbonisation;
- Restoring environmental resources and analyzing land restoration needs.



Public Dialogue and Policy Learning

DeCarb will organize interregional workshops, information days, on-site visits and social dialogue events to promote synergies with stakeholders and ensure public consensus and social acceptance



Action plans

Each partner will develop an action plan to promote the clean energy transition by putting in place policies to boost growth and meet CO2 emissions targets and ensure the role of regions in the EU's energy mix for 2030.

DeCarb project provides for the organization of regional meetings with stakeholders from all project partners. Regional stakeholder meetings will provide forums for discussion between project partners and key stakeholders in the DeCarb regions in order to receive information on specific measures and incentives to be planned to support sustainable development in the clean energy era.

So far, two interregional meetings have been organized, one in **Stara Zagora Bulgaria-the kikoff meeting**, and one in **Badajoz, Extremadura, Spain**-whose total energy comes from renewable energy sources, and in October 2019 it will have the third meeting in **Germany in the Lusatia** area, a real model of good practice for post-mining land restoration.

Contact:

Email: decarbproject@gmail.com

**Web: <https://www.interregeurope.eu/decarb/>
www.adroltenia.ro**

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Thank you!

Laura Buzatu – proiect expert



Project smedia