



PANTERA project-A Pan European Technology Energy Research Approach towards synergies facilitation on smart grids

Setting the Scene: One year on !

Main objectives and enhancing the PANTERA process

Dr. Venizelos Efthymiou
efthymiou.venizelos@ucy.ac.cy



General information



Type of Action: Coordination and Support Actions (CSA)

Duration: 48 months

Starting date: 1 January 2019

Total Budget: 3.9 Million Euro

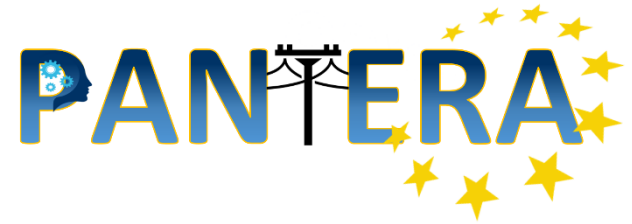
Coordinator:



Consortium:



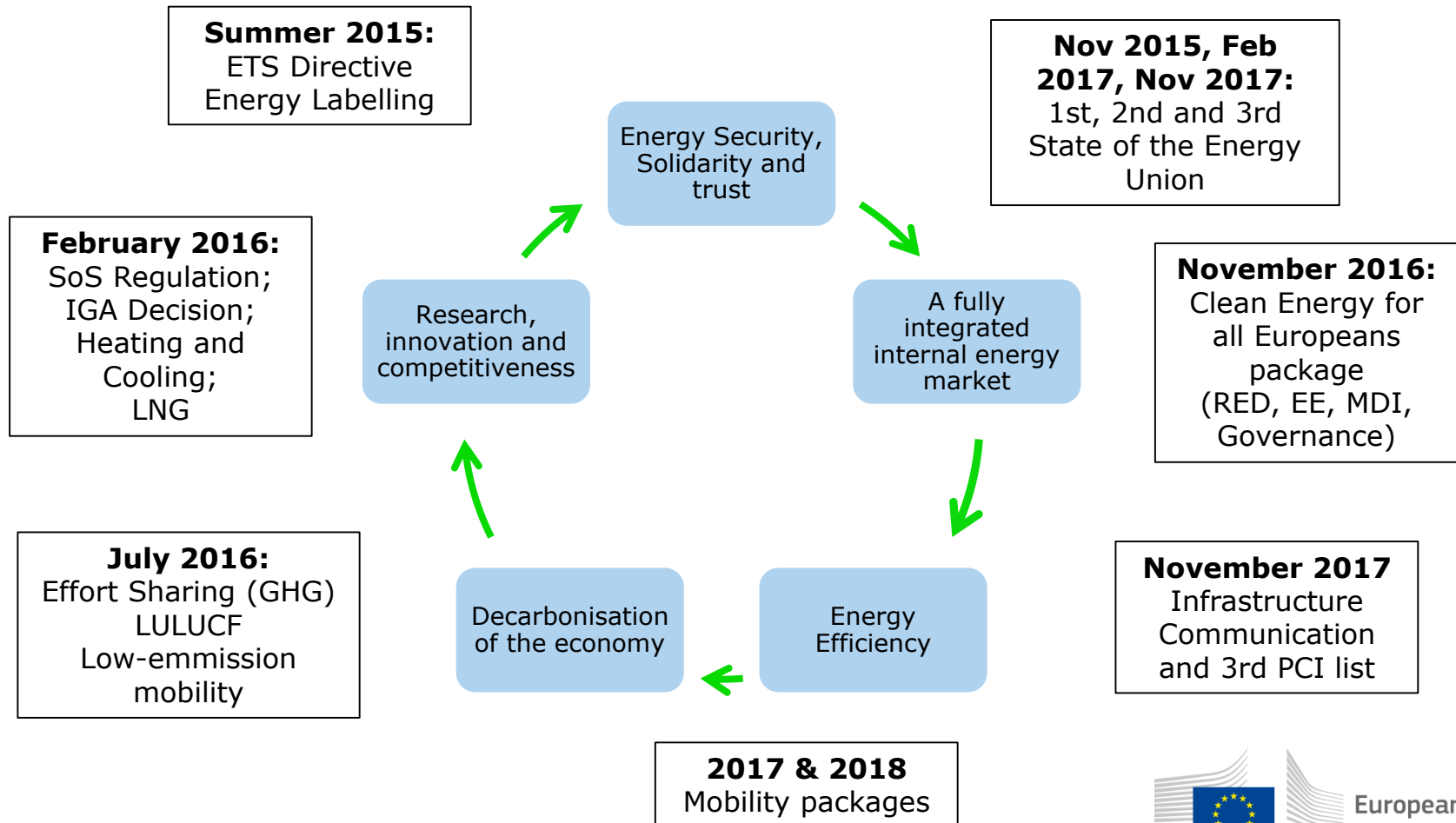
Vision for a Clean Planet by 2050



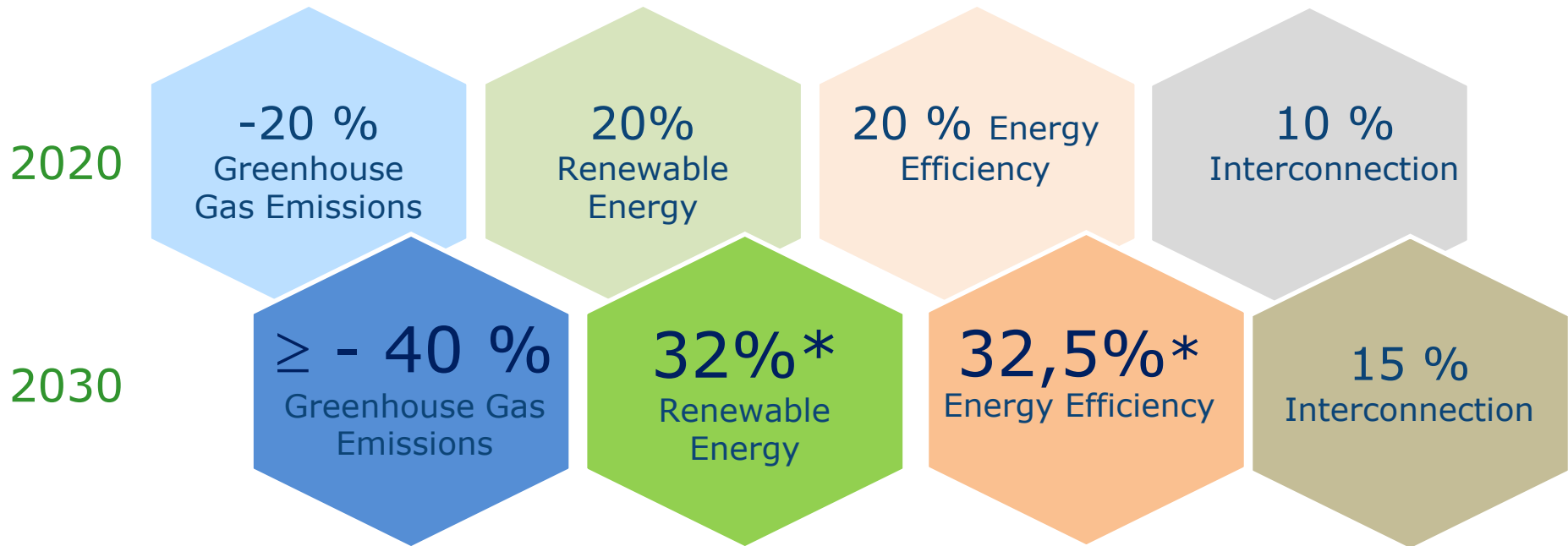
- The Paris Agreement objective is to keep temperature increase to well below 2°C and to pursue efforts to limit it to 1.5°C
- IPCC report confirms that limiting climate change to 1.5°C has to be pursued to avoid these worst impacts
- For the EU to lead the world in climate action, it means achieving net-zero greenhouse gas emissions by 2050
- The EU with this vision can inform others how we can deliver collectively a clean planet – The Green Deal.
- The Long Term Strategy shows transforming our economy is possible and beneficial.



AN ENERGY UNION BASED ON FIVE MUTUALLY SUPPORTIVE AND INTERLINKED DIMENSIONS



Agreed headline targets 2030 Framework for Energy and Climate – Politically Agreed by Parliament & Council



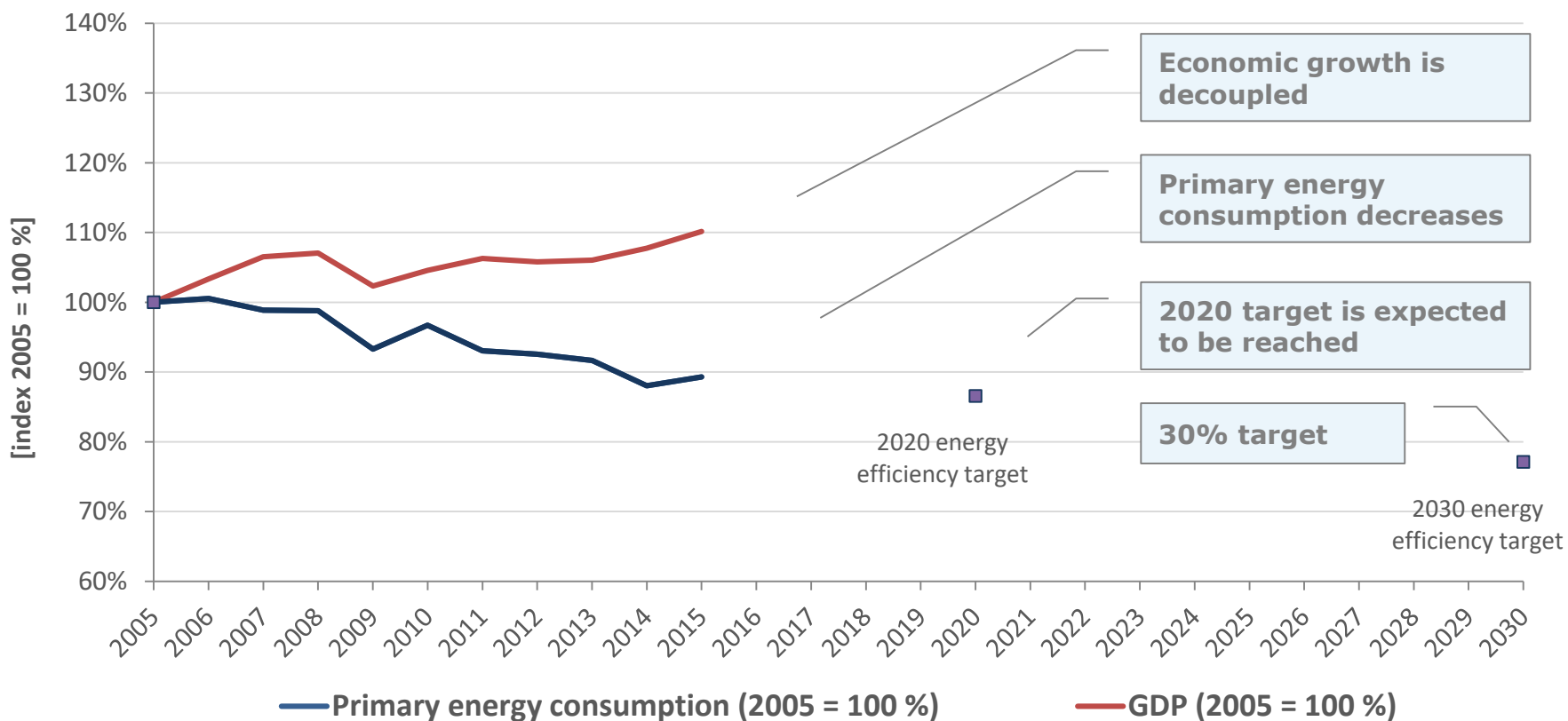
* To be reviewed in 2023 (only upwards)

* To be reviewed in 2023 (only upwards)

PROGRESS ALONG THE 5 DIMENSIONS OF THE ENERGY UNION

ENERGY EFFICIENCY

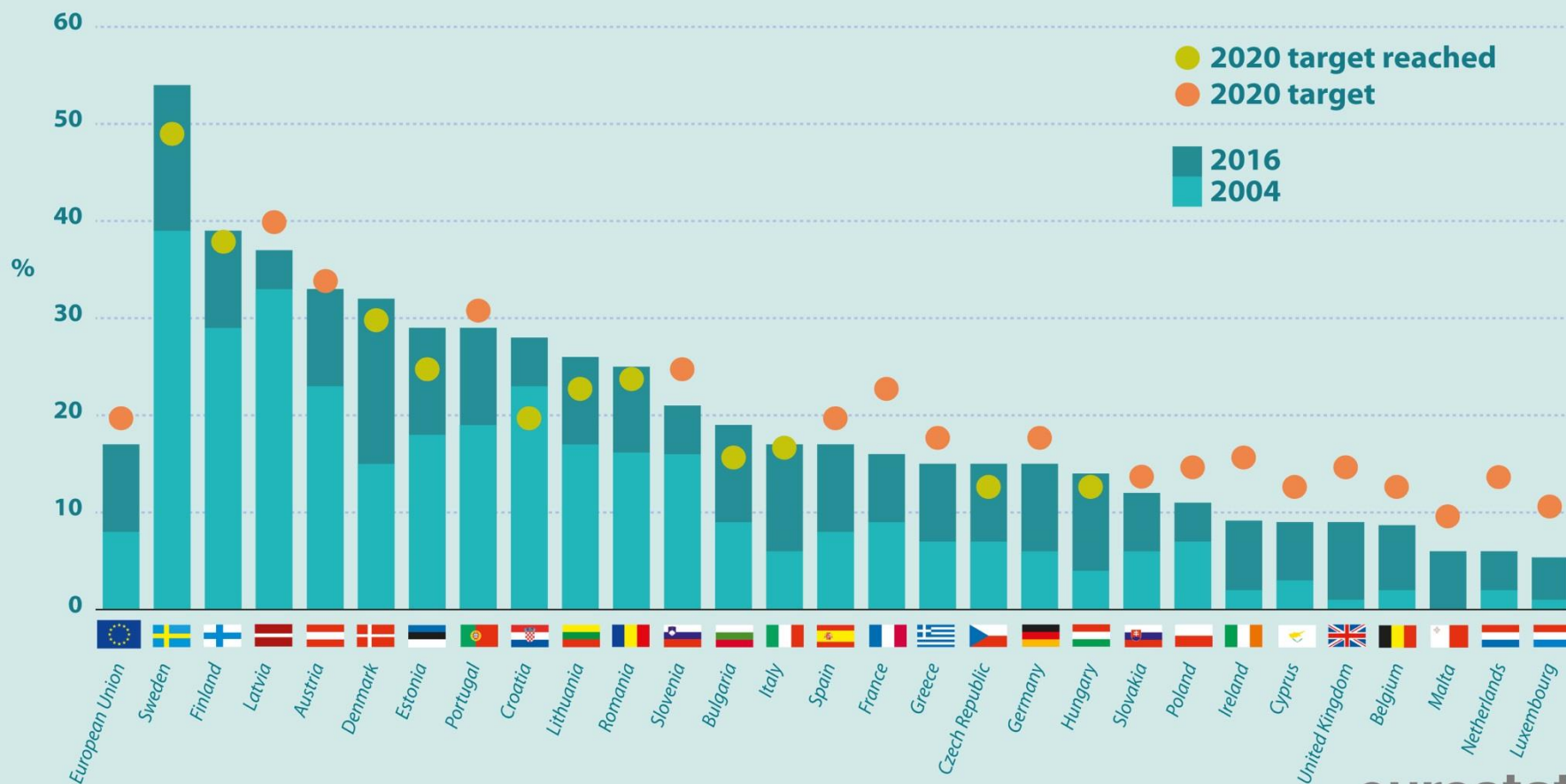
EU 28 – Primary energy consumption and GDP trend



CLEAN ENERGY FOR ALL EUROPEANS

Share of energy from renewable sources in the EU Member States

(in % of gross final energy consumption)



NEW MARKET DESIGN

A FAIR DEAL FOR CONSUMERS



BETTER INFORMED

- Access to fit-for-purpose smart meters
- Certified price comparison tool
- Clearer energy bills



EMPOWERED

- Entitle individuals and communities to generate electricity and to consume, store or sell it back to the market
- Easier switching conditions
- Reward demand-response



PROTECTED

- Monitoring of energy poverty (governance)
- Information on alternatives to disconnection
- Secured electricity supplies
- Sound data management

The European **Green Deal**

WHAT?

**PUTTING EUROPE
ON A PATHWAY
TO A SUSTAINABLE
FUTURE**

Green
Deal

WHILE

**LEAVING NO ONE
BEHIND**

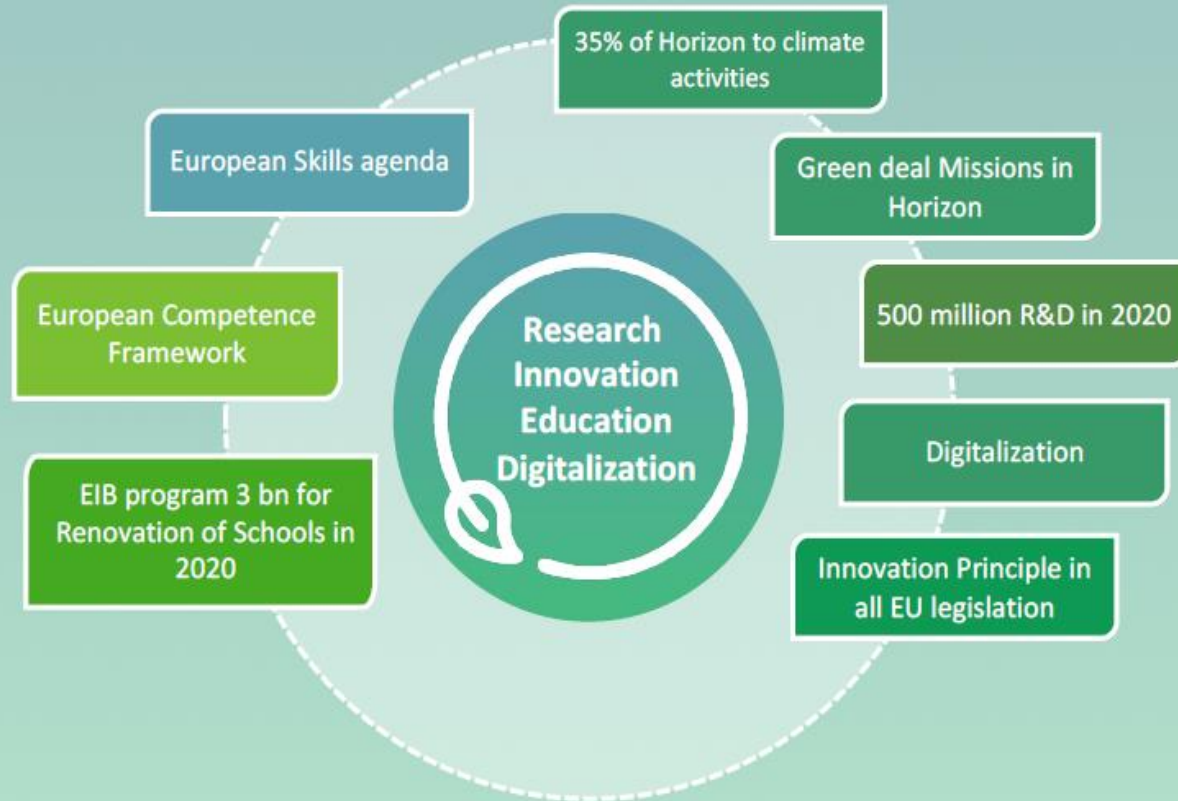
The European Green Deal



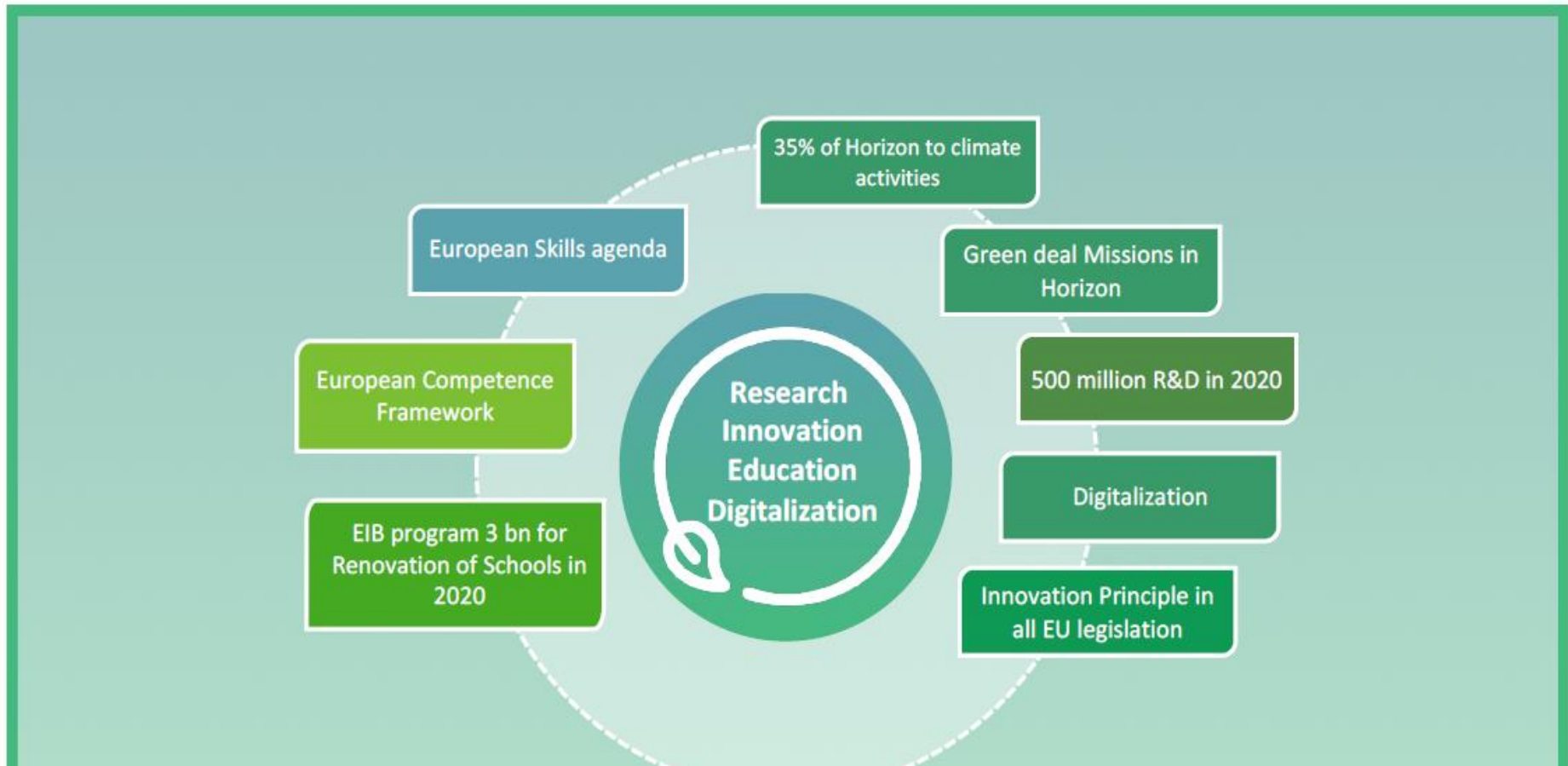
The European Green Deal



The European Green Deal



The European Green Deal



It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.

Sustainable energy for all Europeans



- To ensure sustainable, secure and affordable energy supplies in the European Union, a fully integrated grid and energy market is required.
- Through integrated emerging technologies and common energy market rules facilitated through cross-border infrastructure, that can optimize the use of sustainable resources in the EU, meaning that energy can be produced in one EU country and delivered to consumers in another.
- Cooperation and collaboration are key.
- This is why the EU-funded PANTERA project will identify and implement initiatives aimed at raising the participation of EU countries in the needed R&I for developing technologies, systems and markets in support of the common energy market and the energy transition.
- The project's main goal is to bridge the gaps in research and innovation in the energy field that exist between EU Member States.
- Its mission is to become the single point of reference for smart grids in Europe.



Are we doing enough for coordinating effort and capitalising on results?

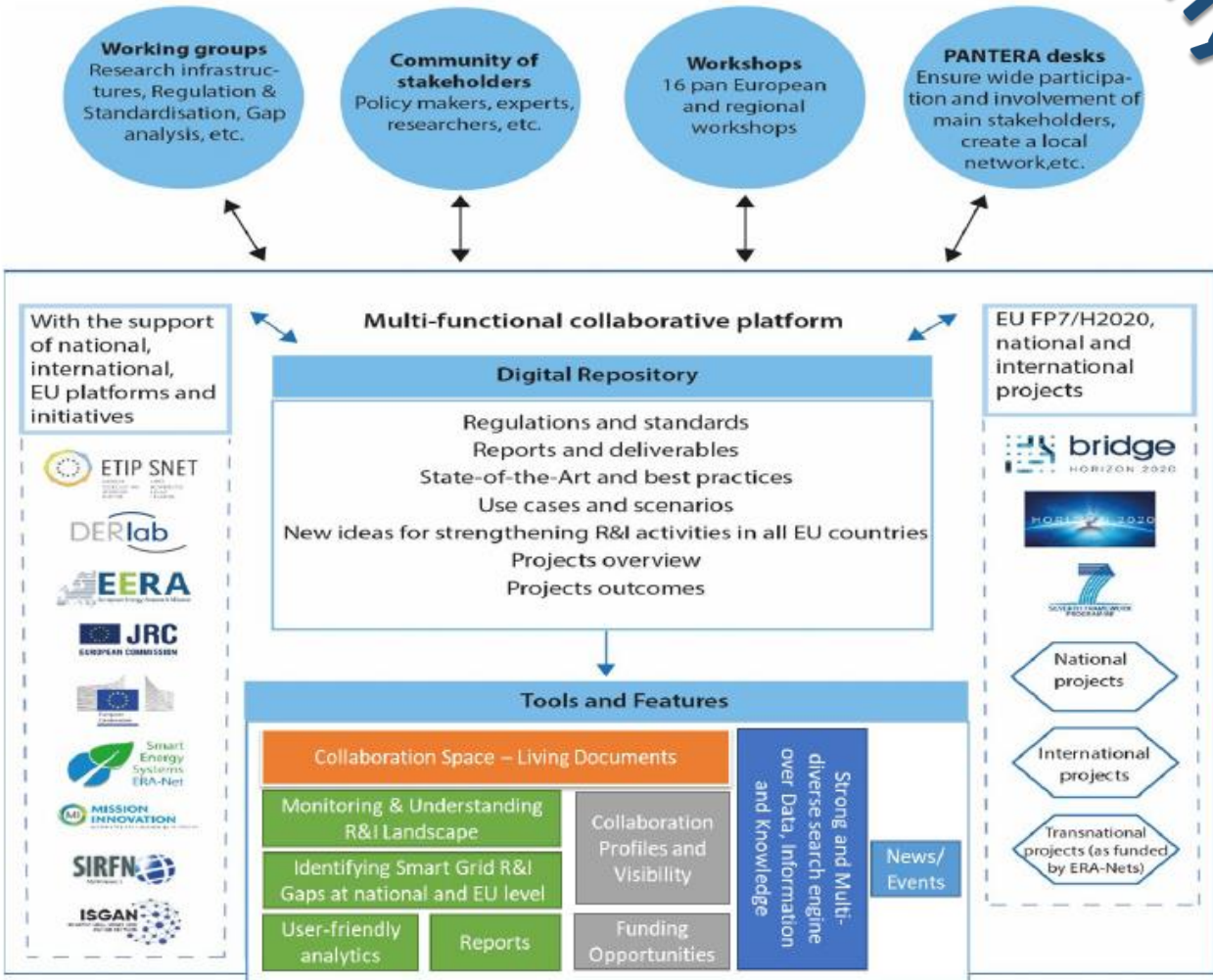


PANTERA targeted countries:



- Bulgaria (BG)
- Croatia (HR)
- Hungary (HU)
- Poland (PL)
- Slovakia (SK)
- Estonia (EE)
- Romania (RO)
- Lithuania (LT)
- Latvia (LV)
- Italy (IT)
- Czech Republic (CZ)
- Malta (MT)
- Cyprus (CY)
- Greece (EL)
- Ireland (IE)

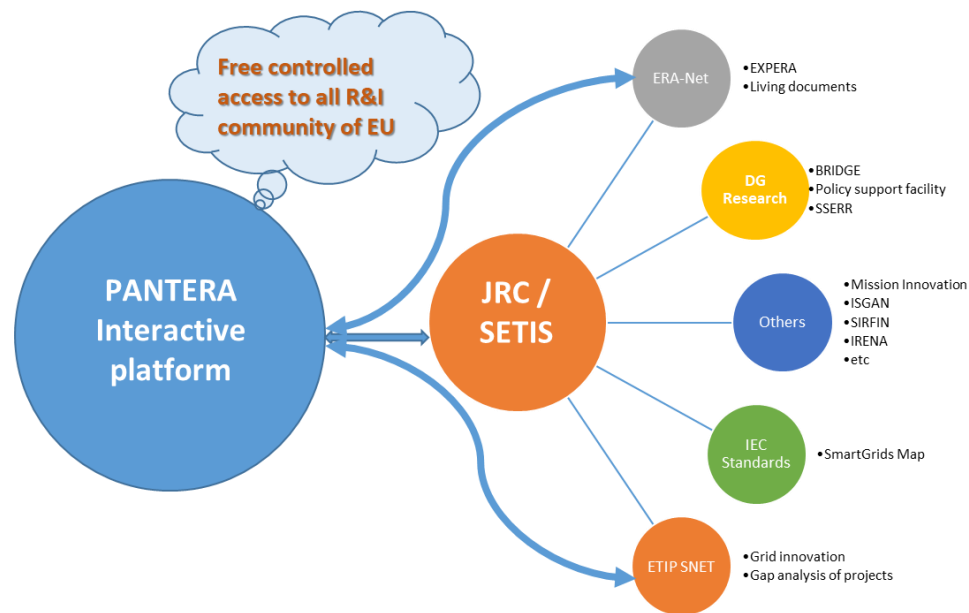
PANTERA Platform Conceptual Representation



Development of an Interactive multi-functional platform in collaboration with PANTERA, JRC, ERA-Net SES and ETIP SNET



To connect the R&I community of EU to enhance collaboration, wider interest and use on the project results, avoid duplication and lost euros, strengthen the participation of all Member States in support of the fifth pillar of the Energy Union (RIC) and energy transition.



All contributing entities get benefit through the enhanced connectivity to beneficiaries and users



PANTERA Regional Approach



PANTERA 6+1



PANTERA builds on the successes of the S3 platform to be Smart, Specialised and Strategic to build regional competitive advantages



PANTERA is fostering regional work along the principles developed by RIS3



National/regional research and innovation strategies are integrated and place-based :

- They focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development.
- They build on each country's/region's strengths, competitive advantages and potential for excellence.
- They support technological as well as practice-based innovation and aim to stimulate private sector investment.
- They get stakeholders fully involved and encourage innovation and experimentation.
- They are evidence-based and include sound monitoring and evaluation systems.

Strengthening Innovation in Europe's Regions in line with the S3 Platform objectives



▶ SMART

Identify the region's own strengths and comparative assets



▶ SPECIALISED

Prioritise research and innovation investment in competitive area



▶ STRATEGIC

Define a shared vision for regional innovation



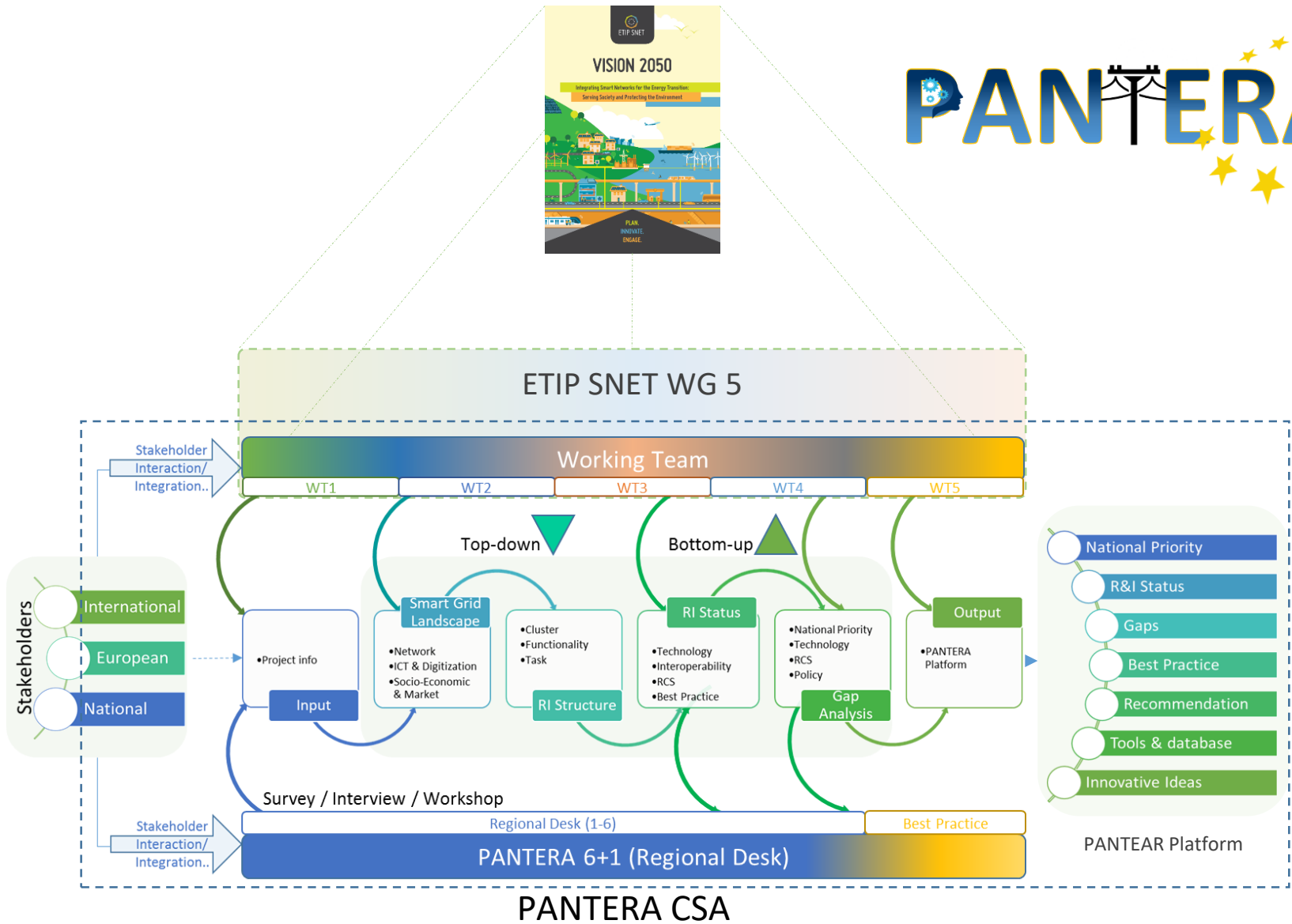
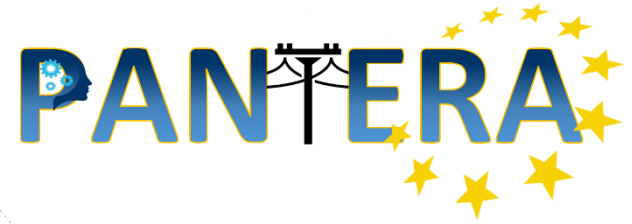
Working Teams in the PANTERA process



In close cooperation with ETIP SNET working teams are currently operating with wider experts that can feed into the PANTERA platform much wanted data, information and knowledge.

- Contact Gap Analysis of R&D work in identifying progress made in the technologies, systems and solutions in support of the energy transition. This work is organised so as to be in full coordination with experts of ETIP SNET and INTENSYS4EU aiming to formalize procedures, populate data and results from wider sources of information. High level objective of this work is the evolution into maturity indices for technologies, systems and solutions that can be made available for wider use through the planned multifunctional platform.
- Generate innovation support for the market uptake of projects in full coordination with the services offered by DG RTD.
- Constant update on the activities of the Global & European Research and innovation community







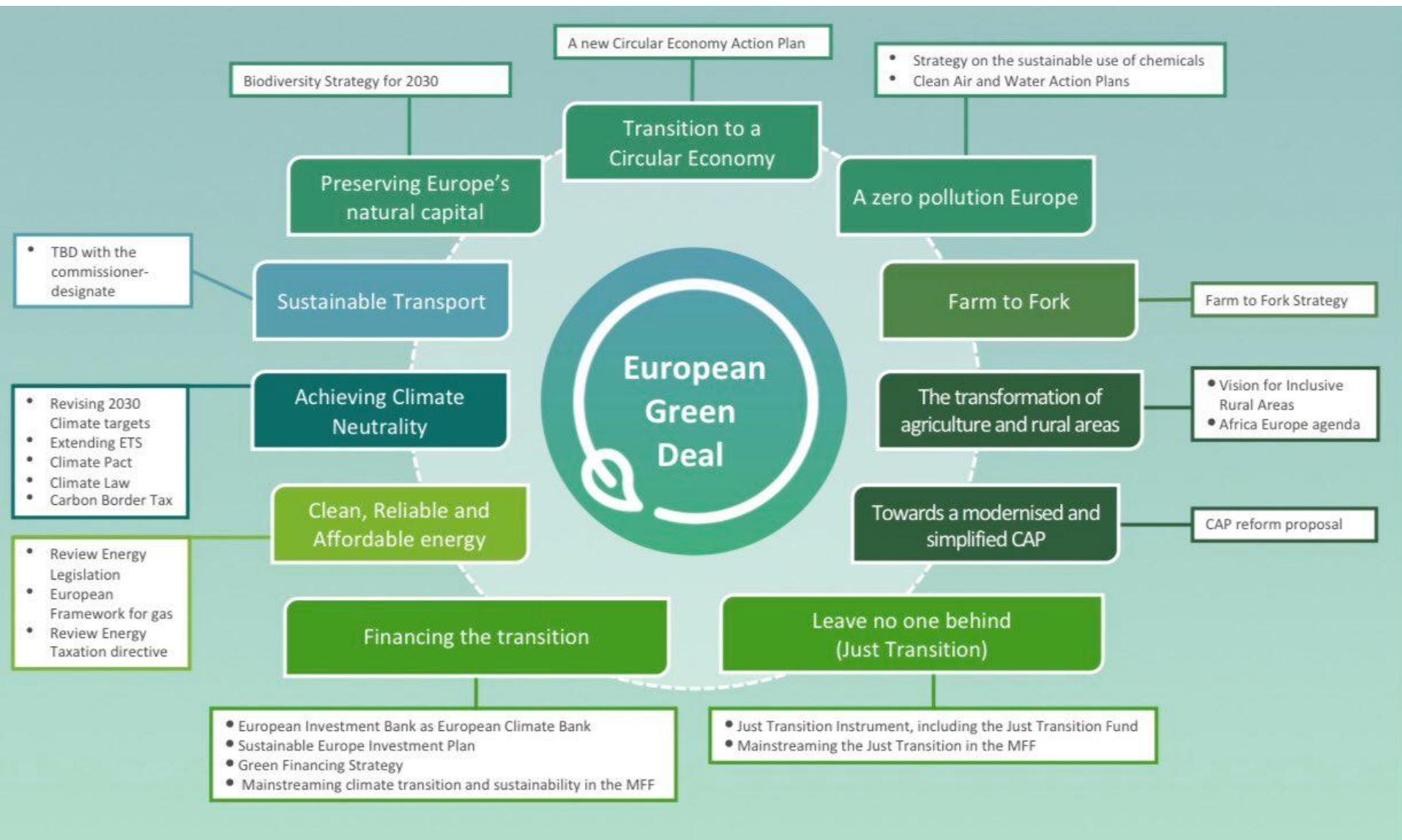
Thank you for your attention

Contact information:

Dr Venizelos Efthymiou

efthymiou.venizelos@ucy.ac.cy





It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.