



MEDREG

Med-TSO Web Conference:

**An Integrated Grid for enabling the Energy Transition in the
Mediterranean**

28 October 2020



MEDREG is co-funded by the European Union

Context

Why does market integration matter?

- Helpful lessons over a broad spectrum of market types.
- Improves systems reliability and enables energy exchanges that take advantage of daily and seasonal demand diversity and disparities in marginal production costs.
- Facilitates and promotes key regional infrastructure development.

What does it aim?

Optimize the supply of electricity within a regional framework.

How does it work?

- Security of supply; that is to increase energy security and efficiency and reduce cost of supply to consumer;
- Sustainability: that is to improve system reliability and to effectively use the existing infrastructure. Also, to facilitate access to resources, increase renewable energy penetration, and to reduce greenhouse gases;
- Enable Necessary Investments: that is to use economy of scale, which facilitates financing new projects

The five pillars of MEDREG strategy

A sound institutional regulatory framework

- An independent regulator with clear powers and competences exists in each Mediterranean country.
- National legal and regulatory frameworks are improved.
- Common network codes/standards developed on a common understanding.

Optimal conditions for infrastructure investments

- All countries are interconnected. Gas and electricity infrastructures are operated effectively.
- New incentives for efficient investments in RES generation and energy efficiency are in place.
- The share of electricity produced from RES is increasing and Barriers to investment are minimized.

Functioning, competitive and transparent electricity and gas markets

- There is a market for electricity and gas in each country. Cross border trade is in place on all interconnections.
- Transparency and access to information is increasing.
- The regulator efficiently monitors market developments and improvements in transparency.

Intensified regional cooperation and setting up of pilot projects

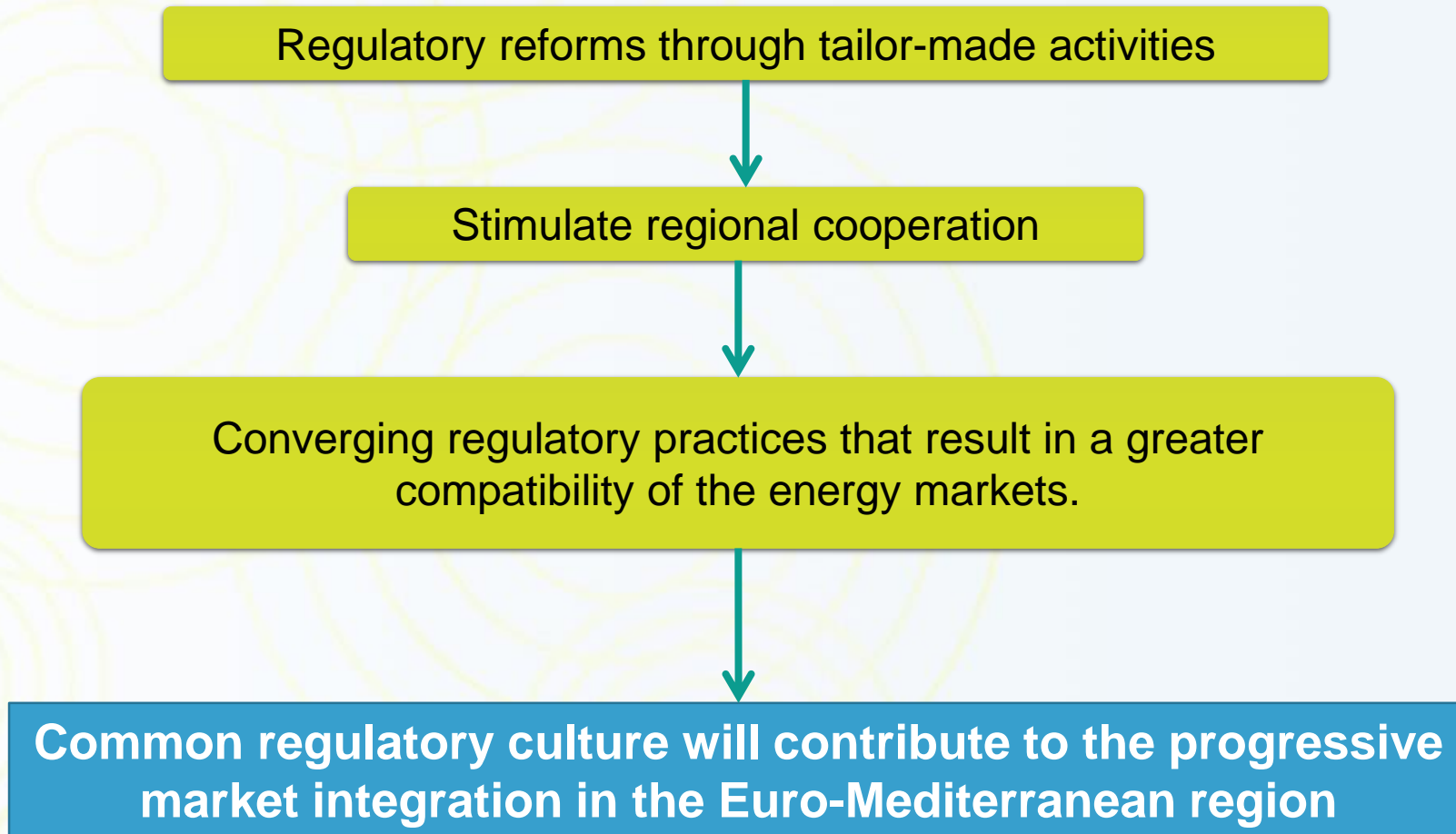
- Regional coordination and cooperation is intensified.
- Common principles for market integration are defined
- Pilot projects are set up to test implementing

Efficient consumers protection, including vulnerable customers

- Consumers can choose between different suppliers.
- They have access to necessary information regarding billing and their rights.
- Vulnerable consumers are efficiently protected.

MEDREG's contribution for market integration in Euro-Med region

1. Stimulate regional integration and energy trading between Mediterranean countries



MEDREG's contribution for market integration in Euro-Med region?

2. Analyze and improve conditions for infrastructure investments

Identification of priorities and challenges for the stimulation of relevant investments in the Mediterranean region.



Encouraging the development of favorable investment conditions



Establishment of secure, sustainable, competitive and integrated Mediterranean energy markets.

MEDREG's contribution for market integration in Euro-Med region?

3. Increase competition and transparency in the Mediterranean electricity and gas markets

Regulation with clear rules and obligations to all parties as well as a regulatory framework that guarantees the ability and powers of the regulators in supervising the performance of these actors.



Regulators must access information about the performance and behavior of the market actors and monitor this regularly.



Address the dilemma of “information asymmetry” between regulators and market actors, which has a negative effect on the efficiency, competition and transparency of the energy sector.

MEDREG's contribution for market integration in Euro-Med region?

4. Innovate in RES technology

Produces benchmark studies on the RES national situation



Regulators elaborate reports on smart grids, net metering and other RES-associated technologies present in the Mediterranean countries, fostering sustainable development in the region



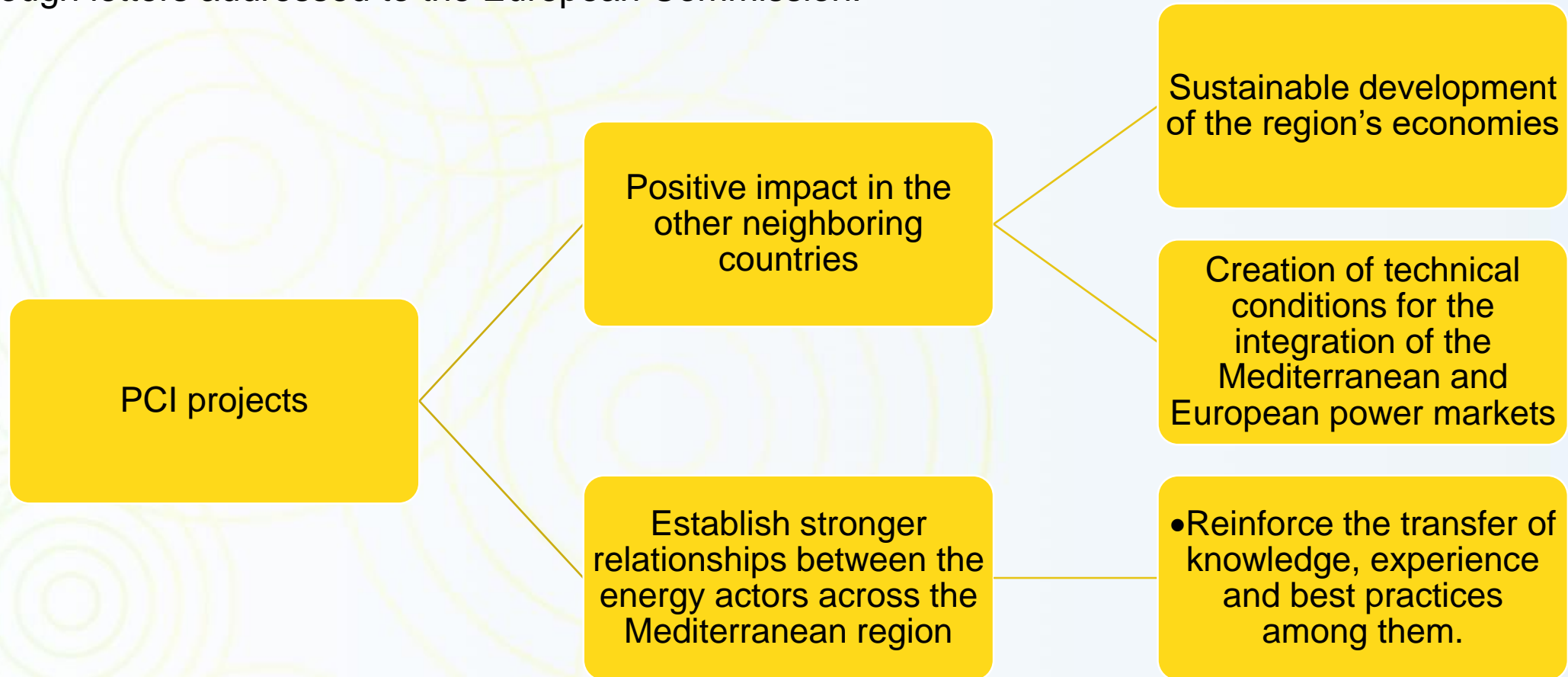
Support its members in implementing regulatory measures to foster the integration of renewable energy sources into their national energy mix.

MEDREG's Cooperation with Med-TSO

- In 2013, MEDREG signed a bilateral cooperation protocol with Med-TSO and a further protocol including the European Commission in 2014.
- The aim of this cooperation is to join forces to reinforce Mediterranean electricity interconnections and to support a more efficient and balanced dialogue between TSOs and regulators at national level.
- MEDREG and MED-TSO also closely cooperates to implement the work programme of the Union for the Mediterranean (UfM) Regional Electricity Market Platform (UfM REM Platform).
- Major outcomes of this cooperation are our joint trainings, in which we addressed main challenges and possible opportunities with regards to integration of grids to establish a well-integrated Mediterranean energy market.

Projects of common interest and position of MEDREG

MEDREG acknowledged the importance of the interconnection projects and expressed its position through letters addressed to the European Commission.



- Some examples from Mediterranean: Italy-Tunisia interconnector / Italy-Montenegro / 600 MW undersea power cable ELMED project

Developing a PCI concept for the Mediterranean region

- In Europe, "common interest" refers to a top-down approach: the creation of a single market, solidarity between member states, security of supply and climate change mitigation.
- In the Mediterranean region, complementarity and solidarity may be addressed in a bottom-up perspective
 - National strengths and weaknesses
 - Energy mixes, demand and potential reserve margins
 - Technical complementarities between neighboring systems
- Challenge: identify joint dynamics between countries
 - Needs identification : security of supply, market integration, integration of renewable energy sources
 - Project identification: technical design, financing needs and schedules
 - Cross-border coordination: authorizations, licenses, financing
- Need for international coordination bodies and joint principles

Challenges to achieve integration of markets

Physical challenges

- Need for upgrading in transmission lines.
- Unsynchronized systems to be connected.
- Lack of standards, that impacts the system reliability and security risks associated with expanding interconnection capacity.

Structural/institutional challenges

- Limited coordinated control over many national networks.
- Lack of an agreed dispatch mechanism and software.
- Long negotiation times in transactions in Vertically integrated or state-owned monopolies.
- Lack of private sector participation in some countries.

Regulatory challenges

- Lack of harmonized legislation/market rules.
- Lack of an independent regulator in some countries.
- Impaired competition due to subsidization and cross-subsidization of pricing in the power sectors.
- Lack of published information concerning market prices and transmission availability.



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