

12th IRENA Assembly virtual side event

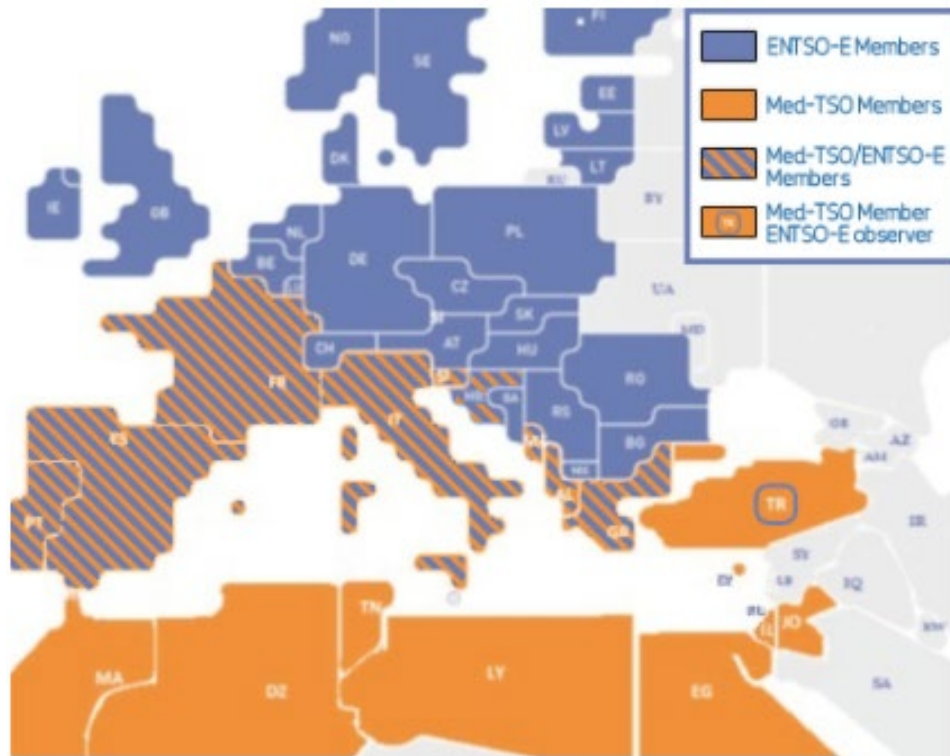
Long-term energy scenarios for developing national energy transition plans in Africa

Med-TSO Experience in Long-term Scenario Building

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Some words about Med-TSO



- 21 members from **19** Mediterranean countries
- About **500 million** people served
- Around **400.000 km** transmission lines

Scope: improve the integration of the Mediterranean PS

- How to optimize the use of the existing interconnections
- Assess the possibility to build new lines

Core activities

- Common technical rules for accessing the grid, operating the systems and sharing resources (grounds for a Med grid code)
- 1st Mediterranean Masterplan (2018), 2nd Mediterranean Master Plan (2020)
- Common web platform on transparency and technical data

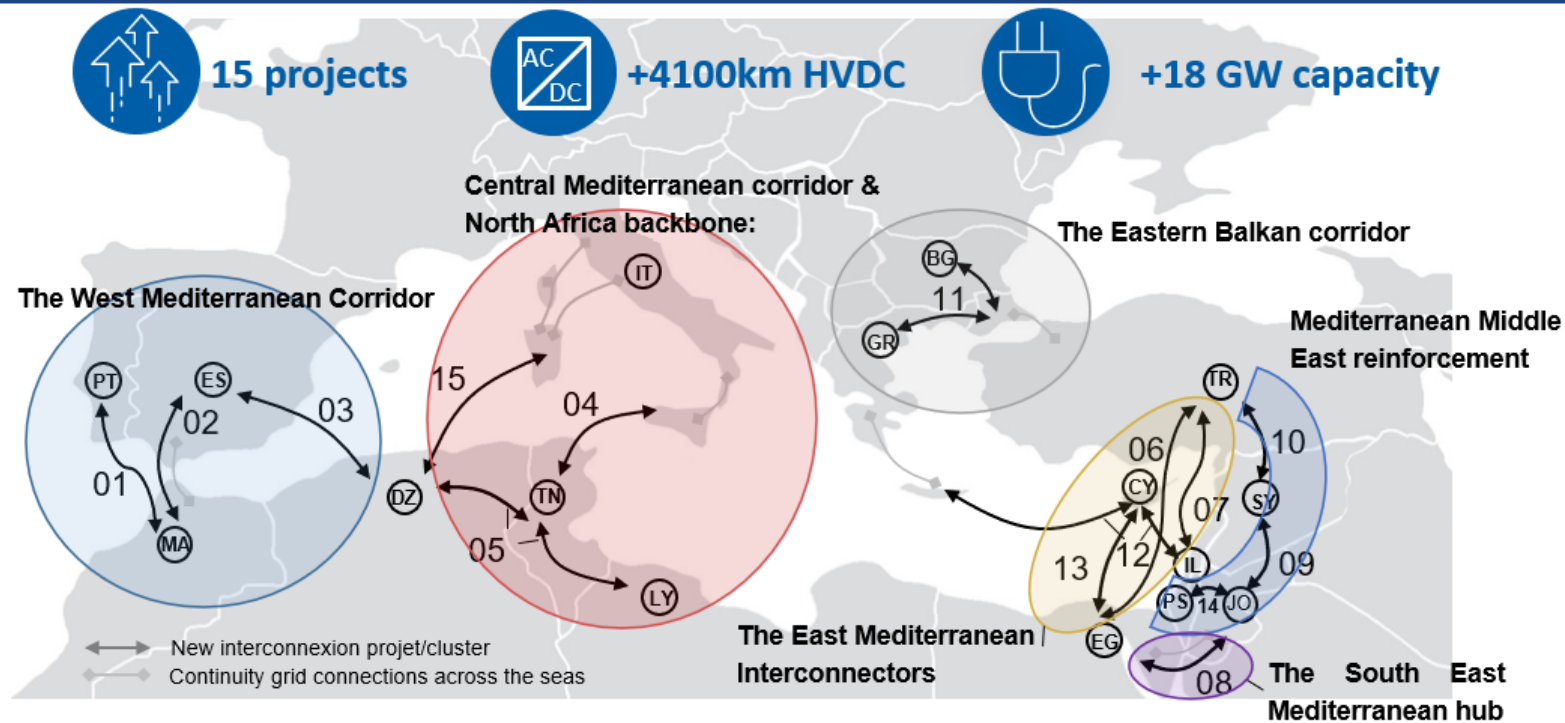
Complementary activities

- Knowledge Sharing and Training programs
- DBMED, the Med-TSO database
- Mediterranean Grid Map (with ENTSO-E)

EU support

- MP1 (2015-18)
- MP2 (2018-20)
- TEASIMED (2020-22)

A set of scenarios, framework of the Mediterranean Master Plan



Three scenarios to address the Mediterranean Power System in 2030

- The opportunities for **Electricity Exchanges**
- To support the investment, the **CBA** of Interconnection Projects
- To address the **uncertainty**

in a coordinated approach and process

Scenario building 2-year process, 15 countries

TC ESS, framework level and support

Collaborative activities:

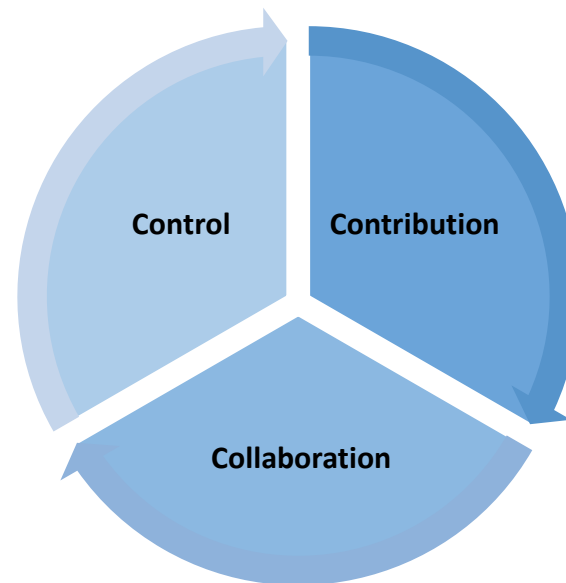
- Methodology
- Scenario Definition and Storyline
- Common assumptions

Support:

- Tools
- Database
- Modelling
- Coordination with stakeholders (ENTSO-E)

Members, contribution and responsibility

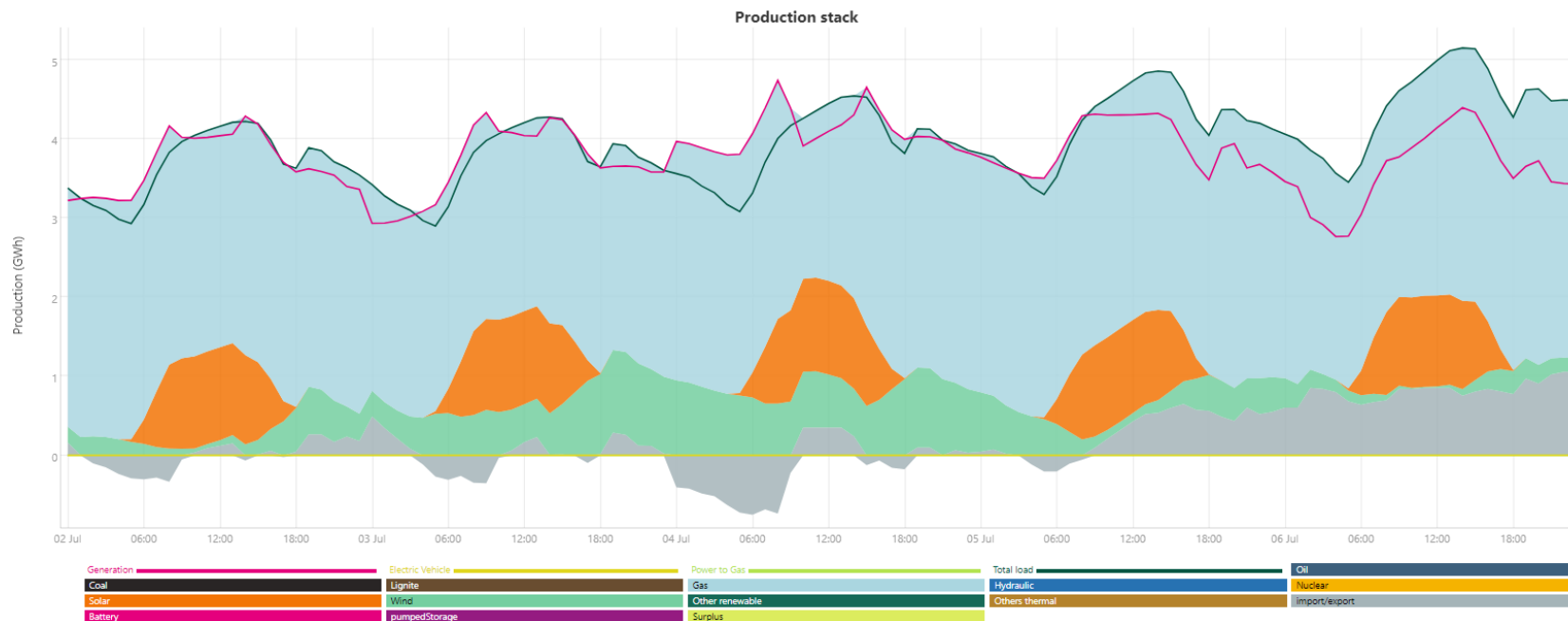
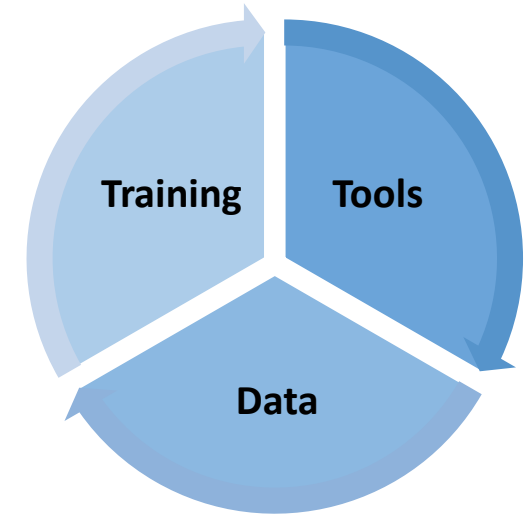
- Expertise
- National Data collection
- Results Validation



Capacity building

- To develop skills for addressing the Energy Transition
- To give equal capability to contribute/control

Three pillars: skills, tools, data
(modelling, forecast, data visualization)



antaresimulator

Webinars – Reports – dedicated Web site



<https://med-tso.com/masterplan/>

Webinars – Reports – dedicated Web site

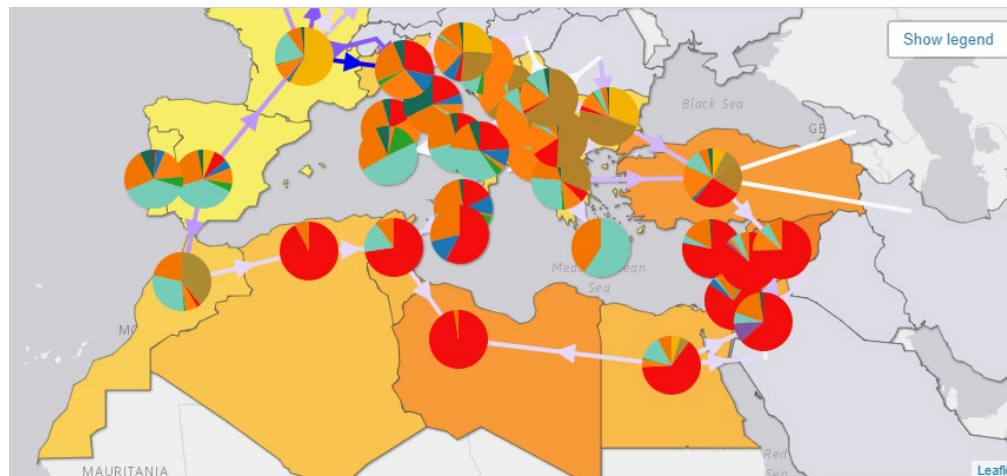
PROJECT N°2: SPAIN - MOROCCO (ES-MA):

This project consists of a new interconnection between Morocco and Spain. In addition to the two-existing links, the project consists of a third link, based on HVAC technology, which will increase the NTC between both countries by 600 MW or 650 MW (Morocco – Spain and Spain – Morocco respectively). The total length of the interconnection line is estimated at around 60km, corresponding to a 30km subsea cable and a 30km overhead line. This project is promoted by ONEE and REE. The overall investment cost is expected to be 223M€, 33% of which represent investment for internal reinforcements in Morocco.



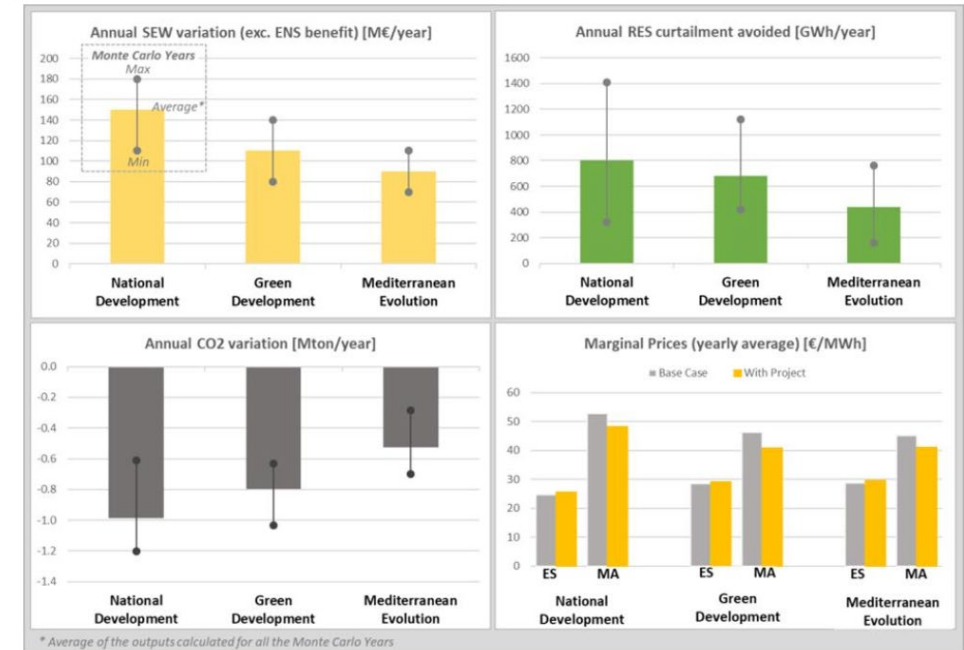
Project Description Table							
Description	Substation (from)	Substation (to)	GTC contribution (MW)	Total Route length (km)	Present status	Expected commissioning date	Evolution
New interconnection between Spain and Morocco	Béni Harchane - Morocco	Puerto de la Cruz - Spain	700	60	Long-term project	2026	

Choose a Scenario: **National Development** ▼



CBA Indicators

Project 2 yields a positive impact in the expected values of all the analysed quantitative CBA indicators, except for the expected Energy Not Supplied, on which the impact is null since the expected ENS is already null in the base case. Specifically, the project drives consistent increases in the Social-Economic Welfare and RES Curtailment and a consistent decrease in the CO2 emissions across the 3 simulated scenarios.



Thank you for your attention



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