

# MEDITERRANEAN PROJECT

*First year of activities*

## Technical Committee Planning

Task 2: Planning and development of the Euro-Mediterranean

Electricity Reference Grid

Barcelona, 7-8 March 2015



supported by the EU

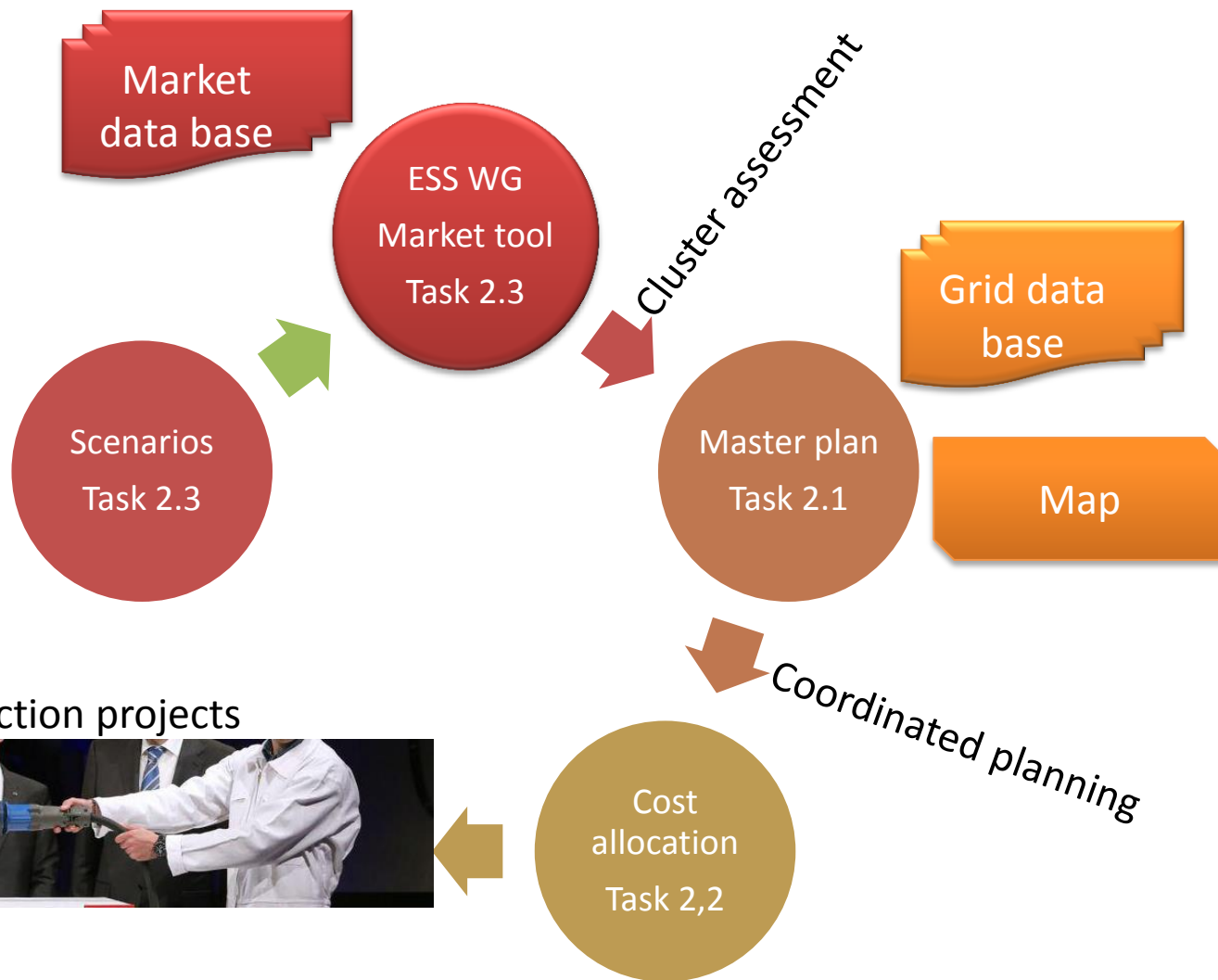


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*Task 2: Planning and development of the Euro-Mediterranean Electricity Reference Grid*

**Objective:**

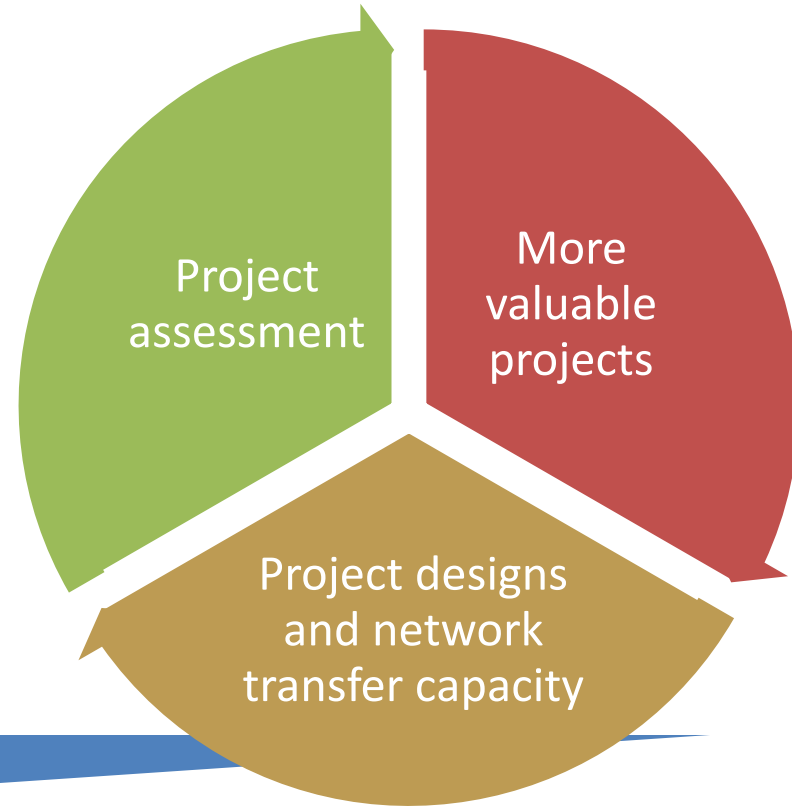
To **plan** and **develop** the **Euro-Mediterranean Electricity Reference Grid**, through studies and specific tools for **the coordinated development** of interconnections



ESS WG  
Market tool  
Task 2.3

***This task will be detailed by the ESS WG.***

***Iterative process between TC1 and ESS.***



### ***Deliverables:***

- MED TSO Energy Scenarios
  - Macro Economic Model for the evaluation of the impact of basic scenarios on the energy flows on the Euro-Mediterranean Electricity Grid
- Base don a theoretical economic scheme concerning the integration: complementarities of the load curves (daily and seasonal), around the Mediterranean and within sub-regional groupings, and new services demand

- Implementation of the **Coordinated Planning Process (CPP)** according to the Guidelines for the **Coordinated Planning of Med TSO**, developed in the framework of the **EC Project Paving the Way**
- **Updating** of the first edition of the **Master Plan of Interconnections (2013)**
- **Cartographic rendering** of Euro-Mediterranean electricity grids and development projects, structured by regional blocks

### ***Deliverables:***

- Planning procedures
- Guidelines for the Coordinated Planning
- Relevant Grid Map



### ***Survey on the status of Planning :***

- Finalized a survey through a questionnaire among TC 1 members to identify the procedures and tools adopted in member countries
- Identified the common planning drivers and technical criteria
- Collated the members' National Development plans to update the overall picture given in the 2013 EC funded Paving the way project

### ***- Guidelines for the Coordinated Planning:***

- Defined the Contents of the Deliverable to be completed in two phases: a) *Methodology* and b) *Quantitative Evaluation*
- Sketched and consolidated a first draft of the phase a) on the base of the survey outcomes. Basically:
  - Methodology
  - Minimum requirements
  - Tools
- Defined Interconnections (including shared import and export NTC values) as input for scenario evaluations.

Cost  
allocation  
Task 2,2

- **Criteria** for the **allocation** and **sharing of costs and risks**
- The financing of infrastructures requires public intervention, in particular in terms of financing (rules, procedures, resources and modalities of usage) taking into consideration:
  - **Analysis** of the regional **social, institutional, economic and energy contingencies**
  - **Analysis** of the **roles** of the different **private** (consumers, electric industries) and **public operators concerned** (Governments, Intergovernmental Organizations, International Financial Institutions)
- **Definition** of the respective **responsibilities** in the participation (levels, modalities) to the **financing of public infrastructures**, considering the objectives and the cost /benefit analysis for each infrastructure

### ***Deliverables:***

- Guidelines of Interconnections Cost Allocation for the Integration of the Mediterranean Electricity System, and related Operational Procedures

Cost  
allocation  
Task 2,2

## 2.2 deliverables:

### ***Guidelines of Interconnections Cost Allocation for the Integration of the Mediterranean Electricity System, and related Operational Procedures:***

- Identified a preliminary set of common drivers to sketch the guidelines to CBA and CBCA methodology



Grid data  
base

### Objective:

**Sharing** information on the **Mediterranean Electricity Sector** to promote the Cooperation, the Coordination and the Development of the Mediterranean Electricity Grid, through the parameters describing its structure and evolution.

**Making available** an ordered and continuously updated collection (Data Base) of **these parameters**, with access rules.

Included data :

- Data “**NETWORK**”: detailed and punctual data for network analysis
- Data “**MACRO**”: aggregated data of macroeconomic drivers of energy offer/demand.
- Data “**MARKET**”

Map

#### - **Relevant Grid Map:**

- Defined as 380 and 220 kV . Lines below 220 considered relevant if needed for cross Country interconnection
- To be finalized after Scenario evaluation together with the Grid Map

### Grid data base

In general terms the analysis of alternatives has been carried out, taking into account:

- Harmonization with ENTSOE data base
- Necessity not to duplicate population activities
- Limited budget resources
- Confidentiality issues
- Interface with different application software adopted by MED Tso Members

TC01 concluded to develop the deliverables around existing solutions made available by TERNA.

The minimum information requirements for Network Analysis have been defined.



**Thank you for your attention**



*This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of Med-TSO and can in no way be taken to reflect the views of the European Union.*

# REMARKS

While the EC funded 2013 **Paving the way** project was essentially **a study** with little impact on the activities carried out by the TSOs, the **Mediterranean project** is about **establishing a common ground for planning methodology** as a basis for a **future integration** of the grids on the two shores of the Mediterranean. The **next step** within this project will tackle **quantitative analysis**, technical feasibility and efficiency of the **cross border exchanges** (import and export) in accordance with the scenario evaluations.

Data gathered from the NDPs essentially confirm the figures layed out in the Paving the Way project:

- demand growth in the Southern bank vs. stagnation in Northern bank of the Mediterranean
- penetration of renewables on both banks

Though, few uncertainties persist, since data from countries facing political and social turmoil could be object of estimation.