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A Mediterranean electricity co-operation strategy. Vision and rationale

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Overview

- Electricity markets in the Mediterranean area vis a vis EU energy strategy
- Co-evolution between technology and institutions
- RES development and the establishment of a Euro-Mediterranean energy area
- Corridor approach
- Network expansion
- Establishment of a energy free trade area
- Policy implications

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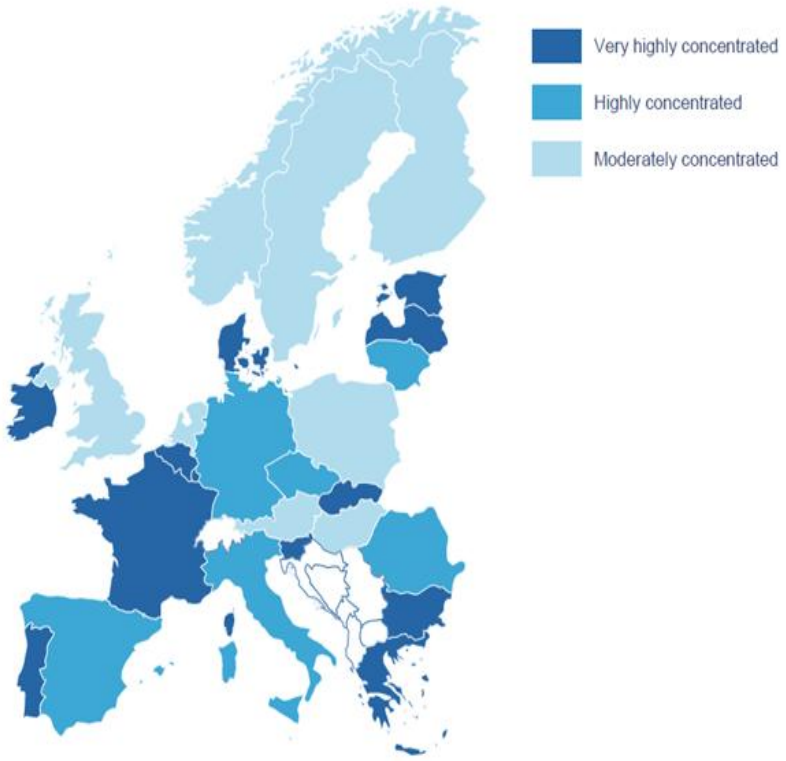
Electricity market in the Mediterranean basin



Source: EC, Report on progress in creating the internal gas and electricity market, SEC(2009) 287, 2009

- Vertically integrated public monopoly has been the default option in EU (and still is the reference case in many countries)
- Liberalisation process has imposed a (gradual) opening of the competitive activities of the ESI.
- A "neo-realist" approach to market model is also possible (Escribano, 2010) – bilateral long-term relationship.
- A variety of situation co-exist
- Energy cooperation needs to be formulated in order to accommodate different approaches in a stable framework

Factors affecting co-evolution process (I-T)

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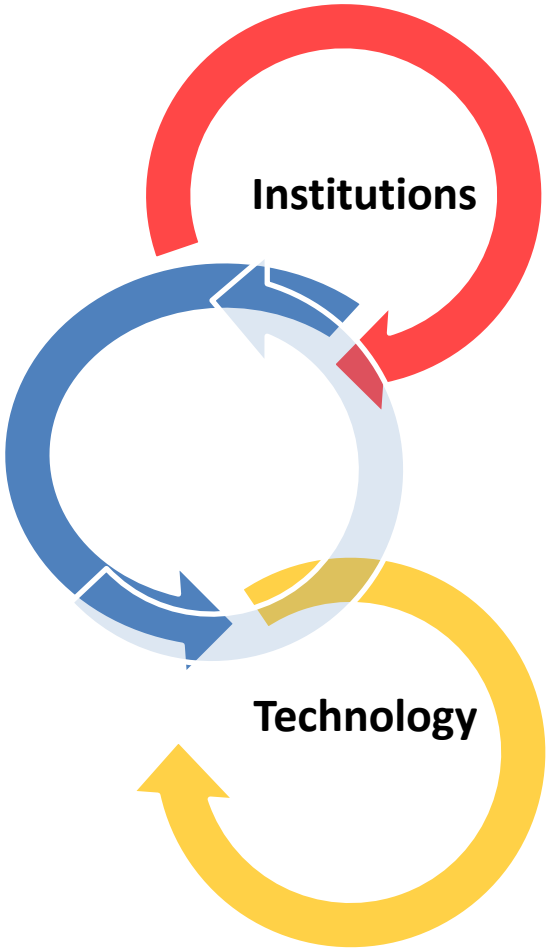

- Sector specific regulation could reassess the deregulated market and assure reliable and efficient operations
- Institutional changes are sufficient to create a market in the infrastructures
- Technology would remain stable and neutral and support the functioning of any kind of market structure

The link between institutions and technology is bi-directional

- **Economic/technical aspect of energy market :**
- Vertical integration, Horizontal integration, Price/tariff structure, Available interconnections, Access to the National Network, Efficient dimension of the market.
- **Institutional environment**
- Allocation of powers of regulation, legal and judicial system, Power to reallocate property rights, Corruption, Country risk

South-South and North-South Interconnections

Existing and planned

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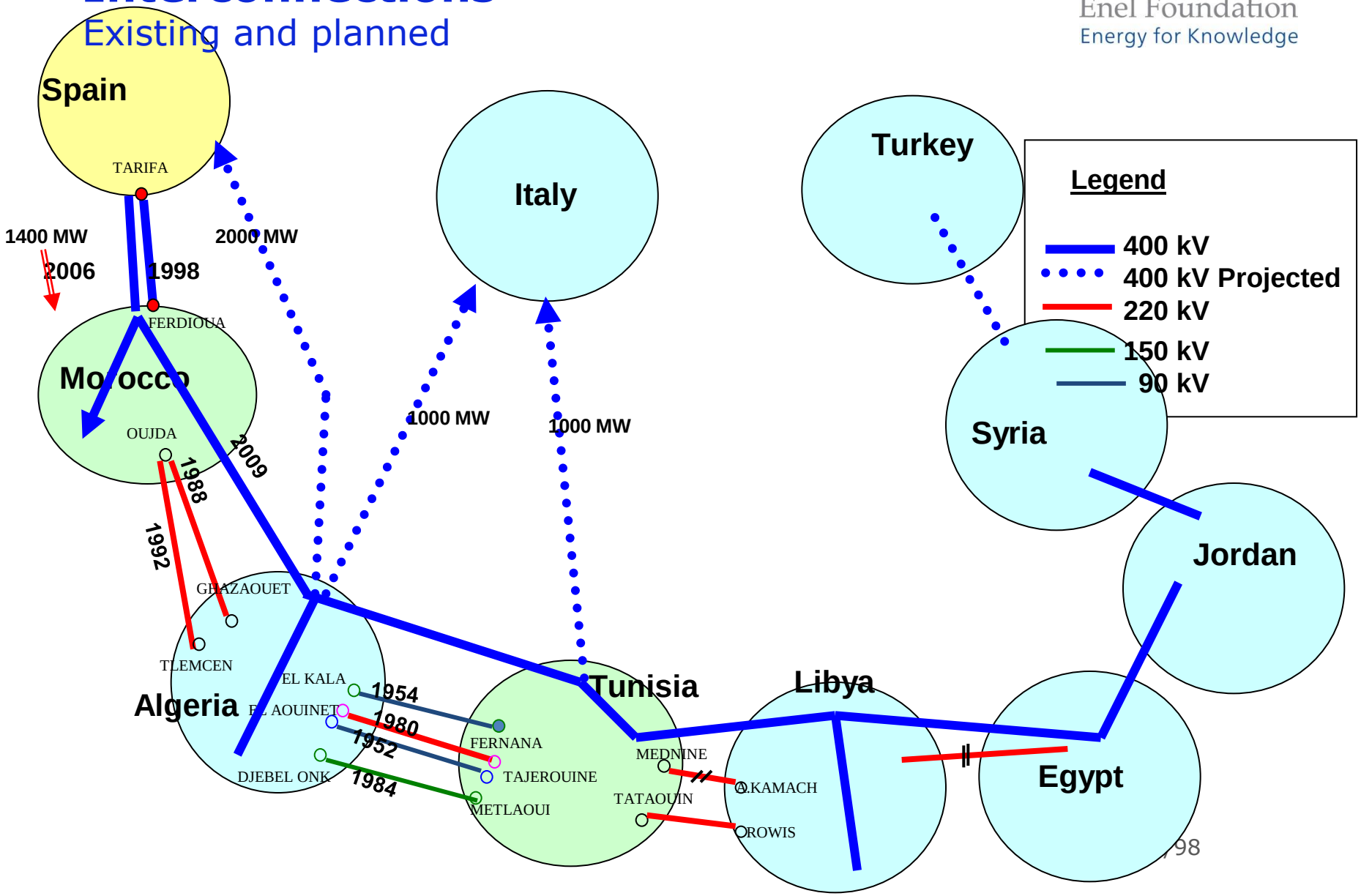

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Driving forces
Euro-Mediterranean electricity paradigm

- The EU energy strategy
  - EU transition to low carbon economy
  - 3x20 targets – directive 2009/28/CE
  - increasing the security of supply by mutual back-up of power grids

- EU initiatives in the area
  - Euro Mediterranean partnership (EMP)
  - European Neighborhood Policy (ENP)
  - Reproduction of the acquis communautaire at a larger scale
  - Thick normative and regulatory dimension
  - Strategic energy relations based on EU SoS needs (fossil fuels dependency)

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Evolutionary stable reforms

- Voluntary bottom up approach (compatibility rather than convergence)
- Multi-stakeholders process (TSO, NRAs or ministry, policymakers, internal vs. external institutions)

I. Corridor approach
II. Network Expansion
III. Establishment of a energy free trade area

I - Corridor approach
flexibility

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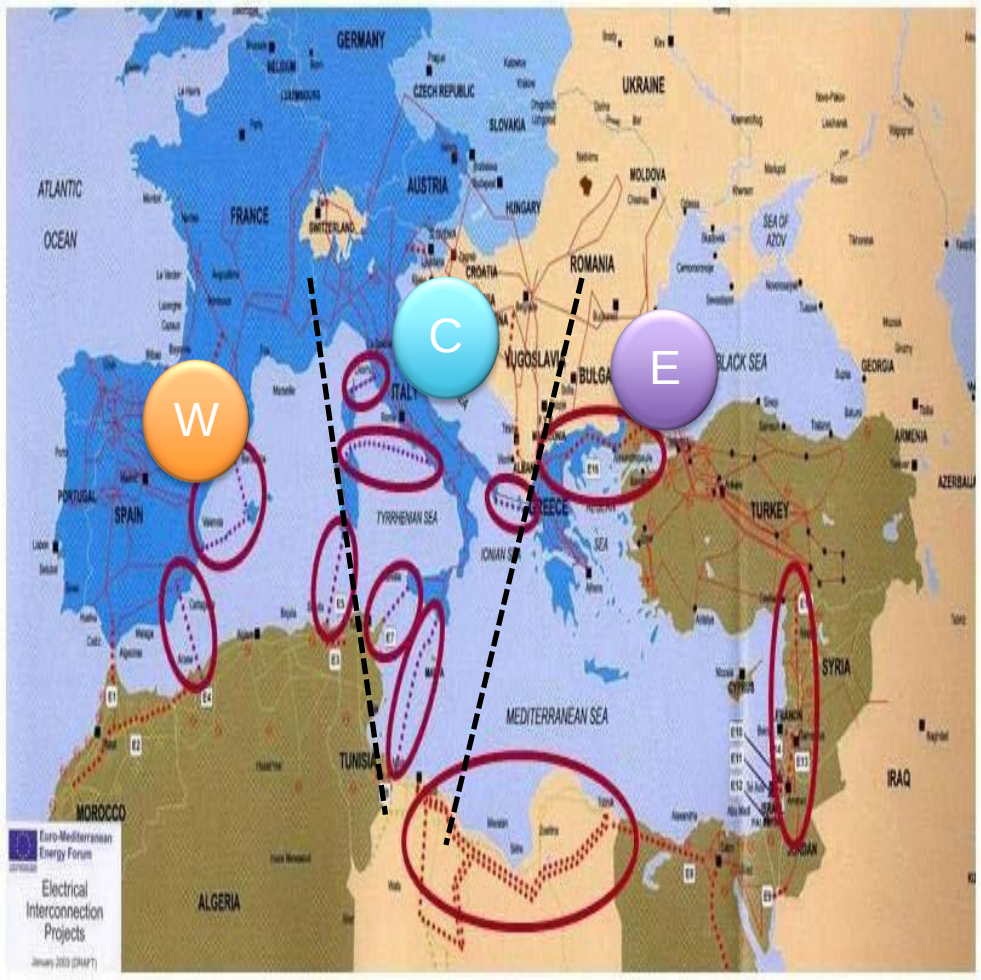

- Set of policy options available are dominated by local electricity players →corridor specific
- Complementary electricity systems (joint welfare maximization, Chao&Peck, 1996)
- Harmonizing rules, physical interconnections and legislative provisions
- Three corridor currently emerging in North-South direction
  - **West: Morocco-EU (via Spain)**
  - **Central: Maghreb- EU (via Italy)**
  - **East: Middle East- EU (via Turkey)**

II – Network Expansion
SoS

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- Power grids constructed based on a national perspective
- Increase penetration of RES generation
- Limited existing interconnection capacity (inside and outside EU)→negative prices in national markets
- Allows efficient location of RES generation
- Increase the geographic scale of network operation (and supervision)
  - **ENTSO-E, ACER, METSO**

III – Establishment of a Energy free trade area

compatibility within corridors

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Normative convergence + Physical infrastructure = Sub-regional dynamics along corridors

- PAM commitments
- Artificial obstacles to energy trade shall be removed
- EFTA should be based on
  - **Transparent and long term policies (longevity)**
  - **Co- development**
  - **Regional view**
- Medreg and METSO are expected to play a role in this process

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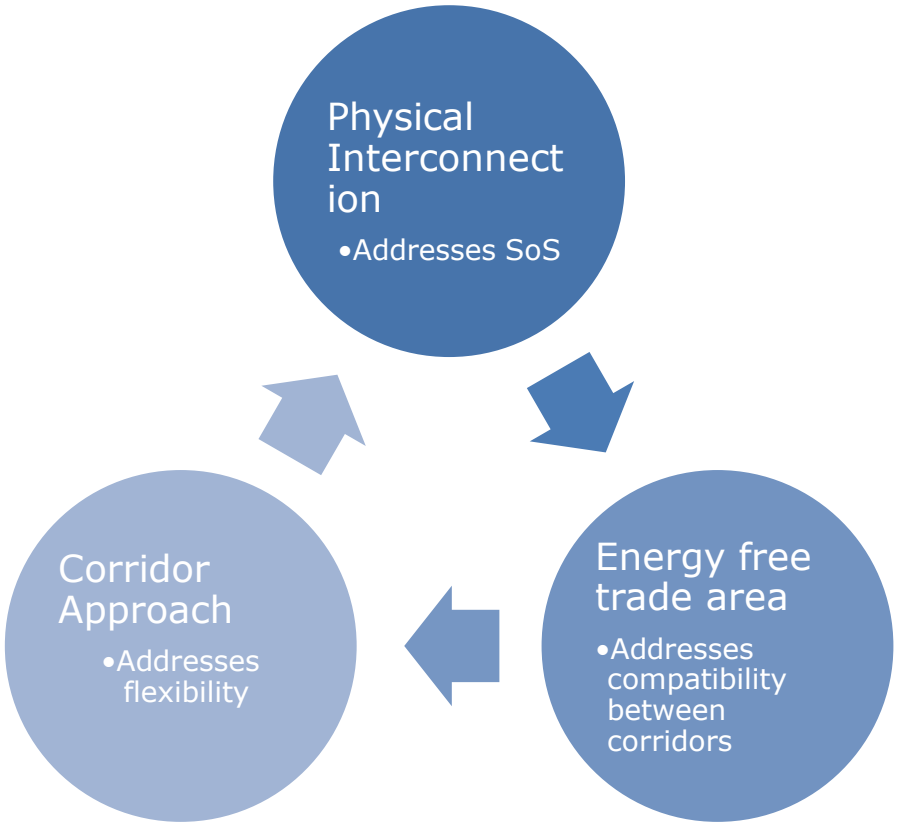
Conclusions and policy implications



- Reproduction of EU legislation is not feasible and not desirable
- Bottom up approach vs. Top down approach
- Mediterranean area as a region
- RES generation ease the alignment of incentives between demand and supply hubs
- Coordination between multiple stakeholders

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Thanks for you attention

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