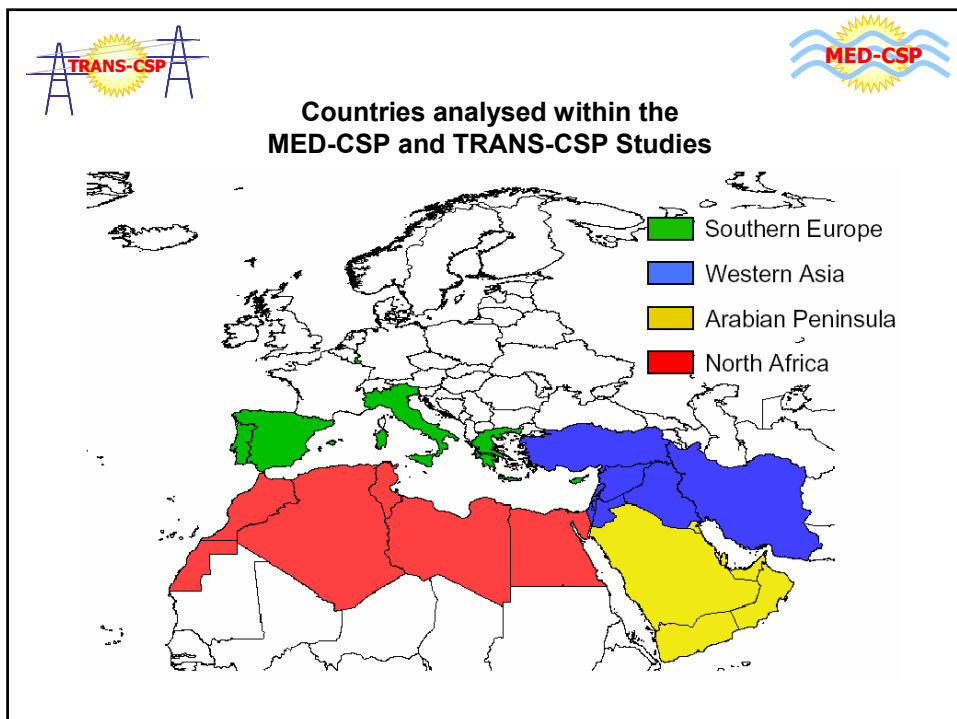
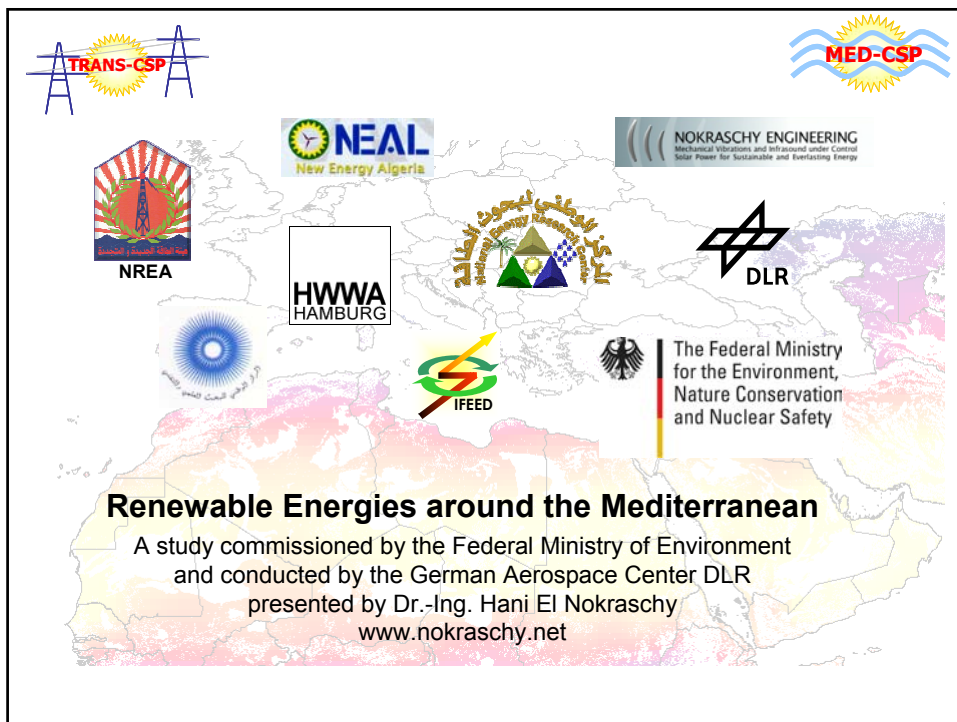
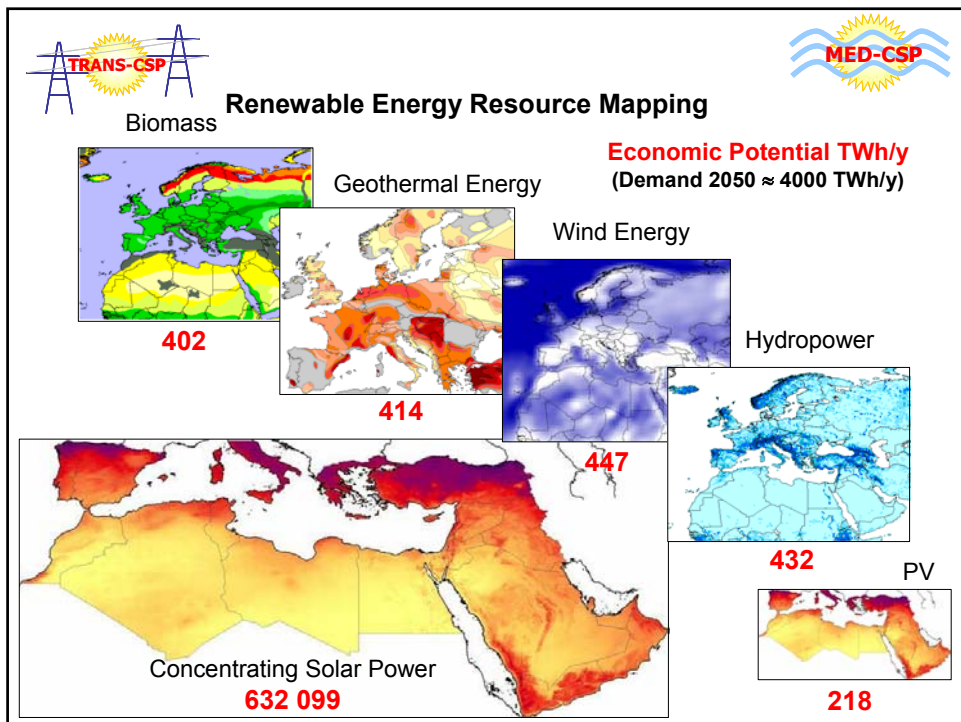
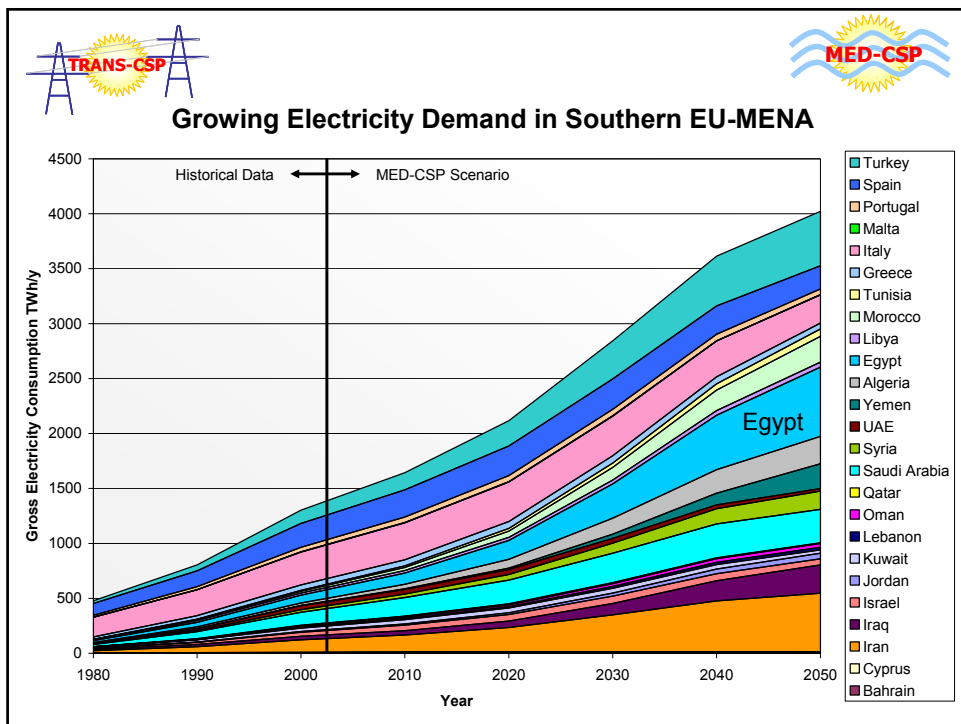
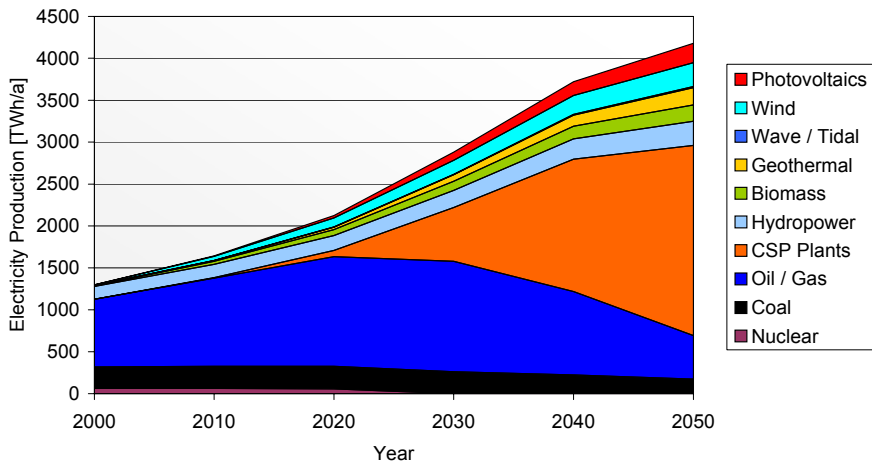




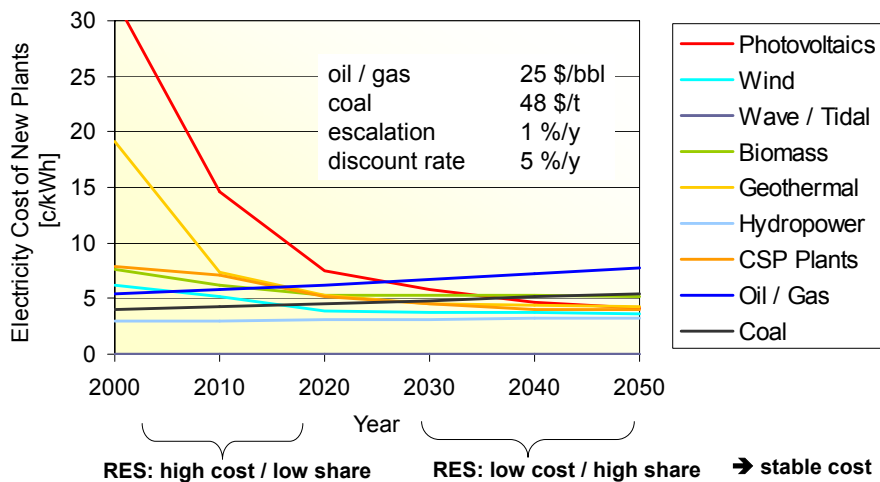




Electricity Generation in Southern EU-MENA



Electricity Cost of Power Technologies (Example Egypt)





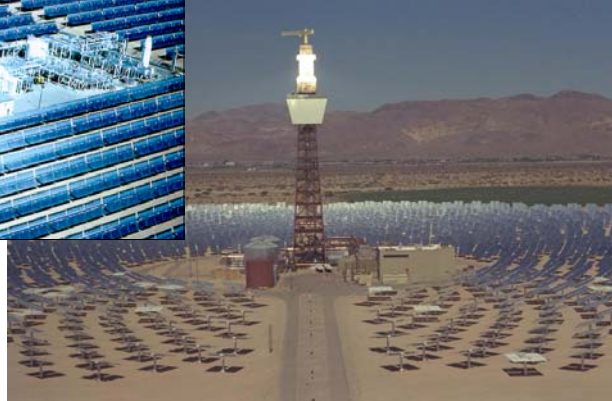
Concentrating Solar Power Technologies (CSP)



Size: 5 MW - several 100 MW

Linear Fresnel

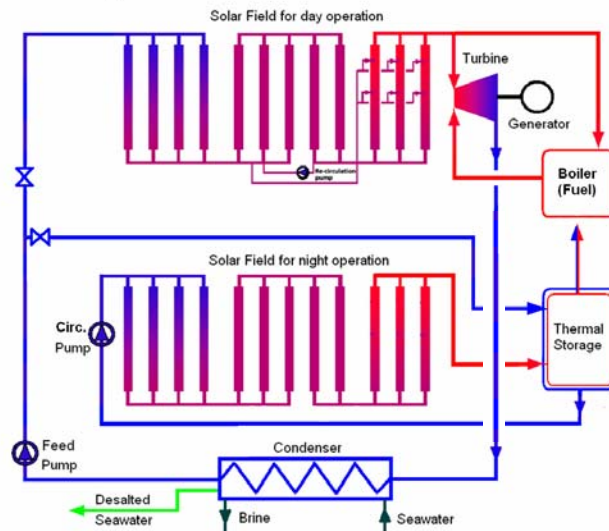
Parabolic Trough



Central Receiver

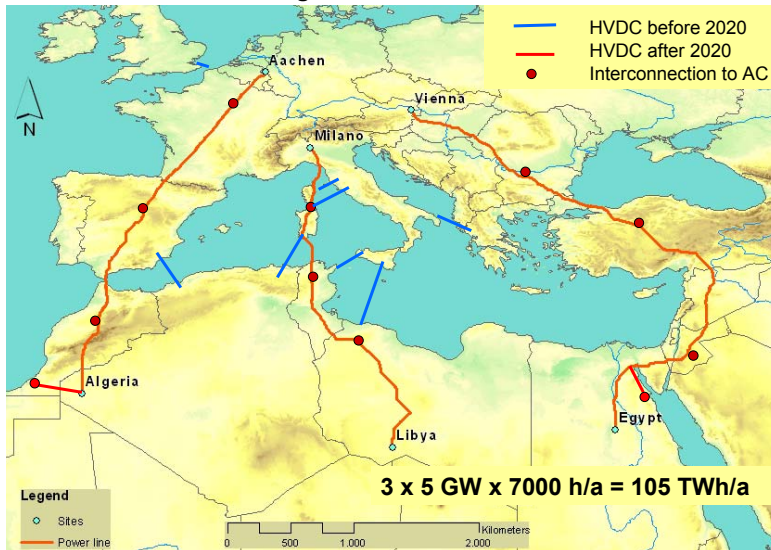


Hybrid Solar Power Station combined with Desalination

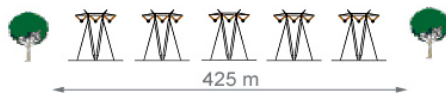




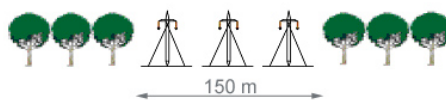
3 Samples for EU-MENA HVDC Interconnection including connections to wind sites



Space required for 10 GW Power Lines



800 kV AC



600 kV HVDC



800 kV UHVDC

AC Alternating Current
HVDC High Voltage Direct Current
UHVDC Ultra High Voltage Direct Current

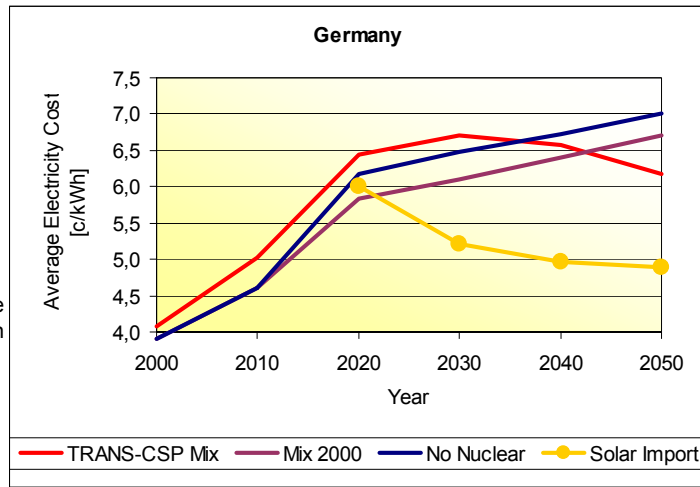


Cost of Electricity Mix (Only New Plants, No Import)

RUE
Rational Use of
Energy

RES
Renewable
Energy
Systems

CCS
Carbon Capture
& Sequestration



TRANS-CSP Mix: Energy Mix as described here incl. RUE, RES and CCS

Mix 2000: Maintaining exactly the Power Mix like in the Year 2000 with CCS

No Nuclear: Mix like in the Year 2000, but substituting Nuclear by Coal & CCS



MED-CSP / TRANS-CSP Main Results:

- A well balanced mix of renewable and conventional power technologies can provide secure and affordable power on demand in EU-MENA.
- Renewable energies are the least cost option for energy and water security in a possible future EU-MENA energy free-trade zone.
- European energy import dependency can be reduced considerably.
- Solar electricity imports are a key for firm capacity, cost stability and seawater desalination.