

GLOBAL ENERGY INTERCONNECTION: A step forward for universal access to energy?



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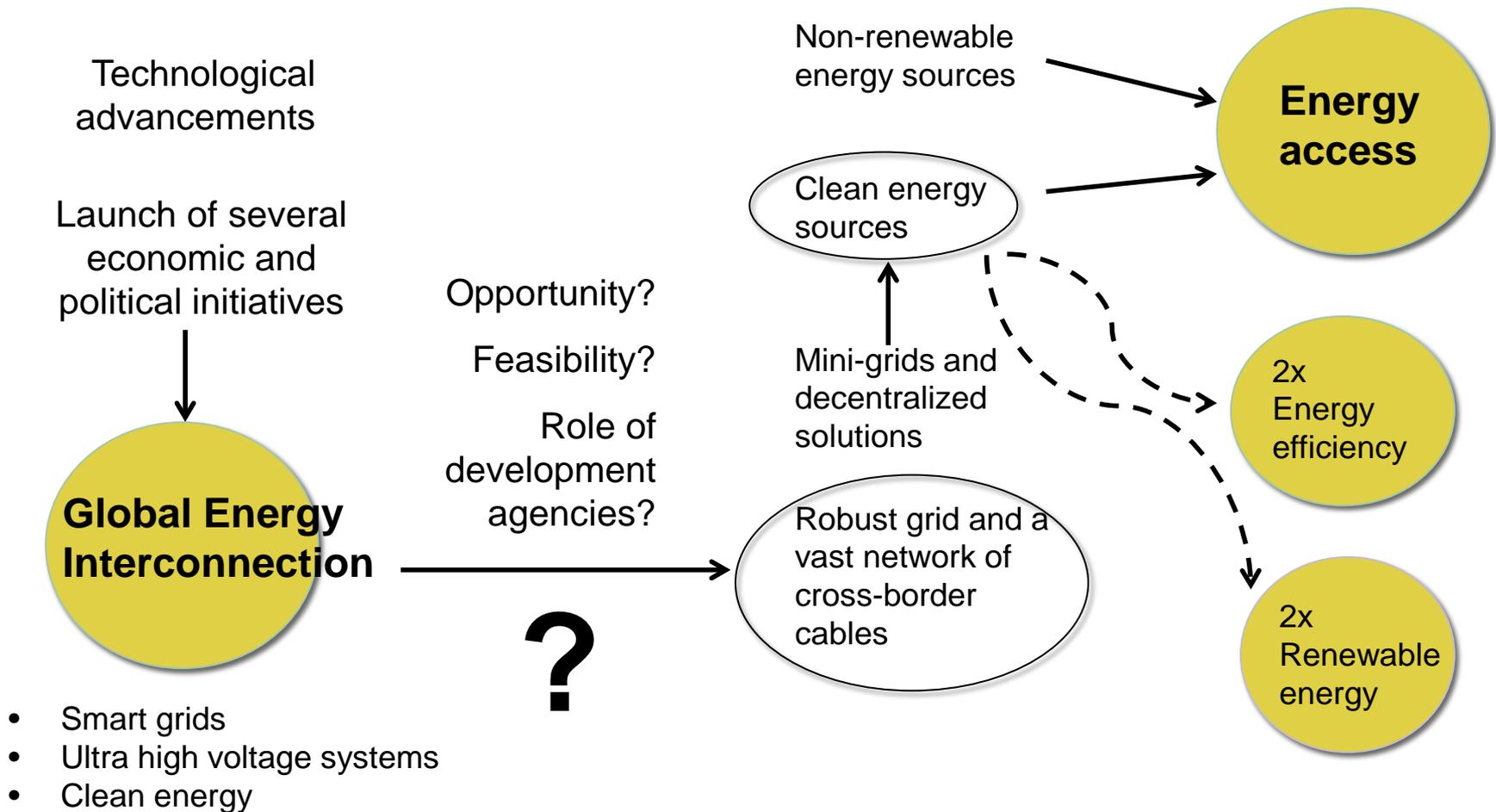
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INSTITUT DE HAUTES
ÉTUDES INTERNATIONALES
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Analytical framework and problem statement



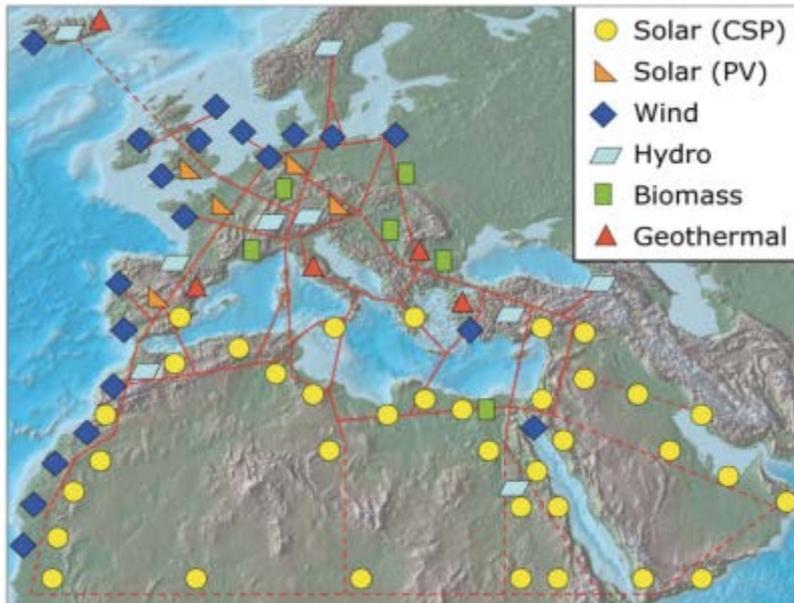
Method

- Analysis of Desertec and NOORo cases
- Qualitative analysis of 11 semi-structured interviews
- Multiple stakeholder groups: public authorities, industry specialist (international and local), financial institutions, research institutions, and international organizations
- 2 interview guidelines: 6 key persons for the GEI model and 5 experts on the initiatives (2 x Desertec; 3 x NOORo)
- Limitations:
 - Access of energy in Morocco is almost 100%
 - Limited to solar energy
 - Impressions more than facts

Exemplary initiatives in Morocco

• Desertec initiative

- 15% Europe's electricity needs by 2050
- Consortium of 12 private companies



Source: TREC, 2007

• Noor Ouarzazate solar complex

- 1.3 million people with clean energy
- ↓ 3.7 million tonnes CO₂ per year
- Managed by the Moroccan agency for Solar Energy



Source: Google earth, October 2016

Main findings



		
Interconnection & energy access	<ul style="list-style-type: none"> • Growing attention • Global energy demand • Complementary solutions 	<ul style="list-style-type: none"> • Quality of access? • Lack of financing • High risk for investors, capital intensive
Feasibility of the GEI model	<ul style="list-style-type: none"> • Technically feasible • Seasonal timescales and the day/night differences 	<ul style="list-style-type: none"> • Governance issue • Local ownership • Environmental impact • Lack of coordination between regulations
Role of Development Agencies	<ul style="list-style-type: none"> • Bottom up approach • Local stakeholders engagement • Financial support • Capacity building • Regulatory framework 	<ul style="list-style-type: none"> • Financial capacity • Level of power and interest

Conclusions

- We are at the beginning of this process, which:
- can contribute to the establishment of renewed national strategies, that could include an **increased level of access to modern energy**
- constitutes a reason for **promoting a further engagement of development agencies** for a more complete concept of energy access
- but **more dialogues and research** on financial structure, policy-making and regulatory issues are needed (costs benefits analysis, impact assessment, etc).

“There is a lot going on, but it needs to be pushed and coordinated”
Elham Ibrahim (AU Commissioner for Energy and infrastructure), thereby
we auspicate SDC will play a role in this system.