



# Maximising socio-economic value creation through policies

World Future Energy Summit 2015, Abu Dhabi, UAE  
Workshop on the socio-economic impacts of renewable energy,  
19<sup>th</sup> of January 2015

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On behalf of:



Federal Ministry  
for the Environment, Nature Conservation,  
Building and Nuclear Safety

On behalf of



Federal Ministry  
for Economic Cooperation  
and Development

of the Federal Republic of Germany



# IRENA

International Renewable Energy Agency



# Policy fields

Cross-cutting – NOT only energy

Relevant policy mix

Along the value chain

# Deployment policies – which matter?

focus type	Supplier	Demand	Input / Complementary
<b>Financial</b>	<ul style="list-style-type: none"> <li>Investment grants</li> <li>Interest subsidies</li> <li>Tax credits</li> </ul>	<ul style="list-style-type: none"> <li><b>FIT, FIP</b></li> <li><b>TGC</b></li> <li><b>Tax credits</b></li> <li><b>Investment subsidies</b></li> </ul>	<ul style="list-style-type: none"> <li>R&amp;D grants</li> <li>Financial programs for schools, universities</li> <li>Research awards</li> </ul>
<b>Regulatory</b>	<ul style="list-style-type: none"> <li>Standards (TÜV, ...),</li> <li>Labels</li> <li>IPR</li> <li>R&amp;D spending obligation</li> <li>Land use rules</li> <li>Intellectual property</li> </ul>	<ul style="list-style-type: none"> <li><b>Quotas, Portfolio stand.</b></li> <li>Product information requirements</li> <li>Product norms/ standards (ISO)</li> <li>addressing framework conditions</li> <li>Financing</li> <li>Power market</li> </ul>	<ul style="list-style-type: none"> <li>Mandatory education/training</li> <li>Educational standards (curriculum)</li> <li>Reporting standards</li> <li>Legal framework/rights</li> <li>Banking rules</li> <li>Recycling rules</li> </ul>
<b>Educational, research, learning</b>	<ul style="list-style-type: none"> <li>Scientific, management, ... training on the job</li> <li>Building of capacities and skills</li> </ul>	<ul style="list-style-type: none"> <li>Information activities (platforms, discussion rounds, presentations, talks, speeches, ...) to increase awareness of selected issues</li> </ul>	<ul style="list-style-type: none"> <li>R&amp;D networking</li> <li>Education programs</li> <li>Establishment of platforms, WS</li> </ul>
<b>Infrastructural</b>	<ul style="list-style-type: none"> <li>Infrastructure road, rail, ship, IT, power, water,....</li> </ul>	<ul style="list-style-type: none"> <li>Financing</li> <li>Grids, roads, ...</li> </ul>	<ul style="list-style-type: none"> <li>Education</li> </ul>



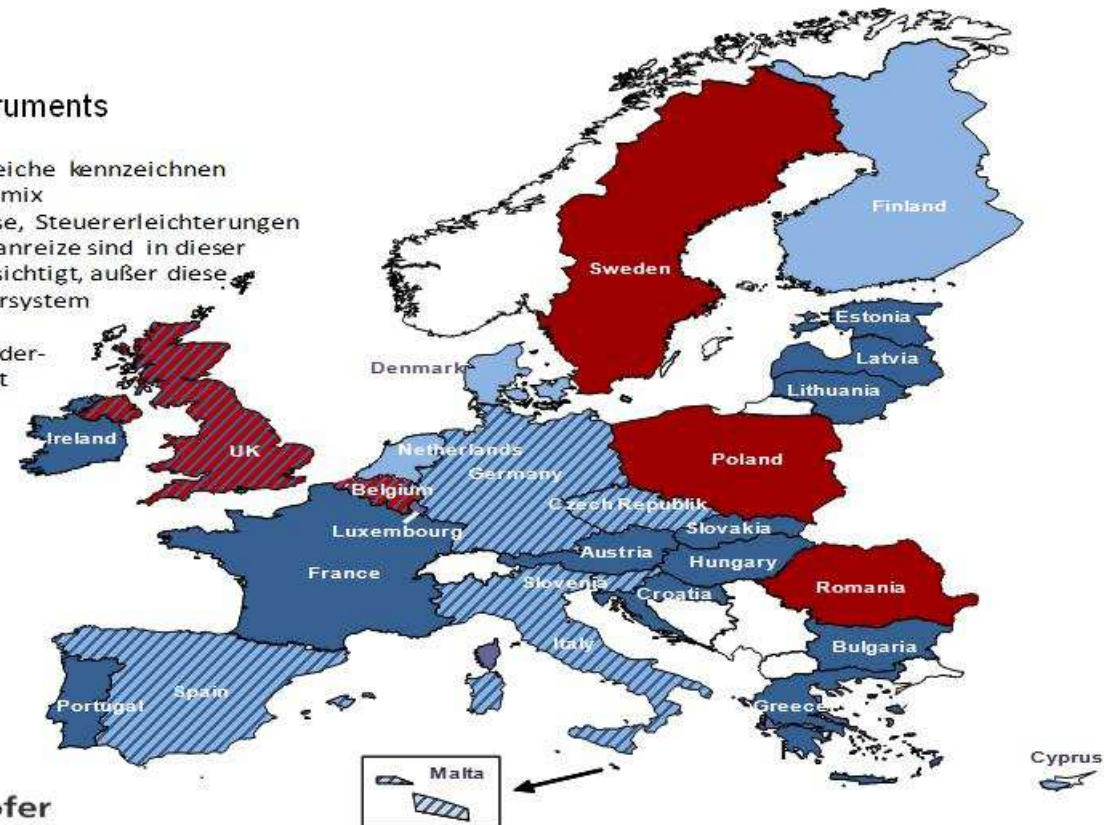
# Deployment policies – best instrument ?

## RE support policies in Europe



Anmerkungen:

- 1) Die gestreiften Bereiche kennzeichnen einen Instrumentenmix
- 2) Investitionszuschüsse, Steuererleichterungen und andere Steueranreize sind in dieser Grafik nicht berücksichtigt, außer diese sind als Hauptfördersystem eingesetzt.
- 3) Moratorien von Fördersystemen sind nicht berücksichtigt.



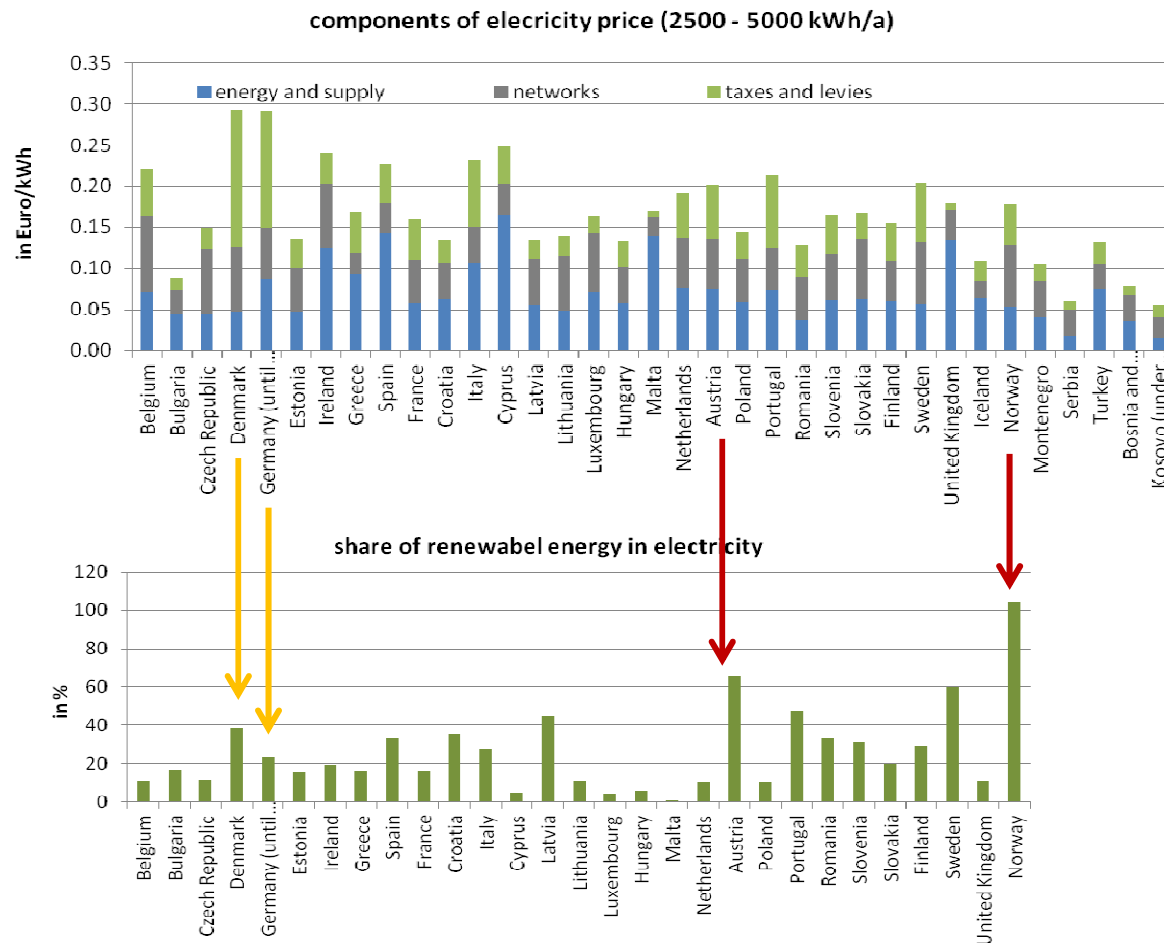


# Deployment policies – more than just instruments?

## “more” includes:

- **Vision and strategy:** e.g., action plan, roadmap 2050;
  - **Targets:** e.g., 20% RE electricity generation in 2020;
  - **Policy making:** suggestions and decisions on targets and measures, changes (proactive) and announcements, lobbying opportunities, reporting;
  - **Implementation:** institutional set-up for generation, controlling, installation, procedures for evaluation, adjustments and announcements, and societal participation.
  - **Instruments:**
    - financial: FIT or FIP, TGC, tax credits, subsidies and grants
    - regulatory: portfolio standards, quota
    - supportive/framework: financing, infrastructure
- **Policy consistency, reliability, and coherence** are important. Drastic and sudden policy changes are detrimental to investment, and hence to value creation
- **Acceptance of policy**

# Deployment policies – when accepted?



## Deployment policies – beyond RET?

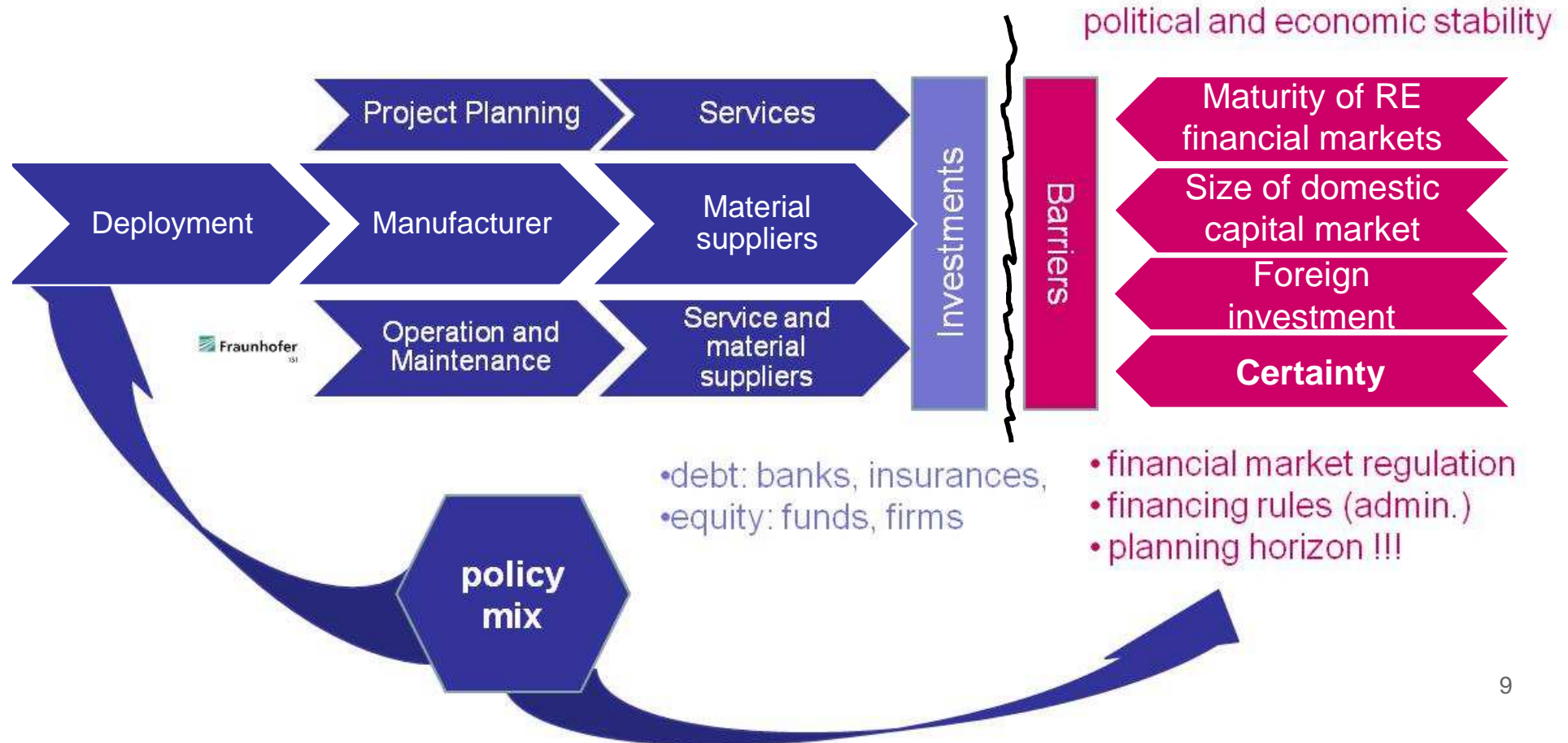
**Deployment policies** : increase demand for RET = value creation  
through

- investments in RET (energy sector)
- demand for services and manufacturing
- investments in other industries

**Iff the framework conditions are set accordingly !!**



# Investment promotion



## Local content policies



Trade, WTO



Increase  
domestic  
attraction



Autarchy



# Local Content Laws & Renewables around the World

Canada:  
25% to  
60% to  
receive  
FiT

Italy: bonus for  
60% from EU

Turkey:  
premium  
on FiT  
proportio  
nal to LC

China: wind  
20% to 80%  
joint venture,  
20% to 70%  
tendering

Brazil:  
40% to  
60% to  
qualify  
for loans

India: CSP  
30% for  
permit

25% to 65% in the  
tendering process

## Success Factors

- Works differently in combination with different deployment instruments
- Size of the expected markets matter
- Share has to be in reach for domestic industry
- Local industry has to be in support
- Local industry has to be supported by further instruments

## Strengthening firm-level capabilities

- Enable firms to act successful on (international) markets
- Strengthen private sector – especially in Arab region
  - Industrial upgrading
  - Cluster development
  - Infrastructure development
  - Modernize SMEs
- Successful examples from Morocco, Egypt, Lebanon



# Research and innovation and training – why ?

## Example: Central Metallurgical Research and Development Institute (CMRDI)

- affiliation: research center associated to State Minister of Scientific Research
- mission: enhance **competitiveness** of Egyptian Industry
- collaboration: national and overseas R&D institutions → networks & knowledge transfer
- personnel: strong **personnel linkages** to Cairo University (RE Master Program) and other, international universities → matching of technical and know-how needs
- services: technical services, training, testing, certification, consultancy, research based on actual demand of industry → **need pull** → **adjusted solutions**

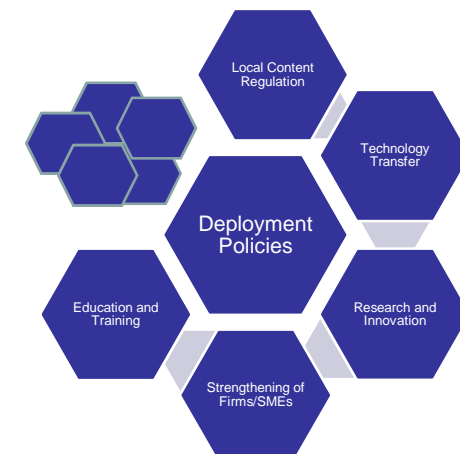


Source: CMRDI, Lahmeyer, Fraunhofer 2013 adapted



## Conclusions

- RE deployment is a key factor for value creation,
- RE deployment is more than designing instruments
- Value creation from RE deployment needs support in many policy fields
- Value enhancing policies are cross-cutting
- Greening – also energy efficiency – needs to be mainstreamed into all policies to enhance value creation! (supplier focused, complementary) policies →



# Thank you for your attention

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