

Developing Solar Innovation Eco- Systems

The Role of the Government

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Outline

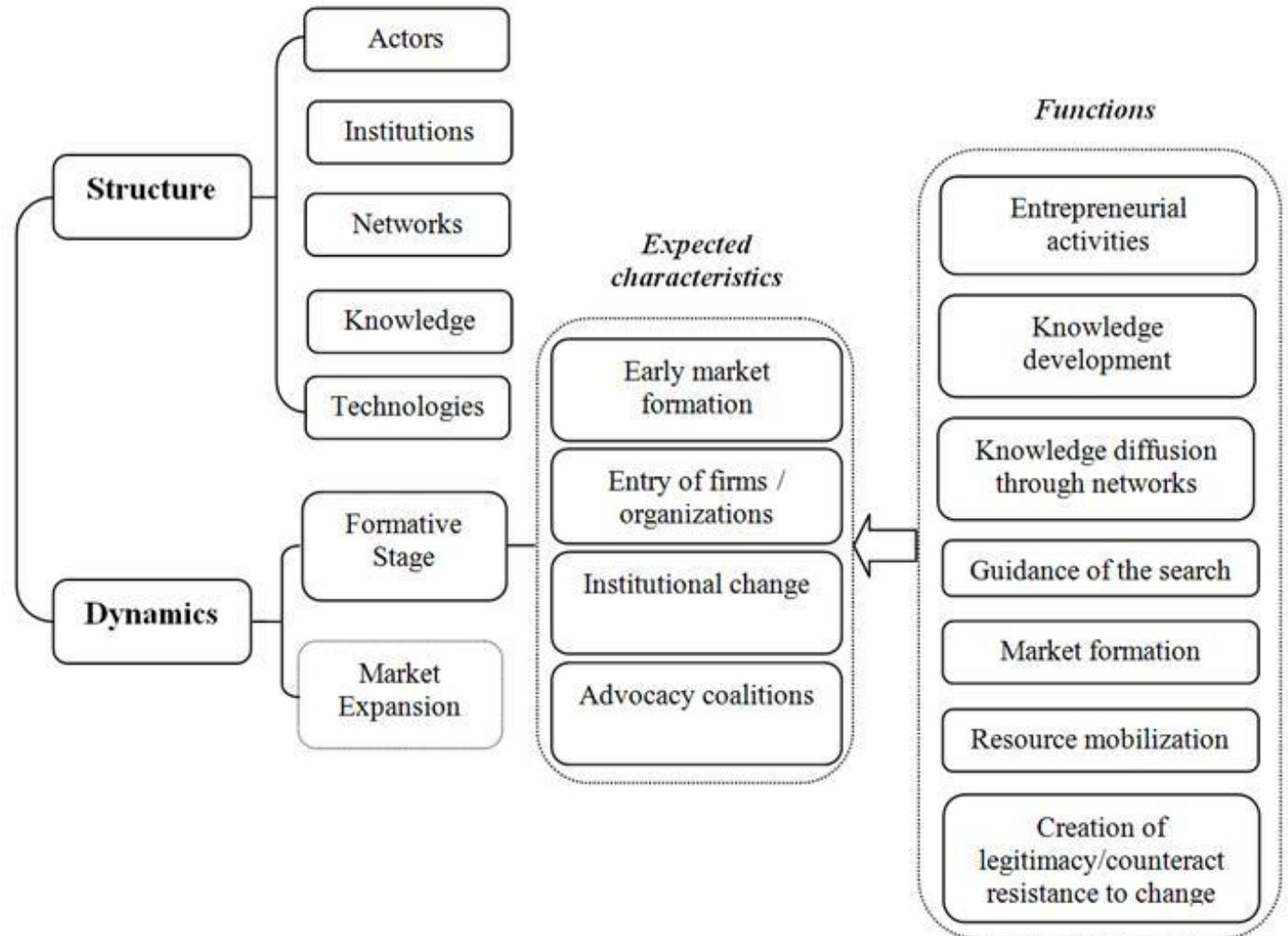
- Innovation systems for the solar energy sector
- The role of the government in innovation
- Reflections on the UAE environment

Innovation systems for the solar energy sector

- Historical perspective on the development of the sector
- The role of government and research institutions
- Dynamics in the innovation system

Innovation systems for the solar energy sector

- Sectoral innovation system conceptual framework



Vidican et al. 2010

Innovation systems for the solar energy sector

- What is the appropriate role for the government in an innovation policy or strategy?
 - Top-Down or Bottom-Up?
 - Set a specific challenge and engage the larger society?
 - Selecting “winners” - industries and technologies?
 - Stimulating public-private partnerships?

The role of the government

INNOVATION SYSTEM FUNCTIONS	GOVERNMENT ACTIONS
Entrepreneurial activities	<ul style="list-style-type: none">• Funding for start-ups, proof-of-concept efforts, technology incubators
Knowledge development	<ul style="list-style-type: none">• R&D funding at research institutions (universities and labs)• Public perception of renewable energy
Knowledge diffusion through networks	<ul style="list-style-type: none">• Facilitate knowledge diffusion through workshops and conferences
Guidance of the search	<ul style="list-style-type: none">• Set targets such as Renewable Portfolio Standards (RPS)• Express commitment to clean energy future
Market formation	<ul style="list-style-type: none">• Offer incentives for technology deployment• Support public-private partnerships
Resource mobilization	<ul style="list-style-type: none">• Provide dedicated funds for various forms of subsidies and R&D efforts.
Creation of legitimacy	<ul style="list-style-type: none">• Alliances between the private sector, the state, and research organizations

Reflections on the UAE case

- Government plays a broader role in the UAE
- The upside...once commitment is expressed, goals can be achieved with less political backlash.
- The downside...implementation can be delayed or stalled; or decisions can be easily reverted.

Reflections on the UAE case

- Opportunity for utilizing government leadership in creating conditions for initiating development of renewable energy (RE) industry/innovation hubs
- But, if too dominant, it is likely to undermine the bottom-up entrepreneurial drive of smaller businesses
- Masdar as the key government initiative for RE
 - Should initiate policies, define regulatory framework, stimulate market
 - Not dominate business opportunities

Thank you!

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