

Enabling Science Diplomacy in International Open Innovation

Office of Science, Knowledge & Technology Transfer

Renewables: A Key Driver for Clean Energy Transition Solar PV Rooftop Workshop & Training

13 & 14 DECEMBER 2017



Office of Science, Knowledge & Technology Transfer (SKTT)

Mandate:

To enable science diplomacy in international open innovation to support in developing national:

- > **Priorities**
- Capabilities
- Mechanisms

Example: S & T Agreement between Oman and USA.



Sustainable Development Goals









Future Disruptive Technology

With economic potential in 2025 (MGI, 2013)



 Potential share of solar and wind in global electricity generation by 2025

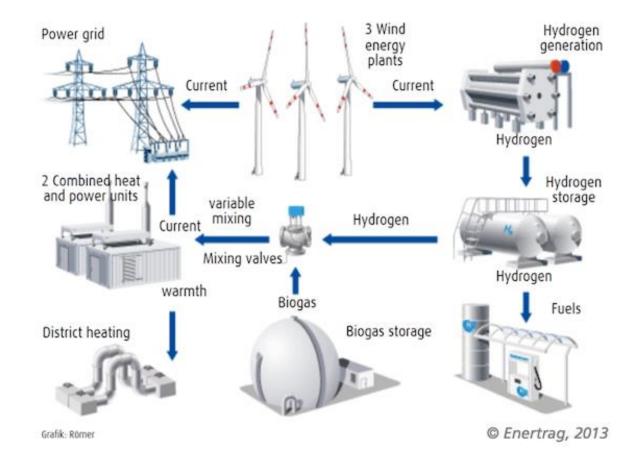


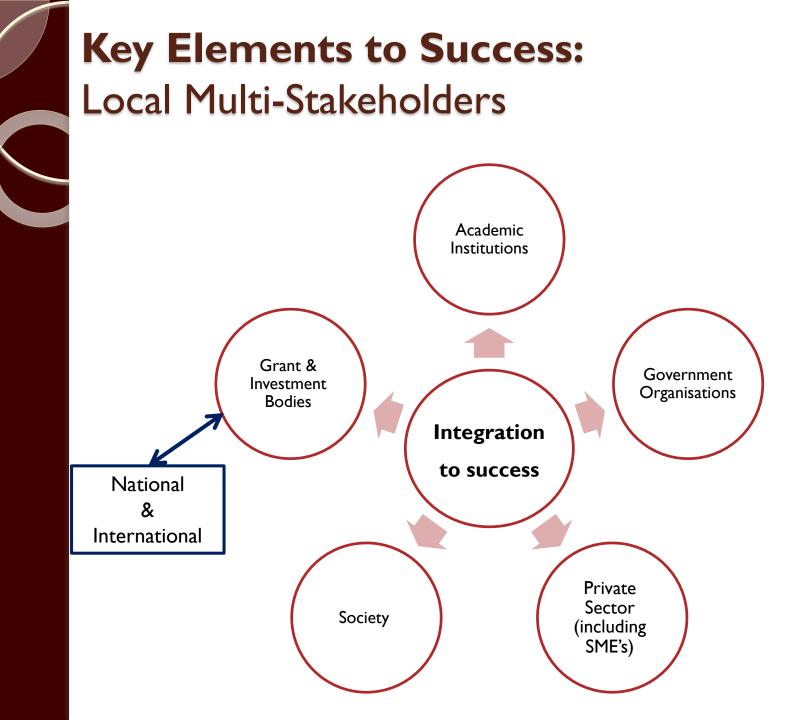
Future Disruptive Technologies

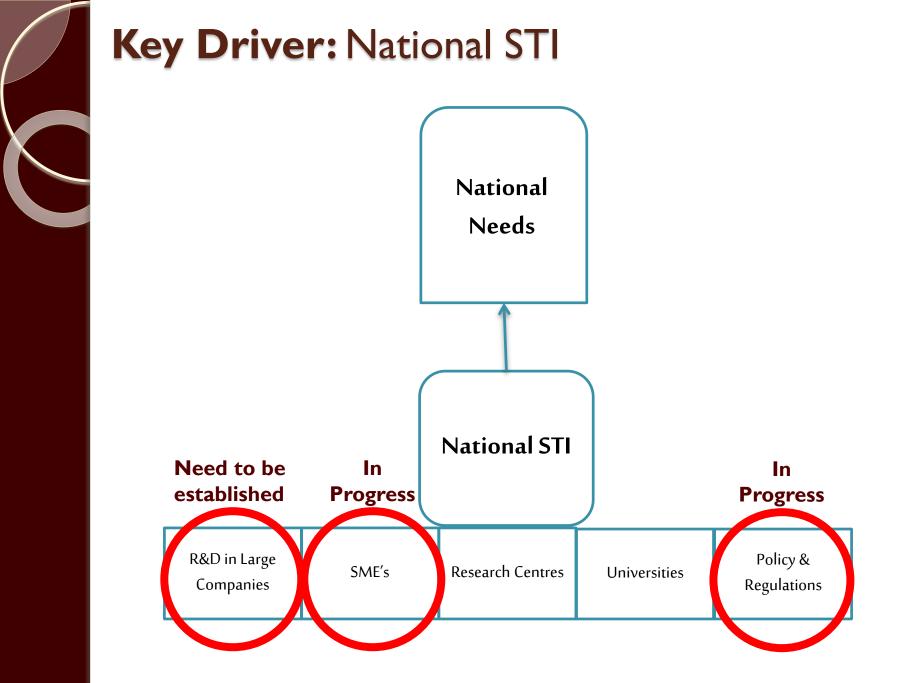
Mobile Internet		Automation of knowledge work	
Cloud Technology		The Internet of Things	
Autonomous and semi-autonomous Vehicles		Advanced Robotics	
Energy Storage		Next-generation Genomics	
Advanced Materials		3D Printing	
Renewable Energy		Advanced Oil & Gas ex recovery	ploration and
Context Awareness Technology		Wearable Technology	



Example: Hydrogen Storage (Fraunhofer Institute):



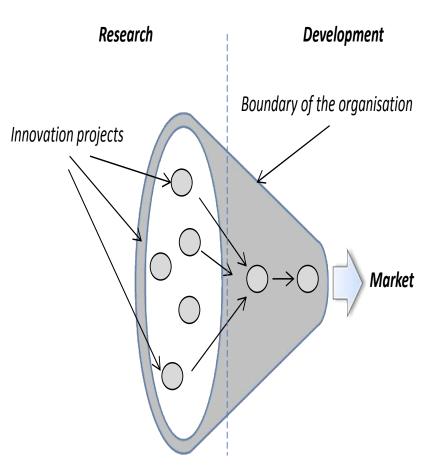




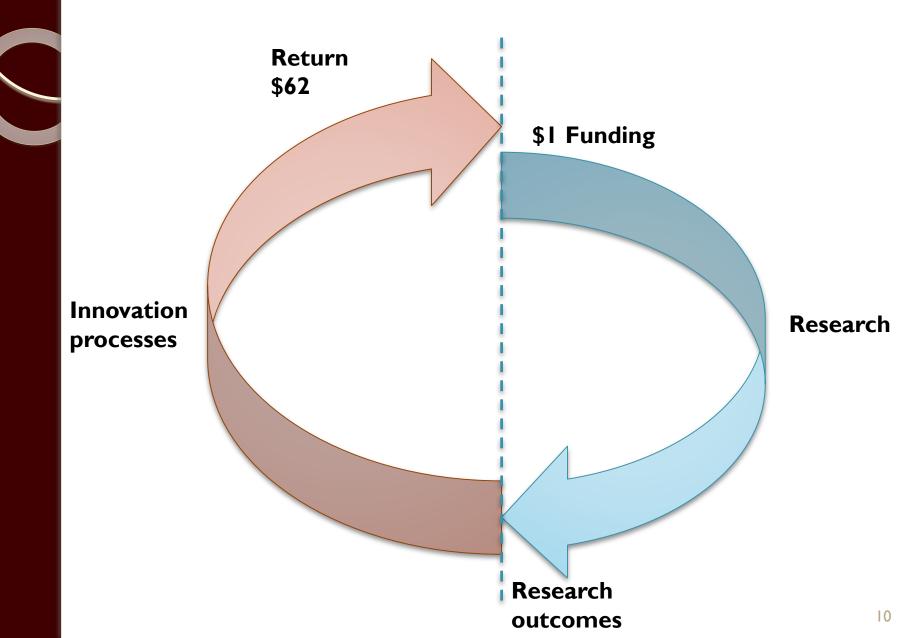


Closed Innovation System

- In the closed innovation paradigm the organisation must generate their own ideas and then develop them, build them, market them, distribute them, service them, finance them, and support them on their own
- > Enterprises are strongly self-reliant
- The dominant logic behind closed innovation was internally focused: enterprises invested in innovation, which led to many breakthrough discoveries
- The IP that arises from this internal innovation was closely guarded, rivals could barely exploit these ideas for their own profit
- Most theories and models to managing innovation are built on the close innovation conception
- Stage gate process
- Product development funnel
- Innovation pipeline model



Research & Innovation



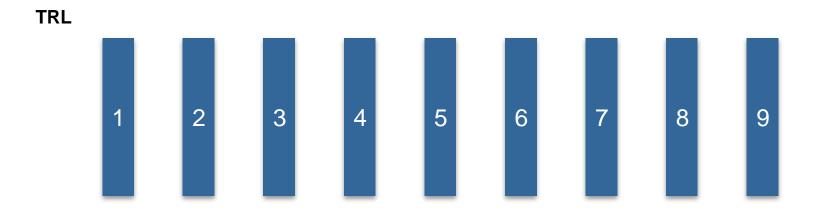


Innovation Process

Concept

Development

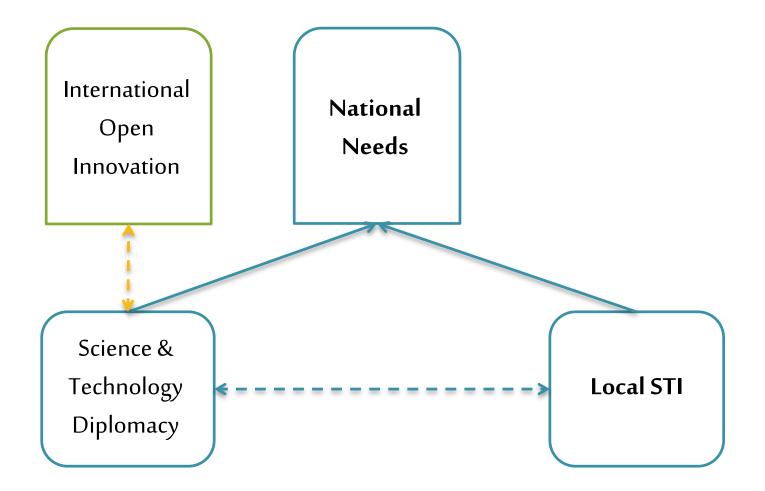
Commercialisation



Technology Readiness Level



How Would SKTT Support?





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