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Open Innovation Platform for Sustainable Cities-
A paradigm shift in international collaboration

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Topics:

Sustainable Built-Environment

Open Innovation Platform

A Case Study: Masdar- Siemens partnership

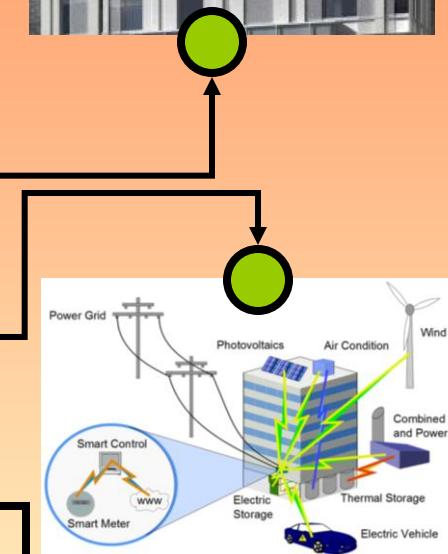
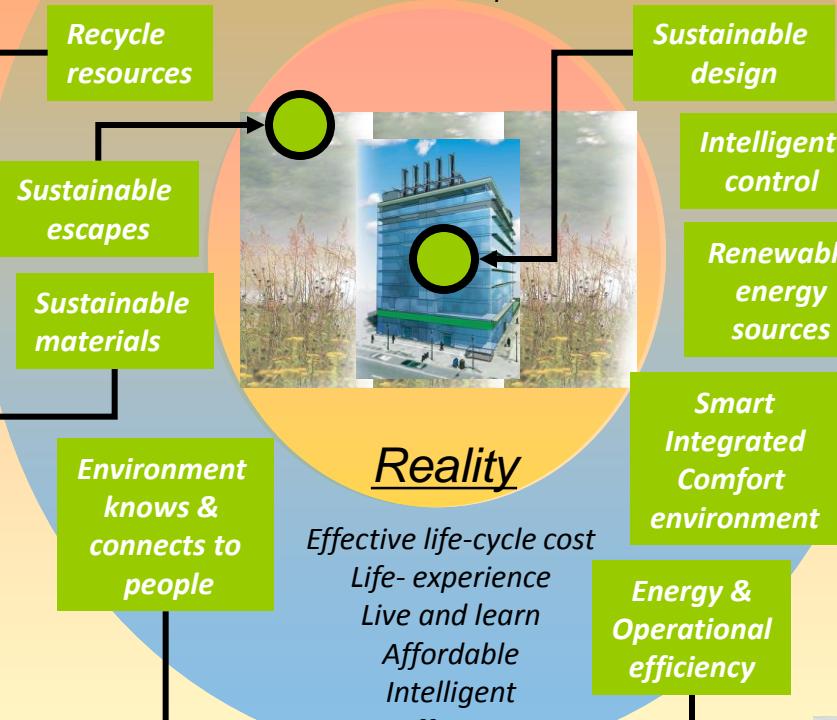
Cultural issues- a general observation

A Sustainable City

Philosophy

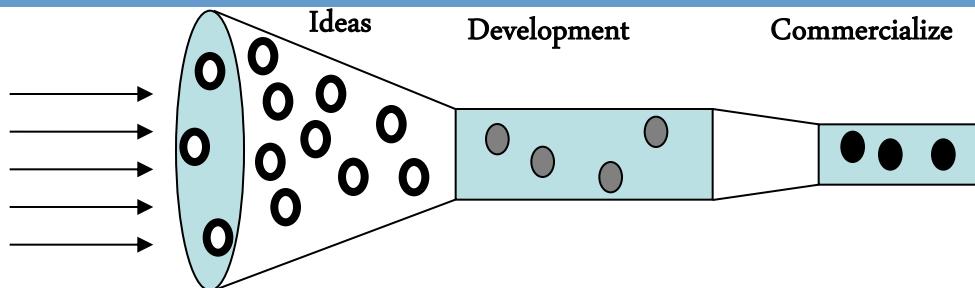
Understand what nature provides you
 Do not consume more than what you need
 Learn from nature
 Strike a balance between nature and human
 Harmonize relationship with nature

Photo-chromatic glass with smart facade



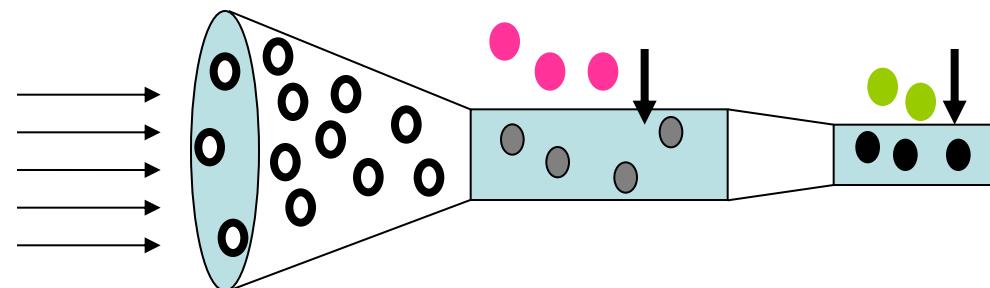
- Closed Innovation

- External inputs
- Internal ideas
- Internal development of technologies
- Requires large internal R&D
- Successful in 80s and 90s



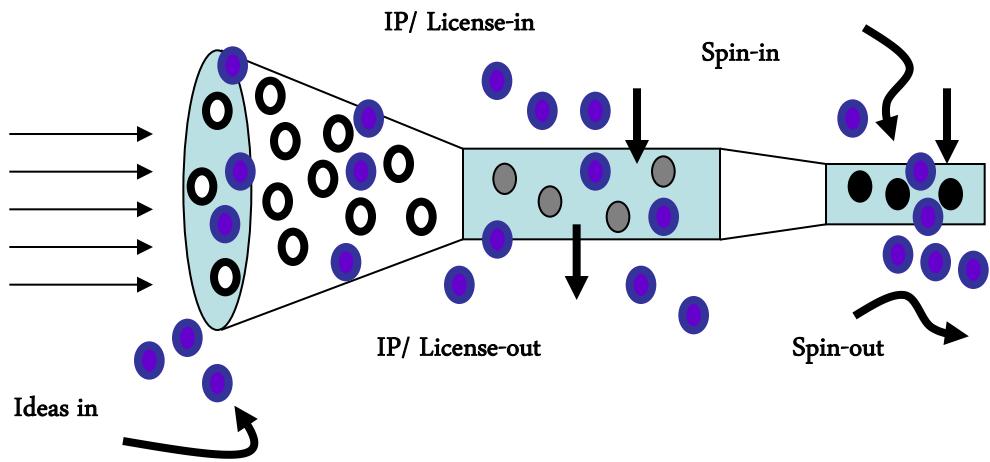
- Open collaboration

- External inputs
- Internal ideas
- External technologies or products
- Internal adaptation
- Successful in 90s and 00s



- Open Innovation- Connect & Develop

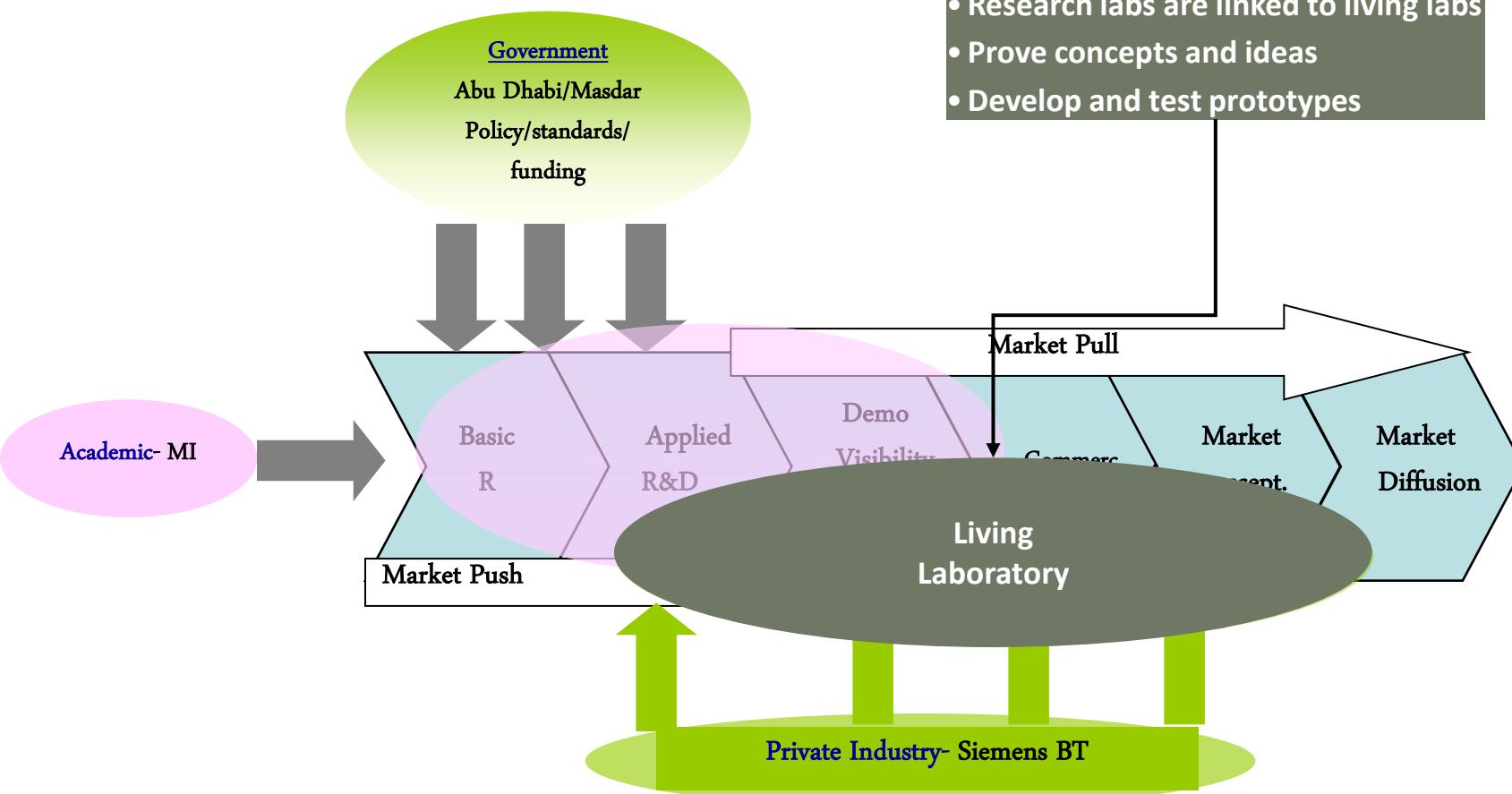
- Innovation acceleration
- Collaborative funding
- Greater pool of external invention
- New revenue stream- license, spin-off
- Successful in 00s and 10s



Open Innovation Network⁵- PPP Collaboration Model

Benefits:

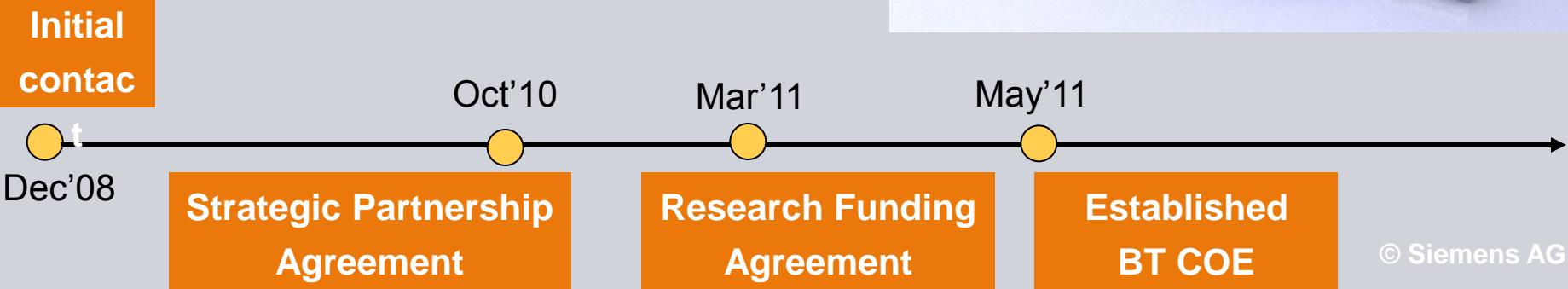
- Increase innovation capacity
- Accelerate Innovation
- Leverage on Govt. funding
- Create Market pull
- Specially suited to sustainable built- environment



Strategic Partnership focus: Smart Grid/ Smart Buildings

Siemens AG and Masdar Agrees to:

- Establish a long term strategic partnership
- Implement an innovative power grid combined with advanced building technologies
- Create a Living R&D Platform
- Establish a Centre of Excellence in Building Technologies

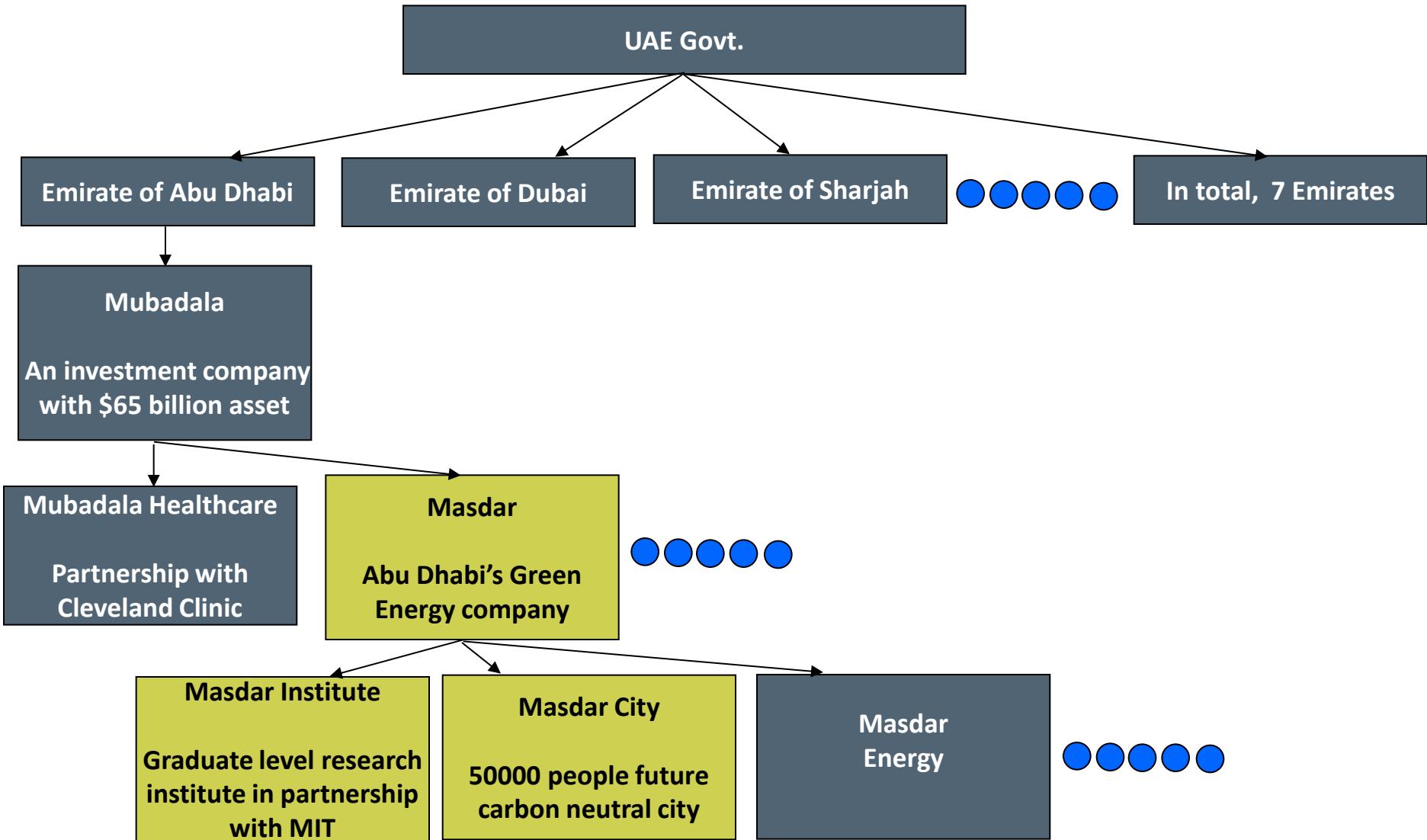


Project Location: Masdar City, Abu Dhabi, UAE.

- Next to Abu Dhabi Airport
- About 70 miles from Dubai



Masdar Corporate Hierarchy



Siemens AG

Focus:

- Strategic Partnership
- Research Funding

Masdar Corporate

Focus:

- Strategic Partnership
- Investment

CCS*= Carbon Capture & Storage

Medium Voltage Network

Focus:

- Commercial offerings
- Partnership

Smart Grid

Focus:

- Commercial offerings
- Research Funding

Energy: CCS

Focus:

- Research Funding
- Partnership

Siemens- Masdar



Strategic Partnership

Building Technologies Division (BT):

Focus:

- Open innovation platform.
- Living Laboratory
- Collaborative research investment
- Commercialization of research results
- Research Funding
- Commercial offerings

Masdar City

Focus:

- Infrastructure
- Open Innovation Platform
- Investment

Masdar Institute

Focus:

- Research
- Commercialization
- Funding

Masdar- Siemens Building Technologies Collaboration model

SIEMENS

**Siemens
Building
Technologies**

**Open Innovation
Platform**

- Real and live experimental platform
- Migration from research to living laboratory
- Coupled with BT's commercialization process
- Collaboration with external synergistic partners
- Full transparency
- Live , learn and share

Ideation/Research

Commercialization

Innovation hub

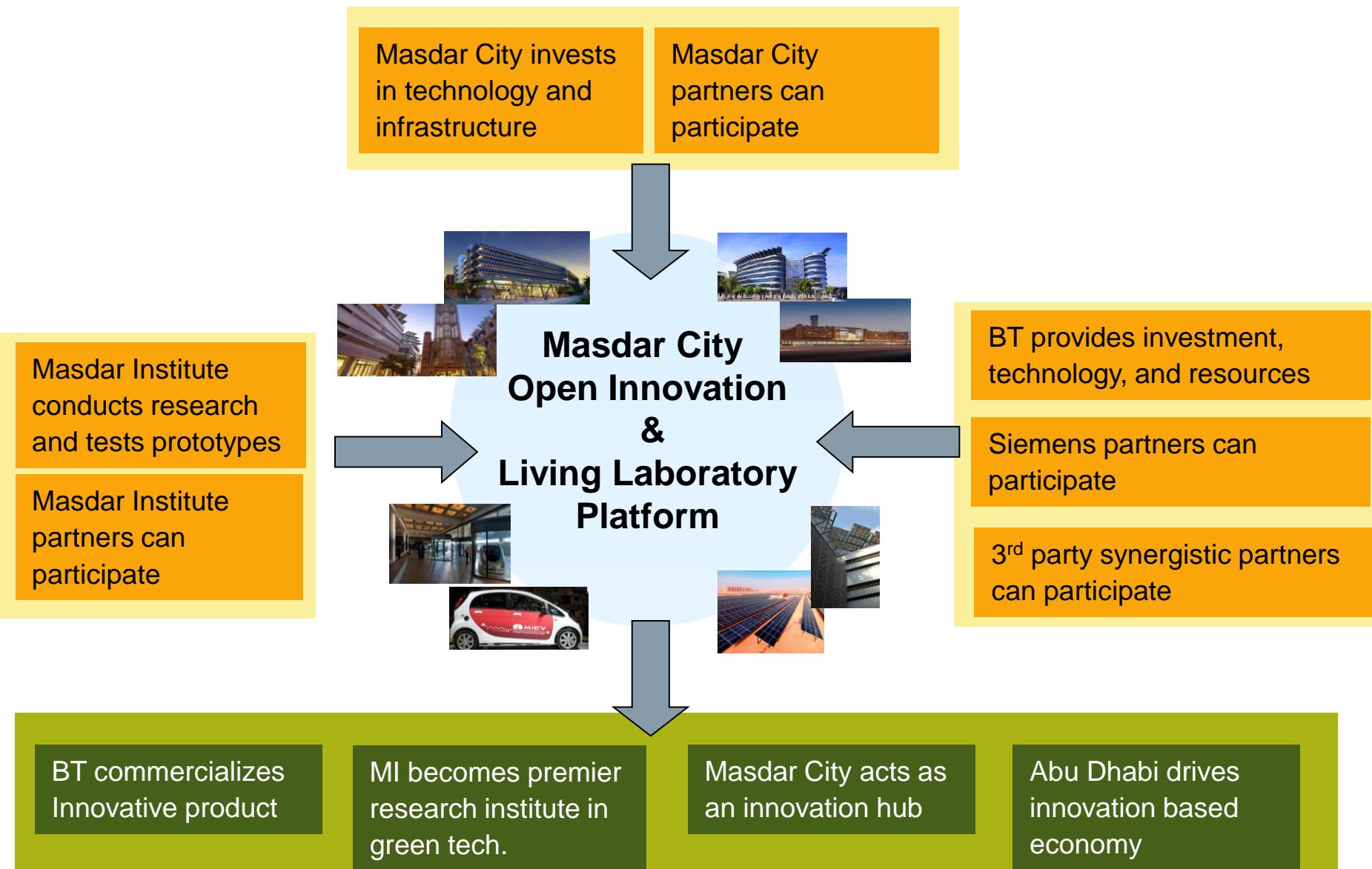
**Masdar
Institute**

Development

Masdar



Siemens BT- Masdar Collaborative Investment Model:



Lessons Learnt- cultural aspects:

Legacy Culture:

- **Mostly challenges are noted for an Open Innovation Platform**

Technology Partner

- Technology Excellence
- In-house R&D mindset
- Organizational acceptance
- Leadership continuity
- Commercial value
- Individual BU goals
- Proper investment
- Risk averse
- Cost sensitive
- IP Rights belong to funding agency

Government Partner

- Consumer/commercial excellence
- ROI driven
- Hierarchical organization
- Lack of innovation experience
- Risk averse
- Short-term focus
- Proper resources

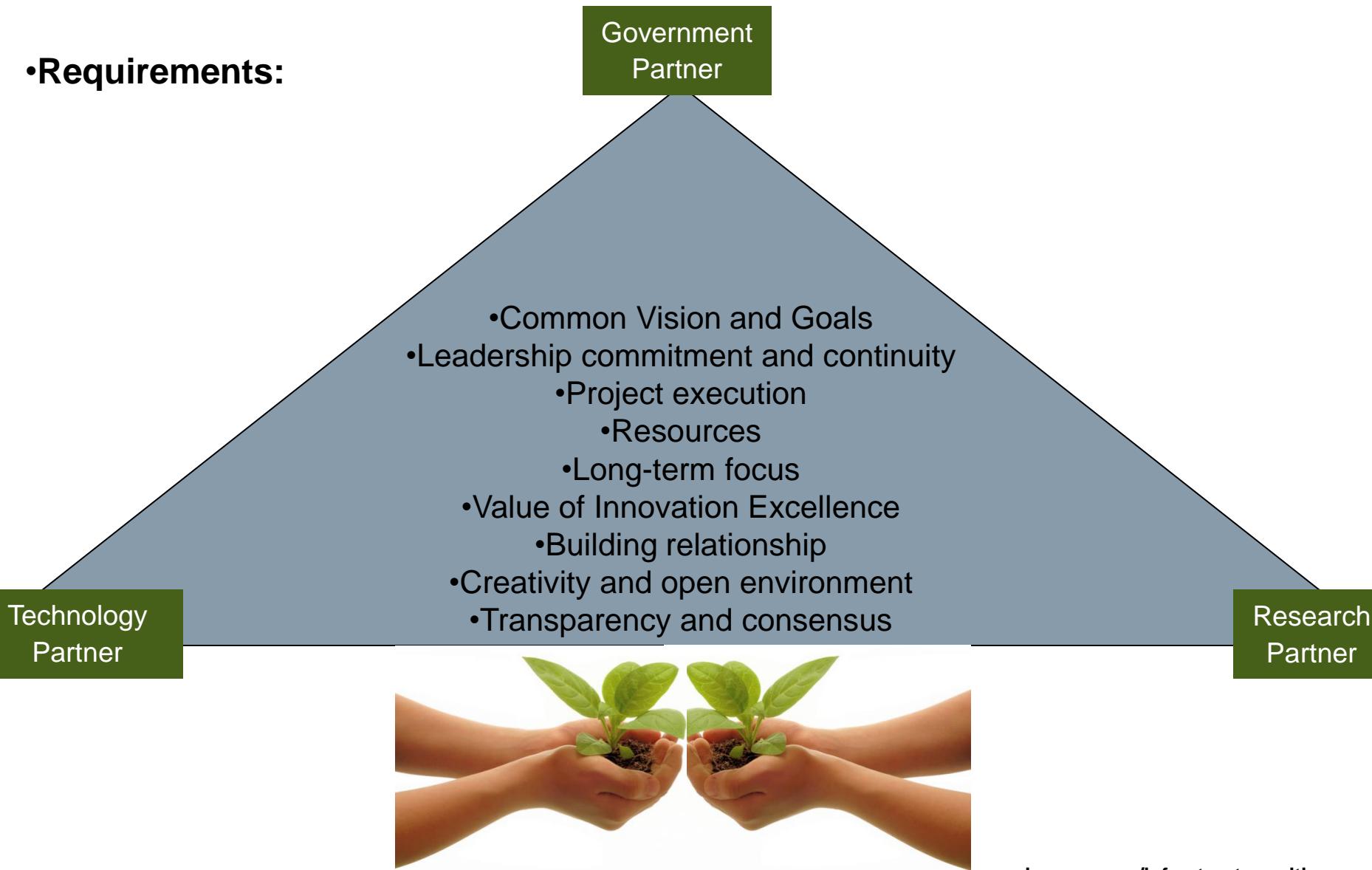
Research Partner

- Research excellence
- Funding driven
- Mis-match between expertise and research focus
- Not exposed to commercial constraints
- Proper student resources
- Project discipline
- IP rights belong to the researcher

Lessons Learnt- cultural aspects:

Collaborative Innovation Culture:

• Requirements:



Thank You!

References:

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