

Future Energy Transition: Innovative clean energy technologies need innovations for penetrating sustainable market

Prof. J. Yan

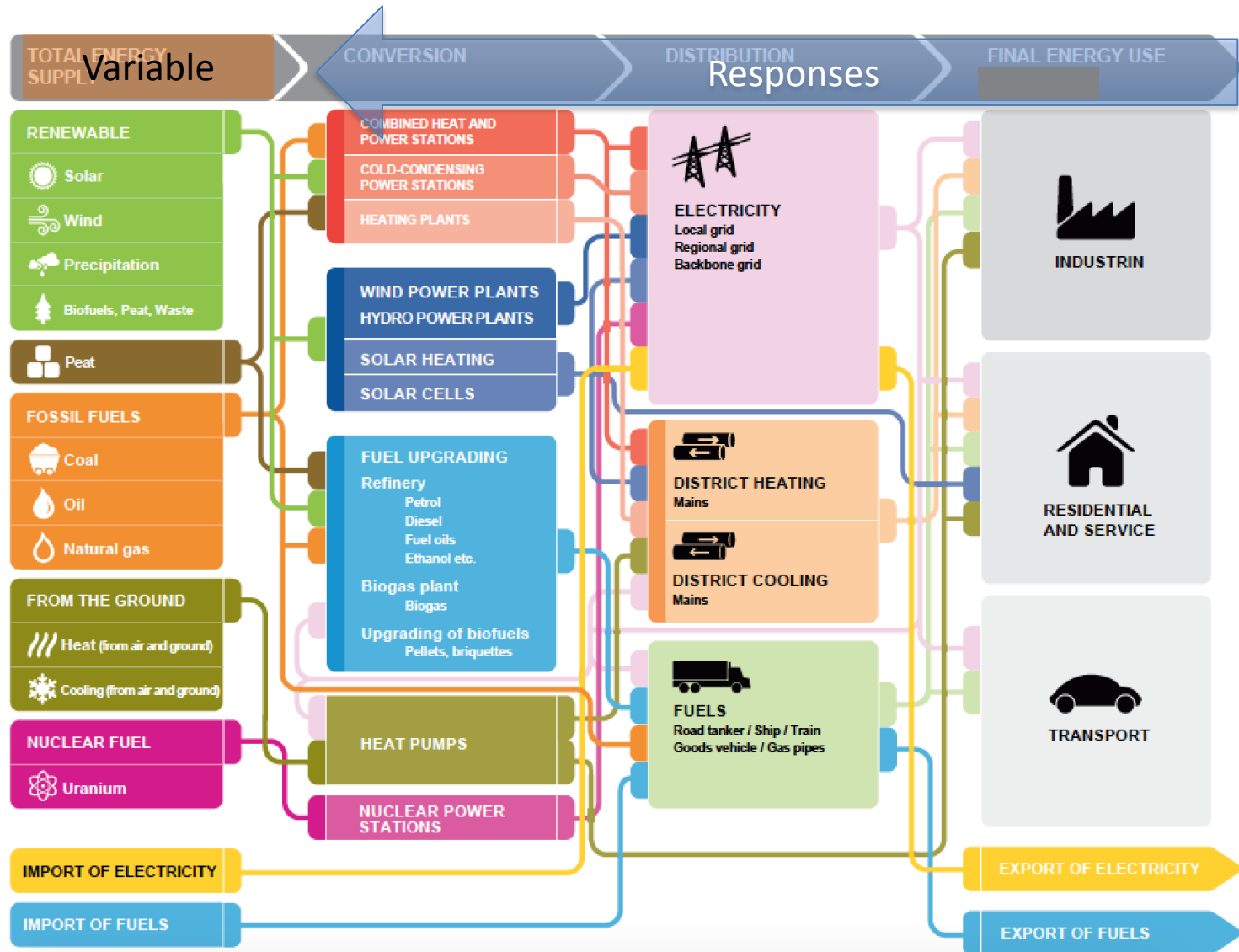
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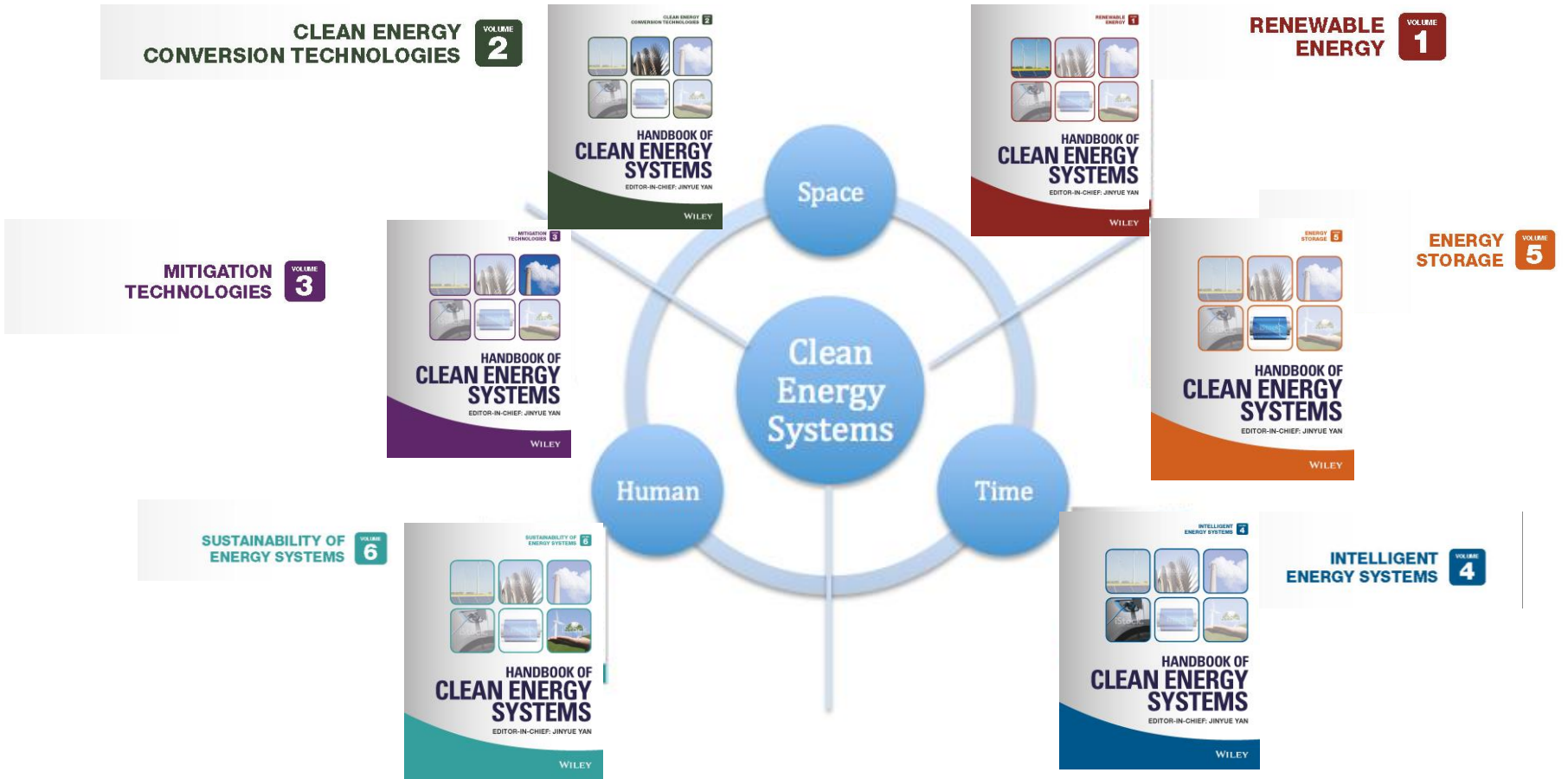


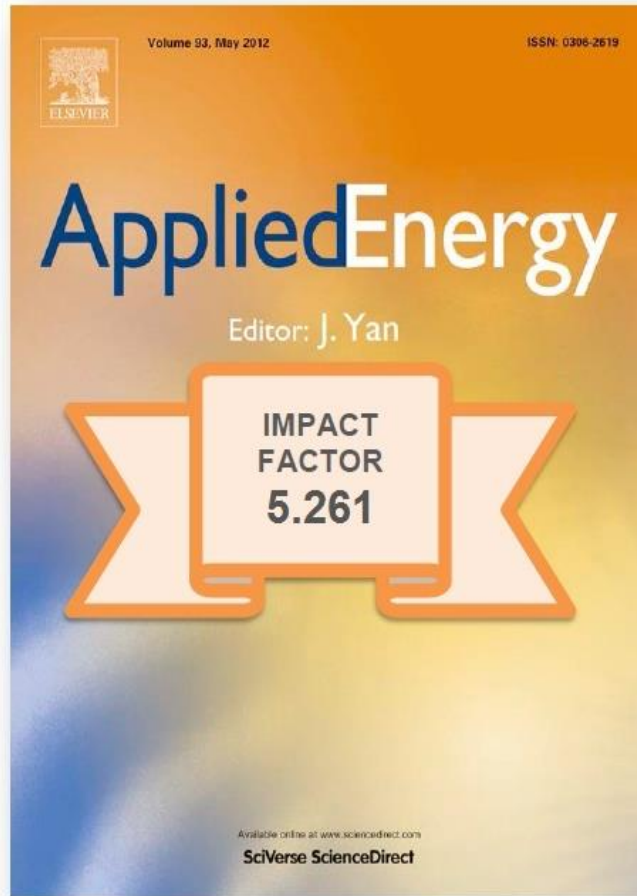
Transitions of energy systems → cleaner?



Clean Energy Systems 3D+?

Resources → Generation → Distribution → End uses

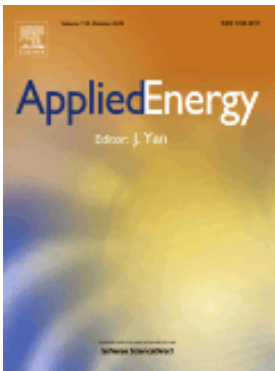




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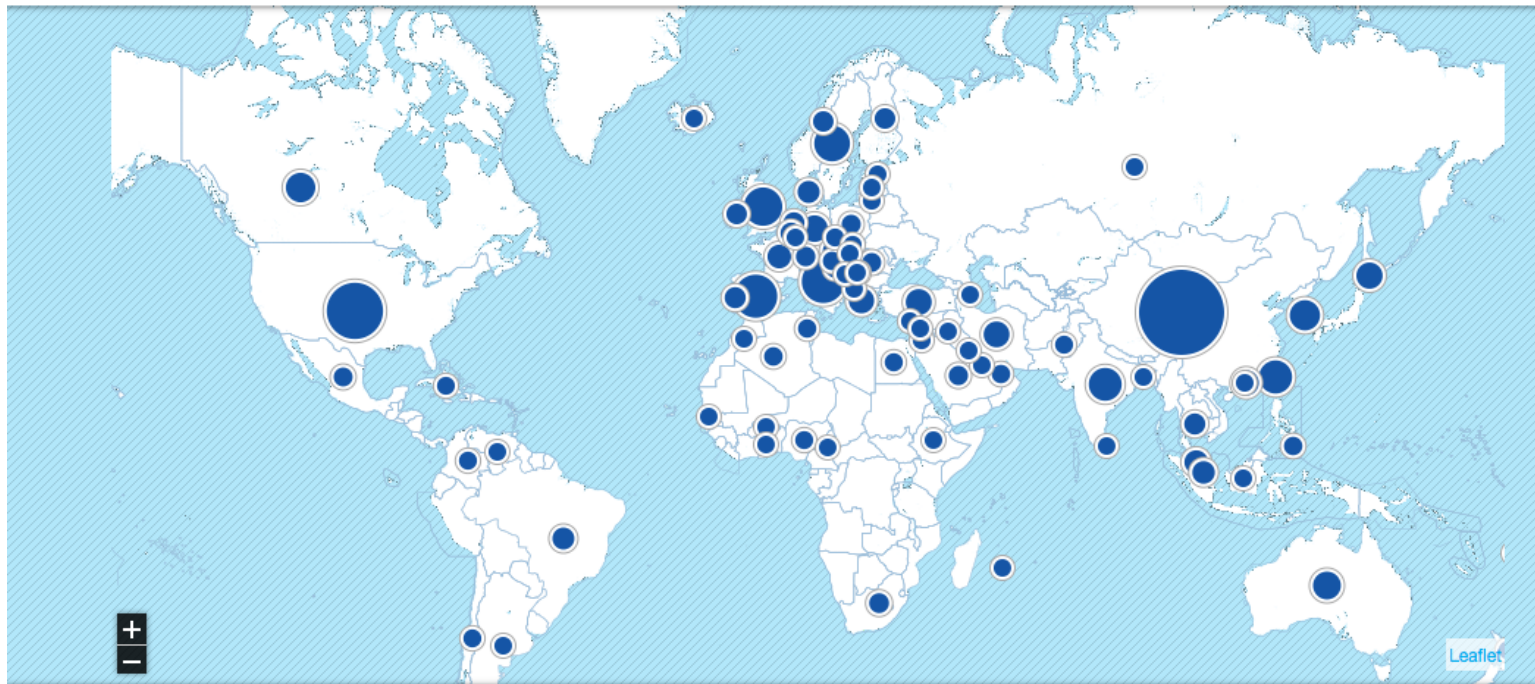
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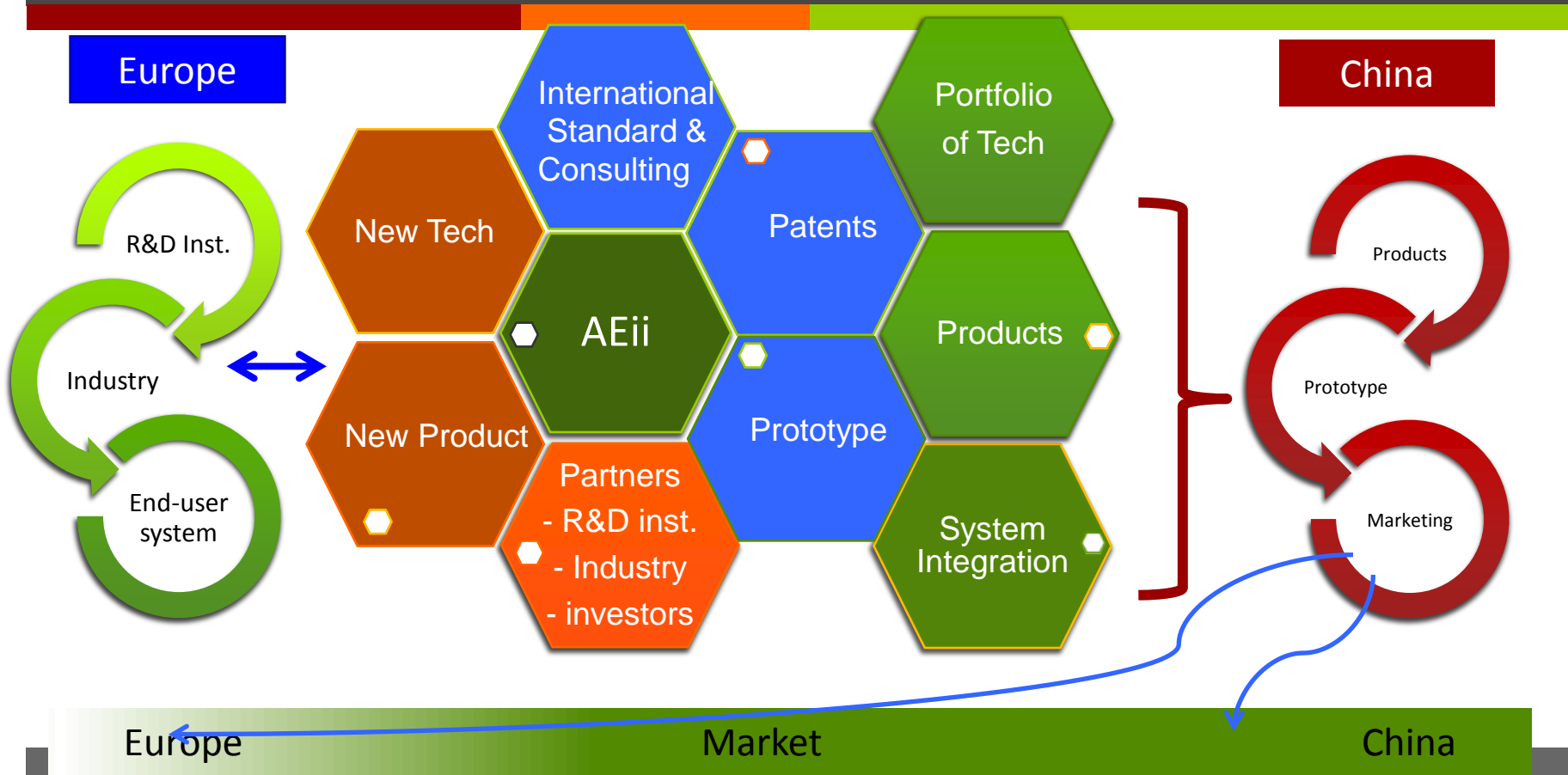
Scope

Business Model

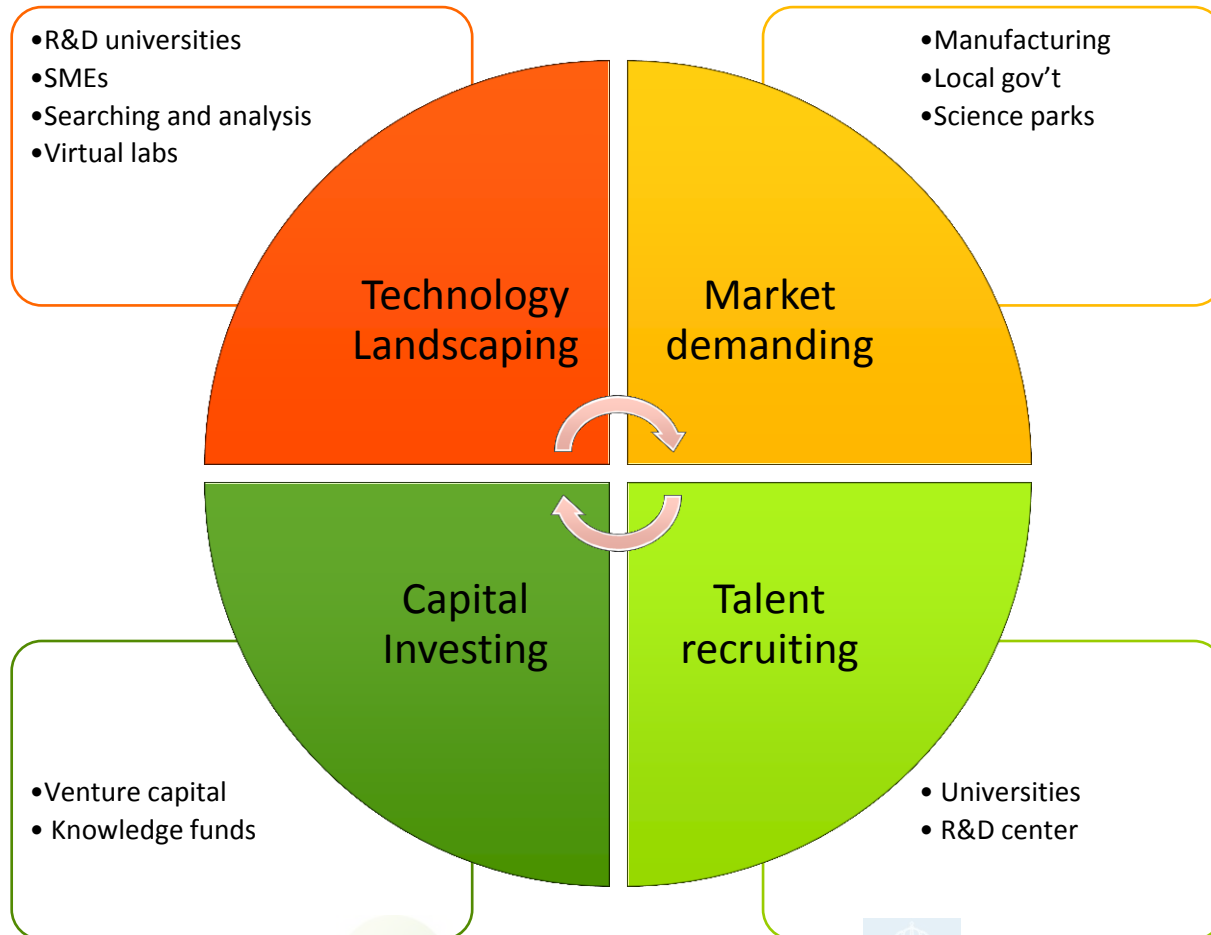
Process

International Network

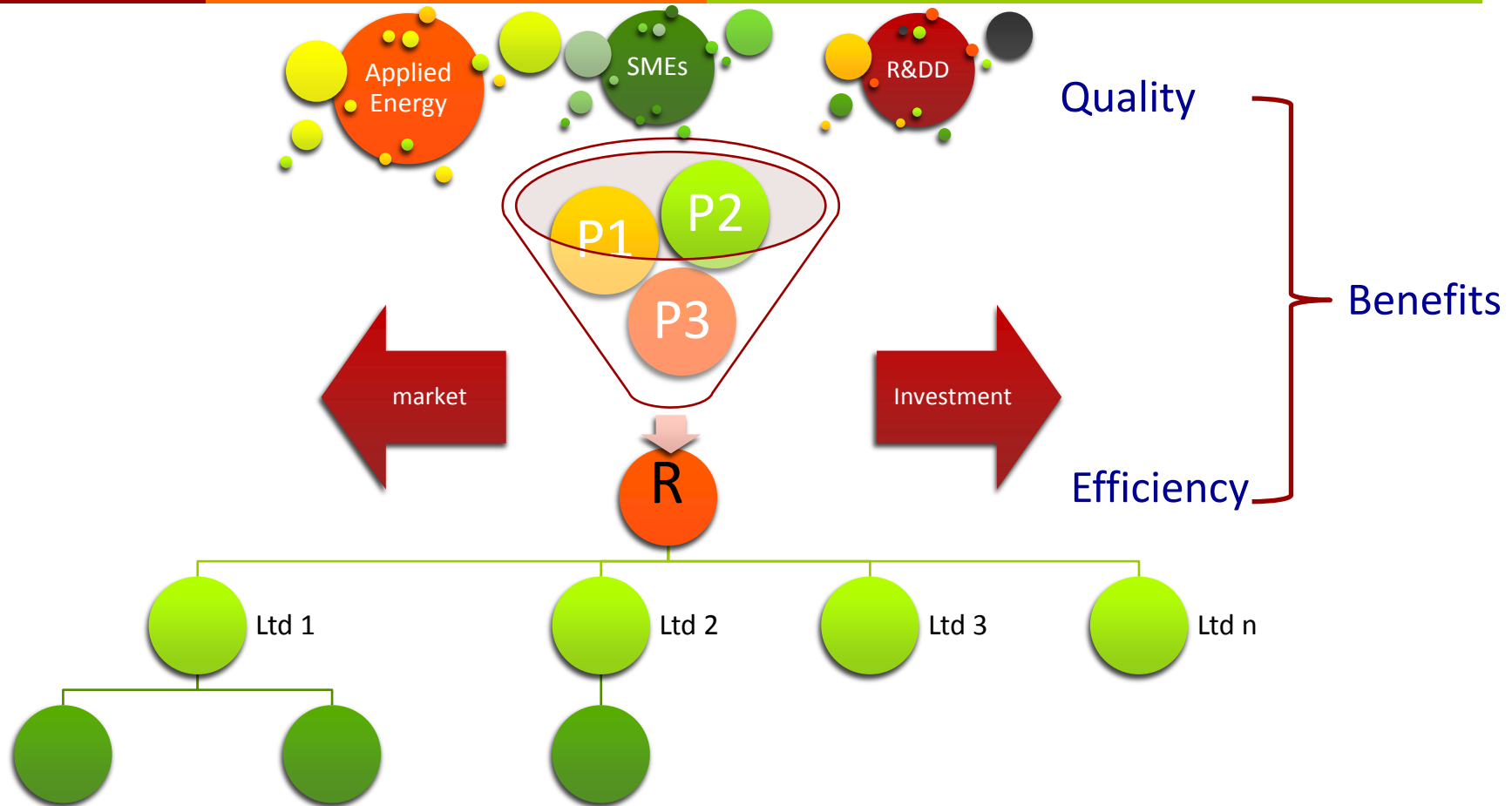
Scope of AEii

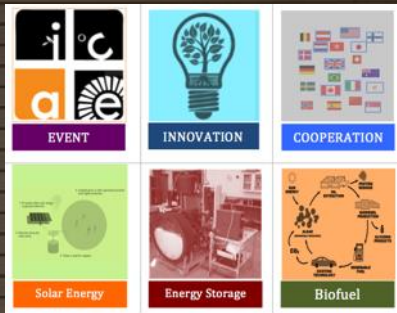


Multi-dimension matching



Win-Win business model: Non-profit + spin-off





Applied Energy Innovation Institute:
Global strength with local focus

Global strength:

- Over 20,000 international experts in Applied Energy network
- Frontline of clean technologies & innovations
- Close cooperation with European Small and Medium Enterprises (SMEs)
- Collaborative creativity

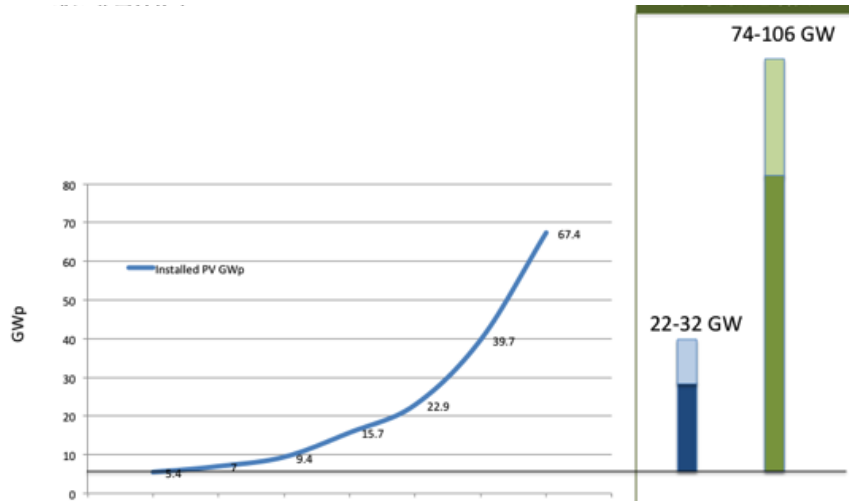
With Local Focus:

- Physical hub/incubator with international standard service
- Matching the market needs
- Strong local manufacturing capacity
- Joint efforts with Investors
- Cooperation with local governments and other stakeholders

Solar PV Water Pumping for ecological conservation of grassland

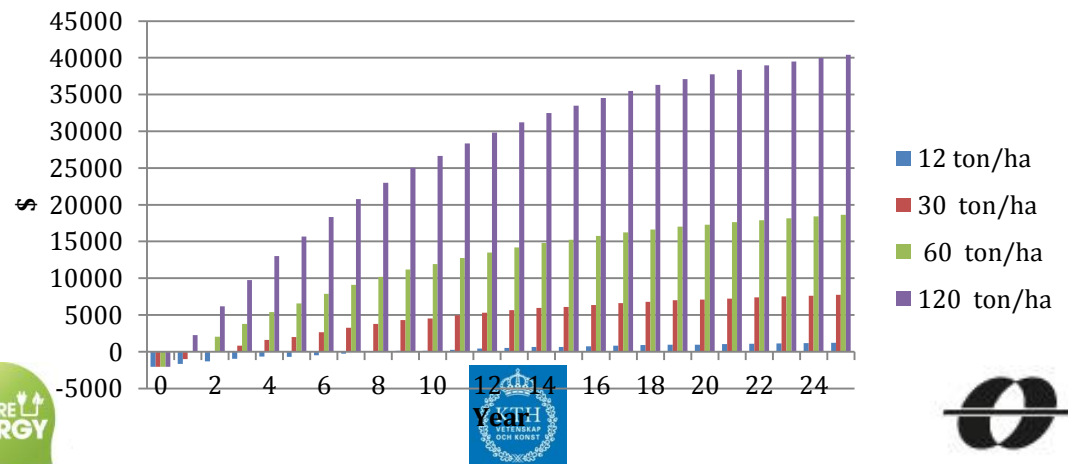


Market Potential and Cashflow



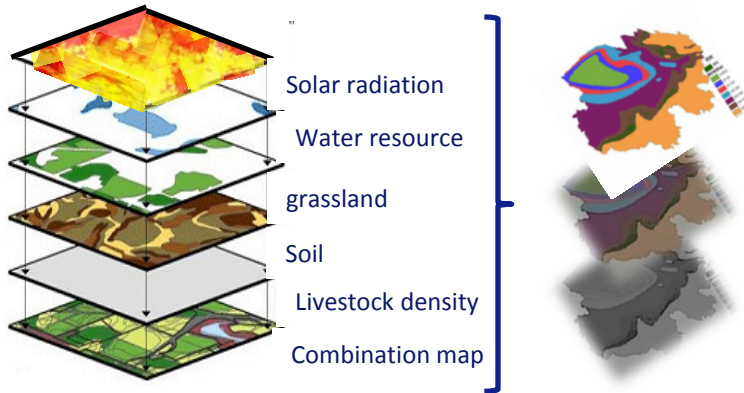
1% of grassland → irrigated grassland:
 PVWP Market potential =
 global PV total installation capacity (2013)

Payback time

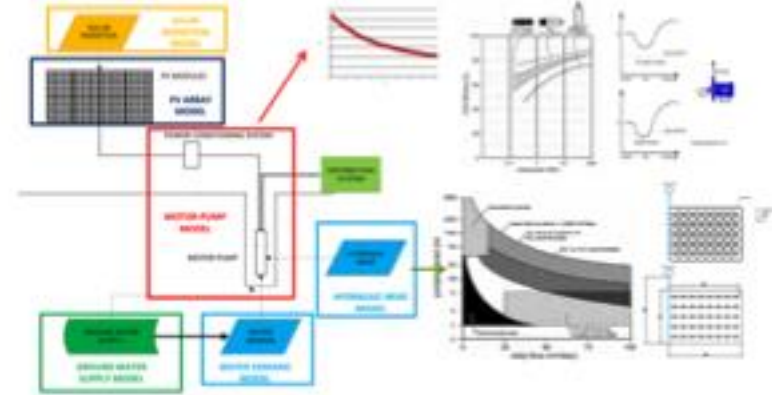


Module Integration

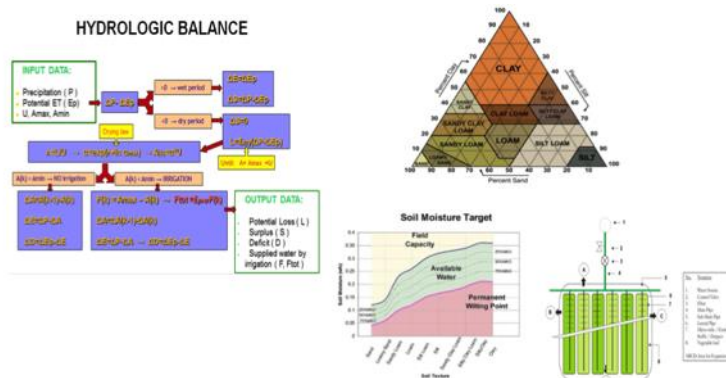
Module 1: PVWPMapping



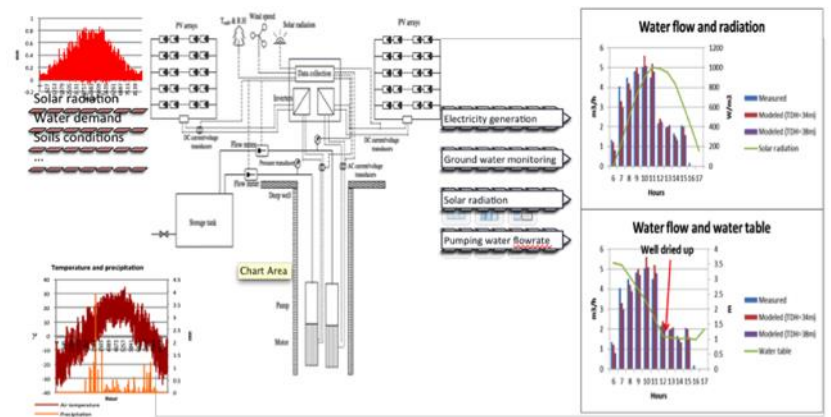
Module 2: PVWPSim&design



Module 3: PVWPIrrig



Module 4: PVWPMon&cont



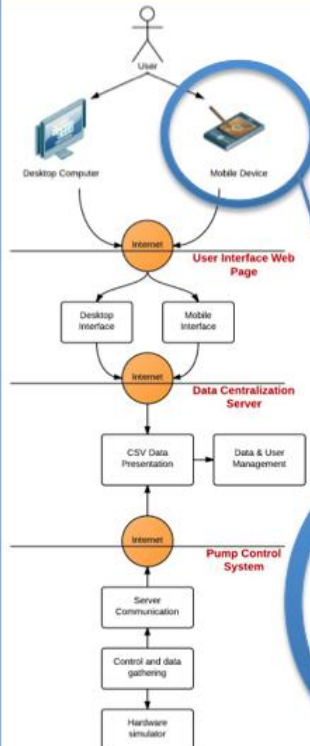
Integration of business model with ICT and social network

Sustainable Business Model

is different from the traditional investment but integrate more stakeholders to actively engage the ecological investments by using remote data access and interaction design to visualizing the impacts of the stakeholders' participation

IT Integration

- end-user communications
- web-communication
- onsite database
- data remote access
- central database
- remote control
- data processing and optimization simulator



Interaction Design Integration

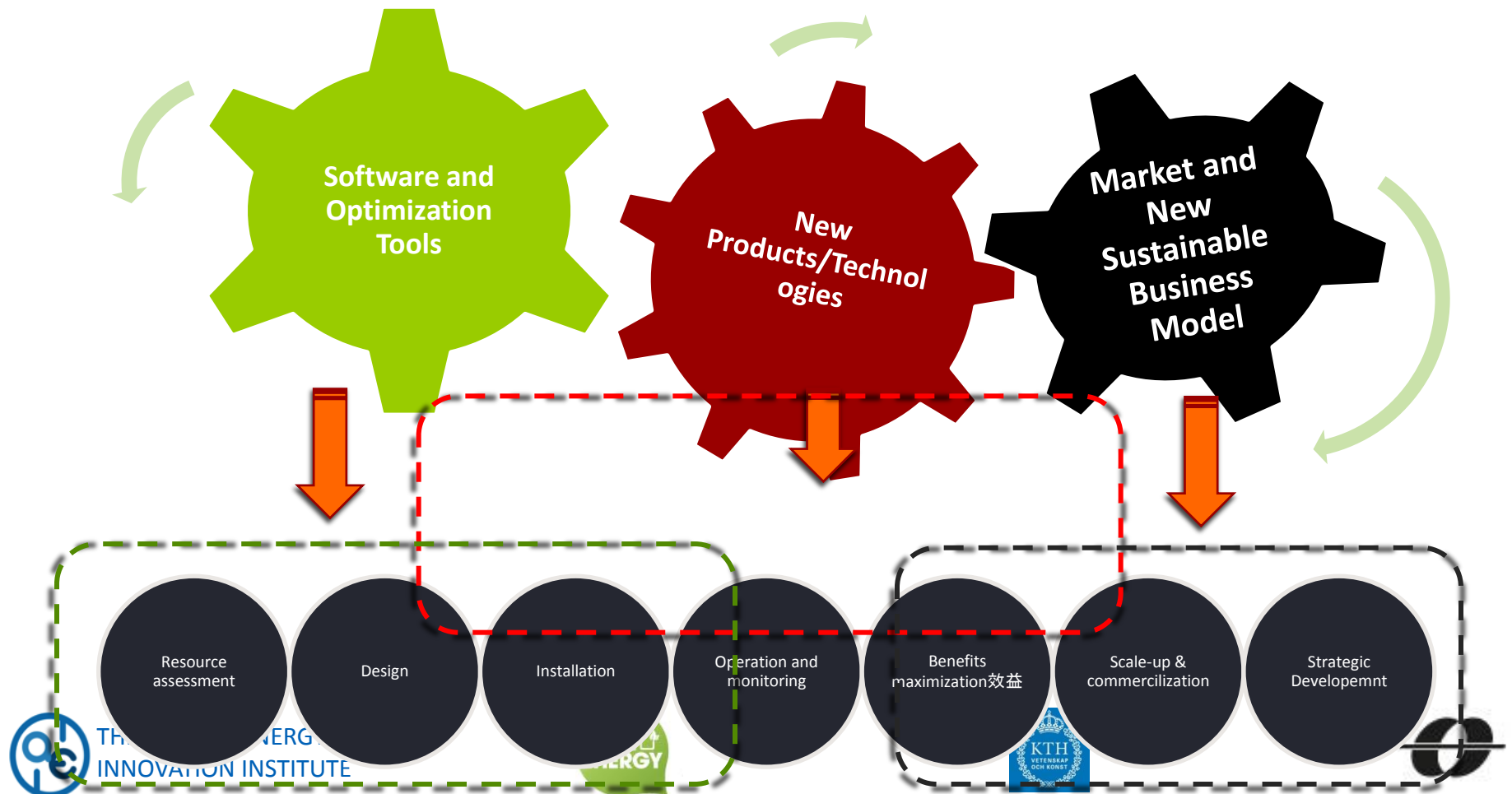
- Visualization of operation performance
- Interface tools for users
- Dissemination & promotion for investors
- Online visualization for social media network



VB Design tools



System Integration and Innovation





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Thanks

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