



**Clean-tech Innovation for  
Low Carbon Growth-  
The UNIDO's Perspective  
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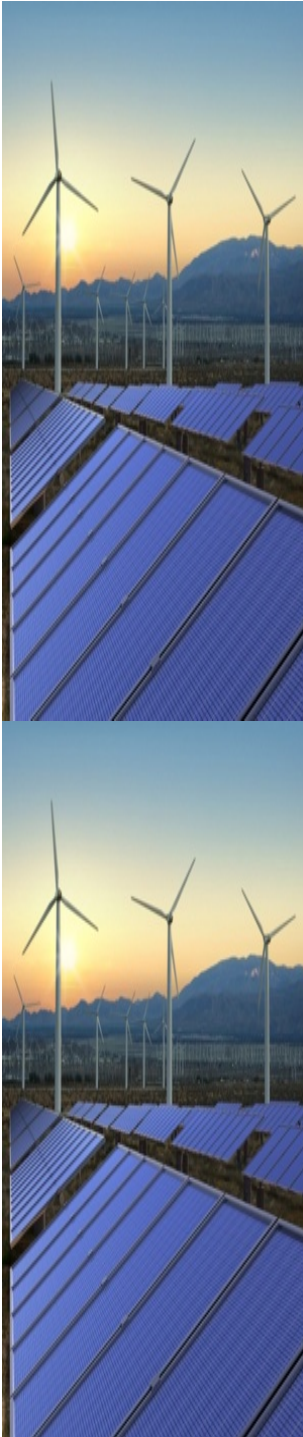
# UNIDO's Mandate

**Providing Integrated Clean Energy Technology Solutions  
for Enhancing Productive Capacities of Enterprises:  
Promoting Green Industry**

- **Industrial Energy Efficiency**
- **Renewable Energy for Productive Uses**
- **Low Carbon Technologies**

**FOCUS on Technology Innovations,  
Diffusion and Absorption**





## **UNIDO's Focus on Clean Technologies in SMEs**

- **Technology Needs Assessment**
- **Technology Benchmarking**
- **Technology Transfer Pilot Projects**
- **Dissemination of Best Practices for Scaling up Impact**

# Clean Technology Innovations - A Snapshot



Country	Counterpart	Absorption Capacity	Current level of clean technology development	UNIDO's Comparative Advantage
India	Ministry of Micro, Small and Medium Enterprises ; FICCI	High	Medium	Local presence and on-going projects
Malaysia	MIGHT; MOSTI; MOHE; MNRE; Green Tech Malaysia	High	Medium	Local presence and on-going projects
Armenia	Ministry of Nature Protection; Ministry of Energy and Natural Resources	Medium-High	Low-Medium	Local presence and on-going projects

# Clean technology innovations: Construction and Transportation



**Construction:** Green building technologies focus on reducing the environmental impact of building construction or operation.

- Improved design or construction practices and standards
- New or innovative use of building materials
- New hardware or software applications for planning

**Transportation:** Clean technologies focus amongst others on transportation and mobile technology applications.

- Improve fuel efficiency
- Reduce air pollution
- Reduce oil consumption
- Reduce vehicle travel
- Promote ISO Standards

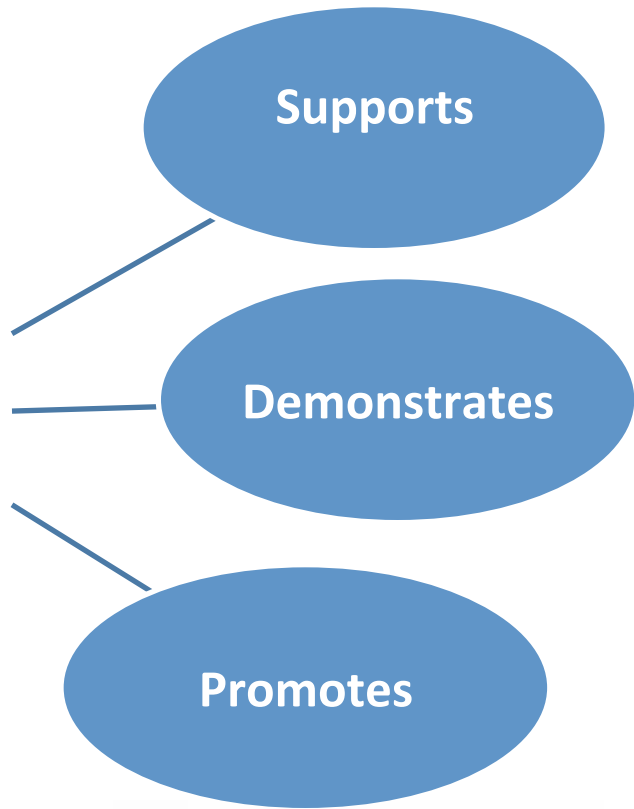
# UNIDO's Experience in Hydrogen Energy Technologies



**Fuel cell forklifts**



**The Ecocaravan**



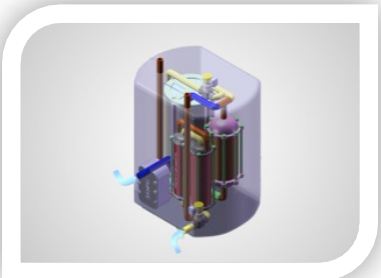
**Bozcaada Island community powering**



**3-wheeled fleet in New-Delhi**



**Fuel cell testing lab**



**Combined heat and power unit**



**Hydrogen boats**



**Uninterruptible power supply**



# Clean Technology Innovations for Resource Efficiency and Pollution Reduction: Air, Water and Waste

## Technologies focusing on improving resource availability, conservation and pollution control

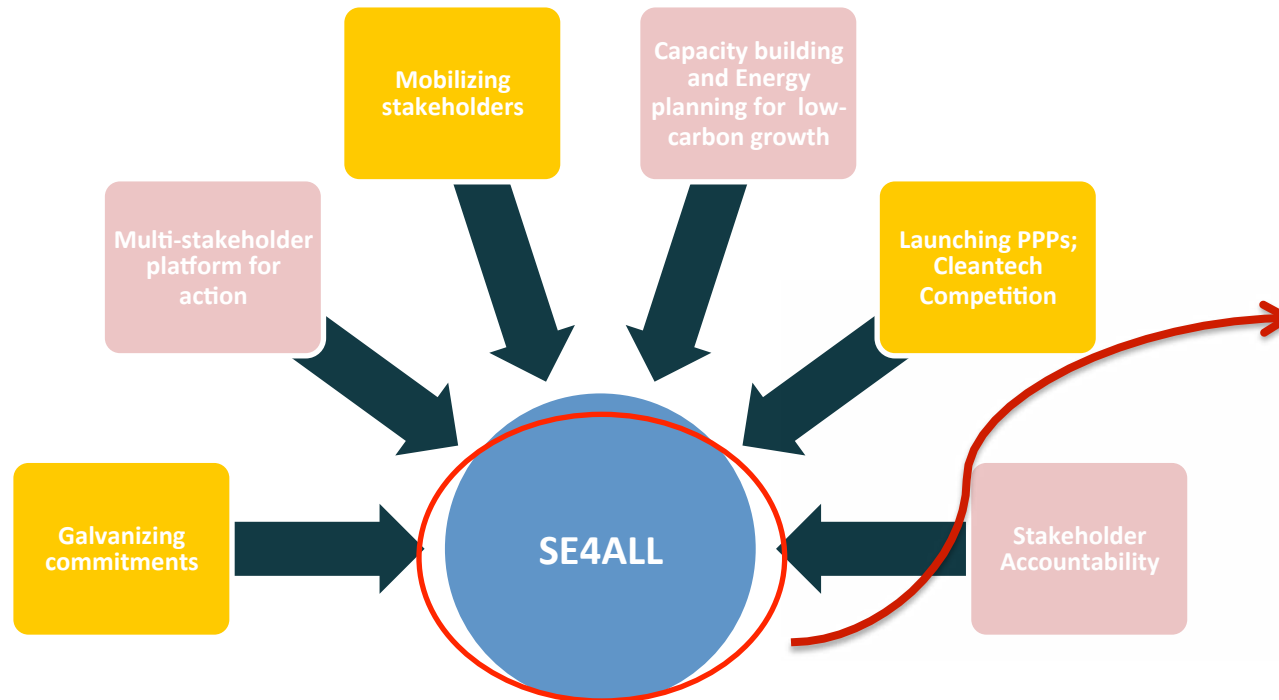
- **AIR:** Services, instruments and equipment related to emission control, treatment or reduction technologies, creative approaches to greenhouse gas reduction, including carbon conversion and sequestration.
- **WATER:** Treatment, storage and monitoring, recycling, pollution reduction and conservation technologies.
- **WASTE:** Cradle-to-cradle approaches promoting technologies for waste reduction, reuse and recycling, as well as innovative business models and approaches to efficient materials usage and reduction in toxic contamination.

### Technological Innovations examples:

- \*Advanced filtration without membranes
- \*Storm-water and flood control, rainwater harvesting
- \*Reduction and remediation of VOCs
- \*Bio-based packaging solutions
- \*Carbon capture and storage

## SE4ALL: A Vision for 2030

A global initiative for accelerating progress for energy access, while improving energy efficiency and scaling up renewable energy



- **Universal Energy Access by 2030**
- **Double Energy Efficiency by 2030**
- **Double Share of RE in Global Energy Mix by 2030**

Among others, highlighting significance of clean energy technologies innovations at the RIO+20





Thank you

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