



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO Regional Office in India



SUSTAINABLE DEVELOPMENT GOAL 9
INDUSTRY, INNOVATION AND INFRASTRUCTURE

UNIDO Energy and Environment Portfolio

SAMEEEKSHA Event



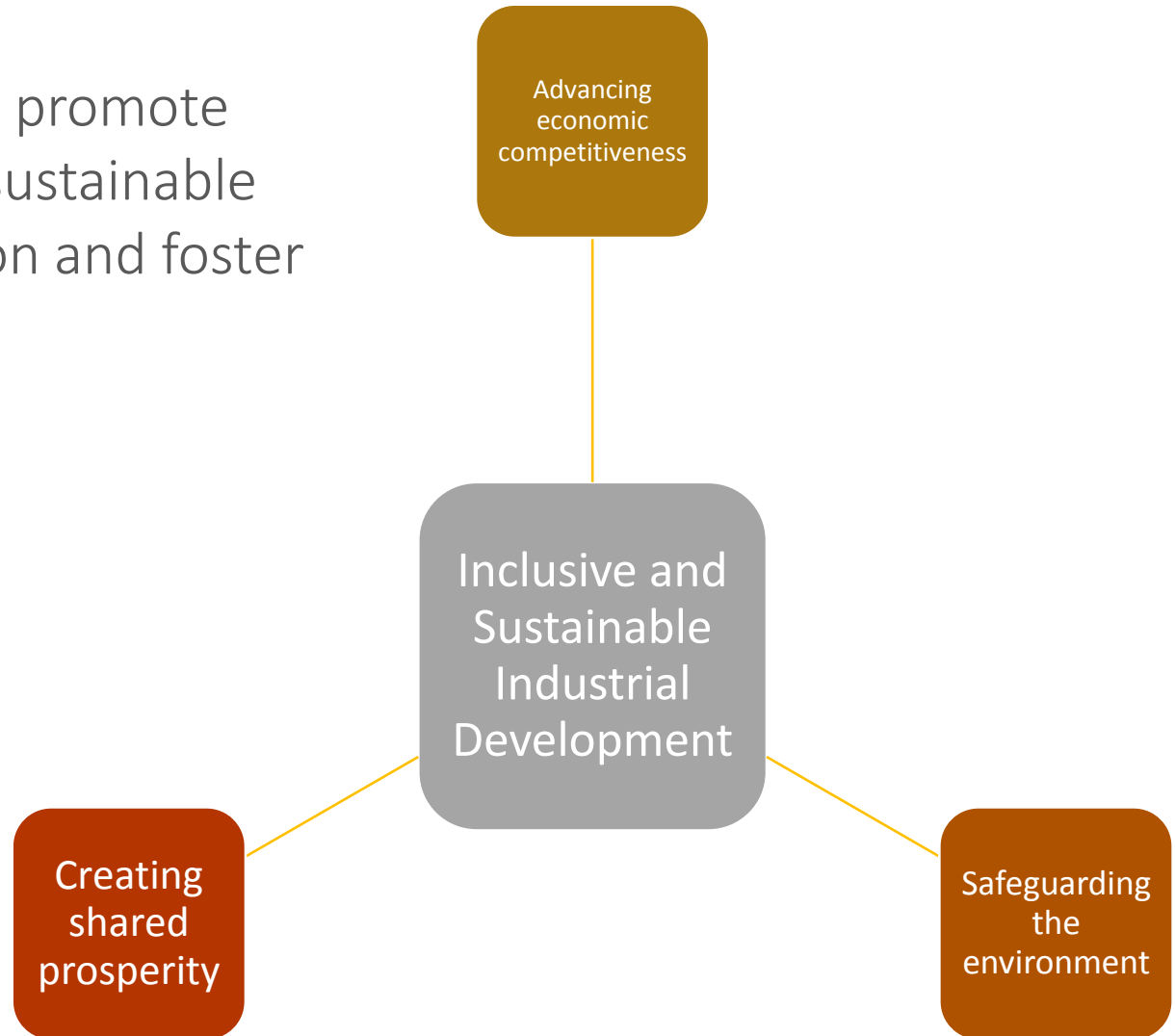
12 January 2019





Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Factories that are fit for the future, as were already needed yesterday



Energy and Environment Portfolio in India

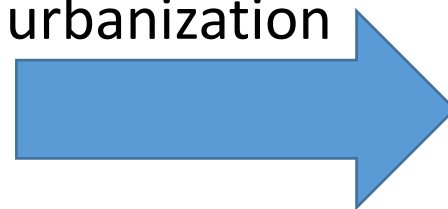
Energy Efficiency

Renewable Energy

Cleantech
Innovation &
Entrepreneurship

Chemicals and
Waste

Convergence of
industrialization and
urbanization



Sustainable Cities

Hubs of Innovation, Low Carbon
Industrialization and Climate Action



Industrial Energy Efficiency

1. Significant – yet unquantifiable - untapped EE potential with multiple co-benefits (materials, water, waste, productivity, quality)

2. Three staged potential: *Fix – Improve – Innovate*; each requiring specific interventions

Energy Efficiency in 22 MSME Clusters

4. EE programme delivery at scale suffers from general deficiencies in the business support ecosystem

3. Lacking business case (or sense of urgency) and high transactional efforts impede EE uptake in MSMEs



Belgaum, Coimbatore, Kerala, Vellore



Renewable Energy in Industry

(Internationally) proven technologies with good potential for industrial applications in select sectors



1. Estimated market potential 6.5 GWth in India (solar thermal heat application up to 400°C)
2. Customization and system integration pivotal to technical and economic success



1. Potential estimated up to 5200 MWh in India
2. Bio-methanation relatively flexible technology, with potential for valuable by-products
3. Organic waste supply chain pivotal to technical and economic success



Environmentally Sound Management of Chemicals and Wastes

POPs



PCB Waste
@CPRI, Bangalore



Biomedical
Waste
@Karnataka



DDT
alternatives

Complex technologies, with high investments, environmental risks and long construction and installation period

Customized environmental/waste regulations to be developed and implemented

End-users/waste owners largely unaware and need to be brought on board



Cleantech Innovation and Entrepreneurship

Facilitation of Cleantech Development and Deployment



ACCELERATOR PROGRAMME
Turning innovators into cleantech start ups



CHALLENGE PROGRAMME
Pulling research and technology development to low carbon outcomes



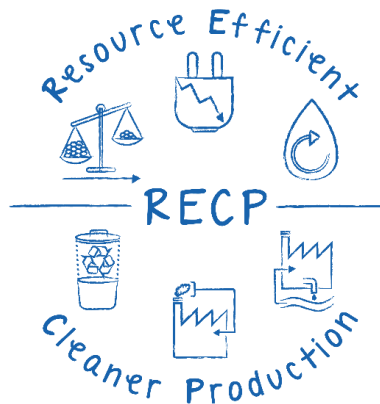


Towards Eco-Industrial Parks

Optimizing water and energy use and reuse between companies in industrial park



Using secondary resources (from industries, city, region, etc.) in industries



Preliminary assessments conducted in Andhra Pradesh and Telangana



Sustainable Cities: Planning and Municipal Services



Low Carbon Infrastructure and Services

- Energy systems and smart grids
- Renewables and industrial energy efficiency
- Low-carbon urban mobility
- Reduce hazards and develop energy recovery from waste streams

Urban Industrial Systems

- Green value chains and cluster approaches
- Eco-industrial parks and urban industrial symbiosis
- Resource efficiency and cleaner production
- Food-security, safety and agro-processing

Innovative City Solutions

- Clean tech and smart city solutions
- Start-up incubators and entrepreneurship
- Foreign and local investment promotion
- Creative and cultural industries development

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@Guntur, Mysore and Vijayawada





New Initiatives

Automotive Components

Lean Manufacturing

Productivity & Innovation

Pulp & Paper

Technology Pilots
(liquor heat treatment,
membrane filtration)

Productivity Assessments

Tanning & Leather Processing

Clean Tech Pilots

Training (sustainable leather, OH&S)



Thank You

www.unido.org

<https://open.unido.org/projects/in/overview>



सत्यमेव जयते

