Eco-Industrial Parks
Hubs for Innovation

Workshop on the role of Science/ Technology Parks and Incubators in Innovation Ecosystems
Promoting Technology Transfer and Innovation

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UNIDO AT A GLANCE

- Established in 1966
- 50th Anniversary in 2016
- Director General Li Yong
- 170 Member States
- 638 Staff Members
- 820 Projects
- 120 Countries
- Inclusive and Sustainable Industrial Development in developing countries and economies in transition
- The portfolio of projects and programmes in hand: $504M

47 Regional Hubs, Regional and Country Offices

- Covering 156 Countries

- 13% Creating Shared Prosperity
- 20% Advancing Economic Competitiveness
- 67% Safeguarding the Environment
Eco-Industrial Park: “an industrial park in which companies cooperate with each other and with the local community trying to reduce waste and pollution, efficiently share resources and help to achieve sustainable development, with the intention to augment economic gains and improving environmental quality.”
Innovation through cooperation, reduction of waste and pollution, and sharing of resources
Eco-innovation from companies to cities

**Company**
- Resource Efficiency and Cleaner Production (RECP)
- Low-carbon technology
- Green chemistry
- Renewable energy
- Energy efficiency

**Industrial Park**
Collective resource efficiency solutions and shared:
- Resources
- Infrastructure
- Supply
- Services

**Sustainable Cities**
Sustainable symbiosis:
- Waste Management
- Recycle
- Corporate Social Responsibility
## Economic benefits

### ECONOMIC BENEFITS

| Direct employment creation and income generation | Foreign direct investment | Reduced resource costs | Avoidance of regulatory penalties due to waste charges |
| Export growth and export diversification | Government revenues | More efficient material use | Increase in income per capita |
| Foreign exchange earnings | Increased competitiveness of companies | Increased sales through green marketing and image | Meeting customers’ requirements |
| Reduced costs for waste management | Reduced energy costs | Reduced costs of water consumption | Reduced costs for transportation |
| Benefits for industrial and residential infrastructure | Integration with regional, national and international markets | Mixed land use planning | Improvement of the business/investment climate |
| Access to investment capital | Access to environmental credit lines | Access to environmental certification | |
Environmental benefits

**ENVIRONMENTAL BENEFITS**

- Reduction of air pollution
- Reduction of soil pollution
- Reduction of volume and load of waste water discharges and pollution of ground and surface waters
- Mitigation of emissions of CO₂ and possibly other greenhouse gases lowering contributions to climate change
- Reduction of water consumption
- Reduction of energy use through energy efficiency, energy recovery and use of renewable energy

**Preservation and protection of biodiversity and nature**

- Reduction in solid and hazardous waste
- Reduction of product losses
- Creation of green space in and around the industrial park
- Reuse, recycling and recovery of waste
- Water conservation through planting of drought resistant plants
- Reduction in space needed for waste storage
- Disaster risk reduction
## Social benefits

### SOCIAL INFRASTRUCTURE

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<td>Customer services to clients</td>
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UNIDO ongoing Environmental and Energy-related Projects in the Western Balkans

**Albania**
- Resource Efficient and Cleaner Production (RECP) Regional Network for Strengthening Cooperation and Fostering Transfer Eastern Europe
- HCFC Phase-out Management Plan (Stage I)
- Biomass Energy for productive use for Small and Medium Enterprises (SMEs) in the olive oil sector (CEO)
- Technical assistance for preparation of ODS alternatives survey in Albania

**FYR Macedonia**
- Removal of Technical and Economic Barriers to Initiating the Clean-up Activities for Alpha-HCH, Beta-HCH and Lindane Con
- Catalyzing market transformation for industrial energy efficiency and accelerate investments in best practices
- HCFC phase-out management plan (phase I, Tranche III, IV, V) (conversion from HCFC-141b to HFCs in the manufacture of powder panels and insulated doors) Macedonia –

**Bosnia and Herzegovina**
- National Cleaner Production Programme (NCPP): Bosnia and Herzegovina
- Extension of the Institutional Strengthening (Phase III & IV)
- HCFC Phase-Out Management Plan (Stage I, Activities in the Refrigeration Servicing Sector Including Policy Actions)
- Technical assistance for preparation of ODS alternatives survey in BIH

**Montenegro**
- HCFC Phase-Out Management Plan Stage
- Transfer of Environmentally Sound Technologies (TEST) for the treatment of biological sludge
- Transfer of Environmentally Sound Technologies (TEST) for the clean-up of Port Milena Channel
- Montenegro ODS alternatives survey

**Serbia**
- Environmentally Sound Management and Final Disposal of PCBs
- HCFC phase-out management plan (Stage I, first tranche)
- Extension of the Institutional Strengthening - Phase IV & V
- Inclusive and low carbon production (ILCP) and Chemical Leasing in meat and dairy value chains in the Republic of Serbia
Eco-Industries Success Stories:

Success Story: FYR Macedonia: Phasing-out toxic Persistent Organic Pollutants

As part of a UNIDO/Global Environment Facility project, a facility for the treatment of transformers and lubricants containing environmentally toxic polychlorinated biphenyls (PCBs) and PCB-containing equipment was established in FYR Macedonia. The project was implemented by UNIDO in cooperation with the FYR Macedonian Government, local industrial companies, the Swiss government, Envio (Germany), as well as Rade Koncar Ltd, the Macedonian host company. The project aimed at assisting FYR Macedonia to comply with PCB-related obligations under the Stockholm Convention through the establishment of an Environmentally Sound Management (ESM) system for the disposal of PCBs and PCB-containing equipment, and legislative, institutional and technical capacity building and awareness-raising.

Results: The installation of the non-combustion PCB de-contamination facility at Rade Koncar was completed at the end of 2012 and 155 tons of PBCs and PCB-containing equipment were subsequently disposed. The project has made a significant contribution to reducing and eliminating environmental and health threats to posed by PCBs in FYR Macedonia.
Recommendations

• Eco-industrial parks should become a priority in the Danube and Adriatic-Ionian Macro-Regions and the Western Balkans

• A mapping of eco-industrial parks is necessary to identify priorities and share knowledge. UNIDO Network of Resource Efficient and Cleaner Production can support the mapping

• Eco-industrial park pilot projects (1 per country) should be selected for initial phase and then for replication to other parks
Thank you

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