



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



Ministry of Trade & Industry
وزارة التجارة والصناعة



GEIPP

GLOBAL ECO-INDUSTRIAL PARKS PROGRAMME



Schweizerische Eidgenossenschaft
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Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO



Eco-Industrial Parks Industrial Park Managers Training

Cairo, 31th of May, 2023

Introduction to Eco-industrial parks and the international framework

Michael Weber
Weber Consulting

What is an Eco-Industrial Park?

*”A community of manufacturing and service businesses located together on common property. Member businesses seek **enhanced environmental, economic, and social performance** through **collaboration** in managing environmental and resource issues.*

*By working together, the community of businesses seeks a **collective benefit** that is greater than the sum of individual benefits each company would realize by only optimizing its individual performance.”*

(Lowe, 2001)



In short, the EIP concept is about creating more resource-efficient and cost-effective industrial zones which are more competitive, attractive for investment and risk resilient.

Different terminologies are used internationally

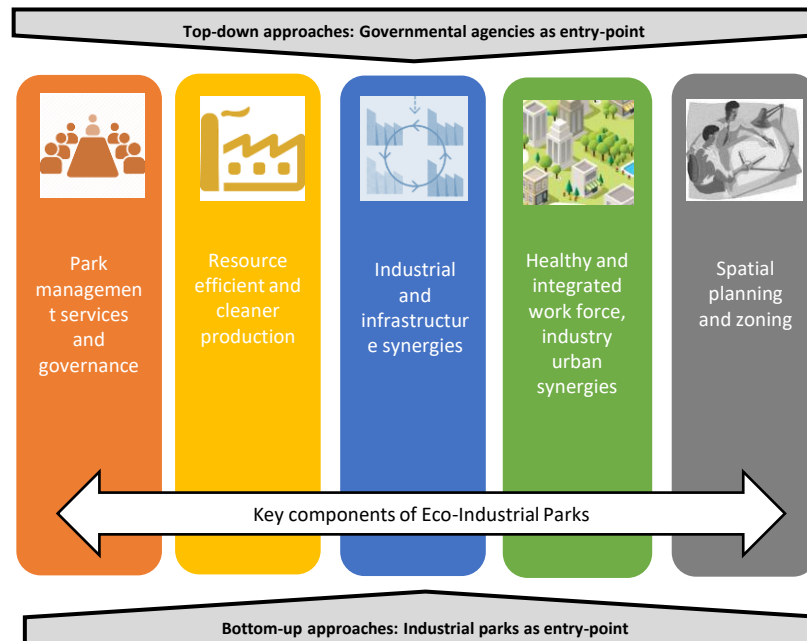
But all based on same principles and concept

Combinations of related EIP terminology used internationally		
Eco	Industrial	Park
Sustainable	Manufacturing	Zone
Low carbon	Investment	Area
Green	(Special)	Cluster
Circular	Economic	Estate

Question to participants: what is the most used terminology in your country?

Source: UNIDO, WBG, GIZ (2017). An International Framework for Eco-Industrial Parks.
<https://openknowledge.worldbank.org/handle/10986/29110>.

Key components of eco-industrial parks



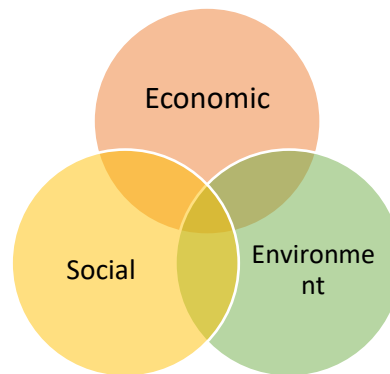
Development of an International Framework on EIP

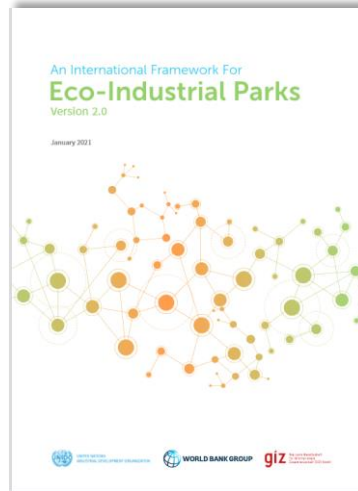
“... need for *process standards* for all industrial parks and *performance standards* for eco-industrial parks”

Joint cooperation



Towards a Common Framework





Download
from Internet

International Framework can be downloaded from:
<https://www.unido.org/sites/default/files/files/2021-04/An%20international%20framework%20for%20eco-industrial%20parks%20v2.0.pdf>

UNIDO EIP Assessment Tool

Rationale for the tool:

- The management of an industrial park plays a crucial role in the daily operations of the industrial park property, ensuring the continuous implementation of EIP opportunities and engaging with the park's stakeholders, including resident firms, communities, and regulating bodies.
- An effective park management structure is a key requisite for a successful EIP development.
- It is important for park management to understand their performance against international EIP benchmarks to identify gaps and take action on EIP opportunities which are achievable and can generate substantial benefits (e.g. economic, environmental, and social).

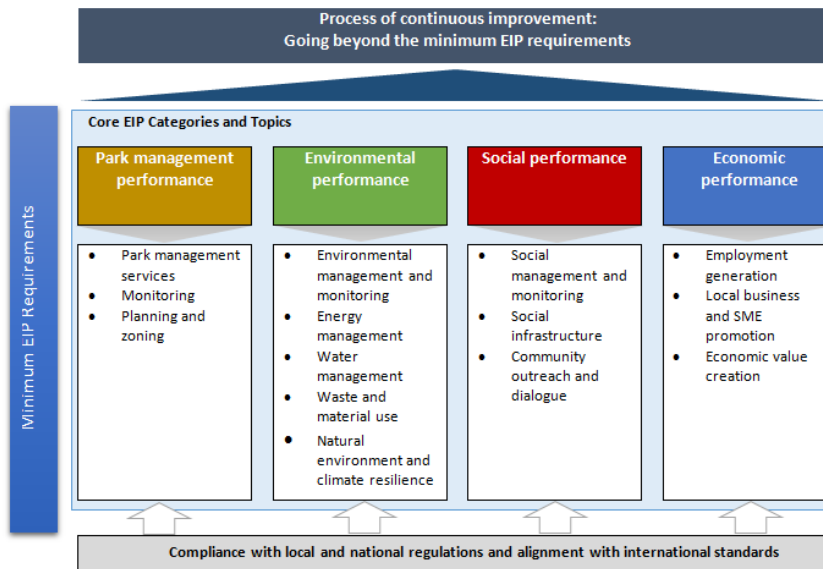
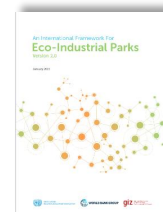
Objectives of tool:

- Assess an industrial park against the International Framework for Eco-Industrial Parks (UNIDO, WBG and GIZ, 2017 / 2021)
- Identify and prioritize EIP improvement opportunities for industrial park
- Plan, manage and monitor EIP opportunities

International EIP Performance Requirements

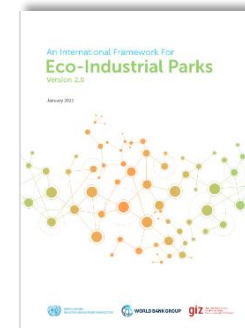
- **Requirements:** key topics and sub-topics which are considered relevant as components and requisites of Eco-Industrial Parks and their performance
- Focus on **key impacts**, rather than focusing on detailed requirements which may differ per industrial park
- Include indicators which can be **monitored, managed or influenced** by the park management or companies

Overall Framework for Describing Eco-Industrial Parks



Overall Framework for Describing Eco-Industrial Parks

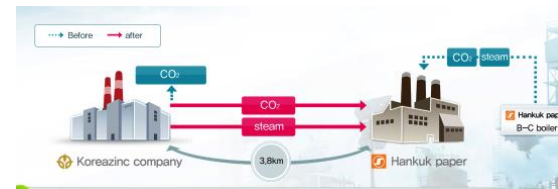
Park management	
Park management	Park management exists to deal with park planning, operations, management, monitoring.
Park planning	Master Plan (or equivalent planning document) for industrial park exists and reviewed periodically
Environmental performance	
Water reuse, efficiency	Proportion of total industrial wastewater from firms in the park are reused responsibly within or outside the industrial park [50%].
Waste re-use/recycling	Proportion of solid wastes generated by firms, which are reused by other firms or outside [20%].
Social performance	
Social infrastructure	Essential social infrastructure is provided in the site master plan and fully operational.
OH&S management system	Proportion of all firms in the industrial park with more than 250 employees that have a well-functioning OH&S management system [75%].
Community outreach	Number of outreach activities implemented by the park management [2 activities per year].
Economic performance	
Local employment generation	Proportion of total workers employed in industrial park who live within daily commuting distance [60%].
SME development	Park management entity allows and promotes the establishment of SMEs that provide services and add value to park residents.



Practical Examples Worldwide



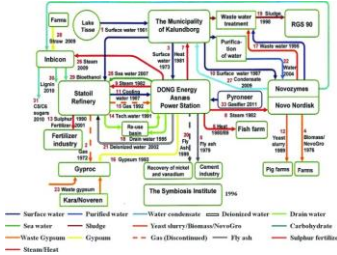
Ecoplus' extended park management services to 17 industrial parks in Austria
e.g. Investor service hub, industry network creation, research and innovation centres



Korea IIP Initiative (source: Kicox, 2016)
IS Projects: 521 found > 337 Supported > 262 Completed
Eq: CO₂ & Steam Networks between paper Mill & Zinc Smelter



Solar Power Stations In Chinese Industrial Parks

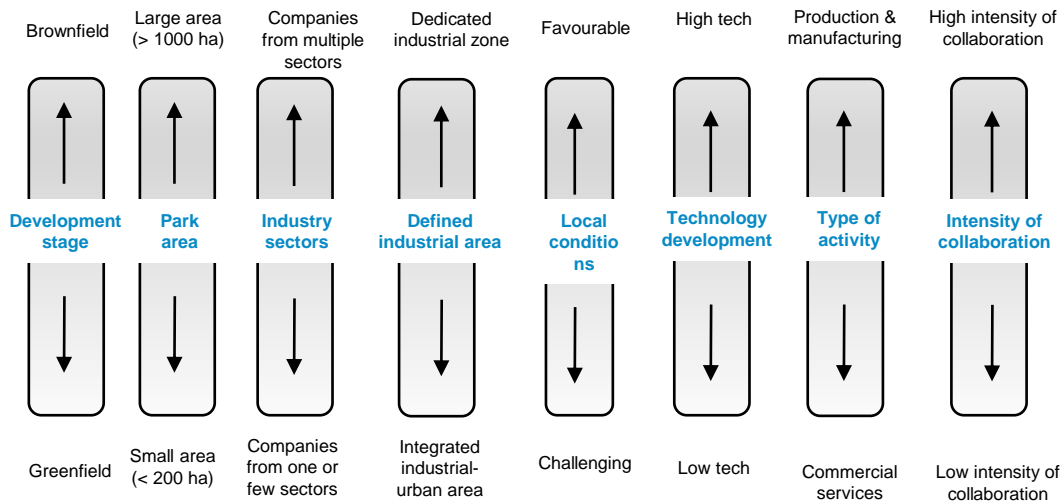


Industrial synergies Kalundborg, Denmark



Use of waste plastics by Clariter in the East London Industrial Development Zone (ELIDZ) to produce solvents, oils and waxes

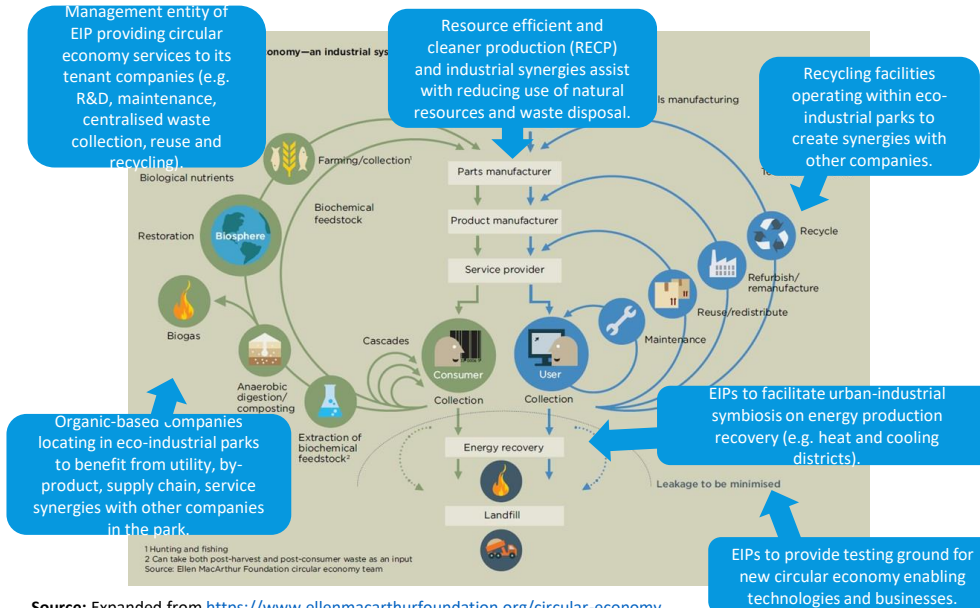
Need for customised solutions and opportunities



Each industrial park is unique

Contribution of eco-industrial parks to the circular economy

A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.



Source: Expanded from <https://www.ellenmacarthurfoundation.org/circular-economy>

Greenfield versus brownfield

Development of new eco-industrial parks

- + Optimise design of park from start - “blank canvas”
- + Allow for strategic planning of parks across country
- Uncertainties about industry mix and needs
- Upfront investments for eco-industrial initiatives

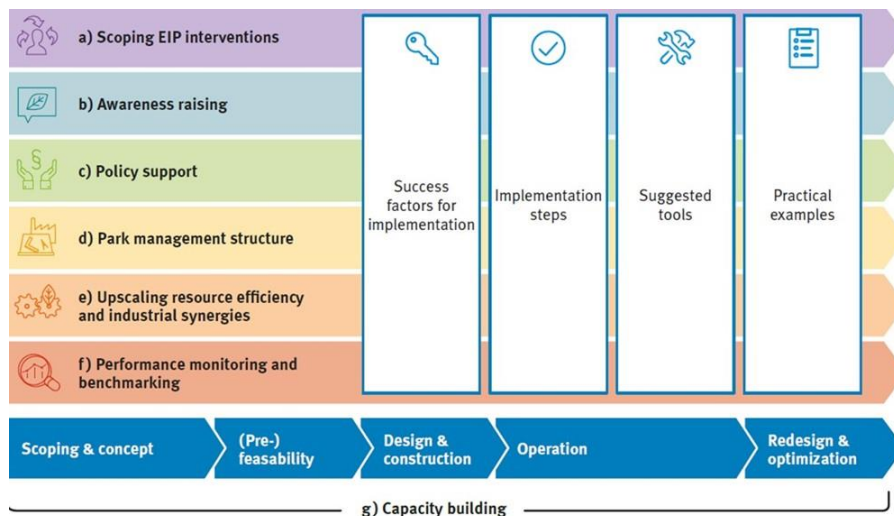


Optimising existing industrial parks

- + Build upon existing industry initiatives
- + Certainty about industry mix and needs
- Retrofitting existing infrastructure can be costly
- Dealing with “historical legacies”

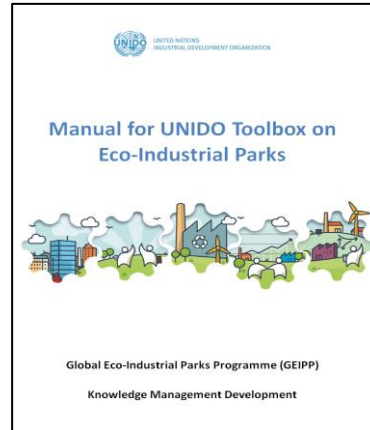


Implementation Handbook for Eco-Industrial Parks



UNIDO (2018). https://open.unido.org/api/documents/7523639/download/UNIDO%20Eco-Industrial%20Park%20Handbook_English.pdf

UNIDO's EIP Toolbox



UNIDO's EIP Toolbox is freely available online

- <https://open.unido.org/projects/C6/projects/170222>



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