



Session 2B: Steering the Growth of Industrial Parks



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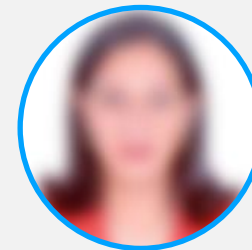
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Implemented by:





ORGANIZACIÓN DE LAS NACIONES UNIDAS
PARA EL DESARROLLO INDUSTRIAL



Management of SIZ - Eco-industrial parks

including added-value park services

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Schweizerische Eidgenossenschaft
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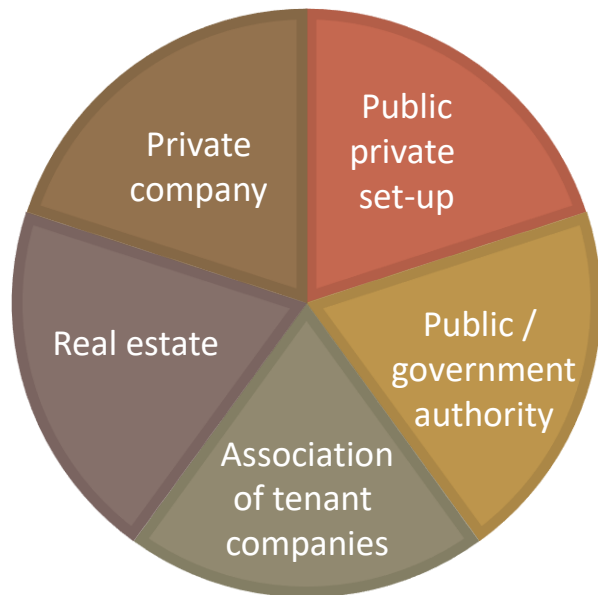


What is EIP Management?

The industrial park management engages with the park's stakeholders, create conditions for easy operation of tenants, and ensures the continuous implementation of EIP initiatives



Management models for IZs and EIPs



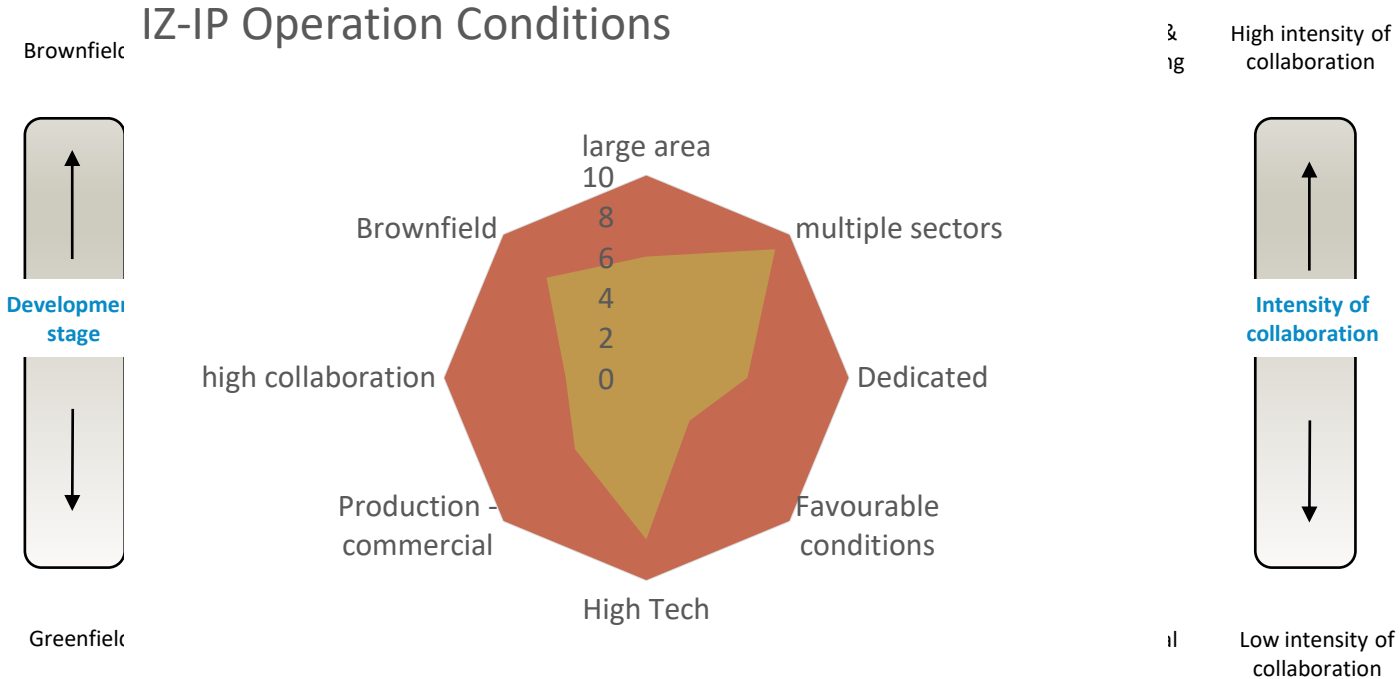
There is no universal management model for (eco-) industrial parks.

Selection of park management model are highly dependent on:

- Nature of industrial park (e. g. industrial sector, size),
- Tenant companies in park
- Political environment (national and local)
- Level and type of financial investment
- Capacities of the stakeholders

Adapted from: UNIDO (2018). Implementation Handbook for Eco-Industrial Parks.

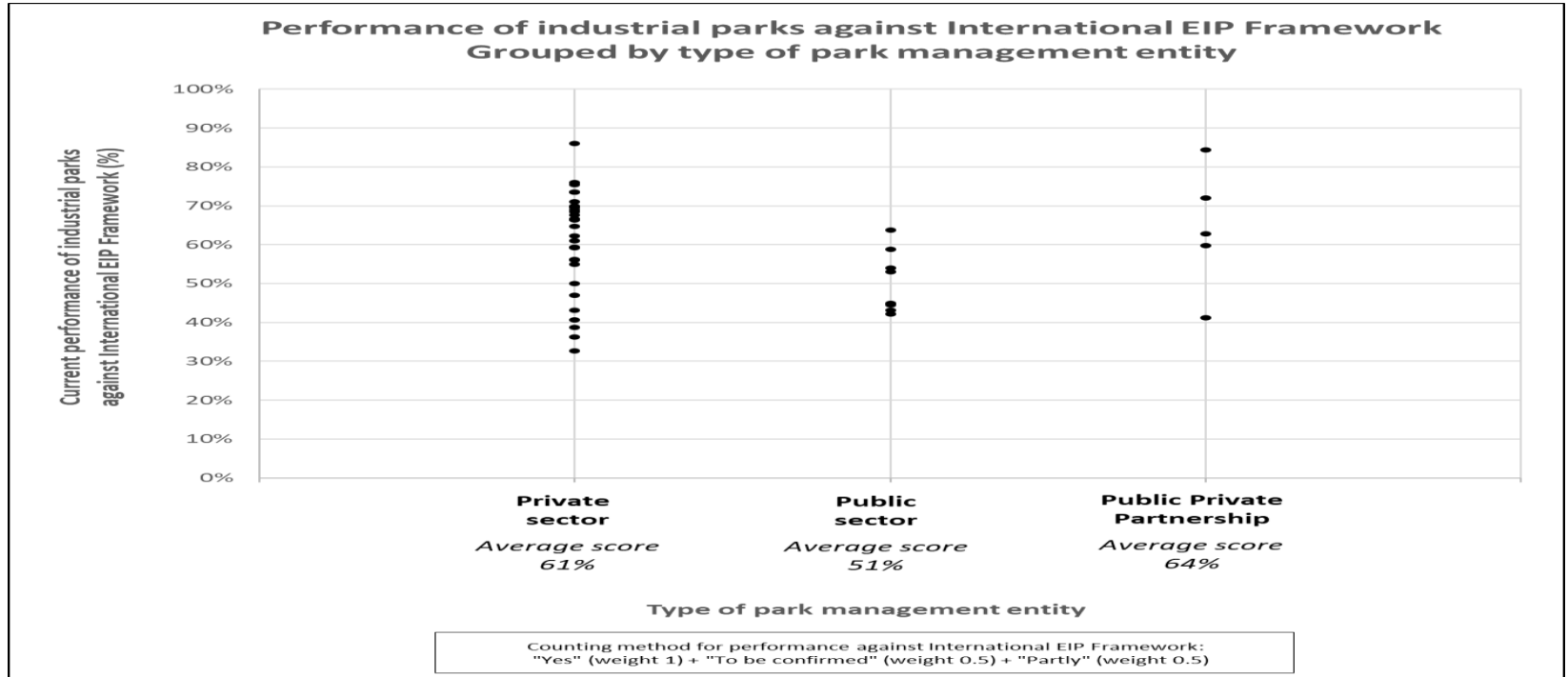
Need for customised solutions and opportunities





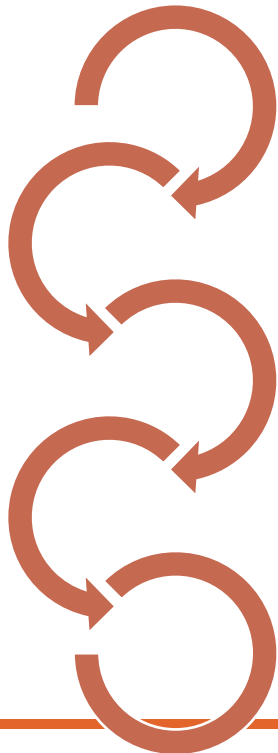
Performance against International EIP Framework

Grouped by type of park management entity



Role management is important

Success factors for EIP management



Leadership

- Need for **strong leadership** and commitment

Facilitation

- **Pro-active facilitation** of stakeholder processes

Valuable infrastructures

- Creation of **feasible and valuable infrastructures and services**

Effective model

- **Effective model** to share and recover park level costs/benefits

Pro-active marketing

- **Pro-active marketing** of EIP features and benefits

Think before you start

1. Local conditions and issues
2. Industry interest and industry champions
3. Number and diversity of industries
4. Industry organization / business network
5. Culture of involved organizations
6. Regulations
7. Community needs and support
8. Know-how and expertise
9. Funding

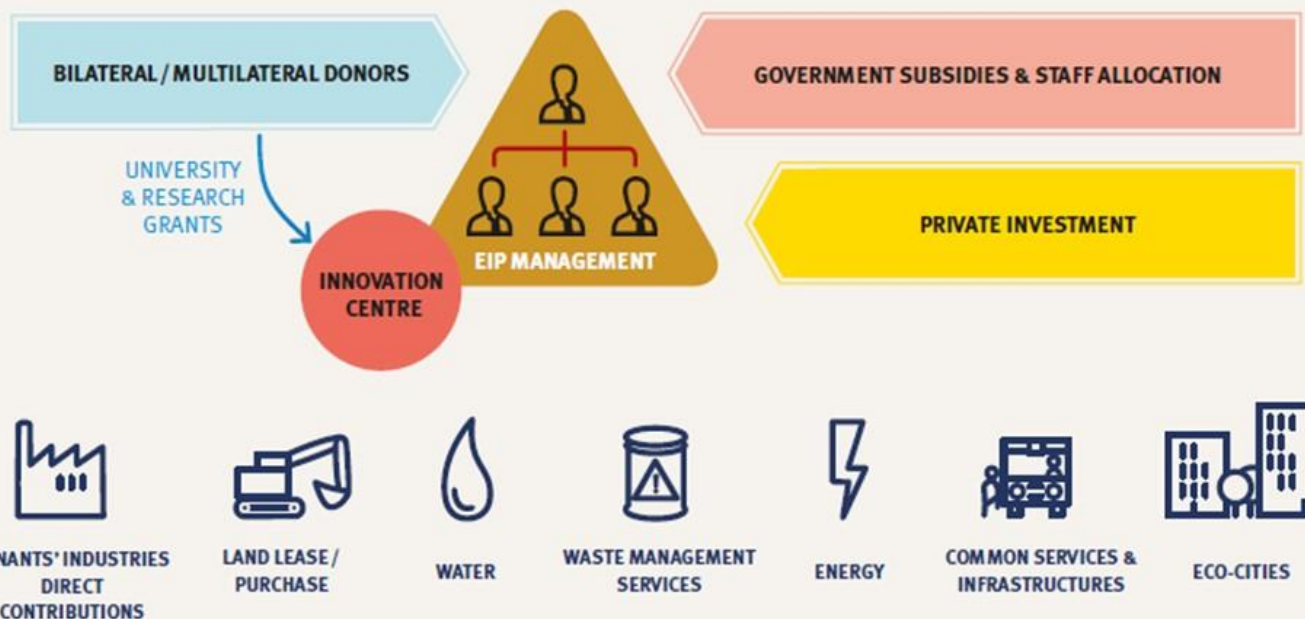


All these factors affect approaches, priority areas, and potential outcomes

Each industrial park is unique, and requires customised approaches

EIP SOURCES OF REVENUE (NON-EXHAUSTIVE)

EIP operational management should aim for **self-sustainability and value for money in service provision.**



Potential additional revenue streams through EIP concept



Added-value services of park management

In many industrial parks, park management provides the “traditional” services to its tenants:

- Leasing/selling of industrial land to tenant companies
- Electricity and water supply billing
- Maintenance of roads, fences, and office buildings inside park
- Basic security services

However, there are many added-value services park management could provide in order to:

- Assist tenant companies to increase their economic , environmental, and social performance
- Reduce the risks of park and the companies – environmental and social risks are business risks!
- Create a more resource-efficient and cost-effective industrial park which is more competitive, attractive for investment



The EIP MANAGEMENT SERVICES TOOL

including added-
value park services





There are many added-value services park management could provide in order to

- Assist tenant companies to increase their economic , environmental, and social performance;
- Reduce the risks of park and the companies, emphasizing that environmental and social risks are business risks;
- Enable tenant companies to concentrate on core business, create cost savings from service synergies.
- Create a more resource-efficient and cost-effective industrial park which is more competitive, attractive for investment;

The EIP MANAGEMENT SERVICES TOOL

UNIDO EIP Management Services Tool (V1)

EIP MANA

STEPS

ST

Summarize I
opportunitie
issues facing

ST

Select servic
review

STEP 3

STEP 5

Action planning for prioritized
added-value services of park
management

This step guides park management and tenant companies to review a long-list of categorized added-

Following the scoping of the prioritized added-value services, this step guides park management and tenant companies to produce a practical plan with short-term actions to develop and implement selected services.

The action plan template provided in this tool covers the following elements:

- Key short-terms actions
- Lead role
- Supporting role
- Timeline
- Comments and progress on actions

Recognizing that park management may already have systems in place to manage its activities, it is envisaged that the action planning of prioritized added-value services is adapted to existing systems.

- Success factors to develop and implement the added-value services
- Potential challenges and means to address these

Category	Added-value services of park management	What is potential for industrial park?
Procurement	<ul style="list-style-type: none"> Facilitate joint industry buying of raw and process materials. 	
Transportation	<ul style="list-style-type: none"> Facilitate shared transport systems amongst tenant companies. 	
	<ul style="list-style-type: none"> Provide common vehicle maintenance services in industrial park. 	
Human resources	<ul style="list-style-type: none"> Facilitate flexible employee assignments amongst tenant companies. 	
	<ul style="list-style-type: none"> Organize trainings on topics of common interest of tenant companies. 	
	<ul style="list-style-type: none"> Coordinate training programs to meet skilled labour demand of tenant companies. 	
Monitoring and management and systems	<ul style="list-style-type: none"> Facilitate (quality, environmental, social) management system for industrial park, aligned with international standards. 	
	<ul style="list-style-type: none"> Establish and operate monitoring system at park level, including environmental, social and economic performance and critical risk factors (e.g. air quality, effluent discharge, sensitive environments). 	
	<ul style="list-style-type: none"> Coordinate plan to react to possible negative impacts due to climate change risks (heat waves and droughts, storms and floodwater events), including adaption needs for infrastructure and services. 	
	<ul style="list-style-type: none"> Operate management and monitoring system for grievances received by park management 	
Security	<ul style="list-style-type: none"> Operate common security control and response system for industrial park 	
Community	<ul style="list-style-type: none"> Facilitate community programs on behalf of industrial park and tenant companies. 	
	<ul style="list-style-type: none"> Facilitate community engagement on behalf of tenant companies. 	
	<ul style="list-style-type: none"> Support for municipalities in developing communal and intercommunal business locations 	
Marketing and recruitment	<ul style="list-style-type: none"> Assist with recruitment of new companies into park which are synergistic and add value to existing tenant companies. 	
	<ul style="list-style-type: none"> Coordinate market assessment studies of common interest to tenant companies (e.g. accessing "Green" markets). 	
	<ul style="list-style-type: none"> Coordinate media efforts and publicity for tenant companies. 	

Category	Added-value services of park management	What is potential for industrial park?
Government authorities	<ul style="list-style-type: none"> Support tenants in dealings with authorities (e.g. operating permits, trade licenses). 	
Green buildings	<ul style="list-style-type: none"> Facilitate the development of sustainable (“green”) buildings in industrial park. 	
R&D	<ul style="list-style-type: none"> Coordinate engagement between tenant companies with research and development institutions 	
Finance	<ul style="list-style-type: none"> Support tenant companies in identifying and accessing funding and subsidies. 	
Infrastructure	<ul style="list-style-type: none"> Facilitate development and operation of infrastructures of common interest and value to tenant companies (e.g. centralized effluent treatment and recycling facility, joint cogeneration facility). 	
Industry committees	<ul style="list-style-type: none"> Set up and facilitate regular joint-industry committee meetings addressing and finding solutions for common challenges and opportunities facing industrial park and companies (e.g. secure quality and continuous water and electricity supply). 	
Waste	<ul style="list-style-type: none"> Coordinate support program for industrial park to increase waste reuse and recycling in the short and medium term 	
	<ul style="list-style-type: none"> Coordinate/provide centralized services and facilities on waste collection, storage, recycling, and disposal. 	
	<ul style="list-style-type: none"> Engage with waste management/recycling companies to provide added value services to park/companies. 	
Water	<ul style="list-style-type: none"> Coordinate support program for industrial park to increase water reuse in the short and medium term 	
Energy	<ul style="list-style-type: none"> Coordinate support program to improve the energy efficiency of tenant companies, especially for the top 50 percent of major energy-consuming businesses in the park. 	
Resource efficiency	<ul style="list-style-type: none"> Support tenant companies to get access to service providers which can identify and implement resource efficient and cleaner production practices and clean technologies. 	
Industrial synergies	<ul style="list-style-type: none"> Facilitate engagement between tenant companies and relevant stakeholders (local municipality, service providers, companies outside park) to identify and development industrial synergies (e.g. supply chain, utility, by-product, service and urban-industrial synergies). 	



Industrial Zone NÖ-Süd, managed by EcoPlus, Austria

International case study on park management

OBJETIVOS
DE DESARROLLO
SOSTENIBLE



- Founded in 1962 with area of 280 ha
- 370 companies, creating 11,100 jobs
- **Sectors:** Food and beverage; aluminium and steel fabrication; production of energy and technical components; environmental services; logistics
- **Infrastructure:** Rail connection, central wastewater treatment plant, substantial green space
- **Social Infrastructure:** Conference and event facilities, on-site kindergarten (gold green building standard), post office, customs offices, shops and restaurants.



Added-value park management services of EcoPlus



EcoPlus is developing and managing industrial parks (17) as well as are technology-oriented business parks(4) in Lower Austria

- **Real estate offer:** customized rental properties
- **Highly developed infrastructure:** rail connection, freight station, post office, customs office, restaurants, video surveillance, guidance system etc.
- **Accreditation by klimaaktiv “green building standard”** (thermal renovation; new buildings)
- **Investor service hub:** support in funding and subsidies
- **Support tenants in dealings with authorities** (i.e. obtaining operating permits, trade license etc.)
- **Support for municipalities** in developing communal and intercommunal business locations
- **Industry network creation**
- **Research Centre** and links with Technopol locations
- **Coordinate media efforts:** obtain good publicity for events



Ecoplus: Industrial Zone NÖ-Süd, Austria

OBJETIVOS
DE DESARROLLO
SOSTENIBLE



Key learnings on park management:

- Eco-industrial initiatives and park management services in parks operated by ecoplus are driven by the needs of companies in industrial parks
 - E.g. Kindergarten to maintain/attract skilled workers in the park
- Ecoplus as park management has a strong stakeholder engagement role
 - Good relationship between companies, governments, communities are critical
- Ecoplus is a private entity
 - Lower Austrian government is a stakeholder
 - But government does not own ecoplus, park management, or industrial park
- Business model of ecoplus
 - Industrial land is sold or rented out, revenue is used to operate industrial park and reinvested in other iparks
 - Companies pay annual fee for utilities, infrastructures, and park management services



Transporte interno de residuos aprovechables ZFC

Residuos Aprovechables Recolectados ZFC

Tipo de Residuo	Cantidad (kg)
Archivo	642,4
Chatarra	521,4
Cartón corrugado	552,2
Cartón Plegadiza	631,5
Cartón plegadizo (panal)	8350
Plástico	289,5
Madera	2
Total de Residuos Aprovechados	10989

Residuos De Posconsumo Recolectados ZFC

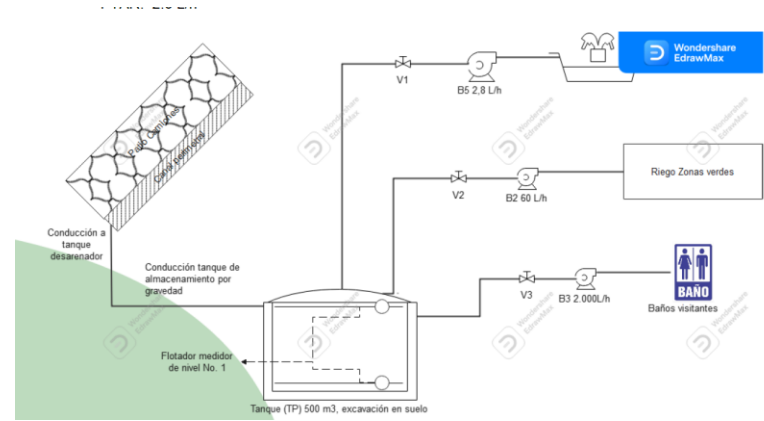
Tipo de Residuo	Cantidad (kg)
Luminarias	85,8
Pilas	21,75
RAEE	130,25
Electrodomésticos	78,8
Baterías Industriales	82,75
Medicamentos	4,95
Total de residuos	404,3

Estrategia de Aprovechamiento de aguas residuales y de aguas lluvias de la Zona Franca del Cauca

- Porcentaje de aguas residuales tratadas/total de aguas residuales (100%)
- Porcentaje de agua reutilizada o reciclada/total de agua consumida (%) Por definir, dependiendo de los reúsos del agua.
- Huella hídrica de la ZFC.



- Cantidad de colaboradores sensibilizados en el recurso hídrico/Total de colaboradores de las empresas instaladas (%)
- Planes o estrategias de aprovechamiento de aguas en las empresas/total de las empresas instaladas (cuatro empresas que tienen mayor contribución)





Las claves en el diseño bioclimático son:

- Diseño arquitectónico que contemple la localización de la bodega y la dirección del sol.
- Ventilación natural: ventiladores que funcionan por Convección en cubiertas
- Control de la radiación solar: Teja Sándwich, Foil, muros verdes, diseño urbanístico y paisajístico con vegetación de hoja perenne
- Altura de la bodega : Bodegas de más de 10 mt

Reducir concreto en patios: jardines y gramoquin

Actualmente PIMSA cuenta con 3 bodegas con diseño bioclimático:

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THANK YOU!

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