



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



Ministry of Trade & Industry
وزارة التجارة والصناعة



GEIPP

GLOBAL ECO-INDUSTRIAL PARKS PROGRAMME



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

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



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EGYPT

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Planning and monitoring of prioritized EIP opportunities – Key success factors

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Planning and monitoring of prioritized EIP improvement opportunities

Important to consider for action and monitor plan:

- ✓ How does industrial park currently monitor and manage its activities
- ✓ What are monitoring requirements for specific opportunities?
- ✓ What are current gaps or challenges in monitoring system of industrial park?

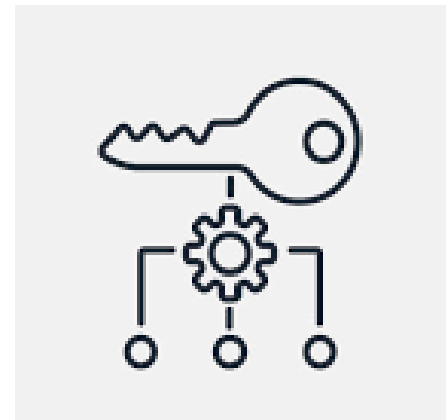
A template for action/monitoring plan is included in EIP Assessment Tool.

- ✓ This template is an illustrative example how action/monitoring plan could look like and key elements it should include.
- ✓ It is very important to align with existing action/monitoring systems already used by the industrial park being assessed.
- ✓ It is usually better to include the prioritized EIP opportunities into existing action/monitoring systems, rather than creating a new system.



Key success factors for performance monitoring of industrial parks

- Have a clear framework, customised to need and priorities of industrial park
- Allocate clear responsibilities for monitoring
- Enforcement and endorsement of EIP monitoring system
- Be flexible and prepared to revise as working with performance indicators is and should be a continuous learning and improvement process.
- Have a solid baseline to assess the current state of industrial park and tenants
- Where possible, link to existing indicator sets used by industrial park, companies and other stakeholders (e.g. OH&S or quality management systems)
- Recognize limitations and uncertainties of the different indicators for the EIP
- Balanced focus on economic, environmental and social impacts of industrial park
- Learn from other experiences and benchmarking from other industrial parks / countries



Planning and Monitoring of prioritized EIP improvement opportunities

STEP 1: PREPARATION
PLAN, MANAGE AND MONITOR EIP INITIATIVES
WORKSHEET FOR PARK MANAGEMENT

Name of industrial park: _____ Short title of industrial park: _____
 Name of the industrial park manager: _____ GO TO INSTRUCTIONS GO TO STEP 1 & 2 ASSESS & SELECT Please provide your contact information: _____

EIP INITIATIVES FOR INDUSTRIAL PARK					DESCRIPTION OF INITIATIVES					SMART FINANCIAL, ECONOMIC, ENVIRONMENTAL, SOCIAL AND OTHER															
#	Topic	Short title of EIP initiative	CAPEX	CAPEX funding	OPEX	Cost recovery	Planned activities	Year started (i.e. 2011-2012)	Responsible	Progress rate	Respective actions	Target description	When to measure achievement goal	Target value and unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
N/A	Water (example)	Example: Develop centralised WWTP for industrial park	500,000 Euros	350,000 Euros (industries in park) 150,000 Euros (international donor)	Estimated at about 25,000 Euros/year	To be incorporated in effluent treatment fees	Study and design WWTP system	2011	Industrial park manager	Completed	Construction of WWTP	Percentage of industries in park generating effluent that is treated in park treated by WWTP	2015	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

EIP INITIATIVES FOR INDUSTRIAL PARK						
#	Topic	Short title of EIP initiative	CAPEX	CAPEX funding	OPEX	Cost recovery
N/A	Water (example)	Example: Develop centralised WWTP for industrial park	500,000 Euros	350,000 Euros (industries in park) 150,000 Euros (international donor)	Estimated at about 25,000 Euros/year	To be incorporated in effluent treatment fees

*This is template for the action/monitoring plan in EIP Assessment Tool.
However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and Monitoring of prioritized EIP improvement opportunities

GEIPP Assessment Tool
PLAN, MANAGE AND MONITOR EIP INITIATIVES
WORKSHEET FOR PARK MANAGEMENT

Name of the industrial park:

GO TO INSTRUCTIONS

GO TO STEP 1 & 2: **ASSESS & SELECT**

Please provide an overview of the park

EIP INITIATIVES FOR INDUSTRIAL PARK						ACTIVITIES FOR EIP INITIATIVES						SMART TARGETS (EIP, ECONOMIC, ENVIRONMENTAL, SOCIAL AND TARGET)						ACTUAL PERFORMANCE LEVELS						
#	Title	Short title of EIP initiative	CAPEX	CAPEX funding	OPEx	Cost recovery	#	Planned activities	Time period (e.g. start, end date)	Responsible	Progress note	Corrective actions	Target description	How to measure progress for the goal	Target start and end date	2014	2015	2016	2017	2018	2019	2020	2021	
1	1	Example: Upgrade wastewater WWTP for industrial park	100,000 Euro	100,000 Euro	100,000 Euro	100,000 Euro	1	Undertake pre-feasibility study	January to July 2018	Selected engineering firm	Completed		Percentage of industrial effluent generated in the park processed by WWTP	Park management monitoring system	2018-01-01 to 2018-07-31	0%	0%	0%	0%	0%	0%	0%	0%	0%
2	2	Example: Upgrade industrial wastewater system to improve water efficiency, reduce consumption and reduce plant of industrial park	50,000 Euro	50,000 Euro	50,000 Euro	50,000 Euro	2	Undertake feasibility study	July to October 2018	Selected engineering firm	Completed		Volume of industrial wastewater treated with the wastewater system	Park management monitoring system	2018-07-01 to 2018-10-31	0%	0%	0%	0%	0%	0%	0%	0%	0%
3	3	Example: Select most feasible option for industrial park	100,000 Euro	100,000 Euro	100,000 Euro	100,000 Euro	3	Select most feasible option	November 2018	Park management	Completed		Percentage of industrial effluent generated in the park processed by WWTP	Park management monitoring system	2018-11-01 to 2018-11-30	0%	0%	0%	0%	0%	0%	0%	0%	0%
4	4	Example: Build selected WWTP system	100,000 Euro	100,000 Euro	100,000 Euro	100,000 Euro	4	Build selected WWTP system	January to November 2019	Selected contractor	Delayed	Park management to follow-up with contract to speed up installation process of WWTP	Percentage of industrial effluent generated in the park processed by WWTP	Park management monitoring system	2019-01-01 to 2019-11-30	0%	0%	0%	0%	0%	0%	0%	0%	0%

ACTIVITIES FOR EIP INITIATIVES

#	Planned activities	Time period (e.g. start, end date)	Responsible	Progress note	Corrective actions
1	Undertake pre-feasibility study	January to July 2018	Selected engineering firm	Completed	
2	Undertake feasibility study	July to October 2018	Selected engineering firm	Completed	
3	Select most feasible option	November 2018	Park management	Completed	
4	Build selected WWTP system	January to November 2019	Selected contractor	Delayed	Park management to follow-up with contract to speed up installation process of WWTP

*This is template for the action/monitoring plan in EIP Assessment Tool.
However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and Monitoring of prioritized EIP improvement opportunities

PLAN, MANAGE AND MONITOR EIP INITIATIVES
WORKSHEET FOR PARK MANAGEMENT

Smart targets of industrial park
Smart targets of industrial park

GO TO INSTRUCTIONS GO TO STEP 1 & 2 GO TO STEP 1 & 2 GO TO STEP 1 & 2 GO TO STEP 1 & 2

EIP INITIATIVES FOR INDUSTRIAL PARK						ACTIVITIES FOR INDUSTRIAL PARK					SMART TARGETS: SPECIFIC, MEASURABLE, ATTAINABLE, RELEVANT AND TIMELY										ACTUAL PERFORMANCE LEVELS									
#	Type	Short title of EIP initiative	CAPEX	CAPEX funding	OPEx	Cost recovery	#	Planned activities	Start/stop date	Responsible	Progress rate	Completion status	Target description	Means to measure performance level	Target value and time	2015	2016	2017	2018	2019	2020	2021								
10001	WWT	Upgrade existing industrial WWTW for industrial park	100,000,000	100,000,000	0	0	1	Construction of WWTW	2015-2016	Industrial Park Management	100%	Completed	Percentage of industrial effluent generated in industrial park treated by WWTW	Park management monitoring system	min 75% by 2020	25%	25%	25%												
10002	WWT	Upgrade existing industrial WWTW for industrial park	100,000,000	100,000,000	0	0	2	Construction of WWTW	2015-2016	Industrial Park Management	100%	Completed	Percentage of industrial effluent generated in industrial park treated by WWTW	Park management monitoring system	min 75% by 2020	25%	25%	25%												

SMART TARGETS: SPECIFIC, MEASURABLE, ATTAINABLE, RELEVANT AND TIMELY			ACTUAL PERFORMANCE LEVELS									
Target description	Means to measure performance level	Target value and time	2015	2016	2017	2018	2019	2020	2021			
Percentage of industrial effluent generated in industrial park treated by WWTP	Park management monitoring system	min 75% by 2020	25%	25%	25%							

*This is template for the action/monitoring plan in EIP Assessment Tool.
However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and Monitoring of prioritized EIP improvement opportunities

UNIDO EIP OPPORTUNITIES MONITORING TOOL (EIP OMM) - EIP OPPORTUNITIES MONITORING

Please provide your final data periodically. [GO TO INSTRUCTIONS](#) [GO TO SUMMARY OF SUBJECTS](#)

Name of the industrial park: _____ Name of the project monitoring & evaluation: _____

Project name and short description (please refer to EIP Assessment Tool): _____

Responsible industrial park management body (indicate the responsible body): _____

Use the provided table to monitor the progress of the implementation of the EIP opportunities. The table is divided into several categories: BASIC INFORMATION, ELECTRICITY SAVINGS, FOSSIL FUEL SAVINGS, WATER SAVINGS, EFFLUENT QUALITY, MATERIALS, CHEMICALS AND WASTES, FINANCIAL SAVINGS, and SOCIAL BENEFITS. Each category contains specific indicators to be tracked.

BASIC INFORMATION		ELECTRICITY SAVINGS				FOSSIL FUEL SAVINGS				WATER SAVINGS		EFFLUENT QUALITY			MATERIALS, CHEMICALS AND WASTES			FINANCIAL SAVINGS			SOCIAL BENEFITS			COMMENTS	
EP opportunity (Short description)	Implementation of opportunity (Yes / Planned / No)	Date of implementation (if applicable), MM/YYYY	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)	Reason for non-implementation (if applicable)		Reason for non-implementation (if applicable)
Example #1: Develop Solar PV panel project in the industrial park	Yes	08/2018																							
Example #2: Repair leaks in the steam network	Planned	in 2019																							
Example #3: Upgrading of centralised wastewater treatment plant (WWTP)	Planned	in 2020																							
Example #4: Establish committee on waste management, environment and resource efficiency	No	Not applicable	Tenant companies are not interested in participating in this committee																						

BASIC INFORMATION

EIP opportunity (Short description)	Implementation of EIP opportunity	Date of implementation (if applicable), MM/YYYY	If EIP opportunity is not being implemented, what are the reasons?
	(Yes / Planned / No)		
Example #1: Develop Solar PV panel project in the industrial park	Yes	08/2018	
Example #2: Repair leaks in the steam network	Planned	in 2019	
Example #3: Upgrading of centralised wastewater treatment plant (WWTP)	Planned	in 2020	
Example #4: Establish committee on waste management, environment and resource efficiency	No	Not applicable	Tenant companies are not interested in participating in this committee

*This is template for the action/monitoring plan in EIP Assessment Tool.
However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and Monitoring of Prioritized EIP improvement opportunities

TABLE OF OPPORTUNITIES MONITORING TOOL
EIP OPPORTUNITIES MONITORING

Please provide your input only in yellow cells

GO TO INTRODUCTION | GO TO SUMMARY OF RESULTS

Name of the opportunity: _____ Name of the industrial park: _____

Number and the following number being unique across the table

Table with 14 main columns: BASIC INFORMATION, ELECTRICITY SAVINGS, FOSIL FUEL SAVINGS, WATER SAVINGS, EFFLUENT QUALITY, MATERIAL, CHEMICALS AND WASTES, FINANCIAL SAVINGS, SOCIAL BENEFITS, COMMENTS.

ELECTRICITY SAVINGS			
Electrical energy saving per EIP opportunity		CO ₂ intensity of national/local grid (t CO ₂ /MWh)	CO ₂ emission reduction due to electricity saving
Saving in MWh/yr	How calculated? (If detailed information is available on the calculation, please add short reference)		Saving in t CO ₂ /yr - Formula
19,2	120MW installed. Capacity factor = typically 16% in the region (see 1st interim report)	0,688	13,21
			Formula

*This is template for the action/monitoring plan in EIP Assessment Tool.
However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and monitoring of prioritized EIP improvement opportunities

TABLE OF OPPORTUNITIES MONITORING TOOL
EIP OPPORTUNITIES MONITORING

Please provide your input only (yellow cells) | GO TO INSTRUCTIONS | GO TO SUMMARY OF RESULTS

Name of the action/monitoring system: _____ Name of the industrial park: _____

Country and the following monitoring system (please provide details):
 Country: _____
 Monitoring system: _____
 Start year: _____
 End year: _____
 Reporting frequency: _____
 Reporting period: _____
 Reporting date: _____

The following table shows the monitoring results (all cells are read-only)

BASIC INFORMATION		ELECTRICITY SAVINGS				FOSSIL FUEL SAVINGS				WATER SAVINGS		EFFLUENT QUALITY		MATERIALS, CHEMICALS AND WASTES		FINANCIAL SAVINGS		SOCIAL BENEFITS		COMMENTS	
EIP opportunity (Short description)	Implementation of EIP opportunity (Yes/No/Partial)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Type of fuel	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)	Value of EIP opportunity (Short description)		Value of EIP opportunity (Short description)

FOSSIL FUEL SAVINGS				
Type of fuel	Value (g CO ₂ /MJ) - Formula	Fossil fuel saving per EIP opportunity		CO2 emission reduction due to fuel saving
Dropdown list		Saving in GJ/yr	How calculated? (If detailed information is available on the calculation, please add short reference)	Saving in t CO ₂ /yr - Formula
Please select	Formula			Formula
Coal	96,30	500	Estimated, see special report #34	48,15

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However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and monitoring of prioritized EIP improvement opportunities

BASIC INFORMATION		ELECTRICITY SAVINGS				FOSSIL FUEL SAVINGS				WATER SAVINGS		EFFLUENT QUALITY			MATERIAL, CHEMICALS AND WASTES			FINANCIAL SAVINGS			SOCIAL BENEFITS			COMMENTS	
EIP opportunity (Short description)	Investment cost (€)	Year of implementation	EIP opportunity is not being implemented (if not, why not?)	Energy savings (kWh/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)	CO ₂ savings (t/yr)		CO ₂ savings (t/yr)
...

WATER SAVINGS	
Savings in water use per EIP opportunity	
n m ³ /yr	How calculated?
50,00	Estimated, see special report #34

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However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and Monitoring of prioritized EIP improvement opportunities

TABLE OF OPPORTUNITIES MONITORING TOOL
EIP OPPORTUNITIES MONITORING

Please provide your input only where applicable. **GO TO INSTRUCTIONS** **GO TO SUMMARY OF RESULTS**

Name of the industrial park: _____ Name of the monitoring system: _____

Country and the monitoring instrument being applied (where applicable): _____

The following table lists all opportunities identified in the assessment.

BASIC INFORMATION		ELECTRICITY SAVINGS				FOSSIL FUEL SAVINGS		WATER SAVINGS		EFFLUENT QUALITY		WATER, CHEMICALS AND WASTES		FINANCIAL SAVINGS			SOCIAL BENEFITS			COMMENTS
EIP opportunity (Short description)	How/where/when/why? (Site/Process/No)	Area of application (m ²)	EIP opportunity to be implemented in 2024 or later?	Estimated energy savings per EIP opportunity (kWh/yr)	Estimated electricity savings per EIP opportunity (kWh/yr)	Estimated fossil fuel savings per EIP opportunity (kg/yr)	Type of fuel	Estimated water savings per EIP opportunity (m ³ /yr)	Water used for what?	Estimated effluent quality improvement per EIP opportunity	Quantity (tonnes/yr)	Material/chemical/waste	Estimated financial savings per EIP opportunity (€)	Estimated financial savings per EIP opportunity (€)	Estimated social benefits per EIP opportunity (€)	Estimated social benefits per EIP opportunity (€)	Estimated social benefits per EIP opportunity (€)	Description	Quantity (tonnes/yr)	
Reduction in Total Dissolved Solids (TDS) from 1500 mg/L to 800 mg/L	Water treatment plant	1000 m ²	Yes	125 ML/yr	125 ML/yr	0 kg/yr	None	125 ML/yr	Drinking water	125 ML/yr	125 ML/yr	0 kg/yr	0 €	0 €	0 €	0 €	0 €	Estimated as part of pre-feasibility study (April 2019)	125 ML/yr	Estimated as part of pre-feasibility study (April 2019)

EFFLUENT QUALITY

Better quality of disposed effluents per EIP opportunity

Description of improvement in effluent quality	Quantify if possible	How calculated?
Reduction in Total Dissolved Solids (TDS) from 1500 mg/L to 800 mg/L	125 ML/yr	Estimated as part of pre-feasibility study (April 2019)

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However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and Monitoring of prioritized EIP improvement opportunities

BASIC INFORMATION														ELECTRICITY SAVINGS				FOSIL FUEL SAVINGS				WATER SAVINGS		EFFLUENT QUALITY			MATERIALS, CHEMICALS AND WASTES			FINANCIAL SAVINGS			SOCIAL BENEFITS			COMMENTS		
EIP opportunity (Short description)														Potential energy saving per EIP opportunity				Potential fossil fuel saving per EIP opportunity				Saving in litres per EIP opportunity		Name quality of effluent released per EIP opportunity			Material/chemical/waste per EIP opportunity			Potential investment cost per EIP opportunity			Potential savings per EIP opportunity				Social benefits per EIP opportunity	

MATERIALS, CHEMICALS AND WASTES		
Material savings, chemical waste reduction, and waste recycling per EIP opportunity		
Type of material/chemical/waste	Saving in tonnes/yr	How calculated?

*This is template for the action/monitoring plan in EIP Assessment Tool.
However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and Monitoring of prioritized EIP improvement opportunities

TABLE OF OPPORTUNITIES MONITORING TABLE
EIP OPPORTUNITIES MONITORING

Please provide your input only within cells. [GO TO INSTRUCTIONS](#) [GO TO SUMMARY OF SERVICES](#)

Name of the plant/facility: _____ Name of the industrial park: _____

Country and the following countries under program priority status: _____

Table with 12 main columns: BASIC INFORMATION, ELECTRICITY SAVINGS, FOSIL FUEL SAVINGS, WATER SAVINGS, EFFLUENT QUALITY, MATERIAL, CHEMICALS AND WASTES, FINANCIAL SAVINGS, SOCIAL BENEFITS, COMMENTS.

FINANCIAL SAVINGS				
Financial investment required per EIP opportunity		Annual financial savings per EIP opportunity		Simple payback period per EIP opportunity
Investment in Euros	How calculated?	Saving in Euros/year	How calculated?	Payback time in years - Formula
29.000	Estimated, based on the price of solar panel (incl. installation)	2.688,00	Based on a price of 0.14€/kWh	10,79
15.000	Estimated	6.000,00	Estimated	2,50
100.000	Estimated as part of pre-feasibility study (April 2019)	0,00	No financial savings	Formula
				Formula

Planning and Monitoring of prioritized EIP improvement opportunities

TABLE OF OPPORTUNITIES MONITORING TOOL
EIP OPPORTUNITIES MONITORING

Please provide your input only within cells

GO TO INSTRUCTIONS

GO TO SUMMARY OF RESULTS

Enter EIP priority (2018):

Name of the industrial park:

Name of the monitoring instrument (enter program activity name):

Enter EIP opportunity ID:

Enter EIP opportunity description:

Enter EIP opportunity category:

Enter EIP opportunity status:

Enter EIP opportunity start date:

Enter EIP opportunity end date:

Enter EIP opportunity cost (USD):

Enter EIP opportunity benefit (USD):

Enter EIP opportunity ROI:

Enter EIP opportunity payback period (years):

Enter EIP opportunity payback period (months):

Enter EIP opportunity payback period (days):

Enter EIP opportunity payback period (hours):

Enter EIP opportunity payback period (minutes):

Enter EIP opportunity payback period (seconds):

Enter EIP opportunity payback period (milliseconds):

Enter EIP opportunity payback period (microseconds):

Enter EIP opportunity payback period (nanoseconds):

Enter EIP opportunity payback period (picoseconds):

Enter EIP opportunity payback period (femtoseconds):

Enter EIP opportunity payback period (attoseconds):

Enter EIP opportunity payback period (zeptoseconds):

Enter EIP opportunity payback period (yoctoseconds):

Enter EIP opportunity payback period (rattoseconds):

Enter EIP opportunity payback period (quintoseconds):

Enter EIP opportunity payback period (sexagesimals):

Enter EIP opportunity payback period (centesimal):

Enter EIP opportunity payback period (denary):

Enter EIP opportunity payback period (quinary):

Enter EIP opportunity payback period (ternary):

Enter EIP opportunity payback period (binary):

Enter EIP opportunity payback period (unary):

BASIC INFORMATION		ELECTRICITY SAVINGS				FOSIL FUEL SAVINGS		WATER SAVINGS		EFFLUENT QUALITY		MATERIAL, CHEMICALS AND WASTES		FINANCIAL SAVINGS			SOCIAL BENEFITS		COMMENTS	
EIP opportunity (Short description)	Implementation of EIP opportunity (Yes/No/Partial)	Date of implementation (YYYY-MM-DD)	EIP opportunity is not being implemented (Yes/No/Partial)	Estimated energy savings per EIP opportunity (kWh/yr)	Estimated electricity savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)	Estimated savings per EIP opportunity (kWh/yr)		
Example EIP opportunity description	Yes	2018-01-01	No	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	

COMMENTS

This EIP opportunity will assist park management and industries to comply with effluent disposal by-laws

Potential benefits are probably high, but difficult to quantify. Better evaluation should be performed to engage tenant companies

*This is template for the action/monitoring plan in EIP Assessment Tool.
However, it is important to align with existing action/monitoring systems already used by industrial park*

Planning and Monitoring of prioritized EIP improvement opportunities

Summary of impacts

*This is template for the action/monitoring plan in EIP Assessment Tool.
However, it is important to align with existing action/monitoring systems already used by industrial park*

UNIDO EIP OPPORTUNITIES MONITORING TOOL (V2)

SUMMARY OF IMPACTS

[GO TO INSTRUCTIONS](#) [GO TO EIP OPPORTUNITIES MONITORING](#)

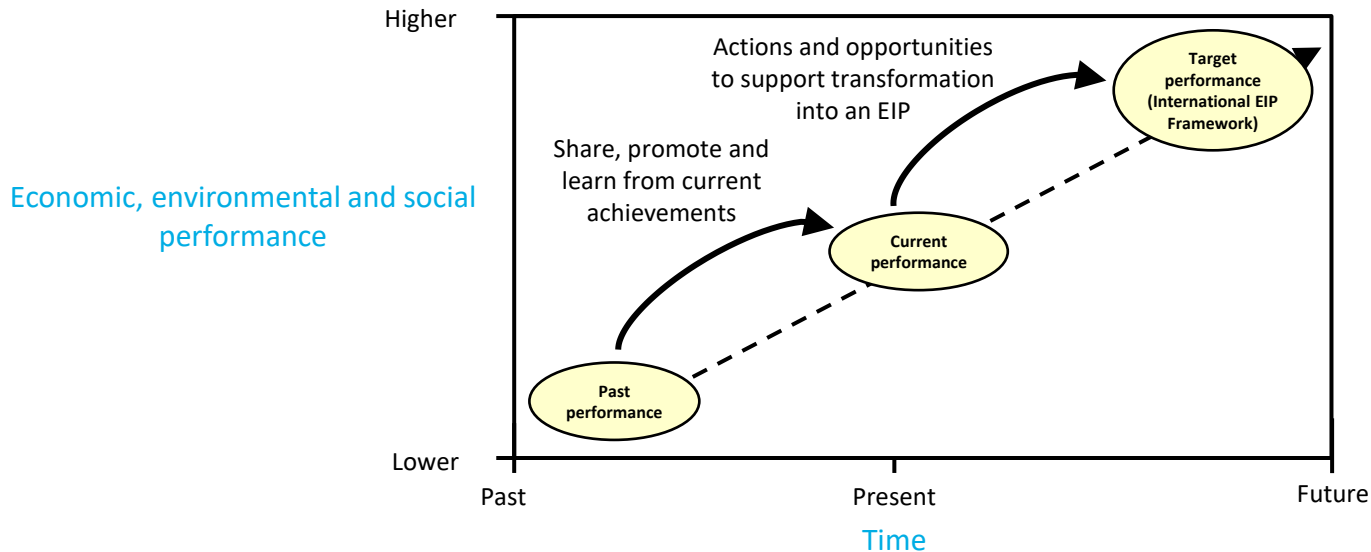
Worksheet is calculated automatically based on the monitoring worksheet

	Name of industrial park:		
Total number of EIP opportunities		0	in total
	- Implemented	0	
	- Planned implementation	0	
	- No implementation (yet)	0	
Electricity savings		0,00	MWh/yr
	- Implemented	0,00	
	- Planned implementation	0,00	
	- No implementation (yet)	0,00	
CO₂ emission reduction due to electricity savings		0,00	t CO ₂ /yr
	- Implemented	0,00	
	- Planned implementation	0,00	
	- No implementation (yet)	0,00	
Fossil fuel saving		0,00	GJ/yr
	- Implemented	0,00	
	- Planned implementation	0,00	
	- No implementation (yet)	0,00	
CO₂ emission reduction due to fuel savings		0,00	t CO ₂ /yr
	- Implemented	0,00	
	- Planned implementation	0,00	
	- No implementation (yet)	0,00	
Water savings		0,00	m ³ /yr
	- Implemented	0,00	
	- Planned implementation	0,00	
	- No implementation (yet)	0,00	
Material/chemicals savings and waste recycling		0,00	t/yr
	- Implemented	0,00	
	- Planned implementation	0,00	
	- No implementation (yet)	0,00	
Financial savings (in Euros)		0,00	€/year
	- Implemented	0,00	
	- Planned implementation	0,00	
	- No implementation (yet)	0,00	
Return on investment (average payback time)		0,00	yr
	- Implemented	0,00	
	- Planned implementation	0,00	
	- No implementation (yet)	0,00	

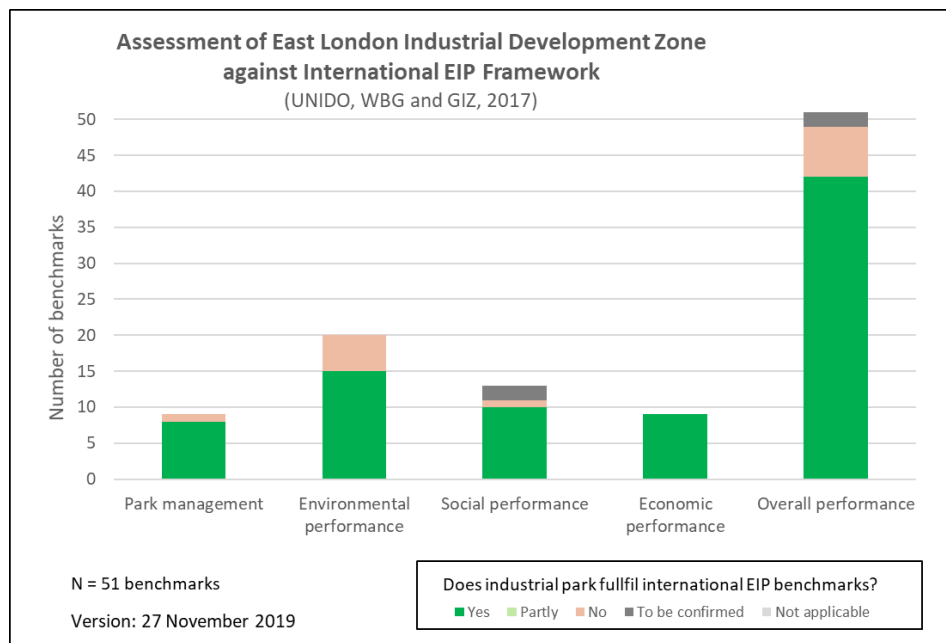
Learnings from applications of International EIP Framework

Transformation into an EIP is a process of continuous improvement

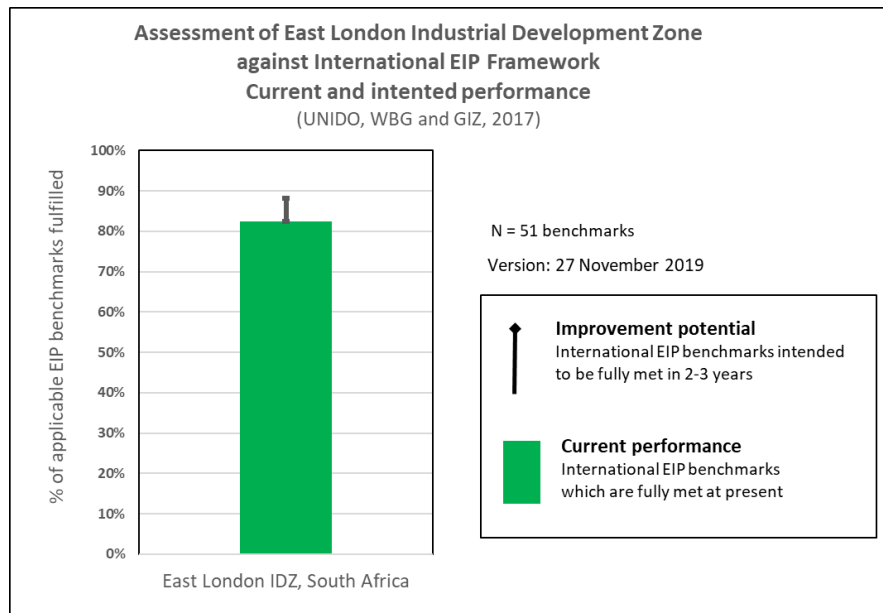
Where are we now, where do we want to be, and how do we get there?"



Practical example: East London Industrial Development Zone, South Africa



Practical example: East London Industrial Development Zone, South Africa



Practical example: East London Industrial Development Zone, South Africa

Summary of prioritized EIP opportunities for ELIDZ

Benefits and Achievability

BENEFITS

High

Medium

Low

	<ul style="list-style-type: none"> Investigate renewable energy projects. Set up a central WWTP plant. Wastewater from the dairy, together with sewage can be intercepted for a potential biogas digester. Rain water harvesting. Work together with BCMM to develop urban-industrial waste synergies with the ELIDZ. Investigate the construction of a hazardous waste landfill site nearby East London. Potential collaboration with BCMM. Conduct an annual survey with community members on their satisfaction with the community dialogue. 	<ul style="list-style-type: none"> Develop a 100-year flood level plan and climate change adaptation plan. Incorporate the following in the Master Plan: climate change adaptation strategy, energy efficiency and renewable energy interventions, and EIP principles. Collaboration with the NCPC-SA on RECP, and IEE methodologies. Conduct RECP assessments at company level, including a focus on water efficiency. Continuously improve waste recycling - ongoing RECP assessments by the NCPC-SA. Identify financial incentives, grant schemes and support programmes to implement saving opportunities. Review an industry clustering concept and infrastructure/utility planning based on industrial synergies and eco-industrial park practices. 	
	<ul style="list-style-type: none"> Develop maximum carbon intensity targets and incorporate it in the Master Plan. Overall thresholds should not limit investments. Develop maximum energy intensity targets and incorporate it in the Master Plan. Overall thresholds should not limit investments. 		
<ul style="list-style-type: none"> Investigate centralised steam generation. 	<ul style="list-style-type: none"> Add topic of "Satisfaction with social infrastructure" to annual surveys. 		
	Difficult	Medium	Easy

ACHIEVABILITY

Practical example: East London Industrial Development Zone, South Africa

Action plan (selected section only)

Topic		Proposed actions – Subject to further discussion with ELIDZ and companies				
		Key short-term actions	Lead role	Support	Timeline	
1	Development and promotion of ELIDZ as a leading EIP example in South Africa	A	Review and decide which priority EIP opportunities identified for ELIDZ are worthwhile to assess further. <ul style="list-style-type: none"> EIP opportunities identified and prioritized through review of ELIDZ against International EIP Framework and smart solutions (November 2018) (Section 3.1) Industrial synergy opportunities identified and prioritized at workshop at ELIDZ, April 2018 (Figure 8) 	ELIDZ	NCPC-SA	Q1 2020
		B	Discuss and agree on scope of work to further develop most promising EIP opportunities for ELIDZ and its tenant companies	ELIDZ	NCPC-SA	Q1 2020
		C	Develop marketing strategy / material positioning ELIDZ as an emerging EIP in South Africa, including the associated economic, environmental and social benefits to the IDZ, tenant companies, and the community.	ELIDZ	ELIDZ communications / marketing team NCPC-SA UNIDO	Q2 2020
2	Business development to support reprocessing of waste plastics by Clariter	A	Finalize agreements between the IDC, ELIDZ, and the Eastern Cape Non-Automotive Cluster to release IDC funding for SMME developments.	ELIDZ	Clariter	Q4 2019
		B	Allocate available land and develop support services for SMME cluster development.	ELIDZ	Clariter	Q2 2020
		C	Follow-up with UNIDO to seek support for Clariter in promoting the waste plastics recycling technology, identification of potential financial mechanisms/investors for commercialization, and create collaborations/synergies with other development projects on plastics recycling.	ELIDZ Clariter	UNIDO NCPC-SA	After successful piloting

Interaction Session

- Based on assessment in the previous interaction session,
- Select top 3 opportunities according to following indicators:
 - ✓ Achievability,
 - ✓ Benefits,
 - ✓ Interest,
 - ✓ Focus on Short-term
- Develop KPI's and monitoring plan





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