



## UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

### Global Eco-Industrial Parks Programme - South Africa: Country level intervention

#### Project Document

Project number:	220187
Project title:	Global Eco-Industrial Park Programme II-South Africa country level intervention
Thematic area code	Energy and Environment
Starting date:	1 January 2024
Duration:	5 years
Project site:	Republic of South Africa
Government Co-ordinating agency:	Department of Trade, Industry and Competition
Main counterparts:	Department of Trade, Industry and Competition
Other counterparts	Department of Environmental Affairs, Forestry and Fisheries; The National Treasury; Provincial Development Agencies, Selected industrial parks and tenant companies
Executing agency/ cooperating agency:	UNIDO
Project Inputs:	
- SECO inputs:	CHF 1 600 000 (EUR 1,633,920) <sup>1</sup>
- Support costs (13%):	CHF 208 000 (EUR 212,409)
- Counterpart inputs:	In-kind contributions to CSIR and participating parks through the Industrial Parks Revitalization Programme and the Green Industries Programme.
- Grand Total:	CHF 1 808 000 (SECO Input+Support costs) or EUR 1,846,330 (SECO Input+Support costs)

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<sup>1</sup> Official UN exchange rate as of 19 April 2023, 1 CHF = 1.0212 EUR

**Brief description:**

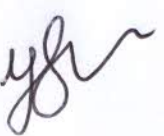
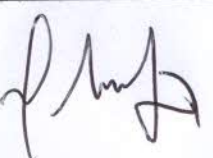
This project will address Eco-Industrial Parks (EIP) development in South Africa, under the framework of Phase II of the Global Eco-Industrial Parks Programme (GEIPP II) in Developing and Transition Countries implemented by UNIDO and funded by the Government of Switzerland through its State Secretariat for Economic Affairs, SECO.

It will build on the achievements and lessons learnt from Phase I of the GEIPP and create synergies with UNIDO projects currently implemented in South Africa. Active collaboration with other UNIDO EIP projects (e.g. South-South cooperation with other SECO-funded GEIPP country-level interventions, national EIP activities, as well as complementary initiatives supported by other donors) will be fostered.

The development objective of the country level intervention for South Africa phase II is to promote circular economy approaches in industries, to mitigate the climate impact of industries and to help the industrial parks to adapt to the negative consequences of climate change. The programme will achieve this by continuing to facilitate the uptake of Eco-Industrial Park approaches in scaling up resource efficiency, minimizing waste, promoting recycling and improving economic, environmental and social performances of businesses, thereby contributing to inclusive and sustainable industrial development in a circular economy in South Africa.

The expected outcomes of the project are: (1) **EIP approaches in relevant policy and regulations incentivised and mainstreamed** leading to an increased role of EIPs in environmental, industry and other relevant policies in South Africa; and (2) **EIP opportunities implemented**, with environmental/climate (e.g. resource productivity, emission reduction) economic and social benefits achieved by industrial parks and their enterprises confirmed. The outputs will be achieved in industrial parks already supported during GEIPP I as well as in additional prioritised industrial parks.

**Approved:**

	Date:	Signature:	Name and title:
Department of Trade, Industry and Competition of the Republic of South Africa	12/3/2024		Mr. Yunus Hoosen Deputy Director-General Investment and Spatial Industrial Development  Department of Trade, Industry and Competition (the dtic)
United Nations Industrial Development Organization (UNIDO)	12/3/24		Mr. Gerd Muller Director General United Nations Industrial Development Organization (UNIDO)



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#### Abbreviations

CE	Circular Economy
CSIR	Council for Scientific and Industrial Research
COGTA	Department of Cooperative Governance and Traditional Affairs
DFFE	Department of Forestry, Fisheries and the Environment
DSI	Department of Science and Innovation
the dtic	Department of Trade, Industry and Competition
EIA	Environmental Impact Assessment
EIP	Eco-Industrial Park
ELIDZ	East London Industrial Development Zone
EPR	Extended Producer Responsibility
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GEIPP	Global Eco-Industrial Parks Programme
GEIPP I	Global Eco-Industrial Parks Programme – Phase I
GEIPP II	Global Eco-Industrial Parks Programme – Phase II
GEIPP SA	Global Eco-Industrial Parks Programme - South Africa: Country level intervention
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (German Corporation for International Cooperation)
IDZ	Industrial Development Zone
IP	Industrial Park
IFC	International Financial Corporation
IPRP	Industrial Park Revitalization Programme
IZ	Industrial Zone
MoU	Memorandum of Understanding
NCPC-SA	National Cleaner Production Centre of South Africa
NDC	Nationally Determined Contribution
NEDLAC	National Economic Development and Labour Council
NDP	National Development Plan
NT	National Treasury
OECD	Organization for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PPE	Personal Protective Equipment
RBM	Results-Based Management
RECP	Resource Efficient and Cleaner Production
SANEDI	South African National Energy Development Institute
SDG	Sustainable Development Goal
SECO	Swiss State Secretariat for Economic Affairs
SEZ	Special Economic Zone
SME	Small and Medium-sized Enterprises
SOP	Standard Operating Procedure
TA	Technical Assistance
UN	United Nations
UNIDO	United Nations Industrial Development Organization
UNEP	United Nations Environment Programme (UNEP)
USD	United States Dollar
WBG	World Bank Group



## **A. Context**

### **A1. Background**

Industry accounts for a significant portion of global emissions, and has wide-reaching environmental and community impacts. The transformation of Industrial Parks (IPs) to Eco-Industrial Parks (EIPs) can make a significant contribution to Resource Efficient Cleaner Production, avoidance of waste and reducing greenhouse gas emissions, thereby contributing towards a circular economy and the implementation of the UN Framework Convention on Climate Change. Reaching these targets will require significant and long-lasting changes of resource use in production processes as well as energy generation and use. In this context, EIPs have the potential to play an important role.

The Global Eco-Industrial Parks Program (GEIPP) was launched in late 2018 to support the transition of existing (brownfield) IPs to EIPs. GEIPP builds on a long-standing cooperation between the Government of Switzerland through its State Secretariat for Economic Affairs (SECO) and the United Nations Industrial Development Organization (UNIDO) on industrial resource efficiency.

The GEIPP Program was a direct follow-up of the Global Resource Efficient and Cleaner Production Program, which piloted industrial park level activities and transformation towards Eco-Industrial Park Practices as a path for scaling up industrial resource efficiency in rapidly industrialising developing countries. The Eco-Industrial Park approach was deemed to be particularly well-suited to sustainable industrial development and the circular economy as it addresses social and environmental goals in addition to economic development and job creation.

The overall objective of the GEIPP is to demonstrate the viability and benefits of Eco-Industrial Park approaches to implement Circular Economy approaches in industries, mitigate industrial impacts on climate change, and make industrial parks more resilient to the negative impacts of climate change. This will be achieved by scaling up resource productivity, enhancing recycling, reducing waste and industrial CO<sub>2</sub> emissions, and improving the economic, environmental, and social performance of businesses. The transformation of IPs to EIPs will contribute to inclusive and sustainable industrial development, a circular economy, and the reduction of industries' contribution to climate change.

GEIPP I has approached these objectives through successful implementation of Country Level Interventions in all seven countries consisting of policy strengthening and assisting industrial parks in their transformation towards an EIP. The Country Level Interventions worked through priority industrial parks (21 industrial parks altogether), which benefited from in depth technical assistance.

Furthermore, a much larger number of industrial parks was reached through capacity building and awareness creation activities. The Country Level Interventions were supported by a Global Knowledge Development Component that developed and disseminated approaches and tools for the transformation of existing industrial parks into EIPs.

These knowledge products were further developed to become global public goods for the widest possible dissemination and use. The Global Knowledge Development Component further acted as a catalyst for the compilation and exchange of case studies, success stories and lessons learnt between the GEIPP countries and beyond.



In 2021, an independent mid-term evaluation (MTE) of the GEIPP was conducted<sup>2</sup>. The MTE concluded that the GEIPP is seen as highly relevant by stakeholders. The parallel multi-level approach at the micro, meso, macro, and global levels is regarded as successful.

The MTE concluded that the main remaining challenges for a broad implementation of EIPs are (a) the financing of new infrastructure and cleaner technologies; (b) the long time required to change regulatory frameworks and compliance once they are in place; (c) the relatively short duration of the programme to show results; and (d) changes in government counterparts.

Among the key recommendations of the MTE, the following are highlighted:

- The technical assessment of and assistance to SMEs should be accelerated. In general, involve more business representatives in the GEIPP in South Africa at all levels.
- The GEIPP should explore options to improve the availability and accessibility of financial instruments for industrial parks and SMEs to finance EIP and RECP measures.
- Measures should be considered to achieve broader adoption in spite of perhaps unfavourable regulatory frameworks at the national level.
- The GEIPP should consider adding three activities suggested by stakeholders in the seven GEIPP countries: some sort of recognition scheme against EIP criteria; including more parks; and including more "multipliers", like, for example, business associations or learning institutions.
- The GEIPP should be continued with a second programme phase, as the current five-year duration is too short for broader adoption of the EIP concept.

The MTE recommended the integration of these additional elements into a second program phase.

The GEIPP in South Africa is deemed to be a working and scalable approach for the introduction of EIP and CE in the prioritized IP and among key stakeholders. The transformation of industrial parks towards EIPs supports efforts to adopt a Circular Economy and resource-efficient development path to fulfil the climate change mitigation pledges. The GEIPP advances a number of Sustainable Development Goals. The main contribution is to SDG 8, "Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all," followed by SDG 3, "Ensure healthy lives and promote well-being for all at all ages. SDG 6: "Ensure availability and sustainable management of water and sanitation for all. SDG 12: "Ensure sustainable consumption and production patterns, SDG 7: "Ensure access to affordable, reliable, sustainable, and modern energy for all," and SDG 9: "Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation," as well as other SDGs to a lesser extent.

In 2022, following the mid-term evaluation of the GEIPP, UNIDO and SECO agreed to continue the successful cooperation under a second programme phase. The GEIPP II-South Africa country level intervention will have a five-year programme implementation period (2024–2028).

GEIPP I in South Africa has effectively pursued the implementation of policies and supporting industrial parks in their transformation towards becoming EIPs. The program prioritized two industrial parks for in-depth technical assistance while also reaching out to a larger number of industrial parks through capacity-building and awareness-raising activities.

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<sup>2</sup> Zollinger U., Fresner J., Cuda F. (2021) Independent Mid-term Evaluation of the Global Eco-Industrial Parks Programme (GEIPP) UNIDO Independent Evaluation Division



The success of GEIPP I South Africa has generated substantial interest and momentum in Industrial Parks. These IPs bring together industrial firms and hold great potential for fostering collaboration and achieving efficiency gains. However, as the focus shifts towards increasing industrial output, it becomes crucial to balance economic growth with environmental and social objectives. For that reason, strategic planning and effective management of industrial parks are essential for achieving these goals. By integrating sustainable practices and promoting responsible industrial development, South Africa can fully harness the potential of its industrial parks while ensuring long-term economic prosperity and safeguarding the environment and the wellbeing of local communities.

The GEIPP II - South Africa country level intervention will actively work towards scaling up EIP models across the more than 300 industrial parks for advancing Inclusive and Sustainable Industrial Development. Under the GEIPP II-South Africa country level intervention, two additional industrial Parks will receive in-depth support while two others will receive training focussed on specific EIP topics. The introduction of EIP approaches into industrial zones within the Cities Support Programme of the National Treasury is be added to the project. Effective approaches for scaling-up and replicating EIP approaches will be a part of GEIPP phase II South Africa

Moreover, significant progress will be made in the development of regulatory instruments and standards to facilitate the implementation of the EIP model. With the support of the Department of Trade, Industry and Competition (the dtic), the GEIPP II-South Africa country level intervention will incorporate EIP and CE concepts into the reindustrialization policy, continue the ongoing efforts on strengthening South Africa's industrial, environmental and social regulations. These achievements highlight the dedication and collaboration among stakeholders in promoting sustainable industrial development in South Africa.

## **A.2. Programme Scope**

*"EIP is a dedicated area for industrial use at a suitable site that supports sustainability through the integration of social, economic, and environmental quality aspects into its siting, planning, management and operations. EIPs are managed industrial areas that promote cross-industry and community collaboration for common benefits related to economic, social and environmental performance.*

*Since its inception in the early 1990s, the EIP concept has evolved to address additional, interrelated aspects, including, for example: resource efficient and cleaner production, industrial symbiosis, climate change, pollution, social standards, shared infrastructure, improved management of risks and shared resources, including land and ecosystem services. An interdisciplinary approach is required to optimally realise the EIP concept".*

*[International Framework for Eco-Industrial Parks, 2021,  
UNIDO, World Bank and GIZ]*

Industrial parks are known by different names and cover industrial areas, industrial zones, industrial investment regions, special economic zones, and industrial corridors, among others. They exist for the purposes of industrial and associated commercial, infrastructure, and service activities. Industrial parks are usually located on the edges of, or outside the main residential areas of a city.

Industrial parks have both positive and negative impacts. While they contribute to economic growth and social development, they can also cause negative environmental and social impacts,



including: climate change, pollution, resource depletion, labour issues, and negative impacts on communities. Thus, sensitive planning and management are needed to mitigate negative outcomes and to optimise economic, social, and environmental gains.

Interest in industrial parks in South Africa has grown substantially. The grouping of firms in defined locations offers potential collaborative and efficiency gains, for instance by implementing circular economy and industrial symbiosis practices. As developing and emerging economies seek increased industrial output, there is a pressing need to balance economic growth with environmental and social objectives.

**Key drivers for EIPs include: the need to move towards a circular economy, climate change commitments at the national level,** international industry practice and experience demonstrate a wide range of economic, environmental, and social benefits from EIPs. Furthermore, by reducing industrial CO<sub>2</sub> emissions, industries' contribution to climate change can be reduced.

**Industry competitiveness, a significant driver of EIPs, is the ability to increase business performance and sustainable growth.** A key goal for EIP developers is to attract strategic investors and incentivize domestic and foreign direct investment. A more sustainable manufacturing in an EIP aspiring industrial park will also make tenant companies more attractive. Participation in international value chains will be easier and reputational risks for final products vendors and brands are lower in industrial parks following and aiming at high environmental and social standards.

**Integrating social quality standards within industrial parks is becoming increasingly important.** Evidence suggests that friction between communities and industrial parks can occur due to poor preparedness for dealing with emergencies, concerns about operational standards, and increasing encroachment of industrial developments into residential areas. In addition, industrial parks often depend on local labour, resources from surrounding communities, social infrastructure, and in some cases housing and wider social services. Thus, careful planning is needed to address social concerns.

**Industrial Parks play an important role in the economic growth of many developing and advanced-developing nations.** These parks provide tailored infrastructure and business services, and they have become a successful model for large-scale job creation, transfer of skills and technology, export diversification, and industrial development led by foreign direct investment.

**International good practice illustrates that the types of economic, environmental, and social benefits from Eco-Industrial Parks go well beyond the conventional business case benefits.** The benefits are not just commercial but also strategic, leading to reduced exposure to risk, increased competitiveness, business development, production continuity and a better reputation with key stakeholders.

Adopting an Eco-Industrial Park approach can make contributions to **Circular Economy, Industrial Symbiosis, Energy Efficiency as well as Industrial Processes and Product Use (IPPU) and Waste priority areas in Nationally Determined Contributions (NDC, the majority of NDCs include industry in their scope, and almost two-thirds now include detailed industry transition measures).** As EIP approaches do not only mitigate industries' contribution to climate change but also simultaneously contribute to sustainable economic development, they contribute to both competitiveness as well as environmental, social and health related SDGs. Thus, adopting EIP approaches constitutes an efficient path to tackle the challenges of the 21st century.



Based also on the lessons learnt from GEIPP I, it is recognised that the framework conditions and priorities vary considerably amongst industrial parks. **Therefore, it is important to consider and adapt the Eco-Industrial Park efforts to the economic, ecological, social, and cultural characteristics of the respective community and region.** Each industrial park and its context are unique, so therefore there is a need for GEIPP to provide customised technical assistance and capacity building.

The key components of the work at park level are depicted in Figure 1.



Figure 1 Key components of the EIP Approach

### A3. Problem Analysis

#### A3.1. *Barriers, challenges and capacity constraints for authorities, industrial park management entities and tenant companies for implementing the Eco-Industrial Park approaches in South Africa*

Broadly speaking, South Africa faces many **barriers and challenges** that limit economic growth. This affects all businesses whether or not they are situated within an industrial park/zone / area<sup>3</sup>.

These overarching challenges are summarised as follows:

- Infrastructure issues such as the provision of electricity and water;
- Environmental factors such as water scarcity (17% fresh water shortage projected by 2030) and current electricity under-supply in the country;
- Limited diversion of waste from landfills (currently only 11%) and subsequent loss of opportunities and contribution of the waste economy (estimated in excess of R 20 billion equivalent to Euro 979 mio annually) to the South African economy;
- Capacity/ authority/ empowerment and support to industrial park management;
- Very limited financing options for companies and parks, especially in terms of green financing;
- Socio-economic factors (strikes and labour issues);

<sup>3</sup> <https://www.tmf-group.com/en/news-insights/business-culture/top-challenges-south-africa/>

- Limitations in municipal service delivery;
- Red tape for starting and running a business and obtaining support;
- The taxation landscape includes multiple types of taxes for businesses;
- The urgency of the need to implement the Just Transition, which includes addressing the transition to a Circular Economy and greater sustainability in industry;
- Integrating Industrial parks more into Local Economic Development (LED) in municipalities while also leveraging these spaces more in addressing national priorities such as employment, equality and poverty; and,
- The political environment lends itself to corruption.

Key **common challenges** facing industrial parks/zones in South Africa are captured by various technical reports<sup>4, 5</sup> as well as multiple summary reports on topic-specific trainings held as part of the GEIPP Phase - South Africa country level intervention<sup>6</sup>. These challenges can be summarised as follows:

- Attracting new investors and tenant companies;
- Security and reliability of water, and electricity supply;
- Technical and management capacities of park management entities;
- Support for industrial parks by municipalities, provincial and national government and other entities, including limited green finance options;
- Dealing with rapidly changing economic, technical, environmental, and social conditions in which parks/zones are operating;
- Meeting expectations by the local community in terms of job creation and poverty alleviation;
- Union strikes and social activities relating to municipal services, political dynamics;
- Integration into regional programmes and regional prioritization;
- Outdated and malfunctioning infrastructure, as well as no/ poor maintenance;
- Access-to-finance for new and existing companies;
- Informal sectors/trading in the industrial parks;
- Limited services and value offering to tenants in industrial parks;
- Companies not paying their service fees to the park management; and
- Functional and aesthetic deficiencies.

### **A3.2. Policy and regulatory challenges**

The main policy instruments for the more than 400 industrial parks in South Africa are Industrial Park Revitalisation Programme (IPRP) Policy Framework (July 2021) and the Special Economic Zones, SEZ, Policy and SEZ Act (2014). They cover the national government's Industrial Parks

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4 NCPC-SA, dtic and UNIDO (2019). Eco-Industrial Park (EIP) Baseline Assessment Report for South Africa; Department of Trade, Industry and Competition (dtic). Policy Framework Industrial Parks Revitalisation Programme. Draft version November 2019; NCPC-SA and Sofies (2019). National Workshop – 3 December 2019: Taking stock and advancing the transition to Eco-Industrial Parks (EIPs) in South Africa. Summary report for dtic and UNIDO.

5 UNIDO, NCPC-SA and dtic (2023). Standard operating procedure on the industrial park master planning. Report produced as part of GEIPP Phase I in South Africa.

6 The multiple trainings held as part of GEIPP I in South Africa covered EIP requirements, RECP, industrial synergy development, industrial park management, planning and zoning, community collaborations, waste management, access-to-finance. The training sessions included group discussions with participating IP management, companies, government agencies on the challenges and possible solutions in relation to the specific topic of the training.



Revitalization Programme (IPRP) currently including 27 government-owned industrial parks and the Special Economic Zones programme covers 15 SEZs in South Africa.

The IPRP gives priority to the establishment and revitalisation of government-owned industrial parks, which primarily involves developers, management entities and owners of parks. Furthermore, priority is given to governance and operations, which involves the administration, management, compliance, coordination and standardization of industrial parks in the country.

The Special Economic Zones, SEZ, Policy and SEZ Act (2014) provides a framework for the development, operation and management of SEZs. The SEZ Policy also addresses challenges of the past Industrial Development Zones (IDZ) Programme, which has been superseded by the SEZ programme. The purpose of the SEZ programme is to:

- Expand the strategic industrialisation focus to cover diverse regional development needs and context;
- Provide a clear, predictable and systemic planning framework for the development of a wider array of SEZs to support industrial policy objectives, such as the Industrial Policy Action Plan;
- Clarify and strengthen governance arrangements, expand the range and quality of support measures beyond the provision of infrastructure; and
- Provide a framework for a predictable financing framework to enable long-term planning.

The EIP policy analysis report undertaken as part of the GEIPP I - South Africa country level intervention provides a summary of the regulatory/policy challenges that impede the transition of industrial parks towards EIPs. The top three challenges identified within the current policy environment are:

- High-level vision for EIPs and alignment with national context: There is no overarching and coordinated national vision for EIPs in the existing policies and legislation, and sustainable development and the green economy are seen as a stand-alone sector in industrial policy. An overarching vision for sustainable industrial development should be developed through a multi-stakeholder collaborative approach, with a specific vision to green industrial parks (including Special Economic Zones) in line with the objective of the EIP programme. This being said, current efforts are underway and have been for some time, to address this through the policy framework, green paper on industrial parks and formalising collaboration between the dtic, National Treasury, NCPC-SA on industrial spaces, with support from GIZ.
- The gap in policy integration and implementation: There are numerous official channels aimed at facilitating the coordination and alignment of public policy, such as the Forum of South African Directors-General, the Economic Sectors, and the Employment and Infrastructure Development Cluster (ESEID). However, despite these channels, the management, alignment and implementation remain a challenge. There is a need for either the re-alignment and strengthening of the capacity within these forums or for the development of new tools or methods to improve the collaborative, multi-stakeholder approach to policy design and implementation, in order to ensure alignment of various policies. This coordination is currently being addressed through improved coordination and collaboration between the dtic, National Treasury and NCPC-SA with support from GIZ, as well as through institutionalizing EIP approaches in metropolitan areas through the Cities Support Programme (CSP) for example.



- Ineffective policy enforcement and incentivisation: Policies do include enforcement measures and legislation, however, capabilities in terms of financial and human resources to execute the enforcement are often lacking. There is currently a lack of formalised incentives/ financial support for companies in terms of green development and compliance with sustainable development measures. The importance of effective and efficient enforcement of legislation and related policy needs to be addressed with the relevant departments. Second to enforcement, more positive measures such as incentivisation could be considered. One example could be to implement a preferential procurement system for companies that comply with sustainable development policies.

Specific policy and regulatory challenges include:

- With the exception of the Industrial Park Policy Framework and green paper, current policies do not address the long-term vision or goals for EIP development and implementation nor consider it as part of the national future outlook;
- Most policies (except for those relating to IPs and SEZs) do not prioritise interventions or provide overarching direction, for EIPs. They focus on the manufacturing sector in general;
- While the dtic does measure the impact of SEZs and IPs, this is not generally available to the public and also is not inclusive in terms of its measurement of impact pertaining to the economic, environmental, and social aspects of industrial parks specifically;
- Implementation of existing policies is not sufficiently supported by concrete action planning, including responsibilities, timeline, and financial/human resourcing. Policies merely state strategies and plans or actions;
- There is no clear evidence in some of the policies that indicate the need to gradually phase out the pre-existing industrial policy and provide time for affected individuals and industries to adjust. However, the country has a Just Transition plan in place to address the transition to a circular/ green economy, which also speaks to the needs of industry in this regard. The dtic has also indicated already that all industrial spaces in the country will have to transition to an EIP footing;
- Most policies do not include a coherent strategy to accommodate the needs, opportunities and challenges associated with SMEs as these falls solely within the ambit of the Department of Small Business Development and has not been coordinated well to date with other ministries such as the dtic. Policies, such as those in the dtic therefore merely mention that SMEs need to be supported for employment growth without clear strategies and action plans;
- There is generally little or no impact assessment done for policy domains, instruments and their pathways to assess potential negative impacts over the short, medium and long term;
- Some policies do not include instruments suited to the country's level of industrialisation, environmental and socio-economic needs (e.g. information instruments adapted to the type and size of industrial parks in the country). However, these policies do include instruments that are relevant to policy objectives, vision and execution plans, which are sided to the country's level of industrialisation (i.e. financial incentives relevant to existing industry sectors);
- The development of legislation follows an extensive stakeholder engagement process that includes parliament, NEDLAC (National Economic Development and Labour Council) and inter-agency collaboration within government, private sector and civil society groups. Due to dominating political and other interests, however, the input received from smaller interest groups may be ignored;



- Most policies do not take into account the country's ability to monitor and enforce compliance. There is also a limited budget provided for regulatory enforcement at the municipal level;
- Some policies do not acknowledge the country's existing potential strengths or reflect its comparative advantage before addressing problems that the country is faced with even though the policy development process makes provision to do so; and
- There is no evidence in most policies that voluntary instruments (green awards, roadmaps, eco-labelling) are supported with a functional legislative framework. E.g. eco-labelling is merely mentioned in the NSSD but no implementation has been initiated. The DFFE is working in this area and greater implementation of such instruments in the next year or two.

### **A3.3. Success factors for EIP transformation**

During the implementation of the GEIPP I in the seven project countries (including South Africa), a set of success factors and challenges for EIP transformation were identified:

- **Importance of working with industrial parks:** Industrial parks and clusters are responsible for 15-20% of total global CO<sub>2</sub> emissions<sup>7</sup>. This makes them an attractive target for impactful emission reductions. Industrial parks will be critical players in accelerating the path to net zero carbon. Industrial parks feature a wide range of industry sector profiles that have large energy and carbon footprints. Significant decarbonization through energy, resource and material efficiencies can be unlocked in industrial parks.
- **A strong commitment and involvement of a wide range of actors is seen as essential.** This includes the government (national, provincial and local), park management, EIP service providers, tenants and SMEs, but also includes a wider range of actors like communities, learning institutions, business associations and companies outside of parks or industrial zones in order to establish partnerships (e.g., for industrial symbiosis). Different mechanisms have been established in GEIPP I in order to facilitate the involvement of different actors. In South Africa, this has taken the shape of the national EIP roundtable initiated by the dtic.
- **The right incentive structure is seen as a key to the success of EIPs.** Incentives can be as simple as legal requirements or financial incentives, but can also include support through the provision of expertise, planning and marketing support for example. This is currently receiving significant attention at the national level by the dtic, the National Treasury, NCPC-SA and GIZ in South Africa.
- **The GEIPP strategy itself is seen as a success factor.** Several components of the strategy were praised, in particular the holistic approach to park development, park assessments to identify pilots, awareness creation activities, tools provided, the flexibility to adapt to the country-specific situation (including language), technical advice, cross-feeding of country experiences, benchmarking against the international framework among others.

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<sup>7</sup> GLASGOW, Scotland, Nov. 3, 2021 /PRNewswire on COP26



- **Park management entities play the leading role in the transition from IPs to EIPs.** They can encourage companies to adopt resource efficiency and cleaner production, increasing reuse and recycling waste by establishing synergies between companies, as well as build broader awareness regarding the circular economy and implement measures to support that.
- **Central and local governments should be closely involved.** The role of the national government is a key factor for success. Ministries need to be involved in all phases of the programme, in particular also in the planning process. Furthermore, it is important to involve the local government and local communities (e.g., municipalities) in the areas of the pilot parks. Once local governments recognise the EIPs' benefits for the EIPs' surrounding economy (e.g., new jobs), local governments will expedite local support for the parks and advocate for EIPs and a conducive regulatory framework at the national level. This has definitely been evident in the country as well.
- **Short-term investment costs into 'eco-efficient' industrial processes can be prohibitive for parks in developing countries.** For example, expensive wastewater treatment plants, which recover waste heat and can treat complex chemicals — such as dyes and pharmaceutical by-products — require significant investment, and have long financial return periods. Depreciating these benefit streams and recovering additional costs through EIP management fees can make it difficult to negotiate with resident businesses. In addition, the realization of benefits from efficiency gains depends on skilled management of process improvements, which often requires additional capacity building. This highlights the need for effective planning and strong internal support.
- **The industrial parks' financial capacities play a key role.** Some state-owned parks have very limited resources (e.g., in the Ukraine) while others are owned by international companies with solid financial resources (e.g., partly in Indonesia).
- **Communication of results is important but takes time.** Stakeholders agree that it is very important to communicate results and success stories. However, it is acknowledged that one should allow for some time in order to have results to show (1-2 years). Having demonstrable results can then serve as examples for replication and outreach. The communication should go beyond data and tell a positive story to change mindsets.

#### ***A3.4. Addressing challenges for transformation into Eco-Industrial Parks***

In summary, GEIPP II - South Africa country level intervention will respond to the key challenges and success factors through:

- **Multi-level interventions:** support under the GEIPP II – South Africa country level intervention will address four levels: namely: Global level (Exchange and scaling up of EIP best practices and dissemination of Global Public Goods), Macro level (integrating and streamlining existing government and policy and legal frameworks aligned with EIPs), Meso level (expanding providers of services, technologies and finance at country and international levels) and Micro level (strengthening industrial park management and tenant companies).
- **Integrated approach:** The implementation of the GEIPP II – South Africa country level intervention will address key policy, technological, socio-economic, and institutional

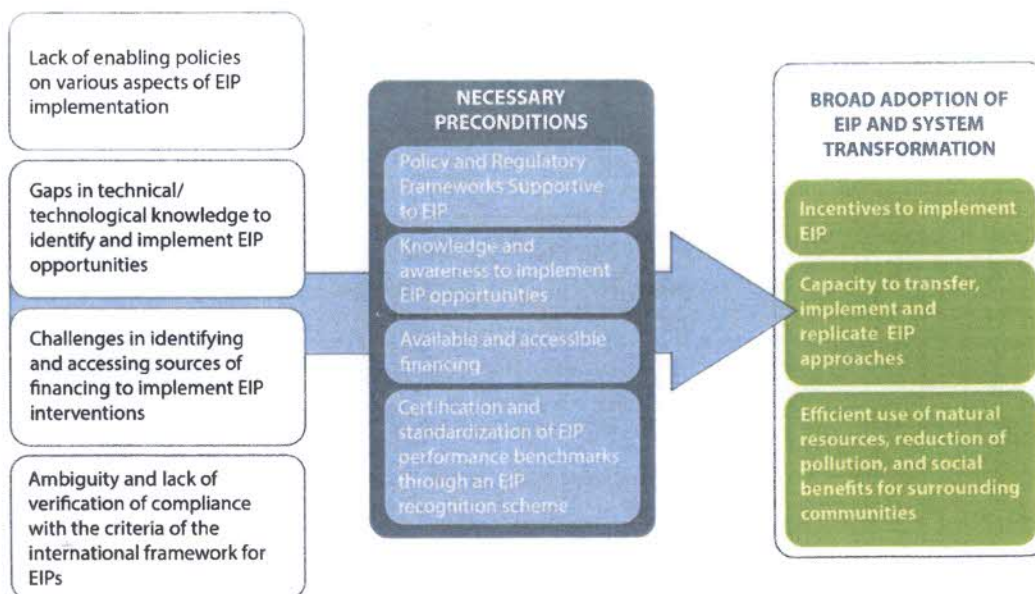


conditions for EIP transformation and replication in an integrated way to reach long-term objectives and targeted transformation.

- **Synergies and partnerships:** The implementation of the GEIPP II – South Africa country level intervention will be expanding synergies, collaboration and partnerships with key bilateral and multilateral initiatives at country and international levels to support the implementation and replication of EIP approaches.
- **Enhanced existing capacities:** the GEIPP II – South Africa country level intervention will continue to pro-actively strengthen existing capacities of EIP service providers at country and international levels as a mechanism of further enhancing their capacity and promoting especially South-South cooperation amongst the participating countries. Part of this aspect involves the establishment of a group of experts and a One-stop shop type approach to provide services to industrial parks across the country.
- **Multi-dimensional networking:** the GEIPP II – South Africa country level intervention will expand its effective platform developed as part of GEIPP<sup>8</sup> I – South Africa country level intervention to facilitate the transfer of knowledge and sharing of experiences through interactive and multi-level networking.

A summary of barriers, challenges and capacity constraints and the necessary preconditions for the broad adoption of EIP approaches as required for a system transformation is provided in Figure 2.

Figure 2: The process from the current situation through GEIPP II enhanced preconditions to broad adoption of EIP approaches



<sup>8</sup> <https://hub.unido.org/about-eco-industrial-parks> and <https://www.greenindustryplatform.org/initiatives/global-eco-industrial-parks-programme>

## A2. Project Benefits of Phase II of GEIPP in South Africa

The South Africa GEIPP I country level intervention worked with three priority industrial parks (East London IDZ, Phuthaditjhaba IP and Ekandustria IP), which benefitted from in-depth technical assistance. By adopting multiple EIP approaches (e.g. RECP, industrial synergies, EIP management), the three park management entities and tenant companies could reduce their emissions by 133,837 tonnes of CO<sub>2eq</sub> / year through electricity and fossil fuel savings<sup>9</sup>. Furthermore, park management entities and tenant companies in EIPs that are vulnerable to climate change were assisted in their efforts to reduce environmental, social and economic damage caused by heat waves, droughts, heavy rainfall and floods. In this context, they received advice on how to implement cost-efficient and effective adaptation measures. By identifying industrial symbiosis opportunities and supporting their implementation, circular economy approaches were promoted.

The GEIPP I – South Africa country level intervention also contributed to the work of the Department of Trade, Industry and Competition (the dtic) with regard to industrialization. This included inputs into the national IP Framework and the preparation of a draft green paper for industrial parks. The EIP approach was integrated by the dtic into its approach for industrial park support. At the same time, the National Treasury, through its Cities Support Programme has also introduced the EIP approach into its work on industrial parks in the main metropolitan municipalities in the country. This has now been adopted by these municipalities in their planning. The activities under the GEIPP I – South Africa country level intervention have significantly increased the visibility of sustainability and have contributed to great collaboration between various stakeholders in the country, such as the dtic, the National Treasury, DFFE, GIZ, NCPC-SA, IFC and others. The GEIPP II South Africa country level intervention can therefore further enhance the work done to date by the government.

A summary on the achievements of the GEIPP I South Africa country level intervention is provided in Table 1.

Table 1: Achievements of GEIPP I - South Africa country level intervention

	Achievement
<b>Out come 1.</b> EIP incentivized and mainstreamed in relevant policy and regulations	<ul style="list-style-type: none"> <li>• The EIP approach has formally been adopted by the dtic on the new reimagined approach for industrial parks work in South Africa,</li> <li>• The International EIP Framework has been adopted by dtic as an enabler and guideline for the Industrial Parks Revitalisation Programme,</li> <li>• The EIP approach has been adopted by the National Treasury into its work with the metropolitan municipalities and their associated industrial parks,</li> <li>• The EIP approach has been integrated into the dtic's Industrial Parks Policy Paper Framework, and it has been taken further into an updated Green Paper and subsequent draft White Paper that is planned for completion by end of 2023/24 financial year,</li> <li>• The EIP framework and indicators are currently part of the inputs to the development of a national framework for certification and measuring performance of all industrial spaces in the country as EIPs,</li> <li>• The strengthened national institutions and stakeholders relevant to EIP policy development and implementation in South Africa total in 73</li> </ul>

<sup>9</sup> This figure was taken in December 2022 at 70% of the programme implementation period and can be expected to significantly increase over the remainder of the programme implementation period.



	Achievement
	<ul style="list-style-type: none"> <li>• 120 actors participating in enhanced collaboration settings (clusters and networks)</li> <li>• Overall total number of stakeholders engaged since the start of GEIPP-SA through GEIPP-SA under capacity building through feasibility assessments, RECP assessments, EIP Concept and Master Planning workshop, engagements with Cities Support Programme of the National Treasury and during GEIP Terminal Evaluation is 1489</li> <li>• The number of actors now participating in enhanced collaboration settings i.e., stakeholders currently participating in dtic and NCPC's EIP Roundtable is 400</li> </ul>
<b>Outcome 2:</b> EIP opportunities implemented, with environmental/climate (e.g. resource productivity, emission reduction) economic and social benefits achieved by industrial parks and their enterprises confirmed. The outputs will be achieved in industrial parks already supported during GEIPP I as well as in additional prioritised industrial parks.	<ul style="list-style-type: none"> <li>• Energy efficiency - Kilowatt hours saved (per year) since the project started is 6 385 960 kWh</li> <li>• Renewable energy - Kilowatt hours additionally produced (per year) since the project started is 68 182 kWh</li> <li>• Climate change benefits realised due to EIP Opportunities implementation tCO<sub>2</sub> Eq. / year is 2 414 tCO<sub>2</sub></li> <li>• Number of RECP/EIP initiatives/opportunities developed/implemented with the support of national service providers) is 36</li> <li>• Amount of actual investments on RECP/EIP identified options (USD) by park management and tenant companies is \$215 000</li> <li>• Number of EIPs activities by enterprises: EIP opportunities developed/implemented, without further support through GEIPP. e.g., park management services, RECP, Industrial synergies and shared infrastructure/utilities. community engagement, planning and zoning are 12</li> </ul>

The GEIPP II – South Africa country level intervention will share the same overall development objective as for GEIPP I. With basic capacity building and EIP piloting undertaken in GEIPP I, GEIPP II is moving from demonstration of the benefits to facilitation, replication and scaling-up of EIP approaches. This will contribute to more balanced industrial development within the framework of resource efficiency and the circular economy.

In order to consolidate the results the GEIPP II – South Africa country level intervention will continue to provide additional technical assistance to the parks already supported under GEIPP I – South Africa country level intervention. The technical assistance will aim at establishing material flow accounting and environmental management systems as required to achieve continuous environmental and financial performance improvement. To scale up the adoption of EIP approaches, additional parks will be included under GEIPP II. In these parks, in-depth technical assistance will be provided to improve their environmental, social and financial performance. The introduction of EIP approaches into industrial zones within the Cities Support Programme of the National Treasury is added to the project.

Tenant companies will be assisted in adopting Resource Efficient and Cleaner Production (RECP) technologies and approaches. This will result in a reduction of resource consumption and the minimization of waste. The results of the RECP assessments will be used in close collaboration with the park management entities for the identification of industrial synergy opportunities. Park management entities will also be supported in the implementation of these industrial symbiosis opportunities e.g. the use of waste and by-products by one industry as input into the manufacturing processes of another industry. This will contribute to making industrial manufacturing processes more circular.



Furthermore, park management entities will be supported in their switch to renewable energies and the adoption of nature-based infrastructure solutions and approaches. E.g. the use of nature-based infrastructure for the cost-effective and environmentally friendly treatment of waste water.

The GEIPP II Global Component will advise GEIPP country-level interventions on the EIP approaches and provide guidance as well as formats for monitoring reporting and preparation of work plans and budgets ensuring that the results and KPIs as laid out in the logical framework of the GEIPP II program are achieved. The Global Component will further develop Results-Based Management (RBM) tools to easily capture the results of the country level intervention, ensure their progress and compile the results for wider audiences.

GEIPP II will broadly follow the same results-based management system and results indicators as GEIPP I. Adjustments have been introduced for aligning the indicators with the UNIDO Integrated Results and Performance Framework (IRPF). The Logical Framework with indicators detailing the benefits can be found in Section H.

## **A6. Project beneficiaries**

The stakeholders of the project can be grouped into the following categories:

- Government, including provincial government, and regulatory entities;
- Public and private industrial park/zone operators and resident firms;
- Other stakeholders (e.g. international development organizations, national organizations and service providers). This also includes the local communities where the industrial parks are located, training and educational bodies and financial institutions.

Macro-level beneficiaries:

- Department of Trade, Industry and Competition;
- National Treasury;
- Department of Forestry, Fisheries and the Environment;
- Department of Science and Innovation;
- Department of Cooperative Governance and Traditional Affairs
- Provincial Governments.

Meso-level beneficiaries:

- Provincial Development Agencies;
- South Africa National Cleaner Production Centre (NCPC-SA);
- Green industrial development organizations.
- Providers of technical, managerial and other business advisory services, EIP Services Providers

Micro-level beneficiaries:

- Public and private IPs/SEZs and their resident firms selected for the South Africa GEIPP implementation. Please refer to the section of the industrial park selection for further details.

Wherever feasible, the GEIPP II - South Africa country level intervention will closely coordinate with other ongoing (SECO, UNIDO and others) activities at the country level, in view of exploiting synergies and optimizing the use of resources.



**Beneficiaries, key benefits and interactions**

Table 2 presents a summary of how beneficiaries will benefit and interact in GEIPP II activities. It is not claimed that this table is all-inclusive.

*Table 2: Key benefits and interactions of beneficiaries in GEIPP II in South Africa*

<b>Beneficiaries</b>	<b>Key benefits</b>	<b>Key interactions</b>
Industrial Park management and tenant companies	<ul style="list-style-type: none"> <li>Strengthen economic, environmental and social performance</li> <li>Feasible EIP opportunities implemented with funding leveraged from existing financial and economic incentive schemes</li> </ul>	<ul style="list-style-type: none"> <li>Work with EIP service providers to identify and develop feasible EIP opportunities</li> <li>Implement feasible EIP opportunities</li> <li>Support the development and application of a national EIP recognition scheme</li> <li>Support expertise and capacity building</li> <li>Strategic inputs and advisory on planning</li> <li>Awareness building</li> </ul>
Providers of technical, managerial and other business advisory services	<ul style="list-style-type: none"> <li>Increased markets for services and extended service offerings</li> <li>Deeper relationships with industrial parks and tenant companies</li> </ul>	<ul style="list-style-type: none"> <li>Participate in GEIPP capacity-building activities</li> <li>Incorporate EIP approaches into service offerings and market these to existing/new clients</li> <li>Contribute to services and feasibility studies</li> </ul>
Other stakeholders (e.g., education and training institutions, professional and industry sector associations)	<ul style="list-style-type: none"> <li>Extended training and education offerings meeting the needs for sustainable development of industrial parks and companies</li> <li>Increased awareness and capacities of students and industrial professionals on EIP approaches</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate EIP approaches into training/education curriculums and awareness-raising materials</li> <li>Pro-actively market the EIP benefits and its approaches</li> <li>Participation in the planning and development of relevant training content and offerings</li> <li>Participation in capacity-building activities</li> </ul>
Government and its agencies at national and sub-national levels	<ul style="list-style-type: none"> <li>Strengthen and add policies and regulations supporting industrial parks and sustainable industrial development</li> <li>Coordinate and align policies and regulations across ministries</li> <li>Less pollution and lower risks from industrial parks and tenant companies</li> <li>Increased competitiveness and job creation</li> </ul>	<ul style="list-style-type: none"> <li>Develop and implement national EIP recognition schemes</li> <li>Develop, implement, and enforce relevant policies and legislations in environment, industry, technology and other applicable policy domains across multiple ministries</li> <li>Activate and/or strengthen incentives for businesses and other organisations to consider and implement EIP in their operations</li> </ul>

Beneficiaries	Key benefits	Key interactions
Financial institutions and development banks at international, national and sub.-national levels	<ul style="list-style-type: none"> <li>Extended offerings of financial services meeting the needs for sustainable development of industrial parks and companies</li> <li>Deeper relationships with industrial parks and tenant companies</li> </ul>	<ul style="list-style-type: none"> <li>Integrate EIP opportunities in existing or new financial mechanisms available to industrial parks and their tenant companies</li> <li>Develop/ outline a framework for targeted green finance for parks and tenants together with government and others</li> </ul>

## B. Reasons for UNIDO assistance

### B.1. Relevance

The rising relevance of EIP approaches for the mitigation of industries' climate impact, as well as for the adaptation of industrial parks to the negative impacts of climate change warrants further interventions of UNIDO to enable developing and transition economies to benefit from the widespread implementation of EIP approaches, methods, tools and policies and results achieved during GEIPP I.

The mid-term evaluation of GEIPP I concluded that the GEIPP is seen as highly relevant by stakeholders in the seven GEIPP countries, including South Africa. The most prominent arguments in support of the GEIPP are related to the EIP's positive contributions to achieving a more **circular economy and climate change mitigation** targets and the expected **competitive advantage** for the participating industrial parks and companies having adopted the EIP approach. Having a reduced climate impact and an improved ecological performance is seen as advantageous vis-à-vis other countries (government perspective), vis-à-vis other industrial parks (park perspective) and vis-à-vis other companies (company perspective). It is expected that climate-friendly, competitive parks and SMEs can contribute to economic development, also to job creation at the local level.

The GEIPP is embedded in **the International Framework for Eco-Industrial Parks**, which is based on past lessons learnt. The international framework is the basis for the GEIPP strategy to **address the challenges simultaneously in parallel at the different levels** – macro level (policy), meso level (EIP service providers), micro-level (EIPs and SMEs), global level (knowledge and awareness). This multi-level approach is seen as highly relevant.

The mid-term review (MTE) of the GEIPP noted that the contribution to the **adjustment of the regulatory framework in order to create an enabling environment for Eco-Industrial parks to thrive** is seen as particularly relevant. More generally, the parallel multi-level approach at the micro, meso, macro and global levels is judged very positively and successfully by stakeholders. There is a **strong interest from the industrial parks beyond the selected pilot parks to participate in the GEIPP**.

The EIP approach is **very relevant to achieving transformative change** in GEIPP countries. The interest of more industrial parks to participate in the GEIPP is an indication of the transformative potential of the parks. The MTE also noted **broader adoption and transformative changes through the EIP concept take time**. This makes the GEIPP II highly relevant in order to **further push the mainstreaming and replication of EIPs** through multi-



level (i.e from micro to global) and multi-stakeholder approaches involving the private and public sectors.

## B.2. Demand

**Eco-Industrial Parks (EIP) are on the rise.** According to the World Bank<sup>10</sup>, there are about 250 self-declared Eco-Industrial parks operating or under development worldwide today, while just as recently as 2000, there were fewer than 50. Eco-Industrial parks (EIP) offer the business advantages of traditional industrial parks while also using resources more efficiently, improving productivity, supporting the achievement of firms' social responsibility goals, and lowering exposure to climate change risks.

**There are a significant number of industrial parks and zones in South Africa.** The GEIPP I intervention in South Africa created **further interest and demand from industrial parks and their companies in applying EIP approaches** to create more resource-efficient and cost-effective industrial parks that are more competitive, attractive for investment and risk resilient. The stakeholders consider Phase II of the Project as a valuable opportunity.

As EIPs compel enterprises to adopt resource-efficient practices and projects, they create new demand for energy-efficient and low-carbon equipment, technologies and services, increasing opportunities for vendors to develop their manufacturing capability or start importing such equipment and technologies. EIPs can bring in more foreign investment in the form of "green" FDI, by offering investors access to infrastructure, finance, knowledge and institutional support for implementing low-carbon projects and earning a healthy commercial return. Green FDI can then attract higher-quality foreign investments, facilitating a shift from simple processing, assembly and low-level manufacturing toward research and development, high-end design, state-of-the-art manufacturing techniques, modern logistics, and other new areas. The spill-over effect of green FDI creates new industry value chains, generates employment, and contributes to skill development of workers, engineers, and managers.<sup>11</sup>

In order to achieve a cutting-edge position in tackling environmental challenges, there is a **strong demand to adjust the regulatory framework in order to create an enabling environment for Eco-Industrial parks to thrive.** In other words, GEIPP should support the reform of the regulatory framework by including EIP criteria into the relevant frameworks for industrial parks and similar organisations sharing, in particular, the experience from other countries. The conviction that the regulatory framework must be changed is not only driven by a general sense of urgency (e.g. climate change) but also by specific national priorities and by international pressure (e.g., new German "Supply Chain Act" (2021), EU environment regulations). Furthermore, the rising cost of natural resources is increasing the demand from public and private sector stakeholders to apply EIP approaches.

EIPs furthermore provide an approach for engaging with communities within and outside of industrial parks in South Africa to facilitate greater integration of these spaces into what is termed Local Economic Development (LED), as well as enabling such parks and their tenants to have greater and more meaningful impact on economic, social, environmental and other areas at local and national level. The EIP Framework provides a mechanism to coordinate

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<sup>10</sup> WBG (2018). Eco-Industrial Parks Emerge as an Effective Approach to Sustainable Growth. [Weblink](#).

<sup>11</sup> Based on WBG (2014). Low-Carbon Zones - A Practitioner's Handbook.

efforts and foster collaboration and because it is already integrated into the national approach and policy framework for industrial parks, it enhances the work done in IPs and on industrialization across the country. In the process, it contributes to meeting the national demand for socioeconomic development and the transition to a Circular Economy and sustainability.

The South African government is seeing industrial park development as a key component in socially just and environmentally sustainable economic development. The industrial parks policy draws heavily from the international eco-industrial park framework as jointly developed by UNIDO, GIZ and WBG and the dtic has already indicated that it encourages all industrial parks to transition towards an EIP. This is further supported by the adoption of the EIP approach by the National Treasury in its work through the Cities Support Programme on industrial spaces in the main metropolitan municipalities in the country.

Against this background, the demand for further supporting and mainstreaming the development of Eco-Industrial Parks in South Africa is highly relevant regarding the UNIDO mandate, which is to promote and accelerate inclusive and sustainable industrial development in developing countries and economies in transition.

## **C. The project**

### **C.1. Objective of the project**

The development objective of the GEIPP II - South Africa country level intervention is in line with that of the overall GEIPP II; to promote circular economy approaches in industries, to mitigate the climate impact of industries and to help the industrial parks to adapt to the negative consequences of climate change. The programme will achieve this by continuing to facilitate the uptake of Eco-Industrial Park approaches in scaling up resource efficiency, minimizing waste, promoting recycling and improving economic, environmental and social performances of businesses, thereby contributing to inclusive and sustainable industrial development in a circular economy in South Africa. This also includes the added value of addressing the social development needs of the country.

### **C.2. The UNIDO approach**

#### ***GEIPP II components***

The proposed GEIPP II outcomes and interactions between the Country-Level Interventions and the Global Knowledge Management Component is presented in the following figure.

*Figure 3: GEIPP II outcomes and interactions between the Country-Level Interventions and the Global Knowledge Management Component*



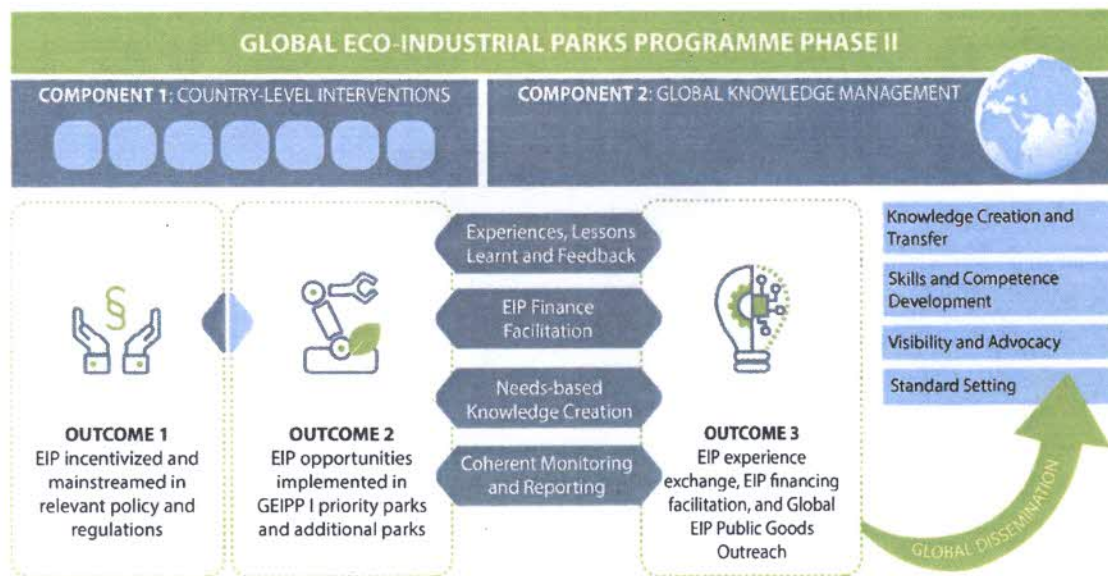


Figure 3: interactions between the Programme's 2 components

As shown in the figure 3 above, specific interactions between the Country-level Interventions (Component 1) and Global Knowledge Management (Component 2) are:

- **Experiences, lessons learned and feedback:** Challenges and lessons of global relevance identified on country-level, will be taken up by the global component and will contribute to knowledge creation and sharing, best practices and peer learning, which in turn will again inform the country-level interventions.
- **EIP finance facilitation:** Fostering linkages with international financial institutions/development banks and creating cross-country learnings with processes on accelerating investments and transformation of industrial parks towards EIPs.
- **Needs-based knowledge creation:** Generate, analyse and disseminate information and knowledge from country experiences to support the mainstreaming and replication of EIP practices within and beyond the GEIPP countries.
- **Coherent monitoring and reporting:** Following a uniform template, customised monitoring and reporting tools for each GEIPP country has been developed by the Global Knowledge Component of GEIPP I, and will be further used in GEIPP II. The country level monitoring and reporting results will be consolidated through the Global Knowledge Component to create shared learnings and potential points for adaptive project management across the GEIPP countries.

### Theory of change

The intervention logic and integrated approach for achieving transformative change on the development and implementation of EIPs for GEIPP II is presented via a Theory of Change in figure 4. With a view to reinforcing the impact, coherence and sustainability of the programme, the two technical components will work in close conjunction and synergistically.

The Theory of Change for GEIPP II is based on overall commitments and drive by countries (including South Africa) towards SDGs, climate and resource-efficiency goals as providing an attractive path for a just, environmentally friendly development without losing competitiveness.

While GEIPP I was a capacity-building and demonstration phase in the priority countries, GEIPP II country interventions will build on convinced stakeholders and the power of demonstration towards self-sustaining capacity resulting in up-scaling and replication in the GEIPP countries, including South Africa.

Based on indications and policy work conducted and further supported during GEIPP II, EIP development is assumed to be widely taken-up as a key policy for advancing an environmentally benign and socially responsible way of addressing both industrial and climate policies by the manufacturing sector. The GEIPP II will further contribute towards the elaboration of national incentive and EIP financing schemes as being developed at the Macro-levels.

The EIP policy system will require targets and recognition, preferably standardization, schemes for both clearly defining EIP development and what activities are expected and incentivized by the industrial and climate policies. These direct EIP policy implementing actions are in the realm of meso-level partners, agencies under the line ministries, organizations giving technical advice and providing financing.

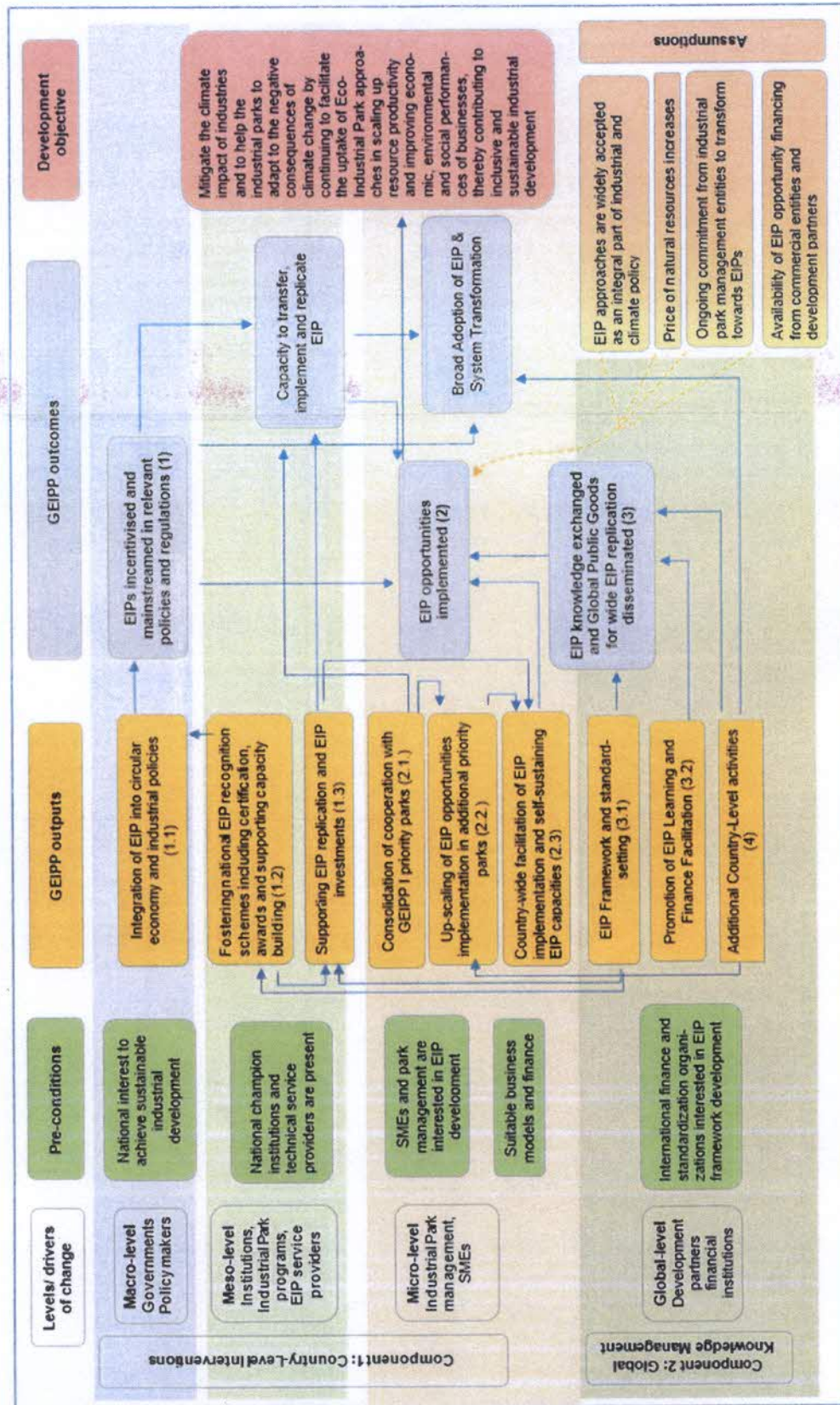
Outcome 1 related policy development will feed into both GEIPP I, as well as the new GEIPP II priority parks in the countries. This will lead to a virtuous, Outcome 2, cycle where EIP practices are being identified and implemented. GEIPP II will provide the spin for this cycle by facilitating EIP implementation and related capacity building through targeted action. This will increase the capacity to transfer, implement and replicate EIP. At this stage both the meso- and the micro-level actors (park tenant companies, SMEs and industrial park management) are actively seeking and implementing EIP opportunities that lead to the Development Objective of "uptake of Eco-Industrial Park approaches in scaling up resource productivity and improving economic, environmental and social performances of businesses".

The above virtuous cycle will happen under the GEIPP II Assumptions that i) EIP approaches are widely accepted as an integral part of industrial and climate policy ii) Increased prices of natural resources make resource-efficiency efforts profitable iii) Ongoing commitment from industrial park management entities to transform towards EIPs and iv) Availability of EIP opportunity financing from commercial entities and development partners

The Global-level will support the GEIPP countries in this work by bringing forward good practices, supporting the standard-setting and recognition scheme development as well as by promoting EIP as financing target among international players. The wide dissemination of the EIP Tools and other knowledge products as Global Public Goods will further inspire a broad adoption of EIP and lead to a system transformation.



Figure 4. Theory of change for the GEIPP II





### ***Linking the project to the dtic's industrial park policy with EIP actions***

As discussed in the previous section, the dtic has based on root cause, policy and regulatory analyses, drafted a new Industrial Parks Revitalization Programme Policy Framework. The GEIPP II - South Africa country level intervention will support the rolling out of this key policy initiative as it relates to and supports Eco-Industrial Park development.

Following consultations with the dtic, the following key EIP action areas were identified to be of high priority for GEIPP II -South Africa Country Level Intervention to support within available resources the implementation of the draft policy framework:

- Support the dtic in its industrial policy Institutional and operational alignments with the application of seminars, workshops, annual symposiums and conferences, and regular engagements with relevant stakeholders;
- Strengthening industrial park governance through the building/strengthening of institutional capacity of the dtic, provincial governments, economic development agencies, local municipalities on specific aspects of industrial park governance, including park management, administration and operations. UNIDO's support could include reviews of and recommendations on industrial park governance models as well as sharing of international good practices;
- Capacity building on industrial park infrastructure to the dtic and stakeholders such as federal and provincial government agencies, dtic's Critical Infrastructure Programme, and planning divisions. This capacity building could include the application of UNIDO's EIP Concept Planning Tool to existing and new industrial parks in South Africa;
- Human capacity building and skills have been provided by dtic (NCPC) through specific programs as well as activities during the GEIPP I – South Africa country level intervention. This needs to be further strengthened in collaboration with national and international partners such as GIZ's CPD4E program.
- Support research, development and innovation (RDI) efforts through (a) reviewing international experiences for incentives and support for RDI partnerships with industrial parks, and providing recommendations adjusted to the South African context; and (b) support dtic with the building of collaborative RDI networks internationally;
- Support dtic in the development of climate change and environmental sensitivity and awareness programmes in association with DFFE, including the promotion of EIP practices, highlighting the triple bottom line of environment, social and economic sustainability and the development of sustainable and climate-friendly practices in industrial parks;
- Support dtic's efforts on capitalization and access-to-finance by fostering synergies with international initiatives (e.g. IFC) as well as reviewing international experiences and best practices on capitalization and finance for industrial parks and tenant companies, and provide recommendations adjusted to the South African context;
- Support the development/improvement of incentives available to industrial parks by reviewing international experiences and best practices on incentives and support measures for parks and their tenant companies, and provide recommendations adjusted to the South African context. Incentives will also to focus on non-financial instruments such as advisory services and technical assistance;
- Support dtic in stakeholder engagement activities (e.g. hosting regular networking events, social media campaigns, local and national media campaigns, annual IP symposium, establishing technical fora, CEO's fora).



The GEIPP South Africa Country Level Intervention will support dtic in its work in the above areas by integrating or conducting separate activities within available resources not consumed by the outputs as laid down in Outcome 1 of the project.

### ***Industrial Park selection for GEIPP II South Africa country level intervention***

To create maximum impact with the GEIPP II - South Africa country level intervention and to remain focused on the available financial resources, the recommendation is to:

- Support implementation of promising EIP opportunities to pilot industrial parks selected under the GEIPP I – South Africa country level intervention;
- Select one higher-performing mature IPs with high improvement potential and one lower-performing mature IP with high improvement potential to receive detailed technical assistance through the GEIPP II - South Africa country level intervention;
- Consider industrial parks in either the growth phase or re-invention phase and integrated industrial-urban areas to receive advisory services under the GEIPP II - South Africa country level intervention;
- All industrial parks to benefit from capacity building and awareness raising on specific topics of interest.

Recommendations on the park selection for the GEIPP II – South Africa country level intervention:

- The three pilot industrial parks from GEIPP I – South Africa country level intervention (ELIDZ, Phuthaditjhaba IP, Ekandustria) to continue receiving technical assistance for supporting the implementation of promising EIP opportunities developed during GEIPP I – South Africa country level intervention;
- Isithebe Industrial Estate and Wadeville Industrial Area to receive detailed technical assistance under the GEIPP II – South Africa country level intervention;
- Atlantis SEZ and Highveld Industrial Park are proposed to receive advisory services on specific topics of interest..
- The four pilot industrial areas participating in the Cities Support Programme (e.g. Babelegi Industrial Park, Jacobs Industrial Area, Devland) are proposed to receive customized capacity building on the development and application of EIP management and governance models;
- All industrial parks/zones/areas in South Africa can benefit from capacity-building and awareness-raising efforts organized through the GEIPP-SA Phase II on specific EIP topics (e.g. RECP, industrial synergies, park management, community collaboration, planning and zoning).

It is important for the GEIPP II - South Africa country level intervention to create synergies with other initiatives and projects in the country by building upon pre-existing work and to continue the EIP transformation processes already started (e.g. through Cities Support Programme, Vuthela iLembe Local Economic Development (LED) Programme, GIZ, UNIDO and IFC projects).

- A key synergy opportunity for GEIPP II – South Africa country level intervention is with the Cities Support Programme to build capacities for setting up and/or strengthening operational management entities for government-owned parks and integrated industrial/urban areas in South Africa.

- The NCPC-SA is leading the coordination with key stakeholders to ensure synergies with existing and upcoming initiatives related to (eco-) industrial parks development in South Africa, and thereby further enhance collaborations towards the common goal of creating more sustainable, cost-effective and risk-resilient industrial parks in the country.

The industrial parks / zones / areas for in-depth technical assistance, advisory services and capacity building as part of the GEIPP II - South Africa country level intervention is subject to the following key follow-up actions:

- In close collaboration with the dtic, and the National Treasury (Cities Support Programme), UNIDO and NCPC-SA to obtain confirmation of commitment from the industrial parks and their companies to collaborate in Phase II of the Global Eco-Industrial Parks Programme in South Africa;
- UNIDO to undertake a due diligence review on the recommended industrial parks;
- UNIDO and the NCPC-SA to establish a Memorandum of Understanding (MoU) with each of the recommended parks / zones / areas. These MoUs should highlight the commitment of the parks towards the transformation into an Eco-Industrial Park, including allocated human and financial resources and key interventions/opportunities of interest to the parks;

The following figure 5 below illustrates the selected industrial parks and recommended short-term assistance in them by the GEIPP II - South Africa country-level intervention.

In-kind contributions by the NCPC-SA, dtic, National Treasury and others on EIPs through implementation support, planning, advisory, financing assistance and other mechanisms will as for phase I, be pursued for phase II.



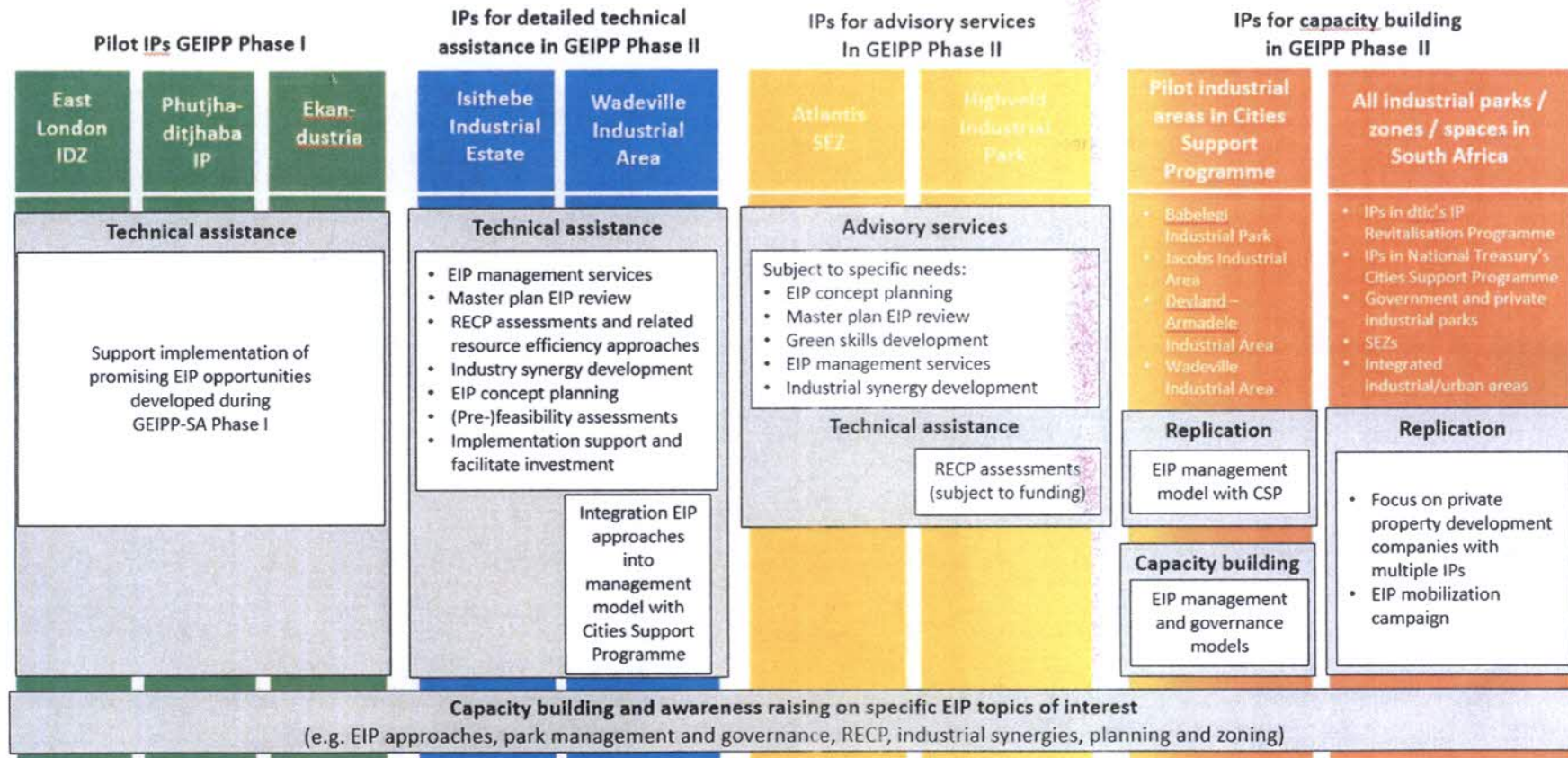


Figure 5. Planned short-term technical assistance to selected industrial parks/zones / areas

### **C.3. Programme Governance and Management**

Under the GEIPP I - South Africa country level intervention, a Country Specific Steering Committee (CSSC) has been established and has been providing guidance for the implementation of the project in South Africa.

The CSSC consists of representatives of key country beneficiaries (ministries and leading private sector agencies), the Embassy of Switzerland in South Africa, and the UNIDO Representative to South Africa. Additional relevant stakeholders are invited to participate in the CSSC as observers upon agreement by the members.

This same CSSC will serve as the country level intervention steering mechanism for GEIPP II - South Africa. Two Steering Committee meetings will be organized per year. The UNIDO Project Manager (based in Vienna) will participate in person in one steering committee meeting and via video conference in the other steering committee meeting.

The CSSC is responsible for:

- All operational decisions which may include the approval of annual work plans, and progress and financial reports, monitoring and evaluation as well as the GEIPP wide Results Based Management (RBM) reporting as the basis for the project implementation.
- Provision of recommendations to the Global Programme Steering Committee on any required and significant changes to the country level project activities and/or a budget re-allocation; and
- Approval of significant amendments to timeline (implementation of activities).

The composition of the Country Specific Steering Committee is:

- Chair and coordination of the CSSC, Department of Trade, Industry and Competition
- National Treasury (Deputy-Chair)
- Department of Environmental Affairs, Forestry and Fisheries (Deputy-Chair)
- Representatives of Provincial Development Agencies
- One representative from a beneficiary industrial park/zone
- One representative(s) of the Embassy of Switzerland in South Africa
- UNIDO project manager
- Project execution entity, non-voting secretary of the CSSC

UNIDO will be responsible for the overall management and coordination of the project.

The project coordination, daily execution of the project, communication with key South African government and stakeholders, as well as, reporting to the program manager will be contracted to a South African institution with technical competence in EIPs and administrative preparedness to enter into delivery-based contracts.

The South African National Cleaner Production Centre (NCPC-SA), a not-for-profit entity, under the Council for Scientific and Industrial Research, CSIR, will serve as this project execution entity for the GEIPP implementation. This arrangement will be reviewed annually by the Project Steering Committee, which will recommend continuing to work with the South African Cleaner Production Centre or changing the project execution entity.



The UNIDO Project Manager will lead and monitor the project. In line with the UNIDO administrative rules and regulations, UNIDO will: (i) take all decisions regarding staff recruitment, contractual arrangements/agreements, technical assistance, backstopping, as well as project supervision, monitoring and reporting; and (ii) consider both local and international procurement sources taking into account specification, quality and price (best value for money).

### ***Project execution arrangements***

Unless differently decided by the Country Specific Steering Committee, the South African National Cleaner Production Centre (NCPC-SA) under the Council for Scientific and Industrial Research, CSIR, will be act as the project execution entity and will be subcontracted for project coordination and organization as well as execution of activities under both Outcome 1 and Outcome 2 up to an amount of 1,300,000 Euros. This arrangement will allow to continue the successful cooperation with the NCPC-SA.

The project execution entity will be subcontracted by UNIDO to execute activities as laid out in Outcome 1 including the development of training material and approach as well as imparting training, organization of stakeholder engagement, awareness raising, communication and development of such materials. The development and facilitation of the uptake of EIP recognition schemes and standards may be included in the tasks.

The Outcome 1 tasks that may be contracted to the project execution entity include inter-ministerial and regional coordination for the implementation of the industrial parks policy; development and roll-out of programs for advancing EIP aspects of the Industrial parks policy as well as further contributions to the current regulatory framework based on the review undertaken in phase I and preparation of proposals for amendments to reduce barriers for EIP action.

Further tasks subcontracted to the project execution entity under project Outcome 2 are related to the industrial park activities. This can include training and awareness building, cross-learning and study tours facilitation but also in-depth analyses and detailed EIP and RECP assessments at industrial parks covered by the program. Further technical industrial park-based activities covered by these subcontracts are related to an extension of park management services and industrial park planning, as well as undertaking of (pre-) feasibility studies for identified priorities and facilitating their implementation in the GEIPP priority parks. The contracted service may also include facilitation and piloting of the EIP recognition schemes and standards as well as EIP implementation and facilitation of EIP opportunity financing. These tasks may be extended to the industrial zones under the Cities Support Program with which GEIPP South Africa is cooperating with.

The project executing entity will undertake project monitoring and reporting including the GEIPP II - South Africa Country Level Intervention substantive results reporting to the Global GEIPP program as per prevailing Results-Based-Management indicators. Furthermore, the project executing entity will establish baselines and monitor the industrial park action, progress and results of the implementation of RECP and industrial synergies proposals.

#### **C.4. UNIDO Results-Based Management (RBM) code and thematic area code**

RBM code category: GC3 Safeguarding the Environment  
RBM code subcategory: GC31 RECP and low carbon production  
Thematic area code: Energy and Environment

#### **C.5. Expected outcomes, outputs and activities**

Global Eco-Industrial Parks Programme II - South Africa: country level intervention will deliver the expected results via two outcomes and six outputs:

##### **Outcome 1: EIPs incentivised and mainstreamed in relevant policies and regulations**

To contribute to Outcome 1, the GEIPP II – South Africa country level intervention is channelled through the following:

- Advice for informed policy decision-making on integrating EIP approaches into circular economy-related and industrial policies/regulations and their implementation.
- Development of official guidance documents to help parks implement certain of the EIP benchmarks in a harmonized way (these guidance documents would not just be useful to tenant firms; any enterprise in the country would benefit from them).
- Fostering market-driven and pragmatic national EIP recognition schemes including certification, awards and supporting capacity building.
- Supporting EIP replication and EIP investments with technical assistance on the development of national financial and non-financial incentives for EIP-related investments and creating capacities with national and sub-national institutions to deliver EIP implementation services.

These activities will be closely aligned with the structure that the joint task team (the dtic, National Treasury, NCPC-SA and GIZ) on industrial parks is currently setting up, following the National Summit on reimagining industrial parks, mentioned earlier. The new national approach to industrial parks is intended to be aligned and coordinated across multiple stakeholders and will be supported by a service that is envisaged to be located at the NCPC-SA. As previously mentioned, the EIP approach is core to this new reimagined vision, which will be driven through collaboration with multiple partner stakeholders.

##### ***Output 1.1: Integration of EIP approaches into circular economy-related and industrial policies***

The transition (Just Transition) to a Circular Economy in South Africa requires a systems approach consisting of multiple components that need to be addressed. While there is ongoing work at a national level in terms of developing relevant environmental regulatory aspects, and translating SDGs and NDCs into action, there also needs to be greater coordination across ministries and an established mechanism to support such a transition for industrial parks and industry as a whole.

This output therefore focuses on supporting such work by addressing a number of aspects, namely the regulatory environment, incentives and stakeholder management to enhance collaboration, coordination and alignment.



**Activity 1.1.1 – Foster policies/regulations:** Fostering mainstreaming, development and implementation of policies and regulations as well as support programmes for the uptake of opportunities in the Circular Economy in the Eco- Industrial Park (EIP) setting, such as those for the reuse and recycling of water, raw materials, by-products and wastes within parks, as well as the processing of wastes generated in cities by facilities in industrial parks. This will also include the development of a draft matrix of criteria that should be integrated into all relevant incentive or support programmes which will integrate sustainability and CE criteria into such programmes. This activity will include the development topical guidelines and Standard Operating Procedures (SOPs), user guides, templates, processes and other documents to facilitate the transition to EIPs.

Policy coordination will be addressed through initial alignment between the dtic, NT, DFFE and DSI regarding their policies and regulatory environment. As the EIP approach has been adopted as being core to the reimagined industrial parks vision and approach, it will be integrated into the final version of the green paper, which will then be followed by a white paper and finally, an official policy with guidelines and regulations.

The EIP approach has also been adopted by metropolitan municipalities participating in the CSP under the guidance of NT. This means that the EIP approach has started to be integrated not only at a national level but also at a local government level (In South Africa there are three levels of government, namely national, provincial and local).

The activities would entail close cooperation with line ministries with regulative responsibilities the dtic on industry-wide support policies, DFFE on material Department of Water and Sanitation (DWS) on water reuse.

**Activity 1.1.2 Conduct EIP analysis:** Component-wise (water, material, land use, energy) EIP-specific analysis of barriers in the national regulatory environment and implementing EIP opportunities, including identifying effective and practical means to eliminate these barriers within the timeframe of GEIPP II in South Africa.

The component-wise analysis is conducted in order to advise the policy adjustments in activity 1.1.1. It is foreseen that GEIPP II-South Africa country level intervention will cooperate with DFFE on material, GIZ on water-related, SANEDI and the UNIDO GEF Sustainable Energy Systems for Urban-Industrial development project on energy. Analysis will be also done on land-use, infrastructure development and supporting government approval/permitting related aspects on EIP adoption. The National Treasury data on jobs will be also used for these analyses. These analyses are intended to cover also municipal bylaws in order to ensure that barriers created at this level are not hampering the uptake of EIP approaches.

This activity will include an analysis of existing and possible ways and channels of mainstreaming EIP approaches.

**Activity 1.1.3 – Facilitate stakeholder collaboration:** Facilitation of stakeholder collaboration and technical assistance to progress selected solution(s) to reduce regulatory barriers to EIP transformation.

A key approach in ensuring stakeholder collaboration is through the EIP Roundtable. It is foreseen that the EIP Roundtable will establish topical working groups to accelerate cooperation



and uptake. Such working groups are envisaged to cover EIP Skill Development, Technical working groups on park infrastructure, and others as are being identified.

The process of preparing and organizing the annual EIP Day will be one of the key contributions of GEIPP II – South Africa country level intervention to facilitate the stakeholder collaboration for EIP.

***Output 1.2. Fostering national EIP recognition schemes including certification, awards and supporting capacity building***

One of the key aspects of industrial park development is the measurement and reporting of performance. This also forms a golden thread throughout the implementation of EIP approaches in the country. Because of the country-specific context, it therefore makes sense to develop a mechanism to measure the performance of EIPs (and any industrial space) for the purpose of reporting in terms of the SDGs and NDCs, to aid value propositions of industrial parks, enhance service delivery, support further planning and development and aid in the branding and position of such spaces by way of benchmarking mechanisms. This should be applied to all industrial spaces and ultimately lead to a certification scheme. While these mechanisms or schemes would be specific to South Africa, it is expected that there will be general alignment with global movements in the same direction.

***Activity 1.2.1 – Support development of EIP recognition scheme:*** Technical assistance for the development of an EIP recognition scheme in South Africa, including an assessment and measurement framework and supporting incentives to ensure its uptake by industrial parks and their tenant companies.

This includes the compilation of relevant standards and work towards national standards and recognition schemes already taking place on aspects related to sustainable industrial areas and development. This mapping includes a compilation of supporting national guidance that may be needed for operationalizing an EIP recognition scheme.

***Activity 1.2.2 – Support implementation of EIP recognition scheme:*** Support implementation processes and pilot testing of an EIP recognition scheme in South Africa, including a review of whether supporting non-financial, financial, and market-driven incentives are sufficient to sustain and replicate the EIP recognition scheme.

This activity could include support and testing of possible international EIP standards and their pilot testing to ensure that such standards are suitable for South Africa and the wider region.

***Activity 1.2.3 – Create awareness of EIP recognition scheme:*** Support relevant agencies in South Africa with awareness raising in industrial parks for the envisaged EIP recognition scheme, including their benefits and added value.

***Output 1.3. Supporting EIP replication and EIP investments***

Central to the scaling out of the EIP approach across the country and to foster the adoption of sustainability in industry and industrial parks, is the question of support. This support is often financial by way of incentives, but can also take the shape of technical support, knowledge sharing, collaboration and adoption of EIP-related criteria in procurement processes for example.



Green financing has received a fair amount of attention in recent years, but one of the key challenges remains the need for financing institutions to approach their product offering differently and manage their risk in new ways. Financing the implementation of green practices, installation of more efficient equipment and so on at a factory and a park level cannot be achieved by traditional financing approaches. New ways need to be found and this output will specifically target the support for achieving this.

**Activity 1.3.1 – Support development of EIP incentives:** Technical assistance for the development of national financial and non-financial incentives for EIP-related investments and mobilization of public infrastructure investments for IPs (e.g. renewable energy, water supply/treatment/recycling, waste management and processing facilities).

Analyse current national incentive schemes supporting sustainable industrial development, identify additional aspects/incentives that would support EIP transformation and propose such for consideration.

Development of business cases and unique selling propositions as non-financial incentives for making the market imperative for EIP transformation in parks.

The support would also target to increase investors' confidence and attract investments into industrial parks that apply EIP approaches.

**Activity 1.3.2 – Support delivery of EIP incentives:** Support to national and sub-national institutions to deliver EIP implementation services, the establishment of one-stop shop(s) for information on incentives, coordinating technical support and facilitating synergies with existing financial and economic incentive schemes for EIP investments at national and regional levels.

This activity will be undertaken through Output 2.3. introducing the one-stop-shop supporting industrial parks in their EIP transformation.

**Activity 1.3.3 – Collaborate with financial institutions:** Collaborate with national and sub-national financial institutions to embed or expand EIP and RECP-related approaches in their financing portfolios, which includes refining measurement criteria and addressing risk profiles.

This will entail a periodic and systematic working arrangement with key national and international financing institutions to present EIP opportunities seeking investment. The financing institutions include DBSA, IFC and commercial banks as well as other finance facilitation initiatives.

***Outcome 2: EIP opportunities implemented, with environmental (e.g. resource productivity), economic and social benefits achieved by industrial parks and their enterprises confirmed***

- Consolidation of cooperation with GEIPP I – SA country level intervention priority parks (e.g. East London IDZ, Phuthaditjhaba IP, and Ekandustria IP) with facilitation of synergies with existing financial and economic incentive schemes, as well as supporting the implementation of feasible EIP opportunities as identified and progressed during the GEIPP I South Africa country level intervention and extended collaborations with surrounding municipalities to enable the implementation of feasible EIP opportunities.
- Up-scaling of EIP opportunities implementation in additional priority parks with technical assistance to park management and tenant companies customised to their specific needs related to any of the EIP components (e.g. developing EIP investments for external financing, park management services and governance, RECP, industrial, infrastructure and urban-industrial synergies, creating local and green jobs and community collaborations and spatial planning and zoning).
- Country-wide facilitation of EIP implementation through partnership facilitation and dissemination of good practices, as well as the establishment of self-sustaining capacities of the GEIPP beneficiaries including industrial park management entities, government agencies, EIP service providers, educational institutions, and financial institutions.

***Output 2.1: Consolidation of cooperation with GEIPP I – South Africa country level intervention priority parks***

In order to solidify the impact and value of phase interventions on the priority parks (ELIDZ, Phuthaditjhaba IP and Ekandustria IP), cooperation and support with those parks need to be consolidated. This will support the further growth and development of these parks along the EIP path by facilitating and supporting the implementation of further identified opportunities and positioning them within their local/ regional context, leading to the adoption of sustainable practises by municipalities and greater awareness and participation by surrounding communities in efforts to address the negative impact of climate change, resource loss. The negative consequences manifest through increased pollution, water scarcity and constraints on the electricity networks. It is crucial that municipalities and communities understand and support EIP approaches and this output is envisaged to play a key role in this.

***Activity 2.1.1 – Facilitate collaboration between GEIPP I – South Africa country level intervention priority parks and financial institutions:*** Facilitation of synergies for the GEIPP I – South Africa country level intervention priority parks (e.g. East London IDZ, Phuthaditjhaba IP, and Ekandustria IP) with existing financial institutions and economic incentive schemes and support implementation of feasible EIP opportunities as identified and progressed during the GEIPP I – South Africa country level intervention.

***Activity 2.1.2 – Undertake advanced RECP assessments on specific topics:*** Application of standard RECP assessments and advanced company resource efficiency approaches with tenant companies on specialised topics of interest in the industrial parks (e.g. pollution prevention, digitalisation, hazardous waste management, material cost accounting (UNIDO



TEST), energy management systems and standards including train-the-trainer with EIP Service providers on these specialised topics).

This activity will be supported by the NCPC Skills Development team to ensure the compilation of topical training material and their alignment with current offering.

The activities will include the introduction of company-wise EIP Gender Self-Assessments and advice on the implementation of action plans derived from these assessments.

**Activity 2.1.3 – Facilitate SME cooperation on specific topics:** Facilitation of SME cooperation on specific topics of common interest (e.g. shared services, linking SMEs with larger industries and value chains), where possible through collaborations with SME networks, business associations local forums. One way of facilitating SME cooperation is through capacitating the industrial park management to provide this added value service.

**Activity 2.1.4 – Facilitate collaboration between GEIPP I – South Africa country level intervention priority parks and municipalities on EIP implementation:** Extension of collaboration with surrounding municipalities to enable the implementation of feasibility EIP opportunities.

The activity will engage the park stakeholders and municipalities in deeper understanding through topical dialogues to support the mutual interest in EIP transformation. This process is expected to result in easier permitting and development of shared service as well as local community cooperation.

**Output 2.2: Up-scaling of EIP opportunities implementation in additional priority parks**

The critical mass needed to facilitate the widespread adoption of EIP practices in South Africa has not been reached yet. This has been hampered by a number of factors and it is therefore necessary to expand the activities of phase I to further priority parks in phase II. This output directs efforts at achieving this in order to build momentum, increase awareness and understanding of EIP approaches and demonstrating the impact in terms of competitiveness and profitability while also creating a useful subset of evidence that can be used in support of the EIP Framework and its adoption at a broader scale.

Leveraging the work undertaken by the National Treasury through the Cities Support Programme (CSP), GEIPP SA will expand its engagement on EIP practices with industrial areas in metropolitan cities, particularly in the Wadeville industrial area in Ekurhuleni.

**Activity 2.2.1 – Build capacities of selected IPs and tenants on specific EIP topics:** Training and capacity building for industrial park management entities, tenant companies (including SMEs) and other park stakeholders to meet international standards and requirements for EIP transition, performance and recognition.

In the Wadeville industrial area the emphasis will be on operationalizing to introduce EIP approaches to management and governance models. In addition to these EIP opportunities will be identified through RECP assessments. Capacity building for EIP Transformation is also foreseen for the other industrial areas in the CSP programme. In Atlantis SEZ the capacity building will be EIP Concept planning and EIP review of their Master Plan.

Skills need surveys and their integration into educational organizations (like TVET colleges) will be included in the broader capacity-building drive for ensuring the availability of skilled employees for the industrial areas transforming to EIPs.

The above capacity-building activities will also be extended to the other priority parks of GEIPP II in South Africa together with other key capacity development needs identified.

***Activity 2.2.2 – Provide demand-driven EIP assistance to selected IPs and tenants:***

Providing technical assistance to park management and tenant companies (covering both large companies and SMEs) of Isithebe industrial estate and Wadeville industrial area. Technical assistance is customised to the needs of park management and tenant companies, and could include the following key components of EIPs:

- Park management services and governance;
- Resource efficient and cleaner production; as well as company-wise EIP Gender Self-Assessments;
- Spatial planning and zoning;
- Industrial, infrastructure and urban-industrial synergies;
- Developing EIP investments for external financing;
- Creating local and green jobs and community collaborations;

***Output 2.3: Country-wide facilitation of EIP implementation and establishment of self-sustaining EIP capacities***

As indicated already, stakeholder management and expansion of expertise and support for industrial parks in South Africa is a core component of the systems approach needed in addressing the transition to EIPs in the country. It is envisaged that a central pool of expertise and knowledge be established that can offer support across the country because the relatively small size of most industrial parks in the country (in terms of size, resources, and capacity) does not make it possible for most individual parks to attract their pool of expertise. This approach has an added advantage in that learning can directly be fed into the services offered in real-time.

While there is already movement by the dtic, National Treasury and the NCPC-SA to establish this support mechanism, a lot of work is needed to correctly position, plan and implement it. Part of this also involves fostering further collaboration and widening the network of stakeholders that contribute, share and add value to EIP development in the country. Knowledge management is equally important and nowadays often neglected and this output therefore also includes an activity specifically addressing this.

As an immediate support towards providing assistance for EIP replication a One-Stop-Shop will be established.

***Activity 2.3.1 – Expand EIP capacities of national service providers:*** Training of additional EIP service providers to assist industrial parks with their transformation towards becoming an EIP, including train-the-trainer and “on the job training” concepts as well as utilising newly trained service providers for delivering technical assistance through the GEIPP II – South Africa country level intervention.



Initial identification and training for additional EIP Service providers has already been undertaken. The action will ensure continued training and a network of EIP Service Providers for industrial parks to retain for their EIP transformation. It is foreseen, that the NCPC Skills Development Team would institutionalize this process.

**Activity 2.3.2 – Consolidate and expand EIP expert pool:** Consolidation and expansion of the expert resource pool of EIP service providers covering service providers from both the public and private sectors ranging from freelancing consultants to large consultancies. It is foreseen that this activity will be partially rolled out as peer-to-peer initiatives between companies and industrial parks.

This consolidation and coordination of offering and matchmaking function would be incorporated in the EIP One-Stop-Shop under 2.3.3.

**Activity 2.3.3 – Facilitate EIP networks and partnerships:** Facilitation of EIP practitioner's networks / partnerships or EIP contributions to existing networks including partnerships with academia and educational / R&D institutions, industry associations as well as national/regional/global financial institutions.

The key vehicle for expanding the capacities and enabling the replication of EIP approaches would be the EIP One-Stop-Shop established under this activity area. The main tasks for the EIP One-Stop-Shop would act as a centralized point of contact for the industrial parks for EIP transformation. It would provide guidance documents, SOPs, Tools, examples, standard tenant contract templates, advice on how to retain and attract tenants, social compact etc. and provides and knowledge sharing hub, and match-making of solutions and expertise.

**Activity 2.3.4 – Expand EIP capacities to a broader group of IPs and stakeholders:** Capacity building of industrial parks and their stakeholders not selected for in-depth technical assistance through the GEIPP II – South Africa country level intervention. Building upon the results and approaches developed during the GEIPP I – South Africa country level intervention, these capacity-building efforts will deepen already developed material and understanding of specific topics of interest as well as national and sub-national training, awareness raising, and networking events.

It is foreseen, that the NCPC Skills Development Team would institutionalize this process and ensure wide dissemination of the training through various mechanisms to ensure widest coverage among industrial parks in South Africa.

**Activity 2.3.5 – Consolidate and disseminate EIP success stories:** Enhanced efforts to consolidate and disseminate success stories on financial savings (and other benefits) from investments in EIP opportunities, as well as applied approaches to capture the investment opportunities and ways that any challenges were overcome.

Beyond established EIP-specific channels e.g. EIP Roundtable, National EIP Day and NCPC outreach, the dissemination will include national platforms and channels such as chambers of business, industry associations, provincial development agencies, and community-based organizations.

The dissemination will be linked with other GEIPP countries, regionally as well as GEIPP Global experience sharing activities to both provide lessons learnt and to obtain relevant EIP-promoting information internationally.



### C.6. Timeline of activities

The implementation of the GEIPP II - South Africa country level intervention will take place during five years from Q1 2024 to Q4 2028.

Activities	2024 (Year 1)				2025 (Year 2)				2026 (Year 3)				2027 (Year 4)				2028 (Year 5)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Outcome 1. EIPs incentivised and mainstreamed in relevant policies and regulations</b>																				
<b>Output 1.1. Integration of EIP approaches into circular economy-related and industrial policies</b>																				
Activity 1.1.1 – Foster policies/regulations																				
Activity 1.1.2 – Conduct EIP analysis																				
Activity 1.1.3 – Facilitate stakeholder collaboration																				
<b>Output 1.2. Fostering national EIP recognition schemes including certification, awards and supporting capacity building</b>																				
Activity 1.2.1 – Support development of EIP recognition scheme																				
Activity 1.2.2 – Support implementation of EIP recognition scheme																				
Activity 1.2.3 – Create awareness on EIP recognition scheme																				
<b>Output 1.3. Supporting EIP replication and EIP investments</b>																				
Activity 1.3.1 – Support development of EIP incentives																				
Activity 1.3.2 – Support delivery of EIP incentives:																				
Activity 1.3.3 – Collaborate with financial institutions																				
<b>Outcome 2: EIP opportunities implemented, with environmental (e.g. resource productivity), economic and social benefits achieved by industrial parks and their enterprises confirmed</b>																				
<b>Output 2.1. Consolidation of cooperation with GEIPP I priority parks</b>																				



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Activities	2024 (Year 1)				2025 (Year 2)				2026 (Year 3)				2027 (Year 4)				2028 (Year 5)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 2.1.1 – Facilitate collaboration between GEIPP I priority parks and financial institutions																				
Activity 2.1.2 – Undertake advanced RECP assessments on specific topics																				
Activity 2.1.3 – Facilitate SME cooperation on specific topics																				
Activity 2.1.4 – Facilitate collaboration between GEIPP I priority parks and municipalities on EIP implementation																				
<b>Output 2.2. Up-scaling of EIP opportunities implementation in additional priority parks</b>																				
Activity 2.2.1 – Build capacities of selected IPs and tenants on specific EIP topics																				
Activity 2.2.2 – Provide demand-driven EIP assistance to selected IPs and tenants																				
<b>Output 2.3. Country-wide facilitation of EIP implementation and establishment of self-sustaining EIP capacities</b>																				
Activity 2.3.1 – Expand EIP capacities of national service providers																				
Activity 2.3.2 – Consolidate and expand EIP expert pool																				
Activity 2.3.3 – Facilitate EIP networks and partnerships																				
Activity 2.3.4 – Expand EIP capacities to broader group of IPs and stakeholders																				
Activity 2.3.5 – Consolidate and disseminate EIP success stories																				



## C.7. Risks and Assumptions

### Risks

The risk assessment carried out has been linked with a Political, Economic, Social, Technological, and Environmental (PEST-E) analysis. PEST-E analysis is a framework to assess the programme's external and internal influences with the purpose of using this information to guide strategic decision-making. The PEST-E analysis is a useful tool for understanding the 'big picture' of the programme and its operating conditions.

Key risks identified and their risk scoring<sup>12</sup>, as included also in the logical framework of the GEIPP II, are summarised in Table3, including proposed risk response measures.

Table3: Risk assessment of GEIPP South Africa Phase II

PEST-E Category	Identified risks	Likelihood score	Impact score	Overall risk	Proposed risk response in GEIPP II
Political	EIP approaches are not accepted as an integral part of industrial policy.	2	4	8	<ul style="list-style-type: none"> <li>Ongoing awareness raising and capacity building on EIP approaches and role of policymakers.</li> <li>Pro-active and ongoing engagement with relevant government agencies on the development of EIP policy interventions, including consultation sessions through policy development processes.</li> <li>Work with "EIP champions" within government agencies to engage with other policymakers.</li> </ul>
Political	Responsible line ministries do not fully welcome the cooperation and integrate the findings and policy recommendations into their respective strategic and operational plans.	2	4	8	
Political	The government is not committed to providing the necessary resources (human and financial) for achieving the objectives and sustainability of the beneficiary institutions.	2	4	8	<ul style="list-style-type: none"> <li>Ongoing awareness raising and capacity building on EIP approaches and the role of policymakers.</li> <li>Policy interventions are to be aligned with available resources in each GEIPP country.</li> <li>If very limited government resources can be made available, increased focus on bottom-up approaches (e.g. working directly with industrial parks and tenants).</li> <li>Work with "EIP champions" within government agencies to engage with other policymakers.</li> </ul>

<sup>12</sup> In the PEST-E methodology, the overall risk is obtained by multiplying the risk likelihood with the risk impact. A risk score higher than 9 indicates a moderate risks to be closely followed while a risk higher than 15 indicates caution on advancing on the action proposed.

PEST-E Category	Identified risks	Likelihood score	Impact score	Overall risk	Proposed risk response in GEIPP II
Political	Updated and adopted industrial policies are not further developed or properly implemented.	3	4	12	<ul style="list-style-type: none"> <li>Specifically take into account the actual policy implementation mechanisms during adoption processes.</li> <li>Strengthen policy implementation conditions in GEIPP countries, including collaborations and synergies with other policy support projects in countries.</li> <li>Make early "No go" decisions on policy adoption work if its implementation is addressed sufficiently.</li> </ul>
Political	Developed standards/recognition schemes are complex and may result in additional bureaucracy and administrative requirements for industrial parks.	3	3	9	<ul style="list-style-type: none"> <li>Clearly include limits to the complexity and administrative requirements for recognition schemes</li> <li>Involve industrial parks and tenant companies in the development of a recognition scheme</li> <li>Pilot test recognition scheme(s) with multiple industrial parks to ensure its suitability and practicability</li> <li>Link recognition scheme(s) with (non-) financial incentives to industrial parks and tenants</li> </ul>
Political and environment	National/local conditions do not encourage the production of renewable energy by industrial parks and their tenants.	3	4	12	<ul style="list-style-type: none"> <li>GEIPP policy interventions at national and sub-national levels will tackle prioritised challenges in the GEIPP countries, based on the feedback during consultation/training sessions and first-hand experiences with industrial parks and their tenants.</li> </ul>
Political and environment	Environmental regulations do not encourage the reuse of industrial by-products or industrial effluents.	3	4	12	<ul style="list-style-type: none"> <li>Selection of EIP opportunities for industrial parks and tenants to take into account existing policy challenges. If there are significant policy challenges identified upfront and there is a need for short-term results, it may be better to select alternative EIP opportunities for feasibility assessments.</li> </ul>
Environment	Climate change impact on selected parks	3	1	3	<ul style="list-style-type: none"> <li>Overall risk has been decreased by selecting of lower impacted project sites. TA for climate change adaptation will be provided.</li> </ul>



PEST-E Category	Identified risks	Likelihood score	Impact score	Overall risk	Proposed risk response in GEIPP II
Environment	Climate change impact of selected parks	3	2	3	<ul style="list-style-type: none"> <li>The tenant companies in the selected parks all constitute mature enterprises, who are interested in financial savings that can be achieved in adopting RECP approaches and technologies. TA for climate change mitigation will be provided.</li> </ul>
Economic	Lack of availability or access to financing for EIP opportunity implementation.	2	4	8	<ul style="list-style-type: none"> <li>Engage with IFC, GIZ, SECO, (inter)national development banks to leverage additional financing for promising EIP opportunities.</li> </ul>
Economic	Failure to address the national electricity crisis	3	4	12	<ul style="list-style-type: none"> <li>Ensure a broader understanding of the issues and participation in finding solutions in EIPs to enhance their ability to mitigate the impact.</li> </ul>
Economic	Increase in extreme weather events due to climate change, including floods and drought	3	4	12	<ul style="list-style-type: none"> <li>Grow awareness of necessary resilience to the impact of such events and incorporate learning and planning based on recent events such as floods and Day Zero in Cape Town.</li> </ul>
Social	Lack of participation by the target beneficiaries in the planned project activities and in accordance with the set timeline.	2	5	10	<ul style="list-style-type: none"> <li>Upfront confirmation of commitment to EIP transformation is part of the selection process for industrial parks to receive technical assistance.</li> <li>Project activities are customized to the needs of the industrial parks, tenant companies, government agencies and other beneficiaries.</li> </ul>
Social	Lack of ongoing commitment from industrial park management entities to transform towards EIPs.	2	5	10	<ul style="list-style-type: none"> <li>Application of adaptive management approaches if it becomes clear that set timelines are not achievable anymore.</li> <li>If commitments by industrial parks are not met during roll-out of GEIPP II, re-allocate GEIPP resources to other prioritised industrial parks in the country.</li> </ul>
Social	Lack of international and national partner interest to develop EIP standards and recognition scheme(s).	2	3	6	<ul style="list-style-type: none"> <li>Ongoing awareness raising and capacity building on benefits of setting EIP targets, recognition scheme and role of stakeholders.</li> <li>Align EIP targets and recognition scheme(s) with existing priorities and policies at national and sub-national levels.</li> </ul>
Social	Pandemic or other major health crisis	2	2	4	<ul style="list-style-type: none"> <li>In case of occurrence; best working practices (teleworking) as applied in adaptation to the global COVID-19 pandemics will be pursued</li> </ul>

PEST-E Category	Identified risks	Likely-hood score	Impact score	Overall risk	Proposed risk response in GEIPP II
Social and technological	Lack of application of the EIP tools made available online.	2	3	6	<ul style="list-style-type: none"> <li>Conduct promotional campaigns on EIP tools in GEIPP countries and internationally.</li> <li>Incorporate overview and selected EIP tools in all relevant awareness and capacity-building activities.</li> <li>Provide customised training and technical assistance on the application of the EIP tools.</li> </ul>
Technological	Lack of feasible EIP opportunities identified for industrial parks and tenant companies.	1	5	5	<ul style="list-style-type: none"> <li>Experience is that working with industrial parks with a large number of manufacturing companies most often results in feasible EIP opportunities. Industrial Park selection process includes pre-selection criteria "A sufficient number of industries with distinct productive activities (e.g. not warehouses) are located in the industrial park".</li> <li>In the unlikely event of a lack of feasible EIP opportunities identified for one industrial park, re-allocate GEIPP resources to other prioritised industrial parks in the country.</li> </ul>

### Assumptions

The overall objective relates to the implementation of EIP approaches, methods, practices and policies by various stakeholders in the private, public and civil sectors. This is based on the proven assumption in the GEIPP I – South Africa country level intervention that EIPs are beneficial for host countries providing an opportunity for enterprises, governments and other stakeholders to achieve tangible, and preferably measurable, benefits from EIP implementation.

The successful implementation of EIP approaches during the GEIPP II – South Africa country level intervention is contingent on several assumptions:

- Financing for EIP opportunity implementation is available, recognized that further efforts are required in the GEIPP II – South Africa country level intervention to facilitate and improve the access-to-finance to industrial parks and their tenant companies.
- The willingness of various stakeholders to engage with the Programme and commit human and possibly other resources to its implementation. This applies to the EIP service providers (in regard to network-related Programme outputs), to businesses and other organisations (in regard to the project outputs), to governments and financial institutions (in regard to the Programme's output on developing and strengthening the enabling environment conditions) and to providers of process innovation and product development services, including of necessary technologies.



- There is the expectation that:
  - The price of natural resources will continue to increase due to real price increases in the global markets and political instabilities.
  - Market demand for environmental performance will rise due to greater consumer awareness and pressures within the supply chains of which tenant companies and industrial parks are part of.
- Quality of EIP services, as reflected in the appropriateness of the EIP solutions recommended to industrial parks and their stakeholders and impacting on the costs, benefits and risks associated with their implementation by these businesses and other organisations.
- The continued willingness of public and private sector stakeholders to engage in the GEIPP will largely depend on the perceived need for EIP implementation and the perceived and actual quality of the Programme's outputs and impacts.
  - The perceived and actual quality of the Programme's inputs pertain to aspects such as the Programme's leadership on EIP and aspects of its implementation in different contexts, the knowledge, skills and experiences of the experts involved, and the programme's ability to capture and disseminate best practices. These are factors that are within the scope of the Programme's management.
  - As a commitment to excellence, UNIDO has taken significant steps in its previous programmes to strengthen and extend the human resource and skills and knowledge bases of its respective programme management units in charge of delivering the GEIPP.

## **C.8 Environmental and Social Safeguards**

As per UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), the Environmental and Social screening template has been completed and this project has been categorized as "Category B". Category B projects are likely to have less adverse impacts on human populations or environmentally important areas than those of Category A. As a result, an Environmental and Social Management Plan (ESMP) has been developed and risk management measures have duly been incorporated across project activities.

## **C.9. Gender Mainstreaming**

UNIDO advocates that the economic empowerment of women has a tangible impact on social development and economic growth, constituting a key to prosperity, accelerated ISID and cohesion at all levels. Hence, strengthening the role of women in global economies directly contributes to SDG 9 on industry, innovation and infrastructure, and to SDG 5 on gender equality. Consequently, UNIDO has accumulated a substantial amount of experience designing projects and interventions that directly address the constraints and barriers impeding the generation and improvement of productive employment for women. The UNIDO Gender Equality and Empowerment of Women Strategy 2020-2023 provides a clear result-oriented framework and a plan of action in this regard.



### **C.9.1. Baseline Assessment: Gender Dimensions of Industrial and Eco-Industrial Parks Development**

#### **1. How industrial megatrends impact gender equality in manufacturing**

**Greening of Industry:** Climate change is one of the greatest environmental and development challenges facing the world today and will have critical impacts on human rights and inequalities, including gender inequality. Climate solutions such as renewable energy and energy efficiency technologies and approaches offer a range of unprecedented opportunities for sustainable and inclusive economic growth and industrialization. With public policy support, women can garner a growing share of expanding opportunities and employment in these dynamic sectors.

**Digitalization and Automation of Production:** Industry 4.0 technologies are predicted to have a major impact on the demand for skills in developing and emerging economies with a likely knock-on effect for gender equality. A study conducted by Sorgner (2019)<sup>13</sup>, indicated that women in developing and transition economies are significantly less likely than men to possess skills that protect them from labor-displacing technologies, such as analytical, non-routine manual, interpersonal, advanced ICT and socio-emotional skills. These findings extend across all sectors but are more pronounced in manufacturing than in services. Crucially, women also seem to have fewer opportunities for labour-reinforcing digitalization (UNIDO 2021)<sup>14</sup>.

**Shifting Global Trade Patterns:** Low- and middle-income countries tend to have the highest shares of female workers in manufacturing, consistent with evidence suggesting that they rely more heavily on labour-intensive manufacturing industries in which female labour is in high demand (UNIDO 2021).

According to the Global Gender Gap Index 2020, South Africa ranks 18 from a total of 153 countries.<sup>15</sup> South Africa has closed 78.1 of its overall gender gap. The country's performance is analysed across the four dimensions of the index – education, economy, health and politics. It has closed 65.8 percent of the economic participation. In the overall workforce women accounted for 43.8% of total employment in the second quarter of 2018, a figure which has stagnated since 2002. Just 32% of managers in South Africa were women.

#### **2. Key gender issues at the Industrial Park-level**

**Industrial Parks as employment nodes:** Industrial Parks are often supported and fostered by governments to generate employment, and attract foreign direct investments and new technology while providing access to foreign markets and allowing for export-oriented growth.

The ability of Industrial Parks to attract qualified workers from their respective catchment areas is a key factor in attracting these investments to the park. The success of these efforts requires consolidating linkages between labour supply and demand, particularly between industrial clusters, and vocational training centres and universities. Yet, despite the potential benefits of

<sup>13</sup> Sorgner, A. (2019): The Impacts of New Digital Technologies on Gender Equality in Developing Countries. Background paper prepared for the Industrial Development Report 2020. Vienna: United Nations Industrial Development Organization.

<sup>14</sup> <https://www.unido.org/api/opentext/documents/download/20105985/unido-file-20105985>

<sup>15</sup> [www3.weforum.org/docs/WEF\\_GGGR\\_2020.pdf](http://www3.weforum.org/docs/WEF_GGGR_2020.pdf)



harnessing these linkages, women often benefit less as they are insufficiently represented in scientific and technical fields (UNIDO 2019)<sup>16</sup>.

**Physical and Social Infrastructure:** Quality of and widely accessible infrastructure such as roads, transport and ICTs are some of the key factors that accelerate industrial activity with dividends for workers (UNIDO 2019). Indeed, studies have shown that women often feel the implications of weak infrastructure more acutely, affecting their access to safe transit, mobility, and thus their labour-force participation (OECD 2019)<sup>17</sup>. In a multi-country study by UN Women looking at the Middle East and North Africa, it was found that between 40 and 60 percent of women had experienced sexual harassment on the street, with such incidents of gender-based violence frequent in areas around public transportation (UNOPS 2019)<sup>18</sup>. Measures that attempt to increase the security of women in order to cater especially to their mobility needs therefore focus on access routes, waiting points and the on-board experience of public transport. In addition, gender-responsive measures often need to address land use planning itself, focusing on clear lines of sight in public places, improved street lighting while also making sidewalks wide enough etc. (UNOPS 2019). It is therefore vital that industrial parks seeking to advance gender equality take into account the needs of women in the planning of common infrastructure and services so that the benefits of that infrastructure are distributed equitably. In the South African context, this also extends to sanitation facilities for men and women and implementing gender equity in the workplace.

**Community Engagement:** Gaining a social licence to operate is often one of the priorities of new and existing industrial parks and it manifests through targeted community engagement initiatives. Community engagement can also extend to unlocking the opportunities linked to integrating small, medium and micro-enterprises into the supply chain of companies within the parks. However, the extent to which this is possible depends on the existing capacities and level of formality of many businesses which neighbour industrial parks.

Approaches to community engagement in South Africa include involving the Department of Cooperative Governance and Traditional Affairs (COGTA), the South African Local Government Association (SALGA) which works across all municipalities, social facilitators and established mechanisms such as community forums and community processes such as the Asset-based Community Development (ABCD) model for example.

### **3. Key gender issues at firm level**

**Hiring and Employment Conditions:** The international Eco-Industrial Parks framework stipulates that conditions of employment within Eco-Industrial parks should meet the following criteria: (i) a fair income with security and social protection which allows access to decent housing, (ii) recognition of contractually agreed rights of workers and employees including—but not limited to—working hours, leave and maternity leave and (iii) ability to establish and join organisations of their own choosing, and without prior authorization, to represent workers.

Moreover, studies have shown that when the work arrangements being offered to workers are gender responsive, they have an impact on their economic performance (UNDP 2020)<sup>19</sup>. Such

<sup>16</sup> [https://www.unido.org/sites/default/files/files/2019-03/UNIDO\\_ISID\\_The\\_Gender\\_Dimension.pdf](https://www.unido.org/sites/default/files/files/2019-03/UNIDO_ISID_The_Gender_Dimension.pdf)

<sup>17</sup> <https://www.oecd.org/gov/gender-mainstreaming/gender-equality-and-sustainable-infrastructure-7-march-2019.pdf>

<sup>18</sup> <https://content.unops.org/publications/UNOPS-Infrastructure-for-Gender-Equality-and-the-Empowerment-of-women.pdf>

<sup>19</sup> <https://www.undp.org/sites/g/files/zskgke326/files/migration/tr/UNDP-TR-CED-ENG.pdf>



measures include flexible work arrangements to allow for the different societal roles that women and men hold, maternal leave, equal pay for equal work as well as the provision of services such as breastfeeding rooms and kindergarten to ease the care responsibility of women. Here too, common infrastructure or shared workspaces such as toilets, resting rooms, and changing rooms should be designed and reviewed with the needs of female employees in mind.

In the South African context, these requirements are included in the Basic Conditions of Employment (BCOE) Act and therefore is a regulatory requirement. The Department of Labour furthermore also is responsible for monitoring and enforcing labour practises, but as is often the case, enforcement is not always present, resulting in unfair treatment of women and the workforce of a company as a whole. There is a minimum income specified in labour law as well, which therefore covers the EIP requirements and generally this does not need additional external inputs apart from perhaps an assessment or monitoring thereof and reporting.

**Career Advancement and Skills Development:** As already noted, women workers are often heavily concentrated in low-skill positions with limited opportunities for training and promotion (UNIDO 2019). Moreover, UNIDO has found that a key factor undermining women's participation on equal terms as men in industrial sectors (including equal opportunities for promotion) may not be women's lack of training prior to joining the labour market, but rather employers' reluctance to offer training once they have been hired (UNIDO 2019) or the fact that some jobs are by their nature easier for men to do than women (e.g. highly physical labour). It is therefore vital to encourage employers not just to hire more women but to offer them on-the-job training equivalent to what men receive. This is reaffirmed in the performance indicators under the International EIP Framework where firms are assessed not only for their skills/vocational training programmes, but also for the proportion of underrepresented genders who benefit from these programmes.

**Occupational Health and Safety:** Due to the existing gender division of labour, employment patterns, societal roles and biological differences, different segments of workers are exposed to different physical and psychological risks in the workplace (ILO 2014). However, these differences are rarely reflected in OH&S prevention strategies.

Women are also more likely to face harassment and sexual violence in the workplace than men. In order to create a safer and healthier workplace for all employees, the nature of these different risks needs to be properly defined and preventative measures tailored accordingly. The recommendation is therefore that when working with firms on their social performance, attention is paid as to whether they have a gender-sensitive OH&S prevention strategy in place with particular attention to harassment prevention and an established grievance mechanism that all employees trust and can access. Grievance and disciplinary procedures are standard requirements in South Africa according to labour law.

Given that the Global Eco-Industrial Parks Programme works with existing industrial parks to support them as they improve their social and environmental performance, it is important to understand the development of industrial parks and the manufacturing sector more generally through a gender lens. This will allow the programme not only to understand where it can accelerate gender mainstreaming. UNIDO recognises that gender equality and the empowerment of women have a significant positive impact on sustained economic growth and sustainable industrial development, which are drivers of poverty reduction and social integration.



### C.9.2. Integration of Gender Dimensions in the GEIPP II – South Africa country level intervention

The GEIPP II program will integrate a Gender dimension into its activities and operations. The progress on Gender Mainstreaming and specific Gender action will be followed both in Country-Level Interventions and the Global Knowledge Management Component.

The following gender indicators are reported against in the Country-Level-Interventions.

Table 4: Gender indicators of GEIPP II

Project output	Objective	Gender mainstreaming measure	Indicator
<b>Outcome 1: EIP incentivised and mainstreamed in relevant policy and regulations</b>			
Output 1.1. Integration of EIP approaches into circular economy-related and industrial policies	<i>Visibility and understanding of gender-specific needs and priorities in Eco-Industrial Park development are increased</i>	Gender issues are an integral part of capacity-building provided. Where needed, specific events on gender are held (e.g. workshops, training and briefings).  The analysis of barriers in the national regulatory setting for various EIP aspects covers social components, including gender-related hurdles.  <i>Activity planned during the first 18 months of implementation</i>	<b>KASA.1 and/or KASA.2</b>  Percentage of women and men participating in capacity-building initiatives
Output 1.2. Fostering national EIP recognition schemes including certification, awards and supporting capacity building		Gender-responsiveness to be considered as one of the criteria against which Industrial Parks are to be evaluated and recognised as Eco-Industrial parks in EIP recognition schemes consistent with the International EIP framework (and best practice examples such as from Argentina's National Programme for the Development of Industrial Parks).  <i>To be done in year 3 of project</i>	<b>NOO.1:</b> Standard setting processes with UNIDO participation (no. of gender-responsive products)
Output 1.3. Supporting EIP replication and EIP investments		Knowledge products/material include visuals and stories of both women and men as well as a section on measures to advance/ensure gender equality and an enabling work environment at EIPs. Specific information is made available on gender issues.	<b>PAO.1:</b> Number of industrial strategies and industrial policy documents drafted/prepared (no. of gender-responsive products)

Project output	Objective	Gender mainstreaming measure	Indicator
		<i>To be done year 2 of project</i>	
<b>Outcome 2: EIP Opportunities implemented, with environmental (e.g. resource productivity), economic and social benefits achieved by industrial parks and enterprises confirmed</b>			
Output 2.1. Consolidation of cooperation with GEIPP I priority parks  <b>AND</b> Output 2.2. Up-scaling of EIP opportunities implementation in additional priority parks	<i>Implemented EIP opportunities achieve better impacts as women's and men's needs and priorities are considered to an increased extent.</i>	Needs, impact and pre-feasibility assessments look at possible gender-differentiated impacts and benefits of specific EIP opportunities. Networking activities and platforms between parks should identify and reach out to women-owned and women-led firms operating in the target sector(s) to include them in these activities.  <i>Continuous as new companies are engaged</i>	No. of assessments undertaken that are gender-sensitive / No. of assessments.  Percentage of technical initiatives where women and/or associations working on gender equality have been consulted
	<i>Park management entities and tenant companies show commitment to improving gender equality.</i>	Application of the EIP Gender Self-Assessment tool to assess gender/family-friendly work environments  <i>Continuous as new companies are engaged</i>	<b>BUS.1:</b> No. of firms that have undertaken the EIP Gender Self-Assessment
Output 2.3. Country-wide facilitation of EIP implementation and establishment of self-sustaining EIP capacities	<i>The capacity of public and private-sector support institutions working with SMEs and Industrial Parks to provide gender mainstreaming assistance is strengthened</i>	The staff of EIP support institutions and service providers are gender sensitized and aware of the benefits of gender mainstreaming. Investment success-stories reported should consider including gender aspects if appropriate.  Gender-lens investing to be considered case by case.  <i>Continuous for all new investment feasibility studies</i>	<b>INV. 1.</b> Number of investment-ready proposals elaborated (track whether feasibility study/investment-ready proposal factors are gender responsive)  <b>KASA.2</b> No. of participants from EIP support institutions (private and public) who have received gender sensitization training



Project output	Objective	Gender mainstreaming measure	Indicator
	<i>More women have technical skills and experience in RECP and other EIP-relevant fields and therewith better chances for employment in the sector.</i>	Career talks/visits between industrial parks and universities/TVET centres. Capacity-building on RECP methods and tools.  <i>To be included in skills mapping and linking needs to educational curricula. Year 3 for the new GEIPP II priority parks.</i>	<b>KASA .1 and KASA .2</b> (disaggregated by gender)

All UNIDO consultants and contractors providing training under the project will have to complete the "I know gender" training course from UN Women, and provide evidence on how gender equality was addressed in the training material they delivered.

In addition, (i) Gender-responsive ToRs will be used to mainstream gender in the activities of consultants and experts, (ii) in cases where the project does not have a direct influence, gender-sensitive recruitment will be encouraged and (iii) Gender dimensions will be considered in all decision-making processes (this will consider but will not be limited to efforts to achieve gender balance/ representation in such processes).

#### C.10.Sustainability of project interventions

The cooperation with the key Government entities for industrial parks and zones policy development is an important part of the sustainability and a future exit strategy for GEIPP. By ensuring that the GEIPP supported policy is engrained in the government structures a sustained effort for continuation is secured. For the actual industrial parks the GEIPP I already demonstrated the success of the concept. GEIPP II will with various replication efforts (engaging various types of industrial parks, standard development etc) proof that the approach is scalable and will grow organically without project support in the longer run.

An important component of the project is the partnership between UNIDO and NCPC-SA in the implementation of the GEIPP. The NCPC-SA has a good reputation in supporting and implementing resource efficiency work in the country, whose foundation was laid with the active support of SECO in particular with the Industrial Energy Efficiency Project. Through the implementation of the GEIPP, the NCPC-SA has managed to embed the EIP approach into its activities. This is very important as it created enough capacity to ensure the sustainability of project interventions beyond project support.

#### D. Monitoring, reporting and evaluation

The project will prepare and submit to SECO progress reports for each calendar year. Furthermore the project will undergo an external mid-term as well an external independent evaluation process in line with the prevailing UNIDO policies and procedures, and be responsive to partner/donor inputs and reporting requirements.



As done also during the GEIPP I - South Africa country level intervention, the monitoring and evaluation will be done based on the indicators in the logical framework and the GEIPP Results Based Management reporting.. KPIs relevant for the GEIPP II - South Africa country level intervention, covering all main activities and outputs of GEIPP, are included in the Logical Framework (see section H).

Same as for the GEIPP I – South Africa country level intervention, the monitoring of the GEIPP II – South Africa country level intervention will give particular attention to the impact level (that is in regards to the benefits achieved from the implementation and hence the practical contributions to the development objective of GEIPP) and utilisation of UNIDO's institutional supervision and reporting system in a robust manner that proper oversight, coordination, tracking and integration of the global (knowledge development) activities, as well as the individual (country) projects can be guaranteed.

### **Monitoring and reporting tool**

As part of GEIPP I – South Africa country level intervention, a customised programme-level monitoring and reporting tool was developed for each GEIPP country and the Global component for inclusion in semi-annual reports and progress updates on the GEIPP and subsequent discussions in the CSSCs and the GEIPP Global Steering Committee.

In order to demonstrate the viability and benefits of EIP approaches and the effects of scaling, the objectives of the country-level monitoring tool are to monitor and report on the following:

- Resource savings and impacts from EIP opportunities identified and implemented in industrial parks with the support of GEIPP in the country;
- Performance and progress on UNIDO's Integrated Results and Performance Framework (IRPF); and,
- Progress of industrial parks in the country to comply with prerequisites and performance indicators outlined in the International EIP Framework. The changes in industrial park scorings against the International EIP Framework Indicators measure the move towards EIP “compliance”. The EIP compliance is particularly important to show results in the priority parks receiving targeted training and technical assistance.

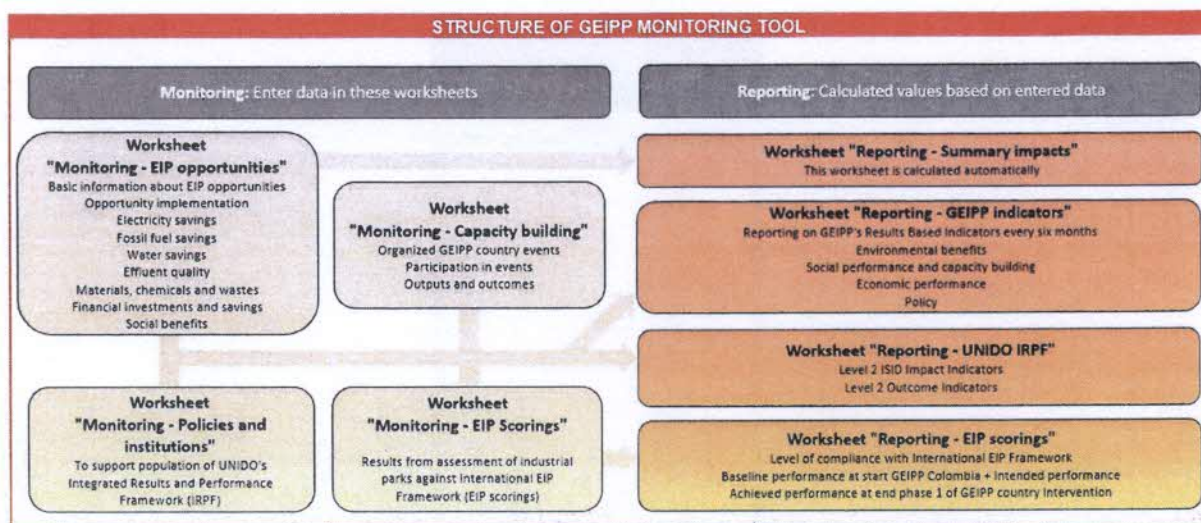
In the mid-term evaluation of GEIPP I noted that the monitoring tools overall were received very well by the interview partners and the benefits of standardized reporting according to the predefined structure over narrative reporting are explicitly stated. However, the MTE noted that the total number of indicators is high and many indicators in the logical framework of the country-level interventions at the outcome and impact level have neither baselines nor targets which makes reporting difficult. The GEIPP Results-Based Management (RBM) indicators are manageable (limited in number and largely measurable).

The lessons learned on the monitoring tools during the GEIPP I – South Africa country level intervention (as documented in the mid-term evaluation) will be used to make adjustments to the monitoring tools for the GEIPP II – South Africa country level intervention. Further, the country-level monitoring and reporting tools will be adjusted according to the revised logical framework of the GEIPP II – South Africa country level intervention.

The overall structure of the GEIPP II South Africa country level intervention Monitoring and Reporting Tool and GEIPP Results Based-Management Indicators are provided in Figure 6. Table 5 will provide the Monitoring and Evaluation plan and budget for GEIPP II country-level intervention South Africa.



Figure 6: Overall structure of GEIPP II – South Africa country level intervention monitoring and reporting tools



### Independent evaluations

Independent evaluators will carry out GEIPP program-level mid-term evaluation and a terminal program evaluation toward the end of the program. The program will be assessed against the internationally agreed OECD DAC evaluation criteria: sustainability, relevance, effectiveness, efficiency, and impact. Due to the nature of the timing within the project life cycle, the mid-term evaluation will be of a more formative nature with the purpose of assisting the project steering committee, while the end-of-project evaluation will be more summative, focusing more on effectiveness and as much as possible on sustainability and impact. Both evaluations will triangulate quantitative and qualitative data. Detailed TORs will be developed in close cooperation with UNIDO Independent Evaluation Office.

Table 5. M&amp;E plan and budget

Type of M&E activity	Responsible Parties	Budget EUR	Time frame
Kick-Off meeting followed by public launch event.	UNIDO Project Manager (PM); Project Execution Entity	10,000	Within first 2 months of project start up
M&E design and tools to collect and record data (performance indicators)	PM will oversee the hiring of specific M&E institutions/ professionals and delegate responsibilities to relevant team members	0.00*	The project monitoring tool was created and implemented in phase I of the GEIPP implementation. The tool allows to monitor the progress of an Industrial Park's financial, management, social and environmental performance against the criteria defined in the International Framework for Eco-Industrial Parks. From this tool the SECO KPIs as well as the UNIDO IRPF indicators are

Type of M&E activity	Responsible Parties	Budget EUR	Time frame
			derived. The same tool will be updated and used in Phase II.
Steering Committee Meetings	PM and Project Steering Committee	20,000	Two steering committee meetings every year. One of these meetings should coincide with the Annual Project Review. The PM will travel to participate in one PSC the second one will participate online
Detailed Action and Work Plan.	PM; Project Execution Entity	5,000	Within first 6 months of project start up
Regular monitoring and analysis of performance indicators	PM; Project Execution Entity and M&E consultants as required	30,000	Regularly to inform project implementation and adaptive management and to feed into Annual Progress Report and the development of annual work plans
Annual Project Review to assess project progress and performance	PM, Project Execution Entity and Project Steering Committee to review the project performance against annual workplans and to agree upon adaptive management interventions decision (based on the APR)	25,000	Annually prior to the finalization of Annual Progress Report and for the preparation of annual work plans
Visits to field sites	PM, M&E consultants as required	25,000	Annually or when critically required
Mid-term Review	PM and UNIDO Evaluation Division to prepare TORs; independent external consultants to implement; PM and Steering Committee to prepare management response	55,000	Covered under the Global component of the GEIPP (SAP 220029) Mid of project
Terminal Project Evaluation	PM and UNIDO Evaluation Division to prepare TORs; independent external consultants to implement; PM and Steering Committee to prepare management response	105,000	Covered under the Global component of the GEIPP SAP 220029 Evaluation at least one month before the end of the project; report at the end of project implementation



Type of M&E activity	Responsible Parties	Budget EUR	Time frame
<b>TOTAL indicative cost</b>		275,000	<i>In line with the programmatic approach pursued by UNIDO and SECO for the implementation of the GEIPP the costs for M&amp;E are covered under the Global Component of the GEIPP (UNIDO Project ID 220029)</i>

\* Tools developed under the phase 1 of the GEIPP

## **E. Inputs**

### **E.1. Counterpart inputs**

The contribution of the counterpart institutions will be in kind, covering the following specific items:

- Ensure that sufficient staff of an appropriate professional level and seniority within their organizations is made available for project activities and ensure continuity of personnel during the project. Any change in the staff assigned to the project should be notified to UNIDO.
- The respective counterpart agencies involved in the project will nominate participants to meetings, workshops and other events held inside the country as part of the normal functioning of its organization.
- Local government officials or counterpart organization (i.e. management of industrial parks selected for advisory services) should provide local administrative support for organizing workshops, meetings and training programmes.
- Provide support and facilitate the processing of any legal documents or decrees to be produced under the project.
- Conduct RECP and industrial symbiosis pre-feasibility studies for EIP implementation and workshops in participating industrial parks through in-kind contribution of resources and activities.

### **E.2. UNIDO inputs**

International staff

- EIP experts;
- TA experts: Delivery of TA based on demand.

National staff

- National consultants;
- TA trainers: Delivery of TA based on demand.

Sub-contracts

- For local technical support organizations for providing services on project coordination and technical outputs.

Training

- Group training for beneficiaries;
- Workshops;
- TA training.



## F. Budget

BL	Description	CHF 2024	CHF 2025	CHF 2026	CHF 2027	CHF 2028	CHF Total
<b>Component 1 – Country level interventions</b>							
<b>Outcome 1: EIP incentivised and mainstreamed in relevant national policies</b>							
<b>Output 1.1: Integration of EIP approaches into circular economy-related and industrial policies</b>							
		CHF	CHF	CHF	CHF	CHF	CHF
BL1100	International experts	10 000	10 000	20 000	20 000	15 000	75 000
BL1500	Project travel						0
BL1600	Staff travel	5 000				5 000	10 000
BL1700	National experts			5 000	5 000		10 000
BL2600	Subcontracts	30 000	15 000	25 000	25 000	25 000	120 000
BL3000	In-service training, conferences, workshops, study tours	5 500		3 000	25 000	0	33 500
BL4500	Equipment			0	0	0	0
BL5100	Miscellaneous	1 000	1 000	1 000	500	1 000	4 500
	<b>Sub-total Output 1.1</b>	<b>51 500</b>	<b>26 000</b>	<b>54 000</b>	<b>75 500</b>	<b>46 000</b>	<b>253 000</b>
<b>Output 1.2: Fostering national EIP recognition schemes including certification, awards and supporting capacity building</b>							
BL1100	International experts	10 000	15 000	15 000	10 000	15 000	65 000
BL1500	Project travel	5 000	3 000	10 000	10 000	5 000	33 000
BL1600	Staff travel		5 000				5 000
BL1700	National experts		7 000	10 000	7 000	3 000	27 000
BL2600	Subcontracts	25 000	30 000	35 000	15 000	1 000	106 000
BL3000	In-service training, conferences, workshops, study tours		7 000	3 000	3 000	15 000	28 000
BL4300	Premise	0	0	0	0	0	0
BL4500	Equipment	500	0	0	0	0	500
BL5100	Miscellaneous	1 000	1 000	1 000	500	1 000	4 500
	<b>Sub-total Output 1.2</b>	<b>41 500</b>	<b>68 000</b>	<b>74 000</b>	<b>45 500</b>	<b>40 000</b>	<b>269 000</b>
<b>Output 1.3: Supporting EIP replication and EIP investments</b>							
BL1100	International experts	15 000	22 000	15 000	9 000	15 000	76 000
BL1500	Project travel						0
BL1600	Staff travel						0
BL1700	National experts	5 000		8 000	7 000		20 000
BL2600	Subcontracts	30 000	25 000	25 000	25 000	25 000	130 000
BL3000	In-service training, conferences, workshops, study tours		2 000	1 500	3 000	1 500	8 000
BL4500	Equipment	500	0	0	0	0	500
BL5100	Miscellaneous	1 000		1 000	500	1 000	3 500
	<b>Sub-total Output 1.3</b>	<b>51 500</b>	<b>49 000</b>	<b>50 500</b>	<b>44 500</b>	<b>42 500</b>	<b>238 000</b>
	<b>Sub-Total Outcome 1</b>	<b>144 500</b>	<b>143 000</b>	<b>178 500</b>	<b>165 500</b>	<b>128 500</b>	<b>760 000</b>
<b>Outcome 2: EIP opportunities identified and implemented</b>							
<b>Output 2.1: Consolidation of cooperation with GEPP priority parks</b>							
BL1100	International experts	15 000	20 000	15 000	10 000	10 000	70 000
BL1500	Project travel				500	500	1 000
BL1600	Staff travel	5 000			1 000	1 000	7 000
BL1700	National experts		5 000		7 000	8 000	18 000
BL2600	Subcontracts	30 000	25 000	25 000	25 000	20 000	125 000
BL3000	In-service training, conferences, workshops, study tours		1 000		1 000	1 000	3 000
BL4500	Equipment	0	0	0	0	0	0
BL5100	Miscellaneous	500	500	500	500	1 000	3 000
	<b>Sub-total Output 2.1</b>	<b>50 500</b>	<b>51 500</b>	<b>40 500</b>	<b>45 000</b>	<b>39 500</b>	<b>227 000</b>
<b>Output 2.2: Up-scaling of EIP opportunities implementation in additional priority parks</b>							
BL1100	International experts	10 000	28 000	30 000	12 000	10 000	90 000
BL1500	Project travel	5 000	4 000	5 000	1 000		15 000
BL1600	Staff travel				2 000		2 000
BL1700	National experts		5 000	5 000	5 000		15 000
BL2600	Subcontracts	25 000	50 000	60 000	40 000	40 000	215 000
BL3000	In-service training, conferences, workshops, study tours	3 000	3 000	20 000	2 000	2 000	30 000
BL4500	Equipment	1 500	0	0	0	0	1 500
BL5100	Miscellaneous	1 000	1 000	1 000	500	1 000	4 500
	<b>Sub-total Output 2.2</b>	<b>45 500</b>	<b>91 000</b>	<b>121 000</b>	<b>62 500</b>	<b>53 000</b>	<b>373 000</b>
<b>Output 2.3: Country-wide facilitation of EIP implementation and establishment of self-sustaining EIP capacities</b>							
BL1100	International experts	5 000	10 000	10 000	15 000	15 000	55 000
BL1500	Project travel		2 000		1 000		3 000
BL1600	Staff travel			5 000			5 000
BL1700	National experts	5 000		5 000			10 000
BL2600	Subcontracts	15 000	25 000	30 000	30 000	25 000	125 000
BL3000	In-service training, conferences, workshops, study tours		2 000		35 000		37 000
BL4500	Equipment		0	0	0	0	0
BL5100	Miscellaneous	1 500	1 000	1 000	500	1 000	5 000
	<b>Sub-total Output 2.3</b>	<b>26 500</b>	<b>40 000</b>	<b>51 000</b>	<b>81 500</b>	<b>41 000</b>	<b>240 000</b>
	<b>Sub-total Outcome 2</b>	<b>122 500</b>	<b>162 500</b>	<b>212 500</b>	<b>189 000</b>	<b>133 500</b>	<b>840 000</b>
	<b>Project net costs</b>	<b>267 000</b>	<b>325 500</b>	<b>391 000</b>	<b>354 500</b>	<b>262 000</b>	<b>1 600 000</b>
	<b>Project support costs (13%)</b>	<b>34 710</b>	<b>42 315</b>	<b>50 830</b>	<b>46 085</b>	<b>34 060</b>	<b>208 000</b>
	<b>Total project costs</b>	<b>301 710</b>	<b>367 815</b>	<b>441 830</b>	<b>400 585</b>	<b>296 060</b>	<b>1 808 000</b>

Table 6: Project budget - Output level (CHF)



BL	Description	Euro	Euro	Euro	Euro	Euro	Euro
		2024	2025	2026	2027	2028	Total
<b>Component 1 - Country level interventions</b>							
<b>Outcome 1: EIP incentivised and mainstreamed in relevant national policies</b>							
<b>Output 1.1: Integration of EIP approaches into circular economy-related and industrial policies</b>							
		Euro	Euro	Euro	Euro	Euro	Euro
BL1100	International experts	10 212	10 212	20 424	20 424	15 318	76 590
BL1500	Project travel	0	0	0	0	0	0
BL 1600	Staff travel	5 106	0	0	0	5 106	10 212
BL1700	National experts	0	0	5 106	5 106	0	10 212
BL2600	Subcontracts	30 636	15 318	25 530	25 530	25 530	122 544
BL3000	In-service training, conferences, workshops, study tours	5 617	0	3 064	25 530	0	34 210
BL4500	Equipment	0	0	0	0	0	0
BL5100	Miscellaneous	1021	1021	1021	511	1021	4 595
	<b>Sub-total Output 1.1</b>	<b>52 592</b>	<b>26 551</b>	<b>55 145</b>	<b>77 101</b>	<b>46 975</b>	<b>258 364</b>
<b>Output 1.2: Fostering national EIP recognition schemes including certification, awards and supporting capacity building</b>							
BL1100	International experts	10 212	15 318	15 318	10 212	15 318	66 378
BL1500	Project travel	5 106	3 064	10 212	10 212	5 106	33 700
BL 1600	Staff travel	0	5 106	0	0	0	5 106
BL1700	National experts	0	7 148	10 212	7 148	3 064	27 572
BL2600	Subcontracts	25 530	30 636	35 742	15 318	1021	108 247
BL3000	In-service training, conferences, workshops, study tours	0	7 148	3 064	3 064	15 318	28 594
BL4300	Premise	0	0	0	0	0	511
BL4500	Equipment	511					
BL5100	Miscellaneous	1021	1021	1021	511	1021	4 595
	<b>Sub-total Output 1.2</b>	<b>42 380</b>	<b>69 442</b>	<b>75 569</b>	<b>46 465</b>	<b>40 848</b>	<b>274 703</b>
<b>Output 1.3: Supporting EIP replication and EIP investments</b>							
BL1100	International experts	15 318	22 466	15 318	9 191	15 318	77 611
BL1500	Project travel	0	0	0	0	0	0
BL 1600	Staff travel	0	0	0	0	0	0
BL1700	National experts	5 106	0	8 170	7 148	0	20 424
BL2600	Subcontracts	30 636	25 530	25 530	25 530	25 530	132 756
BL3000	In-service training, conferences, workshops, study tours	0	2 042	1532	3 064	1532	8 170
BL4500	Equipment	511	0	0	0	0	511
BL5100	Miscellaneous	1021	0	1021	511	1021	3 574
	<b>Sub-total Output 1.3</b>	<b>52 592</b>	<b>50 039</b>	<b>51 571</b>	<b>45 443</b>	<b>43 401</b>	<b>243 046</b>
	<b>Sub-Total Outcome 1</b>	<b>147 563</b>	<b>146 032</b>	<b>182 284</b>	<b>169 009</b>	<b>131 224</b>	<b>776 112</b>
<b>Outcome 2: EIP opportunities identified and implemented</b>							
<b>Outcome 2: EIP opportunities identified and implemented</b>							
<b>Output 2.1: Consolidation of cooperation with GEIPP I priority parks</b>							
BL1100	International experts	15 318	20 424	15 318	10 212	10 212	71 484
BL1500	Project travel	0	0	0	511	511	1021
BL 1600	Staff travel	5 106	0	0	1021	1021	7 148
BL1700	National experts	0	5 106	0	7 148	6 127	18 382
BL2600	Subcontracts	30 636	25 530	25 530	25 530	20 424	127 650
BL3000	In-service training, conferences, workshops, study tours	0	1021	0	1021	1021	3 064
BL4500	Equipment	0	0	0	0	0	0
BL5100	Miscellaneous	511	511	511	511	1021	3 064
	<b>Sub-total Output 2.1</b>	<b>51 571</b>	<b>52 592</b>	<b>41 359</b>	<b>45 954</b>	<b>40 337</b>	<b>231 812</b>
<b>Output 2.2: Up-scaling of EIP opportunities implementation in additional priority parks</b>							
BL1100	International experts	10 212	28 594	30 636	12 254	10 212	91 908
BL1500	Project travel	5 106	4 085	5 106	1021	0	15 318
BL 1600	Staff travel	0	0	0	2 042	0	2 042
BL1700	National experts	0	5 106	5 106	5 106	0	15 318
BL2600	Subcontracts	25 530	51 060	61 272	40 848	40 848	219 558
BL3000	In-service training, conferences, workshops, study tours	3 064	3 064	20 424	2 042	2 042	30 636
BL4500	Equipment	1532	0	0	0	0	1532
BL5100	Miscellaneous	1021	1021	1021	511	1021	4 595
	<b>Sub-total Output 2.2</b>	<b>46 465</b>	<b>92 929</b>	<b>123 565</b>	<b>63 825</b>	<b>54 124</b>	<b>380 908</b>
<b>Output 2.3: Country-wide facilitation of EIP implementation and establishment of self-sustaining EIP capacities</b>							
BL1100	International experts	5 106	10 212	10 212	15 318	15 318	56 166
BL1500	Project travel	0	2 042	0	1021	0	3 064
BL 1600	Staff travel	0	0	5 106	0	0	5 106
BL1700	National experts	5 106	0	5 106	0	0	10 212
BL2600	Subcontracts	15 318	25 530	30 636	30 636	25 530	127 650
BL3000	In-service training, conferences, workshops, study tours	0	2 042	0	35 742	0	37 784
BL4500	Equipment	0	0	0	0	0	0
BL5100	Miscellaneous	1532	1021	1021	511	1021	5 106
	<b>Sub-total Output 2.3</b>	<b>27 062</b>	<b>40 848</b>	<b>52 081</b>	<b>83 228</b>	<b>41 869</b>	<b>245 088</b>
	<b>Sub-total Outcome 2</b>	<b>125 097</b>	<b>186 369</b>	<b>217 005</b>	<b>193 007</b>	<b>136 330</b>	<b>857 808</b>
	<b>Project net costs</b>	<b>272 660</b>	<b>332 401</b>	<b>399 289</b>	<b>362 015</b>	<b>267 554</b>	<b>1 633 920</b>
	<b>Project support costs (13%)</b>	<b>35 446</b>	<b>43 212</b>	<b>51 908</b>	<b>47 062</b>	<b>34 782</b>	<b>212 410</b>
	<b>Total project costs</b>	<b>308 106</b>	<b>375 613</b>	<b>451 197</b>	<b>409 077</b>	<b>302 336</b>	<b>1 846 330</b>

Table 7: Project budget - Output level (EURO)



## G. Legal context

The Government of the Republic of South Africa agrees to apply to the present project, mutatis mutandis, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed on 3 October 1994.

## H. Logical Framework

The logical framework presented is based on the revised logical framework of the GEIPP I - South Africa country level intervention, thereby allowing for continuous measurement of results. The logical framework might be subject to adjustments as required during programme preparation.

*Table 8: Logical framework for GEIPP II -South Africa country level intervention*

Outcome / output & indicators	Target	Means of verification	External factors (assumption / risk)
<b>IMPACT</b> Reduced Climate Impact, Increased Resource Efficiency, Enhanced Climate Resilience, Sustainability and Competitiveness of Industrial Parks			
Cumulative aggregated Climate change benefits tons of CO <sub>2</sub> Eq. / year at industrial parks (ENV 1.)	3,000	Program EIP Monitoring Tool	Availability for financing for EIP opportunity implementation is assumed National/local conditions enable the production of renewable energy by industrial parks and their tenants
Aggregated improved energy efficiency, MWh at industrial parks (ENV 3.)	7,500	EIP opportunity implementation reports, Program EIP Monitoring Tool	
Cumulative aggregated improved material efficiency (metric tons) at industrial parks (ENV4.)	100	Program EIP Monitoring Tool	Availability for financing for EIP opportunity implementation is assumed
Number of firms with economic gains (additional sales or savings) (ECO 1.) (recording separately the number of women-led firms)	15	Technical company assessments and reports Program EIP Monitoring Tool	
Increase in International EIP Framework adherence across the program indicating increased resilience, resource efficiency and social responsibility at industrial parks	5 %	Program EIP Monitoring Tool	

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Outcome / output & indicators	Target	Means of verification	External factors (assumption / risk)
<b>OVERALL OBJECTIVE</b> Facilitate the uptake Eco-Industrial Park approaches in scaling up resource productivity and improving economic, environmental and social performances of businesses			
Cumulative Climate change benefits tCO2 Eq. / year (ENV 1.)	3000	Program EIP Monitoring Tool	Availability for financing for EIP opportunity implementation is assumed National/local conditions enable the production of renewable energy by industrial parks and their tenants
Cumulative number of EIP strengthening new or revised policies adopted by policy-makers (POL1.) (recording separately the number of gender-responsive policies)	3	Program EIP Monitoring Tool	EIP approaches widely accepted as an integral part of industrial policy
Number of actors gaining awareness / knowledge on EIP disaggregated by gender. (KASA1.)	300	Project reports, Program EIP Monitoring Tool	
Number of firms with improved management practices (recording separately the number of women led firms with improved management practices) (BUS 1.)	25	Project reports, Program EIP Monitoring Tool	
Value of new EIP Investments leveraged (USD) (INV 3.)	2,000,000	Project reports, Program EIP Monitoring Tool	Availability for financing for EIP opportunity implementation is assumed
Number of synergies created with complementary activities supported by SECO or other development partners	3	Project reports, Program EIP Monitoring Tool	Existence of complementary activities
<b>Outcome 1: EIPs incentivised and mainstreamed in relevant policies and regulations</b>			
Number of EIP strengthening new or revised policies adopted by policy-makers (POL1.) (recording separately the number of gender-responsive policies)	3	Project reports, Program EIP Monitoring Tool, official gazette/publication	EIP approaches widely accepted as an integral part of industrial policy Risk that updated industrial policy is not properly implemented
Number of actors participating in enhanced collaboration settings (clusters and networks) (GOV 2.)	95	Project reports, Minutes/reports of meetings	
Number of institutions established or strengthened (GOV 1.)	5	Project reports, Program EIP Monitoring Tool	Government is committed to providing necessary resources (human and financial) for achieving



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Outcome / output & indicators	Target	Means of verification	External factors (assumption / risk)
Number of actors gaining awareness / knowledge on EIP disaggregated by gender. (KASA 1.)	200	Project reports Event reports Program EIP Monitoring Tool	objectives and sustainability of the beneficiary institutions.
Number of actors gaining skills on EIP through GEIPP disaggregated by gender (KASA 2.)	80	Project reports Training reports Program EIP Monitoring Tool	
Output 1.1. Integration of EIP approaches into circular economy-related and industrial policies			
Number of capacity building activities provided (TCO 1.) (recording separately the number of gender-responsive capacity building activities provided)	6	Project reports Training reports Training material Program EIP Monitoring Tool	Effective participation by the target beneficiaries in the planned project activities and in accordance to the set timeline.
Number of industrial strategies and industrial policy documents drafted/prepared (PAO 1.) (recording separately the number of gender-responsive policies/documents)	2	Project reports, Program EIP Monitoring Tool	Responsible line ministries welcome the cooperation and integrate the findings and policy recommendations into their respective strategic and operational plans Risk that industrial strategy/policy is not properly implemented
Output 1.2. Fostering national EIP recognition schemes including certification, awards and supporting capacity building			
Number of new standards adopted and implemented (NOO 1.)	1	Project reports, Program EIP Monitoring Tool, official gazette/publication	Risk of complicated standards / recognition schemes and additional bureaucracy for industrial parks
Number of capacity building activities provided (TCO 1.) (recording separately the number of gender-responsive capacity building activities provided)	3	Project reports Training reports Training material Program EIP Monitoring Tool	Effective participation by the target beneficiaries in the planned project activities and in accordance to the set timeline.
Output 1.3. Supporting EIP replication and EIP investments			
Number of capacity building activities provided (TCO 1.) (recording separately the number of gender-responsive capacity building activities provided)	3	Project reports Training reports	Effective participation by the target beneficiaries in the planned project activities and in accordance to the set timeline.

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Outcome / output & indicators	Target	Means of verification Training material Program EIP Monitoring Tool	External factors (assumption / risk)
Outcome 2: EIP opportunities implemented, with environmental (e.g. resource productivity) economic and social benefits achieved by industrial parks and their enterprises confirmed			
Renewable energy, Megawatt hours additionally produced (per year)	100	EIP opportunity implementation reports, Program EIP Monitoring Tool	Renewable energy identified as EIP opportunities National/local conditions enable the production of renewable energy by industrial parks and their tenants
Number of firms with improved management practices (BUS 1.) (recording separately the number of women led firms with improved management practices)	15	Technical company assessments and reports Program EIP Monitoring Tool	
Number of actors (EIP Service Providers) developing new products and services (BUS 2.) (recording separately the number of women-led firms)	4	Project reports Event reports Program EIP Monitoring Tool	
Number of actors gaining awareness / knowledge on EIP practices disaggregated by gender (KASA 1.)	250	Project reports Event reports Program EIP Monitoring Tool	
Number of actors gaining skills on EIP practices disaggregated by gender (KASA 2.)	100	Project reports Training reports Program EIP Monitoring Tool	
Percentage of actors satisfied with UNIDO interventions (REA 1.) (recording separately the gender disaggregation)	95	Training/event feedback reports Program EIP Monitoring Tool Mid-term and terminal evaluation reports	
Number of new technologies adopted (TEC 1.)	6	Reports provided automatically by the online platform Training reports Program EIP Monitoring Tool,	Availability for financing for new technologies is assumed
Number of investment proposals elaborated (INV 1.)	20	Reports provided automatically by the online platform Program EIP Monitoring Tool,	Availability of EIP opportunity financing from commercial entities and development partners assumed



Outcome / output & indicators	Target	Means of verification	External factors (assumption / risk)
Number of projects or businesses financed (INV 2.)	10	Program EIP Monitoring Tool,	Availability of EIP opportunity financing from commercial entities and development partners assumed
Value of New Investments leveraged (USD) (INV 3.)	2,000,000	Credit/grant reports EIP opportunity implementation reports, Program EIP Monitoring Tool	Availability of EIP opportunity financing from commercial entities and development partners assumed
<u>Output 2.1. Consolidation of cooperation with GEIPP I priority parks</u>			
Number of capacity building activities provided (TCO 1.) (recording separately the number of gender-responsive capacity building activities provided)	3	Project reports Training reports Training material	
<u>Output 2.2. Up-scaling of EIP opportunities implementation in additional priority parks</u>			
Number of capacity building activities provided (TCO 1.) (recording separately the number of gender-responsive capacity building activities provided)	10	Project reports Training reports Training material	
<u>Output 2.3. Country-wide facilitation of EIP implementation and establishment of self-sustaining EIP capacities</u>			
Number of capacity building activities provided (TCO 1.) (recording separately the number of gender-responsive capacity building activities provided)	5	Project reports Training reports Training material	

