

INTERNATIONAL CONFERENCE

Industrial Parks for Inclusive and Sustainable Industrial Development

LIMA, PERU, 11-12 JUNE 2019











1. Introduction

The International Conference on "Industrial Parks for Inclusive and Sustainable Industrial Development" will be held in Lima, Peru, on 11 and 12 June 2019. It is organized jointly by UNIDO, the Ministry of Production of Peru (PRODUCE) and the National Association of Industries (SNI) of Peru. It will bring together and present a wide range of international knowledge and experience in different aspects of industrial parks, including government policies, innovation, environmental protection, financial tools, management models, social inclusion, eco-industrial parks, circular economy and industry 4.0.

The conference will be organized within the framework of the Programme for Country Partnership (PCP) Peru which seeks to accelerate inclusive and sustainable industrial development and builds on a multi-stakeholder partnership led by the Ministry of Production. A joint declaration was signed by the Ministry of Production and UNIDO in December 2015. The implementation phase of the PCP Peru started early 2018.

This background paper aims to provide conference participants with relevant background information on the definition of industrial parks, UNIDO's expertise in this topic, as well as a description of the various issues related to industrial parks which will be outlined in the presentations and discussed in the panels of the conference, namely: national and regional industrial development strategies; industrial park management models and social inclusion; eco-industrial parks; financial instruments and investment models and special economic zones for industrial development; and industry 4.0 and circular economy. Furthermore UNIDO will present its international guidelines for industrial parks.

During the International Conference the side event "Leveraging South-South and Triangular Cooperation for the Development of Inclusive and Sustainable Industrial Parks" will also be held. It will provide an opportunity to explore the potential for creating synergies and establishing potential collaborations for industrial park development in the future within the South-South and Triangular Industrial Cooperation (SSTIC). SSTIC is a key instrument for the promotion of UNIDO's mandate for inclusive and sustainable industrial development (ISID).

2. Industrial parks: definition and role in sustainable and inclusive industrial development (ISID)

The term "industrial park" is frequently used synonymously with the terms: industrial estate, industrial zone, economic zone, and export processing zone. While there is not a single specific definition of industrial parks, it is commonly understood as the 'allocation of specialized infrastructure in selected areas to attract new investors'. Broadly defined, an industrial park is "a tract of land developed and subdivided into plots according to a comprehensive plan with the provision for roads, transport and public utilities, sometimes also with common facilities, for the use of a group of industrialists" (UNIDO, 1997).

To achieve inclusive and sustainable industrial development, developing and middle-income countries must attract investment. However, many of them lack the infrastructure and the institutional framework to be attractive for investors. To reach that goal by enhancing GDP growth, promoting innovation and competitiveness, creating jobs, diversifying the economy and protecting the environment, governments have to apply well-designed industrialization strategies and industrial policies that will be able to answer today's and future challenges in a sustainable way.

One of the solutions is to prioritize the development of industrial parks as a strategic policy tool to achieve structural transformation and industrialization in developing and middle-income countries as they help decision makers to promote investments, innovation and competitiveness, create employment and foster economic growth as well as environmental protection.

Over the last few decades, the manufacturing sector has been undergoing a profound transformation – especially in terms of structure, technology, sectoral interlinkages and boundaries. The manufacturing value added has been increasing steadily since 1990 in both, industrialized and developing countries. At the same time, the manufacturing paradigm has evolved in terms of production system and technology: many developing and middle-income countries still rely on the abundance of natural resources whereas developed countries more frequently emphasize re-industrialization through technological innovations and scientific discoveries. Concurrently, the continued growth of the manufacturing sector is essential for employment creation, especially as it absorbs surplus labor from agriculture and other traditional sectors, while simultaneously increasing household income and expanding the consumption of industrial products. At the same time, environmental protection should also be considered for promoting economic growth.

Historically, industrial parks rapidly expanded first in North America in the 1950s before reaching Asia and Africa from the 1970s onwards. Industrial parks are acknowledged as having played a catalytic role in facilitating industrial upgrading and export-led growth in East Asia, most notably in the "tiger economies" during the 1980s, and in China since the early 1990s, as well as in Latin America and other parts of South Asia.

Since the 1960s, an increasing number of countries have embarked on the road to promote industrialization and economic restructuring through industrial parks. In developing and middle-income countries, industrial parks can maximize resource integration for limited production factors within a certain spatial scope. By attracting labor and capital-intensive domestic and foreign investment in manufacturing and service industries, industrial parks have the potential to increase job opportunities, in terms of wages and skills for the local workers. Furthermore, they can establish links to global value chains through an increased participation in international competition, and the full use of their comparative advantages to promote the upgrading of the industrial structure, and to improve the country's position in the international division of labor as well as its competitiveness.

The characteristic features of industrial parks are the integration of production, relevant services, training and support bodies into a specific region. Industrial parks offer a structured institutional framework, integrated services and a physical infrastructure that may not be available outside them.

Moreover, industrial parks development is highly relevant to achieve the Sustainable Development Goals, particularly the following:

- » SDG 9 "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation"; aiming to significantly raise industry's share in employment and gross domestic product by 2030, and double its share in least developed countries, and, also by 2030, retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.
- » SDG 12 "Ensure sustainable consumption and production patterns"; reaffirming the commitment to implement the 10 Year Framework of Programmes on Sustainable Consumption and Production, by 2030, per capita global food waste, and, to achieve by 2020 the environmentally sound management of chemicals and all wastes throughout their lifecycle, for which companies are encouraged to adopt sustainable practices and report on their outcomes.



At the same time, industrial parks also contribute to the following SDGs:

- » SDG 7 "Ensure access to affordable, reliable, sustainable and modern energy for all"; confirming the importance of energy as driver of development and aiming, amongst others, at doubling the rate of energy efficiency improvement as well as significantly increasing share of renewable energy, both by 2030.
- » SDG 8 "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"; targeting sustained per capita economic growth per cent per annum in the least developed countries, whilst progressively improving global resource efficiency in consumption and production behaviors to decouple economic growth from environmental degradation.
- » SDG 11 "Make cities inclusive, safe, resilient and sustainable"; Cities are hubs for ideas, commerce, culture, science, productivity, social development and much more. However, many challenges exist to maintain cities in a way that continues to foster employment and prosperity while not straining land and resources. Common urban challenges include congestion, lack of funds to provide basic services, a shortage of adequate housing and declining infrastructure. The challenges cities face could be overcome in ways that would allow them to continue to thrive and grow, while improving resource use and reducing pollution and poverty.
- » SDG 13 "Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy"; targeting resilience and adaptive capacity to climate related hazards and natural disasters; integration of climate change measures into national policies and strategies; improvement of education, awareness raising and human and institutional capacity; promotion of mechanisms for raising capacity for effective climate change-related planning and management.

3. UNIDO's expertise and experience in industrial parks

UNIDO has extensive experience in promoting the development of industrial parks. UNIDO published its first guidelines for the establishment of industrial parks back in 1978, and issued guidelines and specifications for the construction of small-scale industry estates in 1988. In 1996, UNIDO published the document entitled 'Export Processing Zones: Principles and Practices'. A new publication entitled 'Industrial Estates: Principles and Practices' was also published in 1997.

For over forty years, UNIDO has been actively involved in the planning, design and management of industrial parks around the world. The Organization has been providing integrated assistance at different stages of industrial park development to its Member States.

Since the 1970s, UNIDO has been an active advisor and partner to its Member States in the planning, design and management of industrial parks, export processing zones, special economic zones and eco- industrial parks around the world. Countries have benefited from UNIDO's expertise in capacity-building assistance at different stages of industrial parks development. UNIDO has been assisting in the preparation of prefeasibility and feasibility studies (e.g. in China, Côte d'Ivoire, Ethiopia, Iraq, Nigeria and Vietnam), and has facilitated public-private partnerships, and in addressing regulatory and institutional issues (e.g. in Côte d'Ivoire, Iraq and Nigeria).

UNIDO has been assisting in the development of industrial parks in various countries within the framework of the Programme for Country Partnership (PCP). The PCP is UNIDO's innovative model for accelerating inclusive and sustainable industrial development in Member States. Aligned with the national development agenda and focused on sectors with high growth potential, the programme supports a country in achieving its industrial development goals.

In Peru, UNIDO is also working with the Government to develop industrial parks and transform existing industrial zones through the PCP Peru which seeks to accelerate inclusive and sustainable industrial development in the country and builds on a multi-stakeholder partnership led by the Ministry of Production. The PCP provides an opportunity for the Government of Peru to orientate development strategies and initiatives towards achieving the SDGs, above all SDG 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation). The outlines of the National Strategy on Industrial Parks Development in Peru, developed jointly by PRODUCE and UNIDO over the past two years, aim to show that industrial parks have the potential to boost productive diversification and sustainable industrial development in the country if building on the right market conditions.

Also in Senegal, UNIDO is assisting the Government in operationalizing the first phase of Diamniadio, Senegal's first integrated industrial park. Together with partners, UNIDO has developed a business model for the park's management and an incentive package to attract public and private investment for infrastructure development.

In Ethiopia, UNIDO is assisting in the establishment of four integrated agro-industrial parks (IAIPs) which is a priority initiative of the Government. UNIDO has assisted in the feasibility study and engineering design and has provided capacity-building services to the Government for establishing a nodal entity – a Regional Industrial Park Development Corporation (RIPDC) – which will be responsible for developing, coordinating and managing the design of the IAIPs as well as promoting the IAIPs at an international level.

One of the most recent UNIDO publications on industrial parks entitled "An international framework for Eco-Industrial Parks" was prepared jointly by UNIDO, the World Bank and GIZ. It is a common framework comprising minimum requirements that define EIPs, and how an EIP is expected to demonstrate environmental and social performance that exceeds compliance with national regulations, in addition to being economically viable.

On the occasion of the Conference on "Industrial Parks for Inclusive and Sustainable Industrial Development", UNIDO will launch the UNIDO International Guidelines for Industrial Parks, that aim to provide appropriate guidance on "what needs to be done, by whom, and when" and to present practical tools to strengthen an industrial park. The guidelines propose a step-by-step approach from the planning to the operationalization of industrial parks, as well as cross-cutting issues such as investment promotion, management and risk management. This reference framework contains a series of performance indicators that will provide infrastructure and service requirements to set up new industrial parks and/or to improve performances of the existing ones. The guidelines also propose key indicators to measure the economic, social and environmental performances of industrial parks.

During the side event "Leveraging South-South and Triangular Cooperation for the Development of Inclusive and Sustainable Industrial Parks" UNIDO will highlight its works under the South-South and Triangular Industrial Cooperation (SSTIC). Industrial parks do not only provide strong momentum for economic growth in developing countries but also serve as cooperation platforms for them to share experience and lessons learnt during the development process. The operationalization of innovative ideas within industrial parks, once proved to be successful, would play a catalytic role to the overall upscaling of the industrial sectors not only beyond the boundary of the industrial parks within certain country but also to other countries as well. One typical example is the industrial park development in China and its impact in other developing countries, such as in the establishment of Ethiopia's Oriental Industrial Park with UNIDO's proactive match-making.

4. Issues for industrial parks

This section describes the different issues related to industrial parks' development.

I. Industrial Parks as part of national and regional industrial development strategies

A successful industrial policy implementation has the potential to enhance the competitiveness of new industrial sectors in the economy of a country while enabling the restructuring of existing sectors and enterprises to become more efficient and competitive. Industrial parks are therefore effective industrial policy tools for decision makers to promote investments, create employment and foster economic growth at the national level.

In that perspective, it is crucial to identify the existing national and international regulatory landscapes of industrial parks to enhance their effectiveness in the industrialization process. Understanding the regulatory landscapes of industrial parks will pave the way for upscaling best practices and enable a more systematic and sustainable implementation of industrial parks' strategies in the development process of developing countries.

Developing and middle-income countries have to establish a holistic and comprehensive approach to industrial policy through its diverse components. Governments, the private sector, academia and all other parts of society have to participate in its design and implementation.

The long-term objectives of a sustainable industrial policy should usually consist of the following:

- Measures to stimulate production and exports while enhancing R&D and innovation capabilities as well as the diversification of sectoral production
- Being competitive and productive in sectors which require higher technology and skill levels
- Integration into global value chains and attraction of more investments into competitive sectors
- Development of the physical infrastructure
- Development of competitive human resources
- Upgrade enterprises and improve the effectiveness of public service delivery

Industrial policy cannot be separated from the macroeconomic and social development of the country and its environmental impact. A lack of macroeconomic stability will hinder the flow of investments into productive sectors with a competitive advantage. Fair distribution of wealth, employment creation and an enabling environment for women to take part in economic activities are fundamental to achieving inclusive and sustainable industrial development and must therefore be taken into consideration. An economic development, which pollutes the environment, cannot be sustainable in the long-term and will, at a later stage, increase costs for the society and drive up transaction costs for the private sector as well.

During the implementation phase of the policy, it is crucial to diversify those strategic sectoral sectors that bring a comparative advantage for the country. On one hand, labor-intensive sectors can lose their competitiveness with the economic development or rise in wages. On the other hand, other countries which carry out research, development and innovation, and start producing more competitive products, can become more competitive at the expense of other countries. As the competition on the lower technology sectors is very high, it is important to move up to higher added-value industries with research and development, innovation and technological production.

As previously said, industrial parks represent an effective industrial policy tool because many of the following policy components, like investment policy, trade policy, financing mechanism, support system for enterprises including incentives, physical infrastructure development, labor force development, research and development and innovation policy, can be utilized within the framework of industrial park development.

The other benefits of industrial parks are the planned industrialization, urbanization, environmental policies and elimination of regional development disparities. Industrial park development goes beyond the investment into a physical infrastructure as it offers research and development potential and a suitable place for investments to be carried out by the private sector. Industrial parks can indeed be used for labor force development, investment promotion and facilitation, trade policy and exportation, and development of the competitiveness of enterprises. As a result, these parks can be an efficient policy tool to enhance development through growth, exports and competitiveness.

II. Management models of industrial parks and social inclusion

Industrial park management models are generally distinguished following three categories: public, private or joint management by means of a public-private partnership. The management of industrial parks combines public relations, administration of standards, and the coordination of activities while ensuring the active participation of occupants and of the community.

The three most commonly used industrial park management approaches are the following:

- Public management model: It is a widely adopted management approach in many developing and middle-income countries where a government has the highest stake in an industrial park. In China, the vast majority of industrial parks are directly managed by governmental administrative committees. Governments can also indirectly manage a park by transferring or outsourcing its responsibility to a specialized company (special purpose vehicle). The company can be owned, founded or invested by the government, and therefore the government still has a strong influence on decision-making, while the company runs the park and deals with technical issues.
- **Private management model**: This is mainly adopted where industrial parks are largely invested and/or owned by private investors. The park operator is a private company, and usually contracted by the owners/investors.
- Joint management model: Industrial parks owned in public-private partnership are jointly managed by the government (and its representatives) and the private investors. The power-sharing mechanism allows both parties to divide responsibilities. Despite its flexibility, the joint management model is sometimes criticized for its 'ambiguity of the government' as it may act both 'as the player and as the referee'.

At the same time, the development of social inclusiveness indicators is important for industrial parks in order to ensure a socially inclusive approach. Fair distribution of wealth, employment creation and an enabling environment for women and men to take part in economic activities are fundamental to achieve a sustainable industrial development and must be taken into consideration.

Social aspects of industrial park development can refer to social policies for the communities around the park, for the companies and the infrastructure in the park as well as social services. It can also refer to the social impacts that the industrial park development can and will have. To that effect, these social aspects should be considered in the different management models of industrial parks.

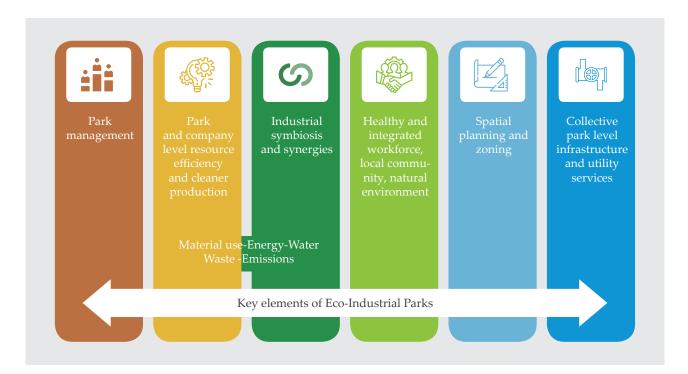
III. Eco-Industrial Parks

The following definition is commonly used to define Eco-Industrial Parks: "(...) a community of manufacturing and service businesses located together on a common property. Member businesses seek enhanced environmental, economic, and social performance through collaboration in managing environmental and resource issues." (Lowe, E.A., 2001. Eco-industrial park handbook for Asian developing countries. Rep. Asian Dev. Bank).

The Eco-Industrial Park (EIP) concept has increasingly been recognized as an effective tool to facilitate a modern and sustainable investment regime for industrial zones while addressing the issue of environmental protection. Promoting sustainable business practices in EIP constitutes a systematic up-scaling. Further development of the Resource Efficient Cleaner Production (RECP) approach and international best practices illustrate that the types of economic, environmental, and social benefits from EIPs vary greatly, transcending conventional business case benefits.

The concept of Eco-Industrial Parks was formally discussed for the first time at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992. In the 1990s, European countries, USA, Japan and Canada as well as some developing economies such as China and India had already started adopting some Eco-Industrial concepts.

The following figure shows the common key components of an EIP:



EIP benefits include reducing an industrial park's environmental footprint; promoting efficiency gains; enabling community cohesion; providing better access to finance and technical support; and enhancing business competitiveness. The benefits are not just commercial but also strategic, leading to reduced exposure to risks, increased competitiveness, business development, and a better reputation with key stakeholders. Among their many positive externalities, EIPs promote circular economy and can foster sustainable cities.

IV. Special Economic Zones

"Special Economic Zones" are a policy-enabled type of industrial parks, where liberalized and often experimental business policies and reforms are introduced to complement the park's infrastructure offering. There are many misconceptions about the 'unique' character of these zones, what distinguishes them from other industrial parks, how they can contribute to economic development, and which supportive policies (or other instruments) should characterize them to be successful in a sustainable manner.

Due to their customs policy - which reduces costs related to movements of merchandise inputs and cargo - and their special tax incentives, they are often used for industry. Other reasons for their industrial use are their significant spatial and infrastructure requirements - which lead to agglomeration solutions - and the fact that such economic activity takes place most often in peri-urban and environmentally resilient locations.

Special Economic Zones therefore often resemble industrial parks, but going far beyond industrial parks' conventional infrastructure offering.

Considerations linked to the business environment, investment climate, regulatory compliance burden, ease of dealing with customs, ready access to business services, relative absence of bureaucracy, clean and transparent government departments, flexibility in managing one's labor relations, ease of obtaining factory licenses and building permits, ease of bringing in expatriate management, simplicity of resolving commercial disputes, etc. were attractive elements that fostered interest in special economic zones.

Acknowledging the importance of investors' needs, and following China's early lead in this area from 1978 onwards, in addition to providing high-quality infrastructure, the global priority of Special Economic Zones programs became then, in the mid-1990s, to shift their 'value proposition' to focus on these considerations, rather than on mere tax benefits. Following these lines, large numbers of older zones programs began to "reboot" their offering, in order to address these needs as well.

By offering a concentrated infrastructure, "value add" services among other incentives, Special Economic Zones provide their occupant enterprises with reduced production and economic transaction costs, improved cash flows, and resulting economies of scale, sales and profits, which can be reinvested in improved production facilities as well as in increased workforce numbers and skills.

V. Financial instruments and investment models

Different types of funding models have been set up for the development of industrial parks. Their modalities range from grants to various forms of co-financing between project developers and funding agencies. One can distinguish between the following models:

- The **traditional financing model** represents direct or indirect public sector investments for industrial park development, including direct allocation of national budget or indirect investment through public enterprises. This investment mechanism is more effective to gain access to loans from national banks, whereas it suffers from limitations inherent to an inefficient utilization of capital.
- Industrial park projects can also be financed through **capital market instruments** such as issuing stocks, bonds or trust products. This mechanism eases the government's financial burden and promotes the effective use of various capital elements. However, some countries lack stock markets and the ability to issue government bonds (which are also subject to strict controls).
- The **project financing model** is comprised of public-private partnerships (PPP) initiatives, such as the Build-Operate-Transfer (BOT), Build-Own-Operate-Transfer (BOOT), Design-Build-Finance-Operate (DBFO) and Build-Own-Operate (BOO). The PPPs are mainly driven by limitations in public funds for investments and encourage major private sector investments. They mobilize funds based on the industrial parks' own assets and consider the future earnings of the project. This financing model increases the efficiency of spending and the quality of infrastructure; however, delay in accessing funds is an important limitation.
- Impact financing. All investments have consequences for individuals as well as for whole communities and for the economy. In addition to generating financial returns, investments can create jobs and thus have positive impact on the society and also on the environment. Impact investment goes beyond avoiding harm and managing risk and aims to generate a positive social or environmental impact alongside a financial return.

VI. Industry 4.0 and circular economy

Industry 4.0 focuses on research, innovation and technology as drivers for economic growth through industrial development and as such is a highly relevant paradigm for the development of industrial parks. Industry 4.0 is a paradigm shift from centralized to decentralized smart manufacturing and production and refers to the computerization of manufacturing. Increasingly, companies are applying innovative solutions, including through the "Internet of Things" (IoT), cloud computing, miniaturization, and 3D printing that will enable more interoperability and flexible industrial processes and autonomous and intelligent manufacturing. These developments are highly relevant for industrial parks as they can transform the industrial parks to become state-of-the-art hubs of technology and optimize their production processes.

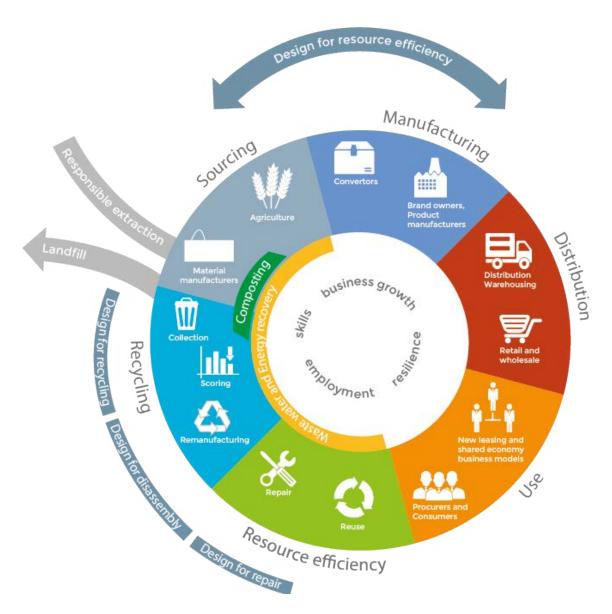
Moreover, Industry 4.0 has the potential to improve productivity and competitiveness, increase energy and resource efficiency and effectiveness and hence protect the environment. It could enable the transition to a circular economy in which end of life products are reused, remanufactured and recycled.

Industrial development and subsequent increased consumption do not guarantee sustainable outcomes. Increased consumption intensifies environmental impacts, through higher pollution, overuse of natural resources and creation of waste. Increased income generates more packaging, imports, electronic waste and appliances. The growing mass consumption of manufactured products is likely to increase demand for non-renewable natural resources, such as fossil fuel energy and materials, putting severe pressure on the environment. Manufacturing also generates huge amounts of waste, putting current disposal systems under mounting pressure. As such, on the middle and long term, the virtuous circle of consumption is a critical underpinning for achieving inclusive and sustainable industrial development.

In industrialized and, to a lesser degree, emerging economies, the preferences of businesses and consumers appear to be gradually shifting towards recycling and greater resource efficiency. Yet, today's mass production remains a linear process. Resources are extracted from the environment, transformed into new products, and then disposed back into the environment after use. Governments and other entities, including China and the European Union, are increasingly encouraging the adoption of circular economy principles against this backdrop in order to increase resource efficiency and reduce waste.

The concept of circular economy is gaining increasing attention worldwide as a means to reduce dependency on primary materials and energy, while becoming an economically viable alternative to the linear economy at the same time. Circular economy could help developing and middle-income countries 'leapfrog' to a more sustainable development pathway that would avoid locking in resource-intensive practices and infrastructure. To achieve a circular economy, we need incremental and ground-breaking innovations including technological, regulatory, social and business-model innovation. Research and innovation can thus drive a transition to the circular economy.

The circular economy concept can be visualized as follows¹:



¹ https://blog.anthesisgroup.com/procurement in circular economy



5. Conclusions

Industrial parks have the great potential to contribute to inclusive and sustainable industrial development as well as the Sustainable Development Goals in developing and middle-income countries as they are key policy tools to attract investments, enhance GDP growth, create jobs and achieve economic diversification. If well integrated in the markets, they can be fully part of countries' industrialization strategies that will have the potential to respond to todays and future challenges.

The key factors for successful industrial parks are multiple. First, a solid national legal framework and long-term government commitment are required to create an attractive environment for the business sector. Second, a strong association of the private, public and financial sectors is needed to ensure investments and a coherent business approach to the companies inhabiting the industrial park. Third, a viable business model, relevant and adapted for each park under consideration is important. In that perspective, different emphasis can be put on specific parks, for example an Eco-Industrial Park or a Special Economic Zone, depending on the requirements of the respective stakeholders. Fourth, to be truly sustainable, and ensure the active participation of its occupants and the community, these models should be socially inclusive and forward-looking, based on the dialogue between the multiple parties involved.

Moreover, in addition to promoting industrial development, industrial parks can contribute to lower the environmental impact of industries, promote innovation and encourage the application and development of new technologies and innovative concepts, which can be of value for a country's economic growth in a sustainable perspective. A topic such as industry 4.0 is a highly relevant paradigm for the development of industrial parks as it focuses on research, innovation and technology as drivers for economic growth through industrial development, enabling a critical shift from centralized to decentralized smart manufacturing and production and referring to the computerization of manufacturing. Recent developments such as cloud computing, miniaturization, or 3D printing together with digitalization and block-chain technologies are of significant importance for industrial parks as they can transform them to become state-of-the-art hubs of technology and optimized production processes that will improve competitiveness,

increase energy and resource efficiency and hence protect the environment. Industrial parks could then enable the transition to a circular or industrial economy in which end of life products will be reused, remanufactured and recycled, reducing dependency on primary materials and energy, while at the same time becoming an economically viable alternative to linear economy.

To develop sustainable and efficient industrial parks in the framework of a circular economy, incremental and ground-breaking innovations are still needed, including in the fields of technology, regulation, society and business-models. Research and innovation must be further pursued to enable and drive this transition in a successful and sustainable way.

UNIDO has developed several guidelines that consider the above mentioned elements in order to support the establishment and operation of industrial parks that are in line with the principles of ISID and the SDGs. The most recent publication of the *UNIDO International Guidelines for Industrial Parks* that will be launched at the Conference proposes a step-by-step approach from the planning to the operationalization of industrial parks and contains a series of social, environmental and economic performance indicators.

This background paper has provided more detailed information on the definition of industrial parks, as well as UNIDO's expertise in the topic and has presented brief descriptions of the various issues to be considered when developing industrial parks to foster ISID. As such, this paper provides conference participants with relevant background information to bear fruit from the different panel discussions and presentations during the conference.





