REPUBLIC OF RWANDA

MINISTRY OF TRADE AND INDUSTRY

INDUSTRIAL POLICY

2024-2034

AUGUST 2024

Contents

1. Goal, Rationale, and Guiding Principles of the Policy

Goal

The current national Industrial Policy aims to contribute to the objectives stated in Rwanda's Vision 2050 by accelerating the structural transformation of the country and enabling the development of a competitive and export-oriented private sector.

Rationale

The Vision 2050 establishes Rwanda's development framework for 2020-2050, aiming to drive the country towards self-reliance and competitiveness. It indicates that Rwanda aspires to become an upper-middle-income country (UMIC) by 2035 and a high-income country (HIC) by 2050, with a projected GDP per capita target of USD 4,036 and USD 12,476 respectively.

Vision 2050 aims to foster a diversified economy built upon future industries. Key goals include creating competitive manufacturing anchored to a regional logistics hub, driving transformative growth through modern and innovative services subsectors, and expanding export-oriented knowledge services, which are crucial for accelerating industrial development.

The National Strategy for Transformation (NST2) for 2024-2029 lays the foundation for developing industrial policies aimed at positioning the country as a leader in high-quality, locally produced goods. With a focus on major investments in agriculture, manufacturing, and services, NST2 seeks to drive inclusive growth. This includes expanding exports, generating job opportunities for all, and cultivating a favorable business climate through private investment. Over the five-year period, NST2 sets ambitious targets to support its goals. It aims to achieve a 13% annual growth rate in manufacturing, create 1,250,000 decent and productive jobs (250,000 per year), and increase export revenues from $3.5 billion to $7.3 billion. This growth will be driven by a focus on non-traditional products, agro-processing, and value-added mining.

This National Industrial Policy (NIP) builds on the successes and lessons learned from NST1 while laying a foundation for the development of future National Strategies. Progress towards the targets set by Vision 2050 and NST1 have been slower than anticipated. Currently, the national GDP per capita is only USD 822, and exports are still highly concentrated in unprocessed commodities, with little value-added in Rwanda. To address these challenges and meet national targets, a robust, forward-looking industrial policy is essential. This policy will serve as an implementing instrument to achieve Vision 2050 objectives and provide a new framework for developing competitive industries in Rwanda. Such industrial policies is a key component of the development agenda of many countries adapting to new trends and integrating into the global economy.

The Industrial Policy 2024 - 2034 focuses on growing key high-growth subsectors that are essential to support sustainable structural transformation and reap the economic benefits from the demographic dividend that the country is experiencing. The current industrial policy aims to promote the creation of productive jobs, particularly for women and the youth. It also embraces the increasing requirements for green industrialisation and building a circular economy and low-carbon value chains.

Guiding principles

The Industrial Policy 2024 - 2034 is developed based on a socially inclusive approach to industrialisation, prioritizing competitiveness while ensuring that women, youth, persons with disabilities, and other vulnerable groups are actively involved. These groups are core contributors to the policy's success, serving as stakeholders at all levels including the public sector, industry, and civil society, and as community members or consumers of goods and services. This means that ensuring their active participation and consideration at every stage is crucial for achieving the policy's objectives and fostering broad-based economic growth. Similarly, addressing specific

needs and perspectives throughout its implementation, from the design of interventions to the tracking and evaluation of outputs, outcomes, and impacts.

Environmental sustainability will be central to this policy, ensuring that industrial development progresses while safeguarding Rwanda's natural environments and positioning the country as a leader in global climate change mitigation and management. By integrating sustainability throughout the policy, Rwanda aims to unlock significant co-benefits for the private sector, including growth opportunities in emerging green industries, improved productivity through energy efficiency, and enhanced climate resilience for businesses.

Additional guiding principles for the design and implementation of government interventions under this policy include:

- Fiscal sustainability based on value-for-money analyses considering alternative interventions, the proportionality of the support provided to business, and its effectiveness;
- Encouraging and enabling fair competition as well as market-based and private sector-led initiatives;
- Transparency and accountability on the use of fiscal resources and support provided to specific industries and firms; and
- Evidence-based and adaptative design and implementation of interventions to support industrial policy.

Similar to the 2011 industrial policy, the new Industrial Policy will cover ten years (2024 to 2034). However, this policy will include a scheduled mid-term review to accommodate necessary adjustments in response to the dynamic regional and global economic landscapes and the evolving internal business environment. Additionally, the new policy features a monitoring and evaluation (M&E) framework designed to facilitate effective oversight and provide valuable feedback throughout its implementation.

2. Situation Analysis[1]

2.1. Current level of industrial development

During the previous industrial policy period (2011-2020), Rwanda experienced an average annual GDP growth rate of over 7%, peaking at 9.5% in 2019. However, the GDP declined by 3.4% in 2020 due to the global COVID-19 pandemic. Throughout this period, the sectoral contribution to GDP remained stable, with the services sector contributing the largest share at 49%, followed by agriculture at 25%, and industry at 18%. Since 2000, the share of agriculture in GDP decreased from 31% to 27%, while services increased from 44% to 48%. Manufacturing saw a slight decline from 19%[2] to 16%, indicating a premature shift towards services without significant manufacturing growth, a path that has historically led to broader prosperity in high-income countries.

Agriculture is a crucial sector for employment in Rwanda, accounting for 27% of total value added and 46% of total employment in 2023. About 1.39 million people, or 45% of the working-age population outside the labor force, are engaged in subsistence agriculture. The sector absorbed most new labor market entrants between 2019 and 2022, creating over 390,000 jobs. To improve productivity, modernizing farming techniques and focusing on high-growth agricultural value chains are essential for Agro-processing development.

The manufacturing sector holds untapped potential, contributing 10% to GDP but employing only 4.8% of the workforce in 2022, down from 6.4% in 2019. Women represent 45% of the manufacturing workforce. The sector remains undiversified and minimally impacts the national export basket, with manufacturing goods comprising only 10% of exports in 2023. Primary commodities dominate exports, with gold exports growing significantly

[1] *A comprehensive and extend situational analysis can be found in the Annex 6.1*

[2] *N.B.: the taxes less subsidies on products are not reported, which explains why the total is not adding up to 100 per cent*

from USD 21,000 in 2001 to USD 884 million in 2023. The complexity of exported goods has slightly increased, focusing on labour-intensive, low-tech products.

Manufacturing faces challenges like low-capacity utilization, averaging 65% across the sector, with some subsectors experiencing even lower rates. Factors such as raw material shortages, lack of specialized technology, insufficient working capital, and low demand contribute to this issue.

The services sector is the main contributor to Rwanda's GDP and off-farm employment, accounting for 48% of GDP and 40% of total employment in 2023. Wholesale and retail trade and transport-real estate activities are the most significant sub-sectors, with the former being the second largest employer in the economy. However, this sector offers limited opportunities for substantial productivity improvements and long-term capital accumulation.

The government has focused on developing high value-added and tradable services to transition to a knowledge-based economy. Initiatives like the ***Kigali International Financial Centre*** and ***Kigali Innovation City*** aim to make Rwanda a regional financial and innovation hub. Despite this, the contribution of tradable services such as tourism, financial services, and global business services remains relatively low, declining from 13.1% in 2019 to 12% in 2021. Services exports grew slower than goods exports between 2017 and 2021, with a notable decline due to the COVID-19 crisis, although they recovered shortly after.

Rwanda's industrial policy should support high-potential productive subsectors to accelerate economic transformation and maximize spillover effects. The country's economic growth strategy relies on innovation, integration, agglomeration, and competition. Manufacturing is a vital source of innovation, with strong agglomeration effects and high economic integration, leading to stronger competition. However, challenges such as high transportation and logistics costs, limited land availability, and a small domestic market may hinder manufacturing development. A balanced approach focusing on tradable subsectors that enhance labor productivity and technological upgrading in agriculture, manufacturing, or services is necessary to overcome structural challenges and maximize economic transformation prospects.

2.2. Constraints faced by the productive sector[3]

Rwanda’s productive sector faces important constraints emerging from market, coordination, and information failures that require government interventions to develop competitive markets at scale, whether in agriculture, manufacturing, or services. These constraints are found across several essential pillars for private sector development, including but not limited to[4] infrastructure; skills; human resources; finance; standards and quality; and technology, research, and innovation.

Rwanda’s productive sector faces significant constraints in market development, coordination, and information, necessitating government interventions. These constraints span several key pillars for private sector growth, including infrastructure, skills, human resources, finance, standards and quality, and technology, research, and innovation.

Infrastructure

- Energy: Over 75% of households had electricity by early 2024, but energy costs remain high, nearly double Kenya’s rates. Industrial consumers, particularly small companies, face even higher costs.
- Transport & Logistics: Rwanda has a robust road network connecting Kigali to secondary cities and neighboring countries. Key projects include upgrading and maintaining national and feeder roads, developing railways, ports on Lake Kivu, and roadside stations. Despite these efforts, high transportation costs and difficult access to international markets due to non-tariff measures (NTMs) remain major obstacles.

[3] Industrial sector refers to firms operating in the private sector across all sectors in the economy.

[4] The Rwanda Country Economic Memorandum (CEM), prepared collaboratively between the World Bank and the Government of Rwanda, provides a comprehensive assessment of barriers to growth.

High Transport Costs: As a landlocked country, Rwanda is about 1,400 km from the nearest seaport. It relies on the Northern Corridor to Mombasa and the Central Corridor to Dar Es Salaam which remains a major factor influencing foreign direct investment and firms' ability to access international markets. A study by Camisón-Haba and Clemente-Almendros (2019) found that if tansport costs for exporters in a country were to double, it could reduce their trade volume by over 80%. Conversely, a 10% reduction in transport costs could increase trade volume by 20%.

High Costs of Imported Raw Materials: Transportation costs increase the price of imported raw materials, compounded by trade agreements, customs procedures, and regional commitments like the EAC Common External Tariff. Bureaucratic challenges in transit countries exacerbate these issues.

- Water: Industrial growth will increase water demand, concentrated in Kigali and Gisenyi. Investments are needed to expand and rehabilitate water supply systems, particularly in regional industrial parks.
- Industrial Parks: Access to industrial land is challenging. The government is developing 12 industrial parks, but issues with roads, water, and electricity infrastructure persist. Better alignment between national and district-level industrial park development is needed.

Local Supply of Raw Materials

Value-addition industries, especially in Agro-processing, face constraints due to inconsistent and insufficient locally produced raw materials. This limits factory capacity utilization and investment confidence, affecting the ability to meet export standards.

Scale and Access to Markets

Rwanda's private sector is underdeveloped, with 92% of businesses being micro-enterprises and only 0.2% exporting. The small local market and low purchasing power hinder firms from achieving economies of scale and competitiveness.

Business Environment

New established firms not fully aware of allowable tax exemptions. Among other challenges including tax exemption process and tax filling issues mean penalties for late payments by some firms, lack of awareness on Government facilitated services. The ban on single-use plastics creates packaging challenges (affordable & high quality) for Agro-processors. The Made in Rwanda policy recommends establishing a Centre of Excellence in packaging to support SMEs.

Human Resources and Industrial Skills

Rwanda's labour force in 2022 was 4.7 million, with a lower participation rate for women (45% compared to 63% for men) and higher female unemployment (25% versus 19.6% for men). There is a shortage of trained industrial manpower and significant skill mismatches due to supply-driven TVET training. Efforts are being made to align skills development with market demands, but private sector engagement remains insufficient. Low labour productivity and inadequate occupational health and safety standards further hinder industrial growth.

Access to Finance

Rwanda's financial sector faces structural challenges. Banks dominate financial assets, but high operating costs lead to high lending rates (20-25% for SMEs). Financial institutions lack adequate risk assessment tools and understanding of SME creditworthiness. On the demand side, SMEs struggle with collateral requirements and financial literacy. The Kigali International Financial Centre (KIFC) aims to position Rwanda as a financial hub, but access to credit remains limited.

Standards and Quality

The National Quality Infrastructure (NQI) needs strengthening to support competitive product standards for regional and international trade. The Rwanda Quality Policy (2018) addresses funding, capacity, regulatory framework, and public awareness challenges. Key weaknesses include limited skilled human resources, inadequate infrastructure, slow standards implementation, and limited public-private collaboration.

Technology, Research, and Innovation

Five priority areas include reducing the cost of high-speed internet access, investing in digital skills, private sector participation in the digital economy, creating a regional digital market, and building a secure online environment. The ICT Chamber's Digital Transformation Cluster and the National Council for Science and Technology (NCST) support these goals. The National Research and Innovation Fund (NRIF) and NIRDA's interventions aim to enhance industrial competitiveness through technology adaptation and applied research.

Constraints for Women and Youth Entrepreneurs

Women own 37.6% of businesses but only 15% of large companies, facing socio-cultural challenges leading to a lack of confidence, especially in rural Areas. Women feel more constrained than men in terms of mobility and working hours, networking, and taking leadership roles, hence, low participation of women in subsectors such as exports, transport and logistics. Young entrepreneurs struggle with low investment capacity, bargaining power, and market awareness. Technological uptake is hindered by low demand-driven research, insufficient funds, and limited integration of public and private R&D efforts.

2.3. Megatrends in global value chains

Two main megatrends are shaping the future of global value chains (GVCs): the 4th industrial revolution (4IR) and green growth. These megatrends will need to be carefully considered in the design and implementation of the Industrial Policy 2024 – 2034 to maximise the chances of effective global value chain integration and accelerate economic transformation.

2.3.1. The 4th Industrial Revolution

Innovation in technologies is evolving at an exponential and unprecedented pace and affects all economic sectors. The most disruptive technologies that are likely to be disruptive are ***artificial Intelligence, big data, the Internet of Things and connected devices, text, image and voice processing, robotics, 3D printing and modelling, cloud computing and biotechnology*** (World Economic Forum, 2020). These technologies are expected to impact production and supply chains in all sectors. For example, in agriculture, advancements such as precision farming and vertical farming are being leveraged to boost overall productivity, particularly in low-income regions. In the services sector, Artificial Intelligence (AI) and big data are revolutionising remote service delivery by enabling more personalised and efficient solutions. In manufacturing and Agro-processing, emerging technologies like Mechatronics, Cloud Computing, Additive Manufacturing and Biotechnology are anticipated to drive significant changes and innovations.

These technologies are expected to dramatically change the labour market, which generates anxiety and a debate about automation and job displacement. Overall, the adjustment costs to these new technologies might be high, especially for low-skilled workers currently engaged in routine-based tasks that are more likely to be computerised and automated than other tasks. This might increase inequality among low- and high-skilled workers, as high-skilled workers are generally not involved in routine-based tasks. The new technologies are likely to increase the demand for this segment of workers. More broadly, technological innovation might slow down or disrupt the convergence process and widen the inequality gap between high-income and low- and middle-income countries if these countries do not actively support their private sector to adopt these technologies and remain competitive by improving their labour productivity.

In Rwanda, the focus on developing 4IR capabilities is already ongoing. In March 2022, Rwanda, in collaboration with the World Economic Forum, launched the Centre for the Fourth Industrial Revolution Rwanda (C4IR Rwanda) to spearhead the rollout of technology-driven development. Current projects include developing and implementing Rwanda's Personal Data Protection and Privacy Law, the National Artificial Intelligence Policy, Chatbots RESET, an AI Readiness and Maturity Assessment Index, and an AI4Health Data Sharing Framework.

2.3.2. Green industrialisation

The current global climate crisis is imposing a paradigm shift towards clean energy and clean production processes, including in a country like Rwanda, despite the minimal contribution of African countries to this crisis. Sustainability and the shift towards green products will significantly shape the global value chains in virtually every sector, particularly in manufacturing and agriculture.

Policies to realise a transition to low-carbon or carbon-free and clean industrialising economies should focus on the following (TBI, 2021):

1. Roll out viable renewable energy sources that fit critical industries in heavy and light manufacturing and improve their production energy efficiency
2. Develop and adopt technologies to reduce process emissions of key industrial products, including heavy manufacturing (i.e., cement, steel, aluminium, iron, copper, glass manufacturing) and some light-manufacturing products (e.g., ammonia, plastics).
3. Increase resource efficiency to reverse the resource depletion process and reduce industrial waste: this could apply to all sectors, particularly key light-manufacturing subsectors that are important for the economic transformation and build the case for investing in a **circular economy.**
4. Reduce air, soil and water pollution caused by industrial activity and effluent.

The concept of circular economy is becoming a central debate in many subsectors, particularly those responsible for significant waste, such as textiles and apparel. The circular economy consists of promoting the re-use, recycling of resources and repair. The circular economy principles seek to reduce both the carbon footprint and the consumption of primary materials and emphasis the use of renewable forms of energy, product reuse, recycling and repair, all contributing to sustainability.

The circular economy activities range from recycling a damaged mobile phone or a plastic bottle to car-sharing schemes and regenerative agriculture. Recycling is an important part of the circular economy and will play a significant role in future global value chains across several subsectors. The economic potential for the circular economy is huge across many industries. For instance, it is estimated that the circular economy could generate a net economic benefit of €1.8 trillion by 2030 in Europe while reducing the GHG emissions of key industries by 40 per cent in 2050 if broadly adopted.

Interest in a circular economy is increasing in Rwanda, and several interventions are already in place to accelerate the adoption of the circular economy in the country. In 2020, Rwanda established one of the continent's first state-of-the-art e-waste recycling facilities – EnviroServe Rwanda – financed by the Rwanda Green Fund (FONERWA), established by the Rwandan Government in 2012. The facility aims to develop a capacity of 10,000 tonnes of e-waste processed per year, more than the annual e-waste generated in the country, estimated at 7,000 tonnes of e-waste in 2019. Moreover, the new National Environment and Climate Change Policy 2019 reaffirms Rwanda's desire to adopt an environmentally friendly approach towards development. Rwanda's Green Growth and Climate Resilience Strategy aim to develop a climate-resilient and low-carbon economy by 2050.

The authorities have also set up the Cleaner Production and Climate Innovation Centre (CPCIC), which is mandated to ensure that technologies adopted by both the private and the public sectors promote cleaner production, climate resilience, and the development of a circular economy. The CPCIC is critical in driving Rwanda's green growth strategies and the country's move towards low-emission and climate-resilient economic

development. Moreover, Rwanda's National Status Report on the Implementation of Resource Efficient and Cleaner Production (RECP) Technologies in Industries (2017) recommended the enhancement of data collection systems on cleaner production technologies and continuous mainstreaming of RECP in national policies and strategies.

3. Framework, Vision, and Objectives of the Industrial Policy 2024 - 2034

3.1. Vision and Objectives of the Industrial Policy 2024 - 2034

Vision 2033

A competitive and export-oriented industrial sector that promotes sustainability, boosts productivity, stimulates private investment, and focuses on generating decent jobs, including for women and youth, integrating into regional and global value chains, increasing investment capacity, and adopting cutting-egde technologies and modern production methods.

Progress against this vision can be measured against the following outcome indicators and targets[5]:

- Average CAGR of 10% in the total ***value-added*** in the production of medium- and high-value goods and services in Rwanda
- Average CAGR of 10% in the total value of ***exports*** of medium- and high-value goods and services.
- Average CAGR of 10% in the total number of ***decent jobs*** directly involved in the production of medium- and high-value goods and services in Rwanda
- Annual Manufacturing sector growth by 13%

Objectives

The Industrial Policy 2024 - 2034 aims to foster economic transformation in Rwanda by working towards the following objectives:

1. Expansion of local value addition in industry, which is also reflected in an increased share of manufacturing and tradable services in GDP
2. Improved international competitiveness thanks to higher productivity, technological upgrading and innovation
3. Diversification of the productive structure and exports, particularly towards a larger share of sub-sectors and products with higher technology intensity, complexity and value-addition
4. Reduced trade deficit and enhanced participation in regional and international trade, including through integrating into regional value chains and tapping continental trade opportunities
5. Generation of industrial employment with an emphasis on decent jobs, human capital and skills, and inclusive labour markets
6. Environmental sustainability through the greening of industrial activities and the promotion of green sub-sectors and products

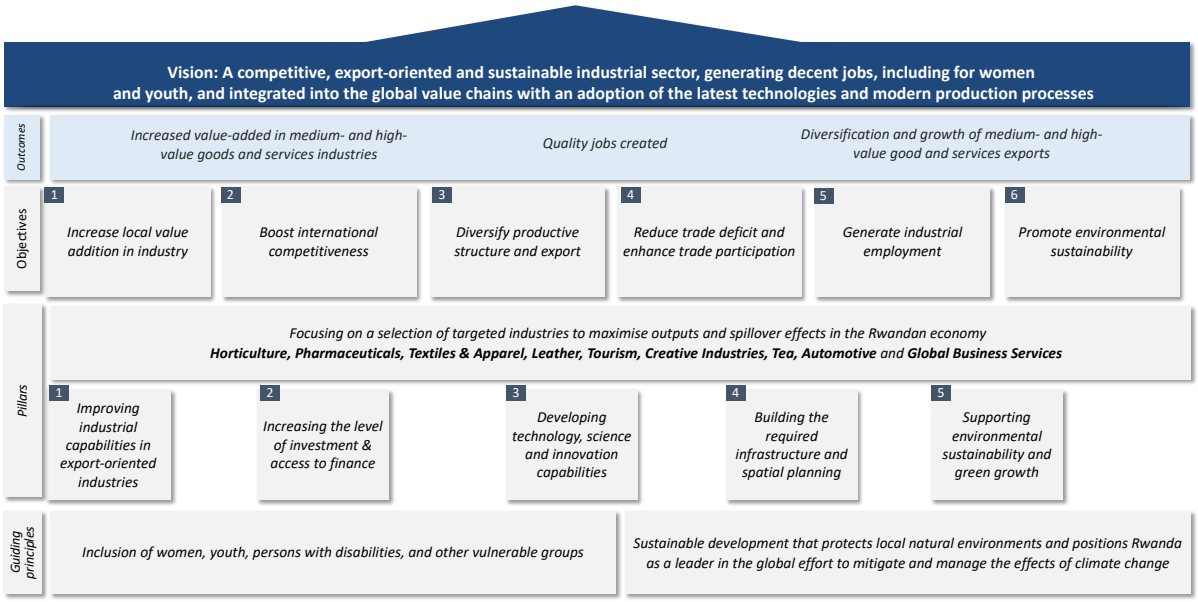
Policy pillars and theory of change

The Industrial Policy 2024 - 2034 focuses on developing the industrial capabilities of prioritised subsectors through a *vertical* approach that aims to tackle the constraints of each value chain while at the same time

[5] A monitoring system and underlying data strategy will be developed to precisely define and monitor the Industrial Policy's top-level indicators and targets as well as specific indicators and targets for all levels of the theory of change and implementation plan.

implementing cross-cutting or *horizontal* measures across eight pillars that foster the development of industrial ecosystems at large (Figure 1).

Figure 1: Policy pillars and theory of change



Alignment with other policies

Industrial policy is broadly defined as "government promotion of structural transformation through support of economic activities that are perceived to be socially beneficial" (GIZ & UNIDO, Enhancing the Quality of Industrial Policies). Following this definition, Rwanda's Industrial Policy 2024 – 2034 serves as the anchor policy for the promotion of economic and structural transformation towards higher-value-added economic activities. The effective promotion of such a transformation requires concerted government efforts across several policy domains, such as trade, export, entrepreneurship, competition, infrastructure, agriculture, education, and investment, to name a few. As such, the Industrial Policy has strong complementarities with other key policies for economic transformation, such as the Trade Policy 2010, the Entrepreneurship Development Policy 2020, and the Made in Rwanda (MiR) Policy 2017, the National Investment Policy 2023, the Competition and Consumer Protection Policy 2023, and the Quality Policy 2018.

The Trade Policy primarily addresses reforms and capacity building in the trade regime. The Entrepreneurship Development Policy focuses on the business support ecosystem for SMEs and entrepreneurs rather than the wider labour market issues addressed in the Industrial Policy 2024 - 2034. The MiR Policy aims to increase the competitiveness of the Rwandan economy, with a focus on the local economy and local firms. The MiR Policy recognises the need for a conducive business environment for entrepreneurship development and the realisation of national employment programs in general. Considering the important synergies with the Industrial Policy 2024 - 2034, MiR is integrated in pillar one. The National Investment Policy recognises the role of both well-planned and managed public investments and the private sector to achieve the country's development goals, while the Competition and Consumer Protection Policy recognises the importance of competitive markets to enable private investment and boost productivity and innovation while enhancing consumer welfare. The Quality Policy addresses challenges related to standardisation, metrology, and national quality infrastructure to effectively support trade promotion and industrial development.

3.2. Selection of priority subsectors [6]

While the policy recognises that horizontal interventions to boost the competitiveness of all industries in the economy are advisable, focusing interventions in those areas more relevant to selected subsectors would be necessary for phased implementation.

The policy instruments outlined in this document should, as a priority, be applied and tailored to the constraints and opportunities in the subsectors listed below. This policy sets a direction for supporting the development of productive economic subsectors in Rwanda in general but places a special emphasis on the development of a small set of priority subsectors whose growth would have a transformative catalytic impact on the rest of the productive economy in Rwanda. This approach is based on historical evidence indicating that most effective industrial strategies concentrate scarce resources into a small set of strategic economic subsectors, while implementing supporting regulatory reforms to ease the cost of doing business, facilitate trade and investment, and ensure effective competition. The economic transformation momentum created by success in these subsectors can then be leveraged for further industrial policy efforts in progressively higher-value-added subsectors, as well as fostering broader industrial policy capabilities. The policy instruments outlined in this document should, as a priority, be applied and tailored to the constraints and opportunities in the subsectors listed below.

While a set of priority subsectors is selected, the policy will take a flexible, adaptive approach to subsector targeting. This will include (i) a periodic review of target subsectors based on evolving market dynamics and failures and (ii) a mechanism for 'self-discovery' whereby the Government works closely with the private subsector to monitor and respond to emerging economic opportunities.

An analysis was undertaken to support subsector prioritisation under the Industrial Policy 2024 – 2034 based on a methodology developed by the Tony Blair Institute for Global Change. As shown in Figure 1, the analysis assessed the opportunity and feasibility of each potential subsector in Rwanda:

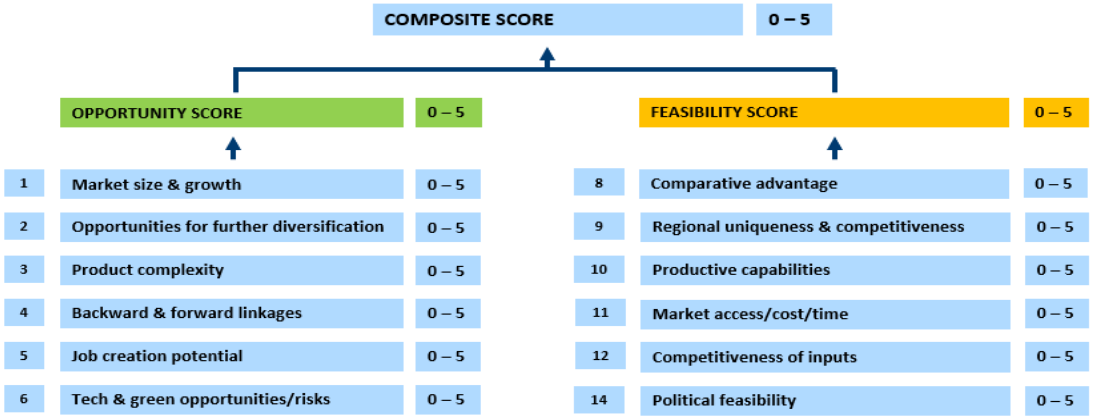
- *Opportunity* refers to the magnitude of the gains a subsector could achieve *if* it were successfully developed to its full potential in Rwanda by 2033.
- *Feasibility* refers to the ease or difficulty with which the subsector could successfully develop to its full potential in Rwanda by 2033.

The subsector prioritisation process followed three steps:

- **Step 1:** a **preliminary analysis using quantitative data** following the Product Space methodology to identify a **longlist of 20 subsectors** that score relatively well against the opportunity and feasibility criteria in Rwanda. This longlist also considered subsectors prioritised by other Government of Rwanda policies and strategies as well as previous subsector prioritisation analyses carried out by development partners.
- **Step 2:** a **mixed-method assessment of each longlisted subsector** against each opportunity and feasibility criterion, as shown in Figure 2 below. This assessment was based on a literature review, stakeholder interviews, analysis of available data, and benchmarking against the experiences of other countries. Each of the 20 longlisted subsectors was given an opportunity score and a feasibility score resulting from this analysis.
- **Step 3:** a **consultative workshop** with representatives from key ministries and agencies involved in economic transformation. During the consultative workshop, the subsector prioritisation analysis described in steps 1 and 2 was presented and discussed, and a consensus was built around a set of priority subsectors based on the analysis as well as new insights from participants.

[6] Details of the methodology for sector prioritization can be found in Annex 6.4

Figure 2: Methodology for subsector selection



Source: Tony Blair Institute for Global Change

As a result of these three steps, the following subsectors will be prioritised under this Policy. In addition, a set of **'strategic bet' subsectors** will be further explored as potential long-term drivers of economic transformation:

Agriculture & Agro Processing	Light manufacturing	Tradable services	Midium & Longer-term Strategic Bets
Horticulture & other high-value crops (fresh & processed)	Leather goods	Tourism	Textiles and Apparel
High value tea products	Pharmaceuticals	Global Business Services	Creative Industries
Sugar			Automotive Industries
			Glass manufacturing
			Steel Manufacturing

Agriculture & Agro-Processing

1. **Horticulture & Other High-Value Crops:**

Rwanda's horticultural subsector has strong growth potential, particularly for export, with key value chains including peppers, tomatoes, French beans, macadamia nuts, grapes, and passion fruit. Opportunities also exist in the downstream processing of jams, dried fruits, juices, and nuts. The sector creates jobs at all skill levels and stimulates demand for logistics and transport services. With significant productive capacity and fertile land, Rwanda can expand commercial horticulture. Addressing export transport and logistics costs and ensuring secure land, efficient services, and strong enabling providers will enhance competitiveness.

2. **High-Value Tea Products:**

Rwanda's tea subsector offers growth opportunities through new estates, yield improvements, and value addition, especially in speciality single-origin tea. This growth could boost export earnings and create jobs in processing and seasonal work for tea pickers, benefiting small-scale farmers. With over USD 100 million in annual exports, Rwanda's high-quality tea trades at a premium. To realise further growth, industrial policies need to address financing for new tea plants, labor sourcing, rural infrastructure, and energy issues.

3. **Sugar**

Significantly, Rwanda has a big import bill of sugar to support local food and beverage manufacturing industries, which rely heavily on sugar as an ingredient. Local production remains below 12% far to meet the increasing demand for sugar and unpredictable competition of sugar from the region. Domestic sugar production offers economic, environmental, and strategic advantages that can support food security, economic independence, and overall sustainability. To boost domestic sugar production, the government needs to avail lands for sugarcane plantations key for factories as raw materials.

Light Manufacturing

4. Leather Goods:

The leather goods subsector presents short-term opportunities for producing items like boots and shoes for domestic markets and long-term opportunities for high-value products like bags and jackets for export. The subsector supports cattle farmers, tanneries, and related services and can create numerous jobs. Rwanda's high-quality hides and skins provide a competitive advantage. Industrial policies should focus on land, labor, and energy costs to attract investment and develop advanced capabilities for high-end products.

5. Pharmaceuticals:

Significant investment opportunities exist in producing pharmaceuticals, such as intravenous fluids, pills, capsules, vaccines, and herbal medicines, primarily for domestic and regional markets. The BioNTech investment highlights Rwanda's potential, attracting other investors. Rwanda's competitive advantages include market proximity and an attractive regulatory environment. Industrial policies must address skill shortages, and regulatory challenges, and stimulate demand through public procurement preferences.

Tradable Services

6. Tourism:

Tourism is a major export revenue generator and job creator in Rwanda, with revenues growing from USD 100 million in 2005 to over USD 600 million in 2019. The sector has significant potential for growth, with increasing awareness among tourists from Europe and North America. Key advantages include Rwanda's natural endowments and public goods like security and infrastructure. Industrial policies should focus on human capital development, marketing, supply chain linkages, and enhancing public goods.

7. Global Business Services:

Global Business Services offer vast market potential due to growing global demand and digital delivery capabilities. This subsector can become a major export and employment growth driver with the right human capital, investment, and infrastructure. Currently, Rwanda has a small competitive base, with low wages but a shortage of relevant skills. Industrial policies should prioritise training, investment facilitation, and knowledge transfer, along with ensuring reliable electricity and high-speed internet.

Medium & Longer-term strategic bets

8. Textiles and Apparel

There are significant existing efforts at developing Rwanda's textiles and apparel industry through the 2022/23 – 2026/27 Strategy for the Transformation of the Textile, Apparels and Leather Sector in Rwanda. The textiles and apparel subsector faces the severe disadvantage of high overland transport costs for the importation of fabrics and accessories as well as the export of finished garments. Despite this challenge, there is potential in developing a garments industry for the domestic market thanks to the phasing out of second-hand clothing imports as well as, in the longer term, growing garments exports into regional and global markets. Further efforts can be made to explore the highest potential manufacturing and services segments of global fashion value chains that Rwandan firms could become competitive in – from design to production to retail.

9. Creative industries

Africa's creative industries are expected to grow exponentially in the coming decade and beyond, especially in the context of the growth of e-commerce and a continental common market under the AfCFTA protocol. Concerted government action could foster the growth of a strong Rwandan cluster of creative industries to play a leading role in this development. This could include digital content, gaming, music, film, dance, visual art, writing, product design, and fashion design (as mentioned above), among others. Starting from a small base, fostering Rwanda's creative industries will require forward-thinking industrial policy approaches.

10. Automotive Industries

The automotive subsector is another focus industry under the African Union's Agenda 2063 and AfCFTA agenda that Rwanda may have the potential to play a key role in developing. With an existing investment by a leading global automotive manufacturer and a strong vision for the development of electric mobility in the country, industrial policy efforts should further explore and support Rwanda's potential in entering and upgrading the global automotive value chains of the future. By targeting basic metal manufacturing sectors like Steel, Aluminium, Copper and glasses manufacturing in the country, the economy can leverage the multiplier effect to enhance growth, create jobs, and promote sustainable practices while creating numerous downstream and upstream opportunities and overall Industrial Development.

11. Glass manufacturing

Domestic glass manufacturing plays a critical role in achieving self-sufficiency, reducing environmental impact, and contributing to industrial development. Targeting various glass products, such as containers, windows, and speciality glass, for use in industries like construction, automotive, packaging, and electronics is important to support economic independence. In addition, sustainable practices like recycling glass (cullet) to lower energy use and carbon emissions are becoming more common.

12. Steel manufacturing

Domestic steel manufacturing is crucial to meet local industrial, construction, and infrastructure needs. This industry is vital for economic development, as steel is a foundational material used in various sectors such as construction, automotive, shipbuilding, and energy. Domestic steel production reduces dependency on imports, boosts local economies by creating jobs, and supports national infrastructure projects. This requires investing in modern, energy-efficient technologies like electric arc furnaces (EAFs), which reduce carbon emissions compared to traditional blast furnaces. Additionally, innovation in steel products and processes, along with adherence to environmental regulations, helps maintain the competitiveness and sustainability of domestic steel manufacturing.

4. Intervention Areas and Policy Tools for the Policy Pillars

Pillar 1: Improving the capabilities of local industries to foster growth and competitiveness of targeted subsectors

Strategic objectives

1. Support manufacturing of basic metal industries crucial for industrial development to ensure supplies of essential materials for various processing
2. Support the development of competitive subsectors and strengthen the ability of firms to access and compete in export markets and their integration into the regional and global value chains.
3. Provide business development support tailored to market needs and enhance the impact of the Made in Rwanda brand.
4. Ensure the capabilities of Rwandan firms meet domestic and international quality standards requirements with a focus on exports
5. Fostering industrial capability growth through supportive services and aligned trade policies

Motivation

Strengthening Rwanda's industrial sector by diversifying its focus and enhancing capabilities in export-oriented subsectors, while aiming to reduce reliance on imports, is essential for minimizing economic vulnerability and increasing competitiveness. This involves (i) locally producing basic raw materials that enable the whole industrial development from Iron Ore, coke and limestone to steel bloom and billet to allow further production of machinery and equipment for instance, (ii) shifting resources from traditional agriculture to higher-value manufacturing and tradable services. Key to this effort is focusing on developing industrial capabilities within targeted subsectors, establishing necessary support systems, and enabling activities to grow and achieve competitive scale. Implementing this strategy will involve pilot projects within specific sectors. These initiatives will generate actionable data and insights, providing targeted support to firms and facilitating broader sectoral adjustments at the meso level. This phased approach will strengthen the Industrial Policy 2024-2034 by ensuring more coherent and integrated policy execution.

Bosting "Made-in-Rwanda" production and improving market access are essential for economic transformation and industrialization. Effectively leveraging trade for economic growth requires a balanced approach. The economy should be open enough to (i) allow Rwandan firms and consumers to access critical raw materials, intermediate inputs, and finished goods, (ii) enable Rwandan firms to reach international markets, and (iii) provide Rwandan firms and workers with access to new knowledge and technologies through international trade and investment. By emphasizing "Made-in-Rwanda" products and local production, this policy aims to create a cohesive link between industrial and local production priorities, aligning them with the broader industrial development agenda.

To improve the quality and standards, establishing a robust National Quality Infrastructure (NQI) is crucial for Rwanda’s economic transformation for several reasons. Firstly, it enhances firm competitiveness by encouraging businesses to improve the quality and consistency of their products and services. Secondly, it boosts consumer confidence in local goods and services, thereby increasing domestic consumption and reducing reliance on imports. Thirdly, it facilitates international trade by ensuring that national firms meet global market standards, which are often necessary for exporting. Lastly, it fosters innovation and technological advancement by driving firms to upgrade their technologies and processes to meet higher quality standards, thereby eliminating competition from substandard goods.

Conversely, trade regulations should aim to (i) protect Rwandan firms and consumers from substandard, unsafe, or counterfeit products and services, (ii) manage the import and export of critical raw materials, and (iii) shield strategic Rwandan sectors from unfair competition, such as subsidized imports and dumping, while they develop their capabilities. These measures should be supported by initiatives to enhance the competitiveness and appeal of Rwandan products and services in both domestic and international markets, ensuring compliance with international agreements to which Rwanda is a party. Building a strong “Made in Rwanda” brand that signifies quality, reliability, and authenticity will be instrumental in achieving these goals.

Strategies and policy interventions

1. Support manufacturing of basic metal industries crucial for industrial development to ensure supplies of essential materials for various processing

Strategy 1.1. Incentivizing investments in basic metal manufacturing

- ⇨ **Intervention 1.1.1.** Strategically provide investment incentives and financial support like tax credits, grants or low-interest loans for companies investing in metal production facilities or upgrading existing ones to adopt advanced and sustainable manufacturing technologies reducing process emissions. This financial support can help reduce the initial capital burden and encourage growth in the sector. The prioritization of basic metals to start with (i.e., steel, iron, aluminium, copper, and Minerals processing) will be a ground-based study to inform the multiplier effect on economic benefits.

- ⇨ **Intervention 1.1.2.** Enhance access to raw materials through the Rwanda Mining Board to promote research and exploration of sources of raw materials, such as iron ore and limestone through partnerships with mining companies.

⇨ **Intervention 1.1.3.** Develop Infrastructure dedicated to metal manufacturing industries. This includes necessary utilities, water and electricity, and transportation networks to facilitate the movement of raw materials and finished products.

2. Support the development of competitive subsectors and strengthen the ability of firms in Rwanda to access and compete in export markets and their integration into the global value chains

Strategy 2.1: Improving access to imported industrial inputs

⇨ **Intervention 2.1.1.** Strategically reduce import tariffs and consider VAT exemption on key industrial inputs, including raw materials and intermediate goods and services.

⇨ **Intervention 2.1.2.** Introduce a duty drawback scheme for exporters wherein exporters will be eligible for a rebate on tariffs and other trade levies paid on imported inputs of raw materials and intermediate goods used in the production of exports. This will apply to sales to EAC markets as well as global export markets.

⇨ **Intervention 2.1.3**. Develop a supplier linkages programme to help Rwandan firms identify and access key inputs from abroad

⇨ **Intervention 2.1.4.** Establish a Critical Raw Materials observatory[7] to monitor the adequacy of current and projected future supplies of the most critical raw materials that producers in Rwanda rely on and develop and implement supply shock mitigation and management actions

Strategy 2.2: Increasing local content in industrial production

⇨ **Intervention 2.2.1**. Strengthen the Supplier Development Programme based on lessons learnt from its implementation to improve the availability and quality of locally produced raw materials, component parts, services, and other intermediate inputs and deepen linkages between large value chain lead firms and local suppliers of these inputs.

⇨ **Intervention 2.2.2.** Explore the benefits and feasibility of establishing a *Local Content Unit* mandated with liaising between multinational firms and potential local suppliers to overcome information gaps between the two.

⇨ **Intervention 2.2.3.** Strategically introduce local preference in public procurement to boost demand for Rwandan products and services in selected subsectors where domestic competitive (or close to competitive) production capacity exists. These should be aligned with EAC and other trade agreement rules and protocols and their effects should be assessed periodically and scope revised accordingly.

⇨ **Intervention 2.2.4.** Explore the benefits and risks of introducing local content requirements or incentives into large FDI investment deals.

⇨ **Intervention 2.2.5.** Strengthen the quality, quantity, and reliability of locally produced raw materials that agro- and mineral downstream processing industries rely on by addressing market, coordination, and regulatory failures to enable private investment and growth in raw material production.

3. Provide business development support tailored to market needs and enhance the impact of the Made in Rwanda brand

[7] A Critical Raw Material (CRM) is defined as follows: a necessary input into an industrial sector either currently contributing significantly to GDP or identified as a national priority by e.g. the Industrial Policy, Domestic Market Recapturing Strategy or a sector strategy under this MIR Policy.

Strategy 3.1. Improving firms' competitiveness through effective business development and extension services

- ⇨ **Intervention 3.1.1**. Build effective industry extension services in partnership with the private sector, establish cooperation mechanisms between these services and business associations, and accompany the development of quality private Business Development Services (BDS) by implementing a certification programme for BDS providers accompanied by targeted training programs aligned with current market trends and SME needs.
- ⇨ I**ntervention 3.1.2**. Establish and maintain a database of certified industrial support service providers (BDS, industrial extension services) and regularly publish up-to-date, relevant information on this list, including on an online platform.
- ⇨ **Intervention 3.1.3.** Support the organisation of the sector of private BDS providers and knowledge-sharing between BDS providers.
- ⇨ **Intervention 3.1.4.** Provide incentives to firms to increase their uptake of private BDS, notably through establishing matching-grant mechanisms, and integrating key elements for effectiveness such as criteria for self-selection, conditionalities, sunset clauses, and reporting obligations.
- ⇨ **Intervention 3.1.5**. Increase firms' awareness on the role of industrial extension services and BDS on firms' productivity and growth to increase the take-up of such services.

Strategy 3.2.: Strengthening the Made in Rwanda brand

- ⇨ **Intervention 3.2.1.** Strengthen RSB's capability to implement the Made in Rwanda logo by receiving and assessing applications for the logo, issuing the logo, and monitoring its use. This includes ensuring that the logo is reserved for products that contribute to the goal that Rwandan products be known for their quality, safety, and reliable. Products and companies should be reviewed on an annual basis to ensure that they still meet the strict criteria to maintain the Made in Rwanda logo.

- ⇨ **Intervention 3.2.2.** Carry out communications campaigns to encourage Rwandan consumers to buy more locally produced goods and services carrying the Made in Rwanda logo as well as raising firms' awareness of the logo, its benefits, and the application requirements and process to obtain it.

4. Ensure the capabilities of Rwandan firms meet domestic and international quality standards requirements with a focus on exports

Strategy 4.1: Strengthening quality infrastructure and standards especially for goods and services produced in the priority subsectors

- ⇨ **Intervention 4.1.1.** Carry out an evaluation of the structure, organisation, operations, and coordination of the different components of Rwanda's National Quality Infrastructure (NQI) and its interface with commercial entities, including the service industries, benchmarked against relevant international good practice, and formulate an NQI strategy to 2033 with SMART objectives. Special attention should be paid to the effectiveness as well as the cost of testing and accreditation. As part of the evaluation, identify in which areas either public or private bodies may be better positioned to provide NQI services (depending on commercial opportunities, risk to consumers and national security, etc.).
- ⇨ **Intervention 4.1.2.** Develop and monitor robust standards that meet the requirements of major export markets for major Rwandan goods and services, especially those produced by priority subsectors. In general, national standards should be harmonized with EAC standards and, where relevant, AfCFTA standards. This work requires close collaboration with international organisations, the EAC Secretariat, the national and regional private sector bodies, and EAC Member States. Harmonization of standards and regulations includes the following interventions:
    - Harmonisation of standards for products that have a high potential for trade (demand-driven standards).
    - Aligning national SPS regulations to the EAC SPS Protocol.

- National adoption and implementation of harmonised regional standards by withdrawing or reviewing and recoding non-conforming national standards.
- Advancing the mutual recognition of certificates of conformity at the EAC level.

⇨ **Intervention 4.1.3.** Upgrade the technology, staff, and organisational capabilities of regulatory institutions and border posts to provide world-class laboratory product testing and accreditation services as well as quality and safety management infrastructure for Rwandan products, starting with priority subsectors. This should be done in partnership with a selected overseas standards bureau. A digital pilot to enhance traceability in horticultural exports will also be initiated to reduce costs and increase automation of data collection for standards and traceability requirements.

⇨ **Intervention 4.1.4.** Incentivize the entrance of private service providers and the expansion of their services. Leverage established and credible regional Quality Service providers, including Accreditations Agencies to reduce the burden on public investment.

Strategy 4.2: Increasing the quality management capabilities of Rwandan firms, especially in priority subsectors, with a focus on exports

⇨ **Intervention 4.2.1.** Embed and enforce requirements to meet national standards specifications in government procurement.

⇨ **Intervention 4.2.2.** Develop a national campaign to create awareness among firms of relevant standards and processes to attain certification.

⇨ **Intervention 4.2.3.** Develop and roll out national campaigns to continuously inform the public about standards.

⇨ **Intervention 4.2.4.** Establish a programme of technical assistance to selected companies in priority sectors to improve private sector capacity to comply with international standards and SPS requirements.

⇨ **Intervention 4.2.5.** Study the possibility and relative benefits of establishing Productivity Centres to assist local manufacturers in meeting international standards at national, industry association, and firm levels.

Strategy 4.3: Protecting consumers in Rwanda from unsafe, counterfeit, and substandard products and services

⇨ **Intervention 4.3.1.** Monitor and enforce SPS and TBT regulations to ensure they do not provide barriers to trade yet do not compromise national consumer safety or cause unfair competition from substandard products, adopting a risk-based approach.

⇨ **Intervention 4.3.2.** Upgrade the technology, staff, and organisational capabilities of institutions in charge of standards and technical regulations to monitor and enforce SPS and TBT regulations.

⇨ **Intervention 4.3.3.** Ensure that Rwandan SPS and TBT regulations are harmonised with EAC regulations and recognised by EAC member states.

5. Fostering industrial capability growth through supportive services and aligned trade policies

Strategy 5.1: Building a deep understanding of the global and local dynamics in each subsector

⇨ **Intervention 5.1.1.** Develop tailored subsector development strategies for each priority subsector through a robust market-sounding approach and engagement with the local and international private sectors. These strategies should take a holistic market systems approach, analysing the local, regional, and global value chains of each priority subsector, identifying where and how Rwandan firms can enter and upgrade within these chains, and devising interventions that consider the incentives and power dynamics within and across the different stakeholders involved. These strategies should utilize a well-structured public-private dialogue to foster collaboration among firms and industry groups.

⇨ **Intervention 5.1.2.** Adapt these strategies during the implementation phase to align with the dynamic and emerging needs of the market and private sector.

⇨ **Intervention 5.1.3.** Develop strong technical capacity within the government to analyse and understand priority subsectors.

Strategy 5.2: Ensuring the development of an ecosystem of enabling activities

⇨ **Intervention 4.2.1.** Ensure the availability and development of key enabling services and activities necessary for the development of priority subsectors, such as system integration, machine maintenance & spare parts, back-office support, and marketing & distribution, especially through fostering private sector investment and effectiveness in these areas.

Strategy 5.3: Improving trade facilitation and reducing non-tariff trade barriers

⇨ **Intervention 5.3.1.** In line with the national trade policy, expedite the completion of Category B and C requirements in Rwanda's WTO Trade Facilitation Agreement to lower transaction costs and speed up customs clearance for exports and imports.

⇨ **Intervention 5.3.2.** Enhance the efficiency of trade processes and systems, including harmonised clearing, forwarding, and e-payment systems, trade information systems, one-stop border posts, single trade windows, and management information systems.

⇨ **Intervention 5.3.3.** Advance regional integration at the EAC, COMESA, and AfCFTA levels. At the EAC level, in addition to collaborating to remove NTBs, this includes (i) integrating connectivity infrastructure (ICT, roads, railways, and energy), (ii) regional integration in services (harmonisation of regulations around, e.g., financial services, ICT, education, tourism, transport, and logistics services), and (iii) advancing regulatory convergence and legal approximation to the Common Market Protocol in Rwanda and lobbying for other Member States to advance legal approximation in their legislatures.

⇨ **Intervention 5.3.4.** Strengthen government entities responsible for identifying, monitoring, and evaluating non-tariff trade barriers (NTBs) on an ongoing basis for both trade in services and goods, while ensuring operational efficiency and value for money.

⇨ **Intervention 5.3.5.** In conjunction with the National Trade Facilitation Committee (NTFC) and the National Monitoring Committee (NMC), develop a national strategy to identify and reduce NTBs limiting trade in goods and services.

⇨ **Intervention 5.3.6.** Foster regional cooperation and delegate the collection of data on NTBs applicable to intra-African trade to regional secretariats, with adequate support from member notifications and donor funding.

Strategy 5.4: Improving access to export markets and promoting Rwandan exports

⇨ **Intervention 5.4.1.** Expand and improve Rwanda's access to foreign markets through stronger participation in multilateral and bilateral trade and customs agreements. This includes advancing WTO membership, EAC Common Market Protocol implementation, Commonwealth, AfCFTA, COMESA, and regional customs agreements with regional partners, as well as maximising utilisation of existing agreements.

⇨ **Intervention 5.4.2.** Strengthen the Government of Rwanda's trade negotiation capabilities by (i) developing a professional cadre of trained negotiators supported by a technical secretariat of analysts and sector liaison specialists and (ii) introducing a well-documented comprehensive process for trade negotiations, defining levels of negotiating authority, timelines, reporting formats, post negotiating ratification process and communication programmes to inform traders of changes to

trading opportunities.

Strategy 5.5: Fostering industrial capability growth through supportive services and aligned trade policies

- ⇨ **Intervention 5.5.1.** In line with the Rwanda E-Commerce Policy and Strategy, expedite policy actions to maximise the potential benefits of e-commerce for the development of priority subsectors. These potential benefits include increased market reach, including access to global markets, improved supply chain efficiency, and data-driven decision-making. Key intervention areas will include (i) raising awareness and capacity among businesses to leverage e-commerce opportunities, (ii) enhancing the national ICT infrastructure and services, (iii) supporting access to and use of national, regional, and/or global e-commerce platforms in the country to enable Rwandan goods and services to be traded on these platforms, (iv) improving the availability and efficiency of financial services and digital payment solutions, (v) tackling transport and logistics bottlenecks related to e-commerce, (vi) reducing trade frictions through regional harmonisation of e-commerce taxation and other regulations, (vii) ensuring a world-class legal and regulatory framework for e-commerce is in place and improving conformity this, (viii) supporting the development of Rwandan e-commerce start-ups, and (ix) collecting and disseminating up to date and accurate e-commerce data at the national level.
- ⇨ **Intervention 5.5.2.** Promote and support the development of an EAC, COMESA, and AFCFTA e-commerce framework to support more regional e-commerce trade.

Pillar 2: Increasing the level of investment & Access to finance

Strategic objectives

1. Increase the level of investment in the country, including by mobilising local and foreign resources.
2. Improve the capacity of financial institutions to supply finance to firms and SMEs in the industrial sector.
3. Improve local firms' and SMEs' access to finance and diversify the possible sources of financing for SMEs.

Motivation

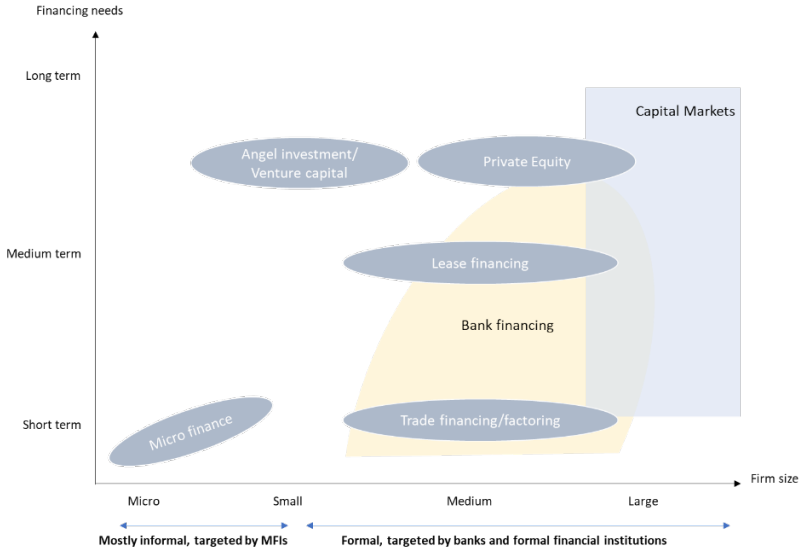
In terms of investment, Rwanda has had a high rate relatively high levels over the last few years. Investment reached 27 per cent of GDP in 2022, at similar levels to the average in low-middle-income countries, with the public sector driving almost half of these investments. Investment in Infrastructure has been particularly high over the last years in Rwanda. While public investment in public goods to establish a market is essential, there is a need to focus on attracting private investment to develop productive capabilities and competitive industrial ecosystems at scale.

Increasing the levels of investment can only be achieved with improved access to finance, particularly for SMEs. Generally, the financial products for firms depend on their size and business models, among other characteristics. As demonstrated in Figure 3, there are different financing options generally available to firms: from micro-finance institutions to capital markets. Typically, each financing option focuses on a specific target of firms. For instance, microfinance institutions tend to focus on micro and small businesses, including informal ones. Bank financing tends to supply small, medium, and large firms. However, in most low-income countries, banks tend not to supply SMEs but rather focus on large firms and micro-finance institutions on micro-firms, creating the missing middle phenomenon, where SMEs, the backbone of the industrial sector, do not have enough supply of finance.

This applies to Rwanda, where access to finance is highly concentrated in the banking sector and where access to finance for SMEs is limited and difficult. When funding is available, the cost of capital is very high, reflecting the high operating costs of banks and effectively limiting commercial borrowing by the private sector.

To address these issues, the Government will work with the banking sector to tackle the challenges within financial institutions to improve their capacity to supply credit to firms in the target subsectors. It will also focus on diversifying the financing sources by developing further capital investment and capital markets to ensure that companies can raise debt and equity instruments. The Government of Rwanda will also work on improving the capacity of firms and SMEs to access finance, including through fintech.

Figure 3: Typology of financing options to firms according to their size



Source: IFC (2010), with changes

Strategies and policy interventions

Strategy2.1: Increasing the levels of investment in productive subsectors in Rwanda

- ⇨ **Intervention 2.1.1.** Engage in active investment promotion, facilitation, and aftercare, leveraging Rwanda Development Board expertise and capacity. This would require, as a first step, a deep understanding of each subsector (as prescribed in pillar 1), its global value chains and investment dynamics, its cost structures, and investors' requirements. Additionally, it requires comprehensive sectoral research and marketing with robust internal coordination within Rwanda Development Board. This would also require a plug-in into the key investment and trade forums and fairs for each industry and building trust and collaboration with key global and local industry players to mobilise investment with an eco-system-building approach.
- ⇨ **Intervention 2.1.2.** Provide condition-based investment incentives (financial and fiscal) where needed to address the needs of each priority subsector (particularly in green areas of the economy) and each step of the value chain in these subsectors, with due consideration given to cost-effectiveness, effective competition, and international commitments.
- ⇨ **Intervention 2.1.3.** Ensure that FDI serves Rwanda's economic transformation and industrial development agenda by coupling investment incentives and licenses with standards, requirements including for domestic linkages and local content, and/or targets. These can include requirements or targets for partial local ownership (e.g., through joint ventures), hiring and/or training of Rwandan staff at different levels of skill intensity, purchase of Rwandan raw materials or intermediate inputs, commitments to technology transfer to local partners, suppliers, or other firms, and environmental, social, and governance standards. Such requirements and targets should be carefully co-designed and agreed upon with industry experts and investors to ensure they are realistically achievable without harming Rwanda's competitiveness and investor attractiveness. Such interventions should be designed with due consideration given to cost-effectiveness, effective competition, and international commitments.

Strategy2.2: Improving the capacity of financial institutions to finance firms and SMEs in priority subsectors

- ⇨ **Intervention 2.2.1.** Support financial institutions, including banks, to establish concessional finance lines or credit guarantee instruments for firms in the priority subsectors with tailored technical assistance packages, including instruments to access machinery and means of production, with due consideration for value for money and minimizing financial market distortions.
- ⇨ **Intervention2.2.2.** Improve the capacity of financial institutions, particularly banks**,** to understand the constraints and opportunities of each subsector, particularly the priority subsectors, and support measures to boost competition in credit markets, including through fintech.
- ⇨ **Intervention 2.2.3.** Upgrade the financial Infrastructure by upgrading the current credit-scoring mechanisms to improve the financial institutions' capacity to assess risks. This can notably be done through using innovative technology, including psychometric tests, and building the capacity of financial institutions, including micro-finance institutions, to use these technologies.
- ⇨ **Intervention 2.2.4.** Improve the capacity of credit screening by improving the outreach of the public credit bureau and facilitating the collection of data about borrowers (both individuals and firms) and the development of private credit bureaus. Targeted training should in parallel be conducted with partners like the Rwanda Banking Association and potentially as an established part of their Rwanda Academy of Finance.
- ⇨ **Intervention 2.2.5.** Require financial institutions to adopt a harmonized definition of Micro, Small, and Medium Enterprises (MSMEs) for reporting purposes. This initiative should include building robust databases and the regular publication of data concerning the provision of financial services to MSMEs.

Strategy2.3: Supporting the development of alternative sources of funding, particularly for climate finance

- ⇨ **Intervention 2.3.1.** Provide a platform through KIFC for private equity investors to identify, screen and invest in industrial companies.
- ⇨ **Intervention 2.3.2**. Encourage the creation of investment funds, which would provide finance to industrial firms and SMEs, with a focus on technology upgrading and greening. The state could play a catalytic role by participating in the capitalisation of such funds. However, these funds should be managed by private sector actors, who have an expertise advantage.
- ⇨ **Intervention 2.3.3.** Enhance the capacity of Rwanda's capital market for more companies, including SMEs, to raise funds through CMA.
- ⇨ **Intervention 2.3.4.** Develop a strategy for the promotion and facilitation of climate change and green financing to support sustainable economic transformation in Rwanda. This should include the identification of government actions in areas such as (i) regulations, standards, and incentives to encourage investment in green technologies and firms, (ii) public investment in green infrastructure, (iii) guarantees, subsidies, or risk-sharing mechanisms to stimulate green financing by financial institutions, (iv) green financing through public investment and lending institutions such as Rwanda Development Bank, and (v) environmental reporting regulations that ease investors' assessment of green investment opportunities, and (vi) funding for green R&D and startup incubation and acceleration, among others.

Strategy 2.4: Improving the capacity of SMEs and firms to access finance

- ⇨ **Intervention 2.4.1.** Provide the financial training needed for SMEs and firms to navigate the financial system and maintain healthy management of their firms' finances and books.
- ⇨ **Intervention 2.4.2.** Develop and disseminate information on alternative forms of financing for the industry to build the capacity of local firms to access this type of funding.
- ⇨ **Intervention 2.4.3**. Provide detailed provisions for improving access to commercial credit for MSMEs, such as enabling the use of movable assets as collateral.

Pillar 3: Enhancing industrial workforce development and alignment of skills with labour market needs with an inclusive approach.

Strategic objectives

1. Improve the quality of industrial skills and curriculum development
2. Improve the job search process to reduce the transaction costs of hiring workers
3. Improve the work-readiness of the labour force and preparing the labour force for the industry of the future
4. Improve the inclusiveness of the labour market and ensure workers' protection

Motivation

Developing human capital and improving labor market functionality are essential for creating competitive industrial ecosystems. Currently, Rwanda's workforce is largely engaged in subsistence agriculture and informal sectors. Only 2 percent of students secure their first job through formal career services (Tracer Survey 2018), with limited access to labor market information and career guidance. The few existing public employment centers are under-resourced and have minimal interaction with the private sector, leading most job seekers to rely on social networks for employment opportunities.

The lack of strong labor market institutions and heavy reliance on social networks impede social and labor mobility, potentially causing labor misallocation and constraining business growth. Limited labor market information can geographically restrict job seekers, while reliance on social networks often keeps individuals within their socioeconomic circles, thereby impeding upward mobility and access to better job opportunities.

To transition to more productive sectors, significant investment in industrial skills and human capital development is crucial. The workforce must be equipped for the digital economy and future job markets, which will increasingly demand advanced technical skills such as coding and programming, along with essential soft skills like problem-solving, teamwork, and technological proficiency.

Strategy 3.1: Improving the quality of industrial skills and curriculum development

- **Intervention 3.1.1.** Increase the private sector participation in designing and developing TVET curricula, particularly in target subsectors. This can be done through the revamping of Sector Skills Councils (SSCs) to inform skills development in TVET as part of the National Skills Development Policy.
- **Intervention 3.1.2.** Establish joint technical training centres with leading private sector employers in each target industry to notably provide on-the-job-trainings. These training centres will provide certifications for each trainee finishing technical training. This will allow the private sector to pool the training process while reducing their individual costs and will provide the firms with a clear signal about the skills that the jobseekers have developed.
- **Intervention 3.1.3.** Increase exposure of TVET students to the world of work throughout their studies. Internships and apprenticeship programmes are key for TVET students to be fully operational and aligned with the needs of the market after their graduation.
- **Intervention 3.1.4**. Enhance TVET Teacher quality through practical exposure. In addition to academic qualification, TVET teachers need to be exposed to practical industry experience for them to be equipped with the latest technology and skills for evolving industry needs. This can be done through a combination of training programmes established with firms in Rwanda or internationally, as well as through the recruitment of industry experts by TVET institutions as part-time teachers or inspirational speakers for practical courses.

Strategy 3.2: Improving the job search process to reduce the transaction costs of hiring workers

- **Intervention 3.2.1.** Strengthen employment services for them to provide best-in-class career development services, including by facilitating the use of technology tools and platforms to deliver employment services and active labour market programmes. The use of technology is an important aspect of upgrading employment services and ensuring access to information for all job seekers across rural and urban areas without geographical limitations.
- **Intervention 3.2.2.** Establish an agricultural labour transfer scheme to target the transfer of agricultural workers to industrial employment opportunities and facilitate their transition.
- **Intervention 3.2.3.** Provide FDIs and firms incentives to hire and train the local workforce. These incentives could be through wage subsidies or tax incentives conditional to skill training provided by firms.
- **Intervention 3.2.2.** Address information failures between skills demand and supply (i.e., jobseekers and employers) through additional activities such as the creation of career services facilities at training institutions, mandatory courses that teach work readiness in TVET and higher education institutions (e.g., soft skills, creative thinking and problem solving, leadership skills, etc.), mentorship programmes for young graduates, and initiatives to develop green skills including in climate-sensitive agriculture.

Strategy 3.3: Improving the work-readiness of the labour force and preparing the labour force for the industry of the future

- **Intervention 3.3.1.** Develop 21st-century digital and STEM skill programmes at all levels of formal education and in and out of school. This should include high-quality training, coaching and supervision for teachers on STEM disciplines.
- **Intervention 3.3.2.** Build 4IR talent as a critical factor in meeting the changing environment of work due to technological advancements and the 4th Industrial Revolution. Anticipating future skills needs as a building block for a strong skills training strategy by utilising data from employment services and tracer studies (etc.).

Strategy 3.4: Improving the inclusiveness of the labour market and ensuring workers' protection

- **Intervention 3.4.1.** Develop targeted programmes to promote women and youth employment and provide specific incentives to firms to hire women and youth and improve the inclusiveness of the labour market. Specifically, a focus on the employability of long-term tertiary graduates and unemployed youth and women will be needed. This can notably be done by developing comprehensive programmes that provide soft, entrepreneurial and life (employability) skills training with certification and provide certified externship programs (for example 6 months of on-the-job training to have experience).
- **Intervention 3.4.2.** Facilitate the school-to-work transition with programmes to help young people start their own businesses.
- **Intervention 3.4.3.** Promote workers' health and safety standards through inspections of workplaces and workers' conditions of service.

Pillar 4: Developing technology, science, and innovation capabilities

Strategic objectives

1. Promote technology upgrading, research and innovation at the firm level.
2. Increase collaboration between research institutions and industry for technology commercialisation.

Motivation

Technology-driven transformation is required to support the development of a competitive industry in an increasingly global digital and green economy. Rwanda has already set its sights on becoming a leading

technology hub in Africa. The country has hosted major tech events such as the Africa Tech Summit and the GSMA Mobile 360 Africa.

The Government of Rwanda will continue to support efforts by NSCT and NIRDA to move the country into a technology-driven digital era. The support will be through the provision of seed money to adopt greener technologies and drive product and process innovation. The funding will cover developments in all sectors of the economy and will support the country's focus on the made-in-Africa concept. The Government is committed to the development of the Kigali Innovation City so that it can host world-class universities, technology companies and biotechnology companies.

Strategies and policy interventions

Strategy 4.1: Promoting technology diffusion and commercialisation

- ⇨ **Intervention4.1.1.** Conduct a comprehensive mapping of public support mechanisms for technology adoption and innovation.
- ⇨ **Intervention4.1.2.** Provide incentives for companies engaged in technological upgrades, research, and innovations that support sustainable development, subject to appropriate design including targeting, conditionalities, graduation criteria, and reporting requirements, and periodic evaluation of effectiveness and impact.
- ⇨ **Intervention 4.1.3.** Foster the development and use of science and technology parks and innovation centres that respond to industry needs for key strategic sub-sectors, particularly those that facilitate the transition to a green economy.
- ⇨ **Intervention 4.1.4.** Promote and facilitate mentorship programmes/schemes that enhance multi-sectoral and inter-firm linkages.
- ⇨ **Intervention 4.1.5.** Improve the Intellectual Property system, strengthen and implement copyright protection to encourage innovation and creativity, and protect innovators.
- ⇨ **Intervention 4.1.6.** Establish Technology Transfer Offices (TTO) in universities and improve the capacity of existing ones, to effectively diffuse research and facilitate their commercialisation, particularly for strategic subsectors that will facilitate the transition to a green economy.
- ⇨ **Intervention 4.1.7.** Promote technology diffusion and collaboration between sectoral research institutes, universities, and local and foreign firms, including facilitating the commercialisation of research products, with a focus on selected strategic value chains (such as biotechnologies) and the green economy.
- ⇨ **Intervention4.1.8.** Improve the capacity of TVET teachers and industry extension workers for them to be able to support innovation and technology adoption.
- ⇨ **Intervention 4.1.9.** Strengthen and mandate public research and R&D institutions to stimulate R&D and support technology acquisition and diffusion for priority sectors.

Strategy 4.2: Incentivising Research and Development (R&D) and Innovation

- ⇨ **Intervention 4.2.1.** Provide tax incentives for R&D and innovation in targeted subsectors to incentivise firm-level R&D, with due consideration on ensuring value-for-money, evaluation of effectiveness, rigorous targeting, and design of appropriate conditionalities and scope.
- ⇨ **Intervention 4.2.2.** Use public procurement as a tool to create demand for innovation and support the development of standards in highly innovative subsectors.

Pillar 5: Building the required infrastructure and spatial planning

Strategic objectives

1. Ensure firms in productive sectors, especially priority subsectors, have access to serviced land, competitive transport, trade, and logistics infrastructure, and competitive utilities.

2. Ensure workers in productive sectors have access to quality social infrastructure, including housing with good access to industrial parks and zones.
3. Leverage industrial parks, zones, and clusters to maximise the efficiency of industrial infrastructure for priority subsectors as well as the positive externalities realised through the agglomeration of industrial activities.
4. Ensure that effective spatial planning for industrial development is well integrated with other spatial planning activities and aligned with the Land Use and Development Masterplan 2020 - 2050.

Motivation

The growth of the manufacturing sector in Rwanda is hindered by high production costs and limited access to serviced land, among others. The development of a robust industrial sector requires appropriate infrastructure to support it. First, there is a need to alleviate the shortage of industrial land through developing and effectively managing industrial parks and zones. Second, transport, trade, and logistics infrastructure are key for facilitating freight movement through value chains, from the source of raw material to the final consumer. Trade and transport infrastructure is also important for enabling the movement of people in service subsectors such as tourism. This includes land, water, and air transport routes, storage facilities, handling services, and border posts. Third, high-quality and competitively priced utilities – energy, water, and waste management – are critical for industrial activities' operation and international competitiveness. This entails providing quality, reliable, and affordable electricity, other energy sources (e.g., fuels for transport and process heating), water, and solid and effluent waste collection and treatment facilities and services. Fourth, economic activities rely on effective digital infrastructure for connectivity, which will become an ever more important factor of enterprise competitiveness. Finally, productive sectors rely on people: as such, an effective and inclusive social infrastructure - including worker housing, public transport, and social and consumer services - must be integrated into industrial spatial planning and development.

Strategies and policy interventions

Strategy 5.1: Developing industrial parks, zones, and clusters

- ⇨ **Intervention 5.1.1.** Develop a comprehensive strategy for the development and management of industrial parks and zones that includes (i) a clear prioritisation and sequencing of industrial park development, (ii) a clear framework for the coordination of industrial park development at national and district level, (iii) a clear mandate for the development and management of each action and each industrial park or zone including targeted funding source and operational model (e.g., PPP, private developers, concessions), and (iv) a robust approach for allocating the geographic locations of industrial parks, zones, and clusters according to the availability of raw materials and natural resources, labour, infrastructure, and other pertinent factors.
- ⇨ **Intervention 5.1.2.** Develop clear and robust operating standards and guidelines that industrial zones and parks across the country must meet - in line with global best practice and investor needs - including adequate utilities, transport, and logistics infrastructure, park/zone management and governance, ESG standards and safeguards, physical security/biosecurity / phytosanitary standards, and other areas.
- ⇨ **Intervention 5.1.3.** Facilitate the provision of serviced land to SMEs in industrial parks and ensure that the allocation of serviced industrial land meets the needs of priority subsectors including by creating special zones or sections of industrial parks dedicated to subsectors that have specific requirements such as higher bio-security standards, specialised logistics needs, or specialised utilities and waste management requirements, among others.
- ⇨ **Intervention 5.1.8**. Where appropriate, mobilise anchor investors in parallel with the identification and planning of the industrial parks, considering an accountable process especially if preferential conditions or investment incentives are provided.
- ⇨ **Intervention 5.1.4.** Ensure the inclusion of SMEs in spatial planning to maximise the potential for clustering, supply chain linkages, and other positive externalities between SMEs and large firms, e.g.,

through special SME zones within or around industrial parks and shared facilities for small industries. Align the Supplier Development Programme and planned interventions with the industrial park agenda to facilitate business partnerships and linkages between SMEs and FDI firms.

- ⇨ **Intervention 5.1.5**. Conduct feasibility studies to tailor industrial parks to investor interests and ensure a viable sector mix in selected locations. Prioritize locations that have better access and connectivity to markets and have access to an adequate labour force. Identify appropriate financing options through a comprehensive planning and feasibility process. Analyse and address the risks (such as fiscal, market, social, and environmental) of spatial agglomeration interventions.
- ⇨ **Intervention 5.1.6.** Strengthen the policy infrastructure around industrial parks and zones, including streamlined import and export procedures, enhanced logistics access, and quick access to trade related agencies. Introduce institutional capability and delivery systems within industrial parks to provide one-stop services and investor aftercare.
- ⇨ **Intervention 5.1.7.** Develop a coordination mechanism for industrial land allocation.

Strategy 5.2: Upgrading the transport, trade, and logistics infrastructure

- ⇨ **Intervention 5.2.1.** Improve the infrastructure in the Northern and Central corridors together with other partners in EAC.
- ⇨ **Intervention 5.2.2.** Expand, rehabilitate, and upgrade district feeder roads, prioritising key routes for the movement of freight and people involved in priority subsectors.
- ⇨ **Intervention 5.2.3.** Develop an efficient railway system integrated with regional railways for personal and cargo transport.
- ⇨ **Intervention 5.2.4.** Expand and improve the efficiency of personal air travel facilities and services (for the movement of people key to service subsectors such as tourism) and air cargo facilities and services, including cold storage (for the movement of high-value exports), including through addressing market failures and regulatory bottlenecks for private participation.
- ⇨ **Intervention 5.2.5.** Develop water transport systems.
- ⇨ **Intervention 5.2.6.** For all the above, maintain one harmonised list of priority infrastructure projects that have a high impact on the competitiveness of productive sectors, especially the priority subsectors, and expedite their development or upgrading.

Strategy 5.3: Ensuring firms have competitive access to energy

- ⇨ **Intervention 5.3.1.** Provide internationally competitive subsidised electricity tariffs for firms in the priority subsectors whose core activities are electricity-intensive and whose production costs are thus not regionally or internationally competitive due to the high cost of electricity in the country, giving due consideration to value for money, financial sustainability of the electricity system, and potential alternatives such as own-use power generation facilities.
- ⇨ **Intervention 5.3.2.** Ensure reliable, clean, and quality electricity is provided to industrial parks and zones through public investments, public-private partnerships, and regulatory reform.
- ⇨ **Intervention 5.3.3.** Implement efforts to address to root causes of high electricity costs and reliability challenges.

Strategy 5.4: Upgrading the water and waste management infrastructure

- ⇨ **Intervention 5.4.1.** Expand the water supply and treatment system to serve all industrial parks, zones, and clusters through prioritisation of public investments, public-private partnership or enabling private investment.
- ⇨ **Intervention 5.4.2.** Establish waste management infrastructure in industrial parks, zones, and clusters.
- ⇨ **Intervention 5.4.3.** Develop and roll out guidelines and regulations for industrial waste minimisation and responsible waste disposal.
- ⇨ **Intervention 5.4.4.** Ensure new Industrial parks and SEZs adhere to environmentally friendly standards.

Strategy 5.5: Upgrading the digital infrastructure.

- ⇨ **Intervention 5.5.1.** Continue to upgrade and expand the country's digital connectivity infrastructure to ensure 100% coverage at globally competitive and reliable broadband speeds.
  Intervention 5.5.2. Promote and facilitate investment in additional data centres in Rwanda, exploring the potential benefits of doing through via public-private partnerships. Local data centres should serve the needs of priority subsectors that rely heavily on internet connectivity, primarily by enabling improved connectivity performance and reliability, reduced latency in accessing online information, greater resilience to shocks that affect connectivity, and data cost savings.

Strategy 5.6: Developing social infrastructure to support priority subsectors and harmonise industrial planning with other spatial planning activities

- ⇨ **Intervention 5.6.1.** Develop affordable social infrastructure linked to industrial zones and parks, including worker housing, household utilities, health and education services, commercial zoning (e.g., shops), and public transport.
- ⇨ **Intervention 5.6.2.** Ensure that industrial park and zone planning is integrated into all urban planning activities, including secondary city master planning.

Pillar 6: Supporting environmental sustainability & green growth

Strategic objectives

1. Support the development of climate-resilient value chains
2. Stimulate low-carbon economic growth to meet Rwanda's NDCs and prepare Rwanda's firms for green global market trends
3. Protect the local environment
4. Leverage new green growth opportunities

Motivation

The main objective of this pillar is to promote the development of an industrial sector that supports environmental sustainability and contributes to the development of a circular economy. Accelerating climate change means that many productive sectors must adapt to changing weather patterns, rising temperatures, more frequent natural disasters, and other shifts. Concerns over the deteriorating environment also induce profound shifts in global demand and structures of production. In the medium- to long-term, it will become increasingly difficult to export carbon-intensive products and services to global markets due to new restrictions and disincentives such as CBAM in the EU. As such, Rwanda's Industrial Policy 2024 – 2034 must prepare national productive ecosystems to thrive in this new global economy by fostering low-carbon industrial capabilities, circular economy principles, and green certification, as well as identifying and leveraging new green growth opportunities. In addition, the policy must act in line with Rwanda's diplomatic commitments on climate change mitigation, including the Nationally Determined Commitments (NDCs). Finally, industrial and productive development must advance in synergy with the protection of the local environment, including wetlands, forests, water systems, soils, and other aspects of the natural ecosystem.

Strategies and policy interventions

Strategy 6.1: Supporting the development of climate-resilient value chains

- ⇨ **Intervention 6.1.1.** Carry out climate change resilience and adaptation assessments for all priority value chains as well as sub sectors that currently form the base of the economy.

Strategy 6.2: Decarbonising Rwanda's economic transformation

⇨ **Intervention 6.2.1.** Incentivise companies to adopt new low-carbon and energy-efficient technologies with a clear objective and rationale and considering an appropriate design of business incentives for effectiveness, value for money and minimization of risks of negative spillovers.

Strategy 6.3: Promoting waste management, recycling, and circular economy

⇨ **Intervention 6.3.1.** Establishment of waste management infrastructure in industrial parks, zones, and clusters through the facilitation of private investment and considering public-private partnerships or public investments if needed.
⇨ **Intervention 6.3.2.** Adopt waste minimisation and disposal regulations and guidelines for industries.
⇨ **Intervention 6.3.3.** Incubate circular economy ventures such as (i) the conversion of food waste into carbon-negative fertiliser, (ii) sustainable packaging production, and/or (iii) recycling plants and explore public-private partnerships to scale such solutions.
⇨ **Intervention 6.3.4**. Address systemic barriers within the value chain (including at the level of suppliers, manufacturers, distributors, and consumers) to fully realize the potential of circular economy ventures.
⇨ **Intervention 6.3.5:** Promote and incentivise the recycling and management of used and waste plastic materials.

Strategy 5.4: Leveraging New Green Growth Opportunities

⇨ **Intervention 6.4.1.** Facilitate certification of Rwandan products in line with globally recognised labels such as organic, etc.
⇨ **Intervention 6.4.2.** Incentivise the production of tradable green products and services.
⇨ **Intervention 6.4.3.** Identify green technologies that can be adopted in selected industries and invest in their adoption and development in Rwanda.
⇨ **Intervention 6.4.4.** Develop a strategy for the promotion and facilitation of climate change and green financing to support sustainable economic transformation in Rwanda (see Intervention 3.3.4.).

Strategy 6.5: Environmental standards and certification

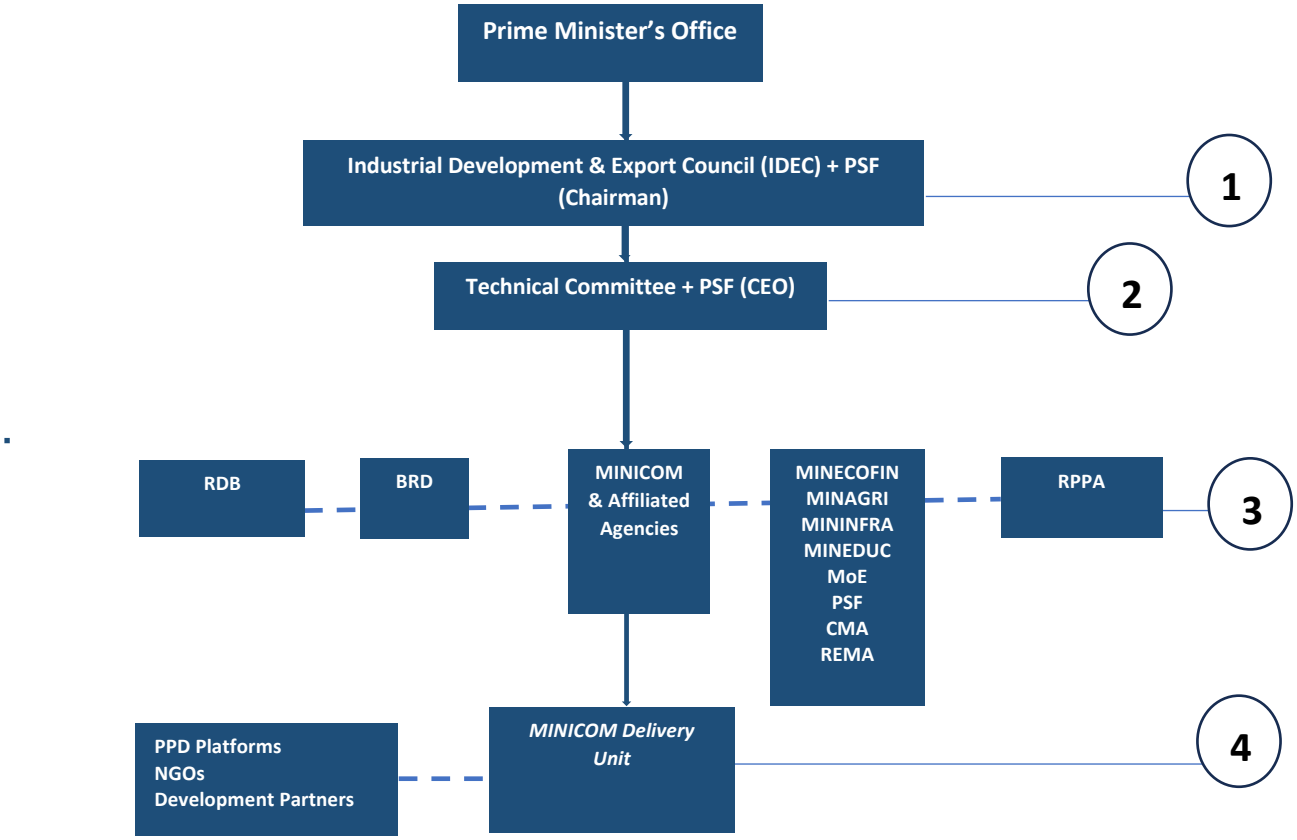
⇨ **Intervention 6.5.1.** Develop green industrial standards and establish certification body, processes and procedures.
⇨ **Intervention 6.5.2.** Promote enterprise compliance to environment management regulations by raising awareness, ensuring regulations are clear and reasonable and strengthening enforcement in partnership with private sector associations. This includes mainstreaming regulations and requirements around resource-efficient and Cleaner Production (RECP) technologies and practices by all firms in Rwanda.

Strategy 6.6: Institutional arrangement

⇨ **Intervention 6.6.1.** Assess the feasibility of establishing a Rwanda Catalytic Green Investment Bank that would provide investments aimed at supporting the development of a green economy.
⇨ **Intervention 6.6.2.** Strengthen the Cleaner Production and Climate Innovation Centre (CPCIC).

5. Institutional Delivery Framework

Figure 4: Coordination and Delivery



1 The Technical Committee would report to IDEC, which would play a guidance and oversight role. IDEC has direct reporting line to the Prime Minister's Office which ensures that important IP matters find their way to Cabinet.

2 To strengthen coordination and delivery, we recommend establishing (or using if it exists) a Senior Advisory Committee on Industrial Development (SACID). The PS of MINICOM would play the role of Chair, while MINICOM's Delivery Unit's Lead would act as Secretary.

3 MINICOM acts as a lead institution for overseeing and managing the policy implementation. With close cooperation of affiliated agencies namely NIRDA, RCA, RICA and RSB. The chart lists a non-exhaustive list of other implementing institutions. Policy interventions to be reflected in MINICOM and other institutions' Performance Contracts.

4 Key functions of the Delivery Unit would include:

- Design and action planning for MINICOM's interventions
- Coordination of interventions implemented by other organisations
- Public-private sector dialogue/other key partner engagement

Successful implementation of the Industrial Policy 2024 – 2034 requires effective coordination between numerous ministries, departments, and agencies (MDAs). This ultimately requires the commitment of the highest level of government and cabinet-level coordination and decision-making. This is evidenced by the experiences of economic transformation success cases such as those in East Asia, where industrial policy delivery was spearheaded by cross-government coordination and implementation institutions such as Singapore's Economic Development Board, Japan's Ministry of International Trade and Investment, and Taiwan's Industrial Development Bureau, among others.

Currently, the main organisations that oversee the industrial development agenda are MINICOM, RDB, PSF, MINICT, MINECOFIN, MINAGRI, BRD and CMA. These organisations are supported by other institutions such as

RSB, RICA, Rwanda FDA, and REMA. The institutions are mandated to continue supporting the growth of the Made in Rwanda brand and the development of priority value chains. They are also tasked with facilitating the establishment of Business Process Outsourcing (BPO) services, the promotion of ICT-driven companies, and further expansion of the tourism subsector in Rwanda.

The overall lead organisation in industrial development will continue to be MINICOM. MINICOM will coordinate the activities of other institutions involved in the implementation of the Industrial Policy 2024 - 2034. MINICOM will need to strengthen its M&E unit to ensure that it has the capacity for inter-agency coordination for gathering information and producing reports for monitoring progress in the implementation as well as mid-term review of the policy.

MININFRA is mandated to provide the appropriate Infrastructure for industrial development, and REMA and FONERWA provide relevant support for the development of an environmentally friendly industrial sector.

The Rwanda Development Board (RDB) is a key Government institution responsible for investment promotion and has led efforts to create a conducive investment environment which has made Rwanda a top investment destination on the African continent. RDB has a strong technical capacity to coordinate and spearhead the delivery of top-priority flagship projects from all government policies and strategies, including those driving economic transformation. As such, effective coordination at the delivery level with RDB is essential for the effective delivery of the top-priority flagship projects under the Industrial Policy 2024 - 2034.

To ensure effectiveness in managing the implementation of the policy, MINICOM will establish a **Special Delivery Structure** that will focus on the delivery of flagship projects under MINICOM, as well as effective coordination with other parts of governments, particularly RDB, for effective investment attraction in the focus subsectors identified by the Industrial Policy 2024 - 2034. The delivery structure will be responsible for planning, prioritising, monitoring, coordinating, supporting, and problem-solving Industrial Policy activities. Moreover, of the numerous key interventions in the Industrial Policy 2024 - 2034, a set of priority flagship projects that RDB will drive should be identified.

To ensure effectiveness in managing the implementation of the policy, MINICOM and the delivery structure will leverage the Industrial Development and Export Diversification Council (IDEC), which MINICOM chairs, as an oversight body. IDEC already provides policy oversight and strategic guidance over industrial development and export diversification in Rwanda, among other responsibilities. It already brings together key players from the public and private sectors who are responsible for industrial development. The IDEC has a direct reporting line to the Prime Minister's office, ensuring that important matters relating to the Industrial Policy 2024 – 2034 will find their way to the Cabinet, which the President of the Republic of Rwanda chairs. The IDEC would also rely on a senior (Director level) advisory committee from key implementing institutions.

A detailed structure of the delivery structure and delivery mechanisms will be designed with a clear description of the **role of each MDA** that needs to be involved in policy delivery. This includes **RDB**, all relevant **ministries**, and **IDEC** as the high-level oversight mechanism.

Involvement of other Stakeholders

The Industrial Policy 2024 – 2034 will be implemented in consultation with other institutions, including trade unions, non-government organisations, research institutions, and international partners.

Stakeholders	Details
The Private Sector	In addition to effective coordination within the government of Rwanda, there is a need for a robust **public-private dialogue** to get up-to-date information on markets and growth

	constraints. This requires private sector dialogue platforms that need to involve business associations. The business associations will help coordinate private sector inputs into the Industrial Policy 2024 - 2034, including in its implementation phase. The coordination will be led by Private Sector Federation (PSF), which will play an important liaison role with associated chambers. Public-private dialogue mechanisms should also take into account the sector-specific nature of business environment issues through sector- or subsector-specific fora. The public-private dialogue should be institutionalised, with clear consultation mechanisms, including actions and KPIs emanating from the dialogue. This will be instrumental in creating effective feedback loops and learning mechanisms from the implementation phase of the policy, which would increase the probability of successful outcomes.
Trade Unions and other NGOs	The involvement of trade unions and other Non-Governmental Organisations will ensure that the rollout of the policy is inclusive and that it also takes account of the interests of the workers.
Research Institutions and Facilitators	The research institutions will help in the development of new innovations that will promote the establishment of new high-technology industries and the integration of relevant technologies into existing industries to improve their manufacturing processes and quality. The key institutions in this regard will be the Rwanda National Council for Science & Technology (NCST) and the National Industrial Research and Development Agency (NIRDA).
International Partners	International partners will provide important support to relevant institutions involved in the process of industrial development by providing know-how and building their capacities. They will also provide relevant funding for various industrial development activities that will be implemented as part of the implementation of the policy.

Implementation plan

The Industrial Policy 2024 - 2034 will be complemented with a clear implementation plan that will be designed in a participatory approach with all relevant stakeholders, and will include the following:

- **Detailed actions for each intervention, with a clear identification of priorities and quick wins and the level of effort required for each action**. The output will be an action matrix that provides, for each activity:

  (1) a brief description and a brief justification (which high-level targets does it contribute to and how);

  (2) a RACI (RACI = Responsible, Accountable, Consulted, Informed) matrix explaining the agency responsible for delivery, agencies accountable (agencies that need to give their approval and validate the action), agencies that need to be consulted and others that need to be informed;

  (3) Targets and KPIs for the activity;

  (4) Data sources for monitoring impact;

  (5) Estimation of the funding needs and identification of potential sources of financing, including public funding.

The detailed design of specific instruments such as laws, ministerial orders, and ministerial instruction should be guided by this policy and as needed after detailed subsector strategies. These instruments need to be carefully tailored to specific sector opportunities & needs.

Monitoring, Evaluation and Learning

The delivery mechanisms and implementation plan will include an identification of a mechanism to improve the collection and processing of **industrial performance data for evaluation and learning**. **Digital platforms** could facilitate this. A set of quantitative **Key Performance Indicators** is proposed in the Annexes. In addition, a **biannual firm survey** should establish perceived binding constraints to growth and upgrading in priority sectors.

6. Annexes

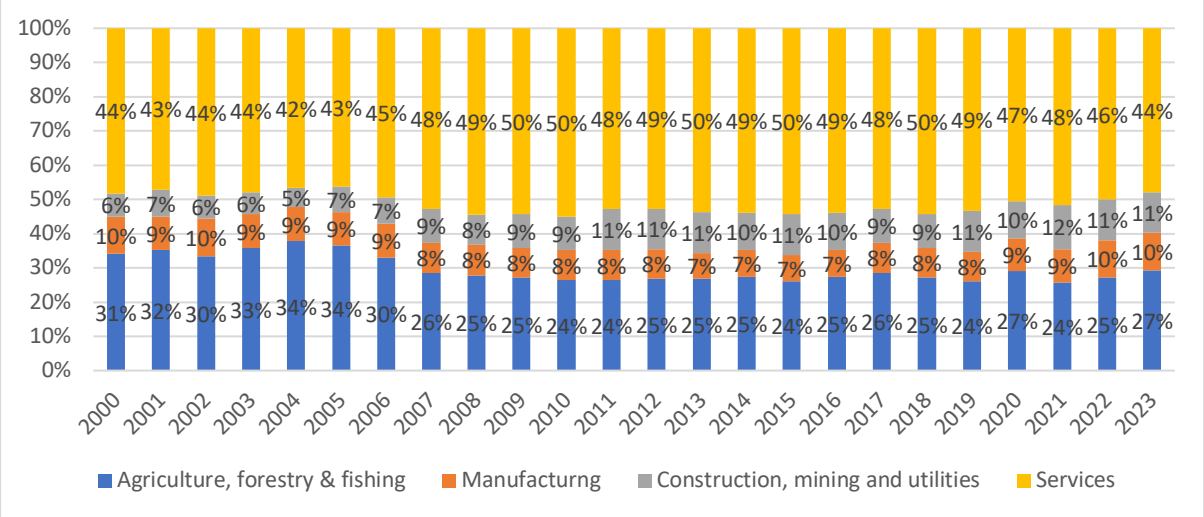
6.1 Extended situational analysis

6.2 Current level of industrial development

During the implementation period of the previous industrial policy (2011-2020), Rwanda witnessed an average annual GDP growth rate above 7 per cent per annum, with a peak of 9.5 per cent in 2019. However, there was a 3.4 per cent decline in GDP in 2020 due to the global COVID-19 pandemic.

Between 2011 and 2020, the sectoral contribution to GDP remained relatively stable, with very little structural change in terms of economic output. Over this period, the services sector contributed the largest share of total GDP, with an average of 49 per cent since 2011, followed by the agricultural sector with a share of 25 per cent of GDP, while the industrial sector had a share of 18 per cent over the same period. In the first quarter (2024), the contributions were slightly different, with services at 46%, agriculture at 25%, and industry at 23%. Taking a longer-term view since 2000, there has been a moderate shift from agriculture towards the services sector, bypassing manufacturing. Since 2000, the contribution of agriculture to GDP decreased from 31 to 24 per cent, while the services sector's share grew from 44 to 48 per cent. Manufacturing, historically the driver of structural transformation for more advanced economies, witnessed a slight decrease in its share from 10 to 9 per cent over the same period. This indicates that the Rwandan economy is witnessing a premature shift towards services, bypassing manufacturing-driven structural change, while GDP per capita remains low. Looking at high-income countries' historical development paths, this shift towards services typically occurred after an extended period of manufacturing-driven growth and at much higher levels of GDP per capita than Rwanda's current level. As such, Rwanda's economy may be missing out on an economic transformation trajectory that creates broad-based prosperity and raises GDP per capita levels.

Figure 5:: Evolution of sector contribution to GDP between 2000 and 2023



N.B.: the taxes less subsidies on products are not reported, which explains why the total is not adding up to 100 per cent

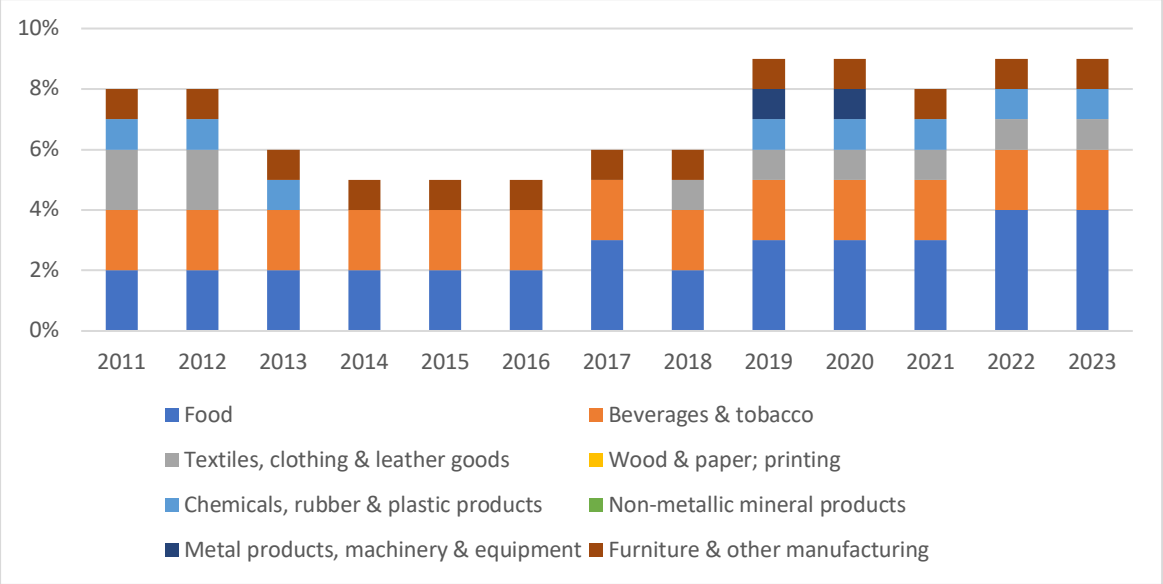
Source: NISR, GDP National Accounts, 2023

Agriculture remains a key contributor to employment in Rwanda. However, the productivity of the agricultural sector remains low (UNIDO, 2020). The agricultural sector accounted for 27 per cent of total value added and 46 per cent of total employment in 2023 and 45 per cent of working-age population outside of the labour force (about 1.39 million people) is engaged in subsistence agriculture in 2023, according to the National Institute of

Statistics of Rwanda[8]. Agriculture remains the sector that absorbs most new entrants to the labour market in Rwanda: between 2019 and 2022, the sector created more than 390,000 jobs, representing almost half the new entrants to the labour market over the same period. The improvement of agricultural productivity will require the modernisation of farming techniques, stronger forward linkages, and a focus on high-growth agricultural value chains. The focus on a small set of priority value chains is particularly important in the context of Rwanda, considering the scarcity of arable land and the potential for large-scale agriculture. Therefore, there is a need to focus on high-growth and non-land-intensive value chains.

The **manufacturing** sector still has untapped growth potential, as its contribution to GDP is at 10 per cent and its contribution to employment is quite low. Within the manufacturing sector, the main areas of industrial activity are resource-based manufacturing industries, including food and beverages. These two sectors represent about 50 per cent of total industrial output in the country. In 2022, only 4.8 per cent of the employed population was engaged in manufacturing, declining from 6.4 per cent in 2019. Manufacturing in Rwanda generates employment for women, as women represent 45 per cent of total employment in the sector.

Figure 6: Manufacturing as per centage of total GDP by subsector



Source: NISR, GDP National Accounts, 2023

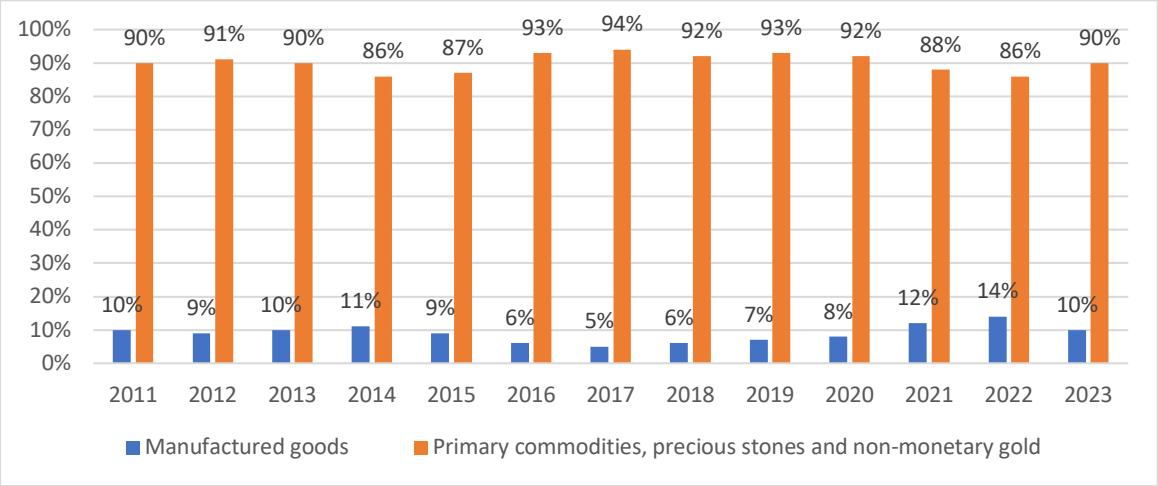
Overall, manufacturing in Rwanda remains undiversified and plays a marginal role in the national export basket (Figure 6). Exports of goods in Rwanda remain highly concentrated in primary commodities, with a very low level of transformation and value addition in the local economy. Manufacturing goods represented only 12 per cent of exported goods in 2023, while primary commodities represented more than 87 per cent. It is worth noting that exports in gold are growing significantly from USD 21,000 in 2001 to USD 835 million in 2020 and USD 884 million in 2023

The level of complexity of exported manufacturing goods has grown slightly over the last decade, mostly in favour of labour-intensive goods (Figure 7). Labour-intensive goods are relatively simple and do not require intensive technologies and know-how. This indicates that manufacturing in Rwanda remains focused on low-technology and low-skill activities.

[8] Source: NISR, LFS 2023 Annual report

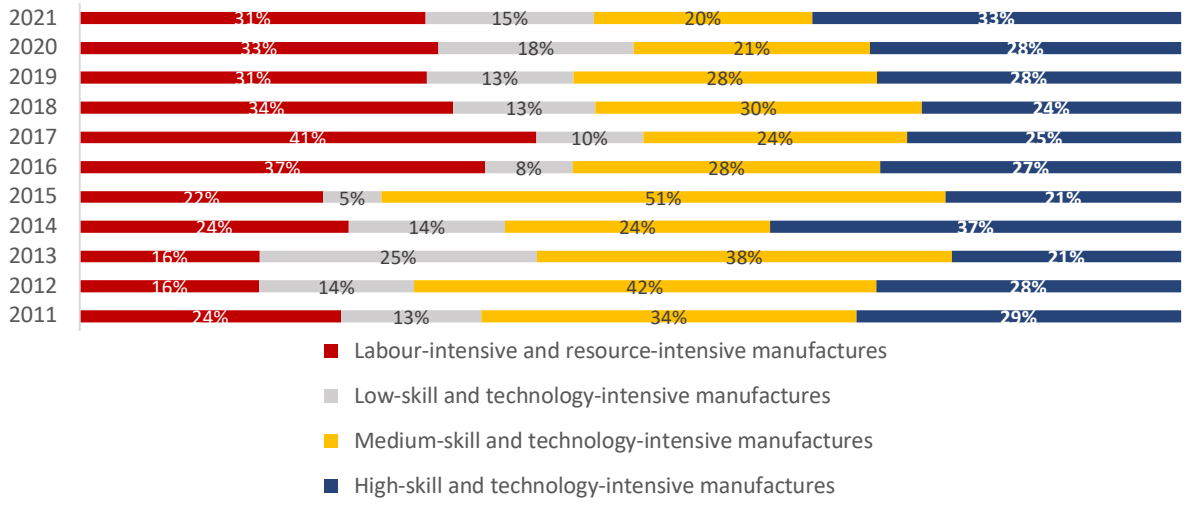
Rwanda's existing manufacturing base is severely impacted by low levels of capacity utilisation. The Private Sector Development and Youth Employment Strategy (PSDYES) (2017) pointed to capacity utilisation rates of around 65 per cent for the manufacturing sector. A UNIDO study found even lower capacity utilisation levels in some subsectors of the economy, including cement (59 per cent utilisation of installed capacity); wood and furniture (51 per cent); paints and varnishes (48 per cent, iron and steel (43 per cent); ceramics and granite tiles (40 per cent); textiles, apparels, and leather (30 per cent); plastic tubes and pipes (23 per cent); pesticides (20 per cent); and soaps and detergents (18 per cent). A survey conducted during the preparation of the Made in Rwanda Policy points to several factors responsible for low-capacity utilisation by Rwandan industries, including a shortage of raw materials, lack of specialised technology, lack of working capital, and low demand for goods produced.

Figure 7: Evolution of share of primary commodities and manufacturing goods in total export of goods in Rwanda



Source: NISR, Formal External Trade in Goods report, 2023

Figure 8: Evolution of skill- and technology- intensity in exported manufactured goods in Rwanda - per cent of manufactured goods

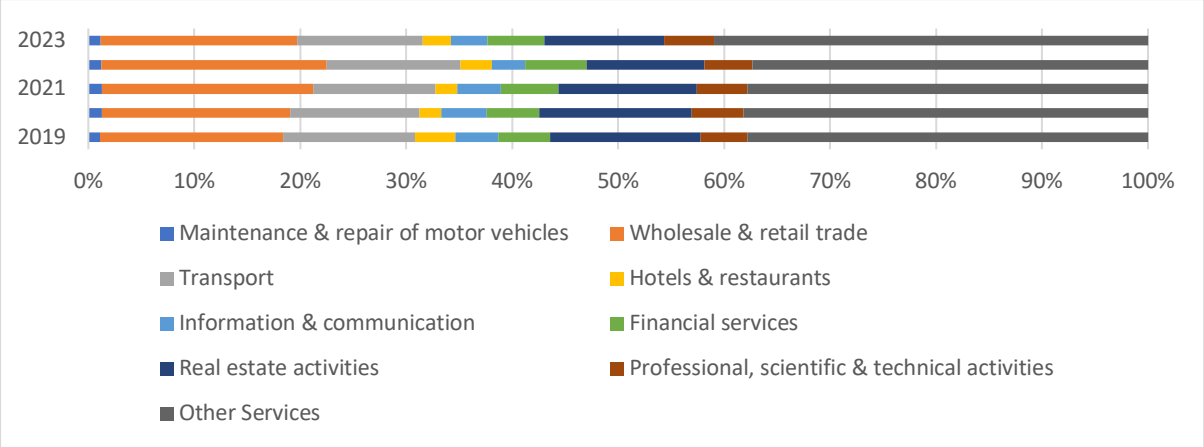


Source: UNCOMTRADE

The services sector is the main contributor to economic output and off-farm employment in Rwanda. In 2023, the services sector represented 44.8 per cent of GDP and 40.38 per cent of total employment. Wholesale and retail trade and transport, and real estate activities are the two most important sub-sectors in services, representing 1920 and 123 per cent of service outputs respectively (Figure 8). Wholesale and retail trade is the second largest employer in the economy after agriculture, and the first within the services sector, representing 23.8 per cent of employment in services. The sector also accounts for more than 57 per cent of businesses established in Rwanda, according to the 2020 National Establishment Census. However, this sector typically does not offer opportunities for significant improvements in aggregate labour productivity, creating mostly jobs associated with informality and low technological capabilities. As such, it does not contribute to longer-term physical, technological, and human capital accumulation – key ingredients of successful structural transformation.

The development of high-value-added and tradable services has been a focus of the Government of Rwanda to support the transition to a knowledge-based economy. This has resulted in several national flagship initiatives such as the establishment of ***Kigali International Financial Centre*** and ***Kigali Innovation City***, aiming at making Rwanda a regional financial and innovation hub, as well as initiatives to develop the tourism subsector, including the *meetings, incentives, conferences, and exhibitions* (MICE) segment. However, the contribution of tradable services such as tourism, financial services, and global business services to the services sector remains relatively low. The share of economic output in services of these three subsectors declined from 13.1 in 2019 to 12 per cent in 2021. It is also worth noting that, between 2017 and 2021, services exports grew at a much slower pace than goods exports (Figure 8) and witnessed a relatively sharp decline, driven by a slowdown in travel due to the COVID-19 crisis and picked up shortly after.

Figure 9: Share of different subsectors in services



Source: UN COMTRADE

Figure 10: Evolution of exports of goods and services between 2017 and 2023 – Rwanda (in million $)

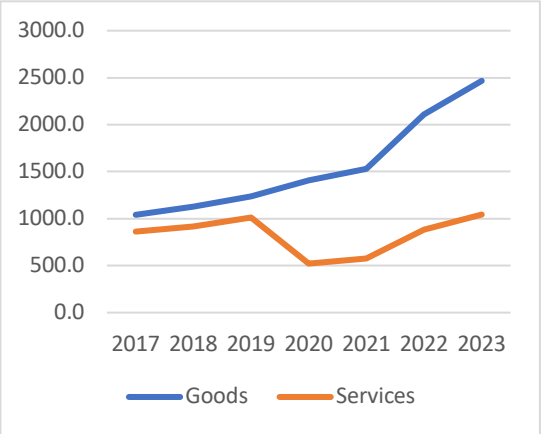
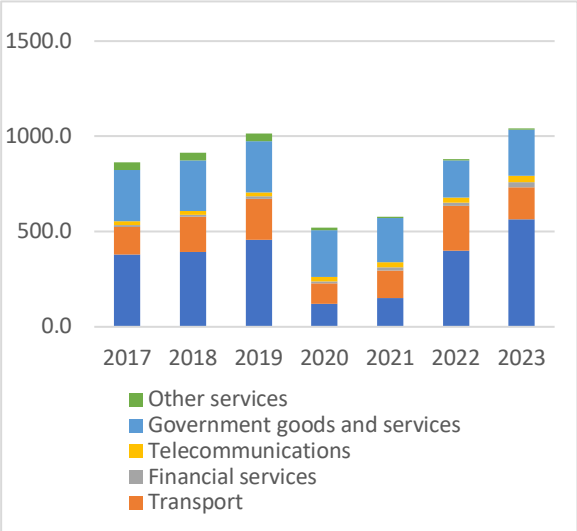


Figure 11: Exports in services by category (in million $)



Source: UN COMTRADE

Rwanda's industrial policy should focus on supporting the development of high-potential productive subsectors that could accelerate economic transformation and maximise the spillover effects on the rest of the economy. Rwanda's economic growth strategy is based on four essential and interdependent drivers: innovation, integration, agglomeration, and competition (World Bank and Government of Rwanda, 2019). Manufacturing represents an important source of innovation, features "strong agglomeration effects and is characterised by a high degree of economic integration, leading to stronger competition" as indicated by UNIDO (2020). A structural change towards manufacturing can therefore be strategic to help achieve this strategy. However, several structural challenges may hinder the potential of manufacturing development, including relatively high transportation and logistics costs due to Rwanda being landlocked, the availability of land, and the small scale of the domestic market. To maximise economic transformation prospects, a balanced approach is needed that focuses on tradable subsectors that can support labour productivity gains and technological upgrading - whether in agriculture, manufacturing, or services - and that can overcome or prosper despite the country's structural challenges.

6.3 Strengths, weaknesses, opportunities and threats of the industrial sector in Rwanda

The table below summarises the strengths, weaknesses, opportunities, and threats (SWOT) that characterise manufacturing and high-potential tradable services sectors. The SWOT analysis provides a basis for the policy vision as well as the interventions and instruments identified in the next section.

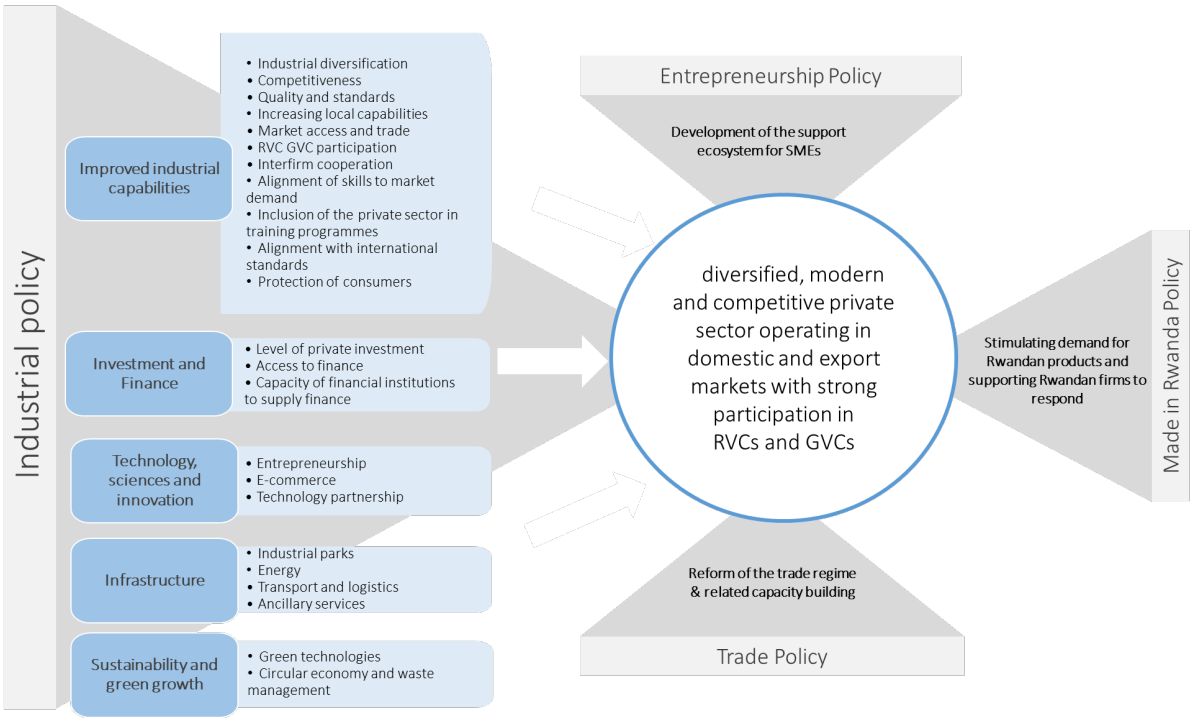
Strengths	Weaknesses
- **Strategic location**: Rwanda's central location in East Africa makes it a strategic hub for trade and commerce within the region. - **Access to regional markets** through the East African Community customs union and AfCFTA. - **Increased public and private investment**: Rwanda is attracting increasing levels of foreign investment,	- **Limited access to finance**: Many businesses in the industrial sector struggle to access the financing needed to invest in new equipment, technology, expansion, logistics infrastructure and supply chain management. - **Lack of skilled workforce**: Many businesses in the industrial sector lack access to the skilled workforce

particularly in the areas of technology, infrastructure, and manufacturing. - **Strong and predictable investment environment:** Strong economic governance and regulation as well as RDB's role as a one-stop shop for engagement with prospective investors in Rwanda provide a competitive, attractive, and predictable environment for investment into the country. - **Improved transportation infrastructure**: The Government of Rwanda has invested heavily in improving transportation infrastructure, including roads, ports, and airports, which will make it easier and less expensive to move goods and products within and out of the country. - **Rapid urbanisation**: Rwanda's rapid urbanisation is driving demand for housing, consumer goods and services, and Infrastructure, which can drive growth in the industrial sector. - **Focus on technology and innovation**: The Government of Rwanda has prioritised the development of technology and innovation, which can provide new opportunities for the industrial sector.	needed to manage and operate their businesses effectively. - **Limited access to markets**: Many businesses in the industrial sector struggle to access international markets, limiting their growth and revenue potential. - **High cost of energy**: the high cost of energy in Rwanda hinders the development of the industrial sector, particularly in manufacturing. It might also impact the capacity of the country to transform and process its raw material, as activities in the first level of transformation tend to be energy intensive. - **Weak supply of local raw materials**: the quality, quantity, and/or reliability of local agricultural products or minerals is often a binding constraint on the development of downstream industries. - **High logistics and transportation costs**: Due to the landlocked nature of the country and weak transport infrastructure, high transportation costs can make it difficult for businesses to compete in global markets. - **Lack of integration with regional and global value chains and markets**: Rwanda's industrial sector is not well integrated with regional and international markets, limiting the potential for economic development by curtailing access to raw materials, component parts, enabling services, and international buyers of Rwandan goods and services. - **Limited access to machinery and equipment**: Many businesses in the industrial sector lack access to the technology and equipment needed to improve logistics and supply chain management.
Opportunities	**Threats**
- **Growing consumer market**: Rwanda's rapidly growing population and expanding middle class represent a growing consumer market for locally produced goods and services - **Access to regional and continental markets**: Rwanda's strategic location in East Africa makes it a hub for trade and commerce within the region, providing an opportunity for the industrial sector to access the regional market. Moreover, the AfCFTA provides an opportunity to businesses established in Rwanda to access the booming African market. - **Development of Special Economic Zones**: The Rwandan Government has established several special economic zones to attract foreign investment and promote industrial development. These zones offer investors tax	- **Increased labour productivity gap with high income countries due to 4IR revolution:** The current pace of technological innovation pace is unprecedented, leading to significant labour productivity gains at the global level. This means that there is a risk that the productivity gap between Rwanda and more developed countries increases significantly, compromising the possibility of catching up economically. - **Green global value chains:** Global value chains are transitioning towards green production at a fast pace to respond to the climate crisis. Moreover, a number of important trade partners are integrating green requirements to their imports. For instance, the EU is introducing the Carbon Boarder Adjustment Mechanisms (CBAM) which will tax imported products that are not compliant with the

incentives and other benefits to encourage industrial growth in the country - **Focus on the sustainable and green industry**: Rwanda is focusing on developing sustainable and green industry which can provide new opportunities for the industrial sector in the country - **Developing logistics and supply chain infrastructure**: The Government of Rwanda is investing in improving logistics and supply chain infrastructure which can improve the efficiency and competitiveness of the industrial sector in the country. This includes RwandAir's strong network as well as the development of a new airport in Bugesera. - **Encouraging local production**: The Government of Rwanda is promoting local production by providing incentives for businesses that produce goods and services in the country; this can help to create a more robust industrial sector.	sustainability requirements. While the first phase of CBAM will focus on products that Rwanda is unlikely to export to the EU in the foreseeable future (cement, iron and steel, aluminium, fertilisers, electricity, and hydrogen), the future expansion of CBAM's scope might disadvantage export-oriented industries in Rwanda if sustainability is not integrated in the country's value chains.

6.4 Alignment with other policies

Figure 12: Alignment between Industrial Policy and other national policies



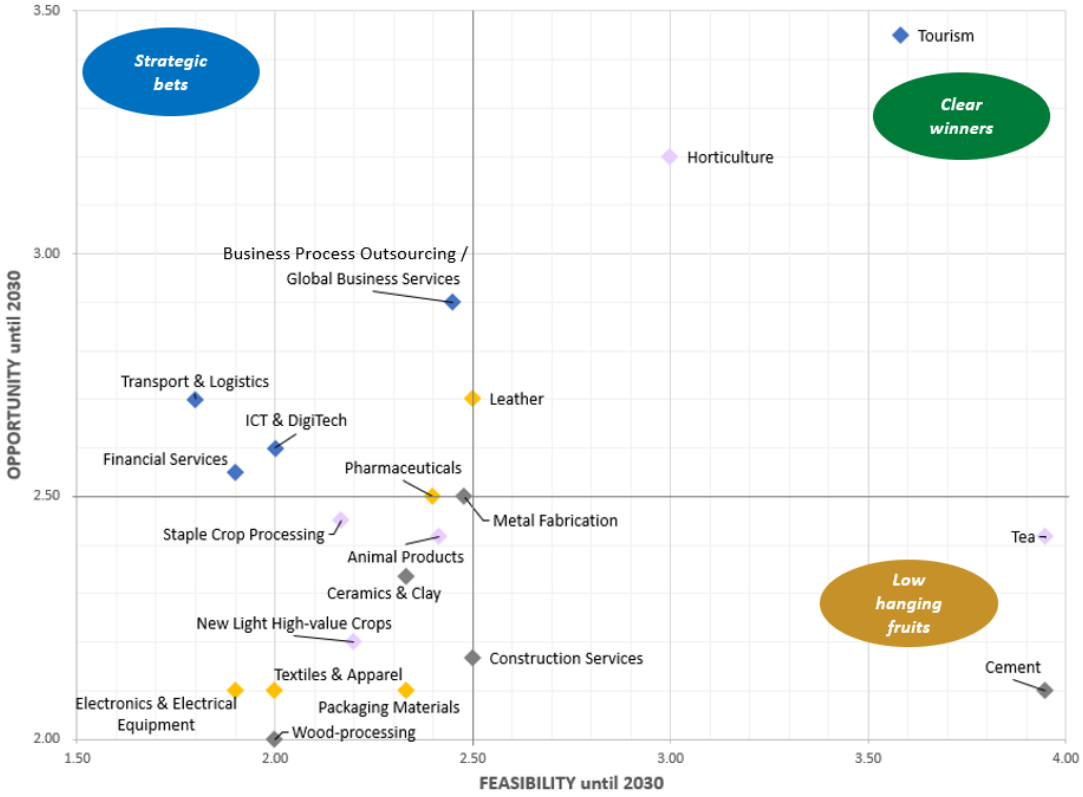
6.5 Selection of Priority Sub-sectors

Figure 13 illustrates the outcomes of an assessment of 20 longlisted subsectors in terms of their opportunity and feasibility in Rwanda, using the criteria shown in Section 3.1. *Opportunity* refers to the magnitude of the gains a subsector could achieve *if* it were developed to its full potential in Rwanda by 2033. *Feasibility* refers to the ease or difficulty with which the subsector could successfully develop to its full potential in Rwanda by 2033.

The 20 subsectors are presented on a 2-axis graph that shows their opportunity and feasibility scores. This helps visualize which subsectors are:

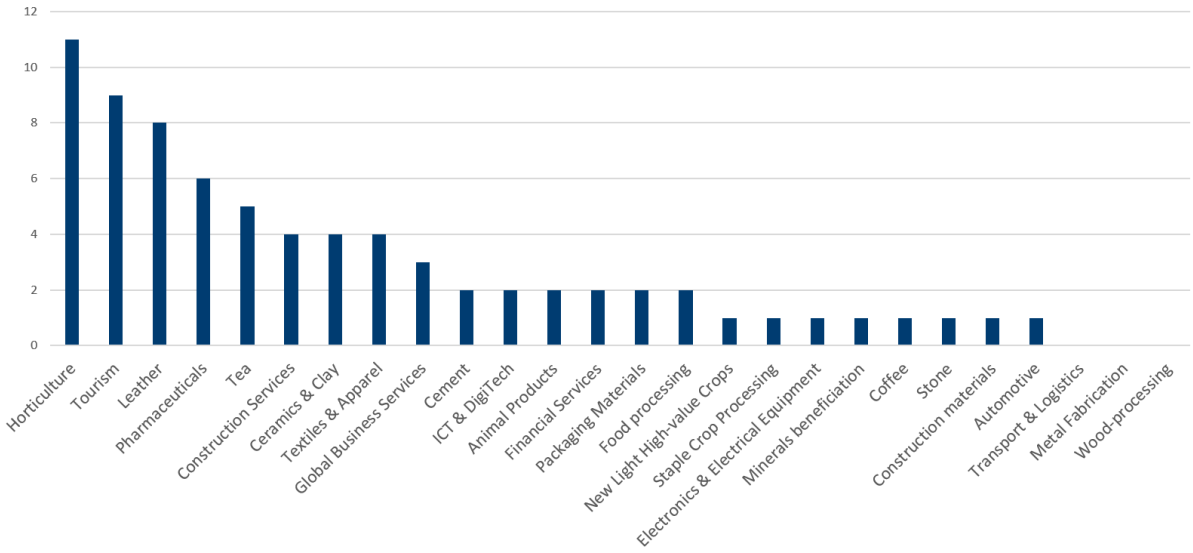
(i) Clear winners – high opportunity and high feasibility;
(ii) Low-hanging fruits – low opportunity and high feasibility;
(iii) Strategic bets – high opportunity and low feasibility.

Figure 13: Opportunity-feasibility scoring of longlisted subsectors



This chart was presented in a consultative stakeholder workshop on the subsector. After a presentation and discussion of the subsector assessments, a consultative voting exercise was undertaken in which each participating stakeholder submitted the three subsectors they would propose prioritising in the Industrial Policy. Figure XX presents the results of this exercise.

Figure 14: Consultative voting exercise for subsector prioritisation



Priority subsectors	Opportunity assessment	Feasibility assessment
Agriculture & agro processing		
<u>Horticulture & other high-value crops</u> *Major sources consulted: NAEB Strategic Plan 2019-2024; NAEB Annual Reports; NISR Statistical Yearbooks; expert interviews*	There is strong potential to grow Rwanda's existing horticultural and other high-value agricultural subsectors as well as enter new ones, particularly with an export orientation. Specific value chains demonstrating strong growth potential starting from a good base in Rwanda include peppers, tomatoes, French beans, macadamia nuts, grapes, passion fruit, cut flowers and other plants, among others. In addition, several new high-value crops could be explored – especially those that can be exported via air freight and/or processed into high-value essential oils, fragrances, and similar products. Downstream processing opportunities include jams, dried fruits, tinned fruits, juices, wine, and salted and packaged nuts. High-value agricultural production and processing create jobs at all skill levels, including a large number of low-skill jobs on commercial horticultural plantations and in downstream processing activities. These subsectors create significant backward linkages to smallholder farmers and agro-input suppliers, as well as stimulating demand for logistics and transport services such as air freight and cold chain, all of which can create significant jobs and revenues in Rwanda. These subsectors are generally knowledge-intensive compared to other agricultural value chains and thus provide opportunities for developing transferable industrial capabilities that can catalyse the growth of other value-adding subsectors down the line. Finally, the subsector bears climate change risks and opportunities, such	There is significant existing productive capacity and competitiveness in horticulture in Rwanda. In 2021, Rwanda's horticultural exports reached almost USD 40 million, consisting of about USD 17m in fresh or dried vegetables, USD 8.4m in live plants and cut flowers, USD 5.6m in fruits and nuts, and USD 7.6m in fruit juices. Europe and North America are currently the major export destinations, followed by EAC neighbours. With additional, highly fertile land available for commercial horticulture, particularly on the Eastern Plains, Rwanda has a potential competitive advantage in growing the subsector. Rwanda also has a reasonable chance of growing overseas exports by becoming more competitive in export transport and logistics costs as many high-value horticultural goods (and their downstream products) can be exported by air freight. Other horticultural products – such as lower-value vegetable and fruit products – could competitively serve the growing domestic and neighbouring country markets by road and rail. High-value crops and their downstream processing activities are relatively labour-intensive, and Rwanda can look to increase its competitive advantage based on low manual labour costs compared to other countries. Key competitiveness factors that will need to be addressed by industrial policy efforts include (i) the entry of firms with strong capabilities in the subsector including management and technical

	as changing global consumption patterns, that will need to be carefully monitored and considered. Rwanda has an opportunity to position itself as a supplier of organic and traceable horticultural products for evolving global markets.	talent as well as overseas market linkages, (ii) the provision of secure, serviced land for production and processing, (iii) efficient transport and logistics services including air freight and cold chain, and (iv) strong enabling service providers including in packaging and labelling.
High-value Tea Products *Major sources consulted: NAEB Strategic Plan 2019-2024; NAEB Annual Reports; NISR Statistical Yearbooks; expert interviews*	There are opportunities to grow the subsector further through new estates, establishment of new tea plants on existing (mostly small-scale) farms, yield improvements, and – very importantly - further value addition, especially into single-origin specialty tea. There is thus an opportunity to grow both low-medium value (made tea exported in bulk for blends) and medium-high value (specialty single-origin tea) product segments within this subsector. Growing Rwanda's tea subsector would be a major contributor to growing the country's export earnings while also creating some jobs in processing, a large amount of seasonal work for tea pickers, and backward linkages to small-scale tea farmers of which there are already almost 50,000 in Rwanda.	At over USD 100 million per year, tea is the country's top export after gold, with a wide range of mainly overseas destination markets. Rwanda's high quality tea trades at a premium compared to regional neighbours. Through decades of experience, the country has built the necessary infrastructure, transport channels, and other requirements for a competitive tea subsector. To realise the subsector's further growth potential, industrial policy interventions will need to take a holistic value chain approach and focus on overcoming challenges such as the financing of new tea plant establishment for small-scale farmers, sourcing labour for plucking, improving rural infrastructure, and solving energy issues for the drying of tea, among others.
Light manufacturing		
Leather Goods *Major sources consulted: MINICOM (2022). Textiles, Apparel, and Leather Strategy; Leather Industry Network Rwanda website; Fitawek (2016) The role of trade policy on Ethiopia's leather industry; expert interviews*	There are short-term opportunities for greater production of leather goods such as boots and shoes for schools, police, and the military on the domestic (and potentially regional) market, as well as longer-term opportunities for high-value leather products such as bags and jackets for overseas markets. High-value leather goods can be competitively exported via air freight, thus bypassing Rwanda's natural disadvantage in land and sea transport as a landlocked country. The subsector would provide relatively strong backward linkage opportunities for cattle farmers, slaughterhouses, tanneries, and providers of packaging, labelling, transport, logistics, and other related services. As shown by Ethiopia's relative success, the subsector can be a large-scale job creator, generating several hundreds of job opportunities for every USD 1 million invested. With a focus on final consumer goods, including high-end accessories, capabilities developed in this subsector would also open opportunities for diversification into other luxury apparel and accessory segments.	In the short-term, the key advantage for Rwandan producers to exploit in this subsector is the availability of high-quality hides and skins thanks to the predominance of zero-grazing cattle keeping in the country. Other competitiveness factors such as the availability, quality, and price of land, labour, and energy are comparable to neighbouring countries but would need to be the target of industrial policy intervention to give Rwanda a competitive edge in the attraction and success of investments in the subsector. Finally, in the medium to long term, upgrading within the leather goods subsector (e.g., into luxury accessories for overseas markets) would require advanced firm capabilities and skills, which in turn will be developed through investment facilitation, training, R&D, skills and technology transfer, and learning-by-doing in a competitive environment. Smart industrial policy can target these areas to stimulate upgrading within the leather goods industry.
Pharmaceuticals	There is an opportunity for one or a few relatively significant investments in the production of pharmaceuticals, such as	In the short run, Rwanda's competitive advantage in pharmaceutical production will lie in its proximity to the market (i.e.,

Major sources consulted: Tony Blair Institute (2022) Building a vaccine manufacturing and life sciences ecosystem in Rwanda (internal presentation); USAID (2016) Private sector brief on generics production in Rwanda; expert interviews	intravenous fluids and drugs in pill or capsule form, as well as the production of vaccines and herbal medicines/phytomedicines. These would mostly serve the domestic and regional markets, with public procurement being an anchor demand driver. While this subsector would not be a large-scale job creator, the import savings and export earnings are potentially large. The ongoing BioNTech investment in a vaccine manufacturing plant in Rwanda has drawn the attention of other investors and development partners on Rwanda's pharmaceutical potential. The direct linkages created by the subsector appear rather modest and include packaging and cold chain logistics, among others – active ingredients are likely to continue to be imported for the most part.	Rwandan public procurement and potentially neighbouring countries) and an attractive regulatory environment for international investors. There may be a competitive advantage for herbal medicines in terms of access to plant-based raw materials grown in the country. The competitive advantage will lie in technical skills and firm capabilities in the medium- to long term. In this regard, the BioNTech investment may give Rwanda a head start through the Centre of Excellence being established as part of that project. Additional skills development and regulatory framework development linked to the BioNTech investment may also lay the groundwork for further investments in the subsector. However, industrial policy efforts will need to address weaknesses in skills, regulations (e.g., the registration, testing, and certification of medicines), and demand (through public procurement preferences) while engaging in proactive investor attraction, facilitation, and aftercare.
Tradable services		
<u>Tourism</u> *Major sources consulted: Heinen (2022): PhD Thesis Tourism Chapter; RDB (2016) RDB: Tourism Masterplan (Presentation); RDB (2014) Rwanda National Meetings, Incentives, Conferences/Conventions and Events/Exhibitions (MICE) Tourism Strategy; Vanguard (2021) The Trek Toward a Tourism Revival for Rwanda; WTTC (2018) Travel & Tourism. Economic Impact 2018 Rwanda; RoR (2018) Tourism Development Master Plan for Gishwati-Mukura National Park; RDB (2020) Tourism and Hospitality Skills Brief; expert interviews*	Tourism is Rwanda's major export revenue generator aside from minerals, as well as an important job creator. Rwanda's tourism revenues grew from less than 100m USD in 2005 to more than 600m USD in 2019. It is assumed that the Covid drop will be only temporary, even if it takes longer to recover than initially thought. Given the growth of middle classes with rising purchasing power in Asia and Africa, the number of potential tourists is expected to continue growing rapidly. In addition, more and more tourists from Europe and North America are becoming aware of Rwanda as a tourist destination thanks in large part to the government's international tourism marketing efforts. While the tourism subsector is not as labour intensive as many manufacturing subsectors, due to its size and growth outlook, the subsector has the highest job creation potential of all economic subsectors in Rwanda until 2050 (RDB National Skills Development and Employment Promotion Strategy 2019-2024). The tourism subsector has the potential to generate strong backward linkages into subsectors such as food processing and transport. The growth of RwandAir, for instance, is closely linked to the success of Rwanda's tourism industry.	Rwanda has built the needed infrastructure and has been diversifying within leisure tourism beyond gorillas, is attempting to upscale MICE tourism, and is now diversifying to other tourism sub-subsectors (medicine, cultural, religious tourism, etc.). Rwanda's unique natural endowments – mountain gorillas, crater lake, and natural beauty more generally – along with public goods – security, order, cleanliness, and good infrastructure – are key advantages for the tourism subsector. The natural endowments will need to be protected and the public goods maintained and enhanced for the subsector to further develop. Existing tourism assets such as luxury hotels (now in oversupply), Kigali Convention Centre, and Kigali Sports Arena lay a strong foundation for further growth in the subsector. The new international airport will also be a potential driver of tourism growth in the long-term. Industrial policy efforts to grow and diversify the subsector will likely include interventions to develop tourism-specific human capital, continue marketing the country as a tourist destination, stimulate local supply chain linkages, and continue to upgrade tourism-related public goods, among others.

	Finally, many of the skills and firm capabilities developed in the tourism subsector are transferable into other service industries, potentially opening diversification opportunities into other tradable, high-value services for Rwanda's economy in the future.	
<u>Global Business Services</u> *Major sources consulted: GIZ (2022) Rwandan Jobs in the Digital Era - Scenarios for the Future of IT-enabled Services; Genesis and Harambee (2022) Rwanda Global Business Services Country Report; expert interviews*	Global Business Services refers to a range of outsourced business support activities typically discussed under the names 'Shared Services' and 'Business Process Outsourcing'. These can include tasks and functions related to human resources, finance, logistics, data processing, digital product testing, sales, marketing, and customer care, among others. The skill-intensity and complexity of activities within this broad category range widely, from repetitive, low-skill activities such as customer call centres, administrative support, image editing, and social media content moderation to advanced business advisory services that help business leaders make evidence-based decisions. The theoretical market potential for Global Business Services exported from Rwanda is very large, given that worldwide demand is growing rapidly and that these digitally delivered services are not subject to the physical trade constraints of a landlocked country. With the right human capital, investment, firm capabilities, regulatory and policy framework, and supporting infrastructure, Global Business Services could go from being a nascent subsector with four active firms to one of Rwanda's major export and employment growth drivers. This subsector's backwards linkages are modest and include software, professional services, and training. The forward linkages created are in the form of stronger business services not just for overseas clients but also for client firms in Rwanda. The capabilities and human capital developed in Global Business Services would help stimulate the growth of other tradable service subsectors.	The main competitiveness drivers in Global Business Services are the quality and cost of human capital (at various skill levels) and firm capabilities. While wages are comparatively low, there is a shortage of relevant skills in the domestic workforce, and only four companies employing a few hundred people are currently operating in the subsector. Rwanda's competitive base in this regard is small, and industrial policy interventions will need to focus on training, investment facilitation, and knowledge transfer. Another key factor is reliable and affordable electricity and high-speed internet – these are available within Kigali but very limited in the rest of the country.

6.6 Key Performance Indicators

Below is a set of proposed quantitative **Key Performance Indicators** to monitor progress against the policy's objectives:

1. **Expansion of local value addition in the industry**
    - Compound Annual Growth Rate (CAGR) of Manufacturing Value Added (MVA)

- MVA per capita
- Share of manufacturing in GDP
- Share of tradable services in GDP

2. **Improved international competitiveness**

    - Manufacturing labour productivity (MVA per worker)
    - Gross fixed capital formation (i.e. investment) by manufacturing firms
    - Import of capital goods per capita
    - Value-added generated by medium- and high-tech (MHT) sub-sectors
    - Exports by medium- and high-tech (MHT) sub-sectors

3. **Diversification of the productive structure and exports**

    - Share of top-3 sub-sectors in MVA
    - Share of top-3 sub-sectors in total manufacturing exports
    - Share of top-3 export markets in total manufacturing exports
    - Hirschman-Herfindahl Index (HHI) for manufacturing export product diversification
    - HHI for manufacturing export market diversification
    - Share of medium- and high-tech (MHT) sub-sectors in MVA
    - Share of MHT sub-sectors in total manufacturing exports

4. **Reduced trade deficit and enhanced participation in regional and international trade**

    - Manufacturing trade deficit
    - Manufacturing exports per capita
    - Share of manufacturing exports in total exports
    - Share of exports in GDP
    - Regional (e.g. EAC) manufacturing exports per capita
    - Manufacturing exports to Africa per capita

5. **Generation of industrial employment**

    - Number of employees in the manufacturing sector
    - Share of female employees in the manufacturing sector
    - Average wage per worker in the manufacturing sector

6. **Environmental sustainability**

    - CO_2 emission per USD of MVA
    - Energy intensity of manufacturing production
    - Renewable energy consumption of manufacturing
    - Intensity of raw material consumption (RMC) in manufacturing production
    - Value and growth rate of exports of environmental goods (“green products”)
    - Value and growth rate of imports of environmental goods