



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

Progress by innovation



# ANNUAL REPORT 2022





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INDUSTRIAL DEVELOPMENT ORGANIZATION

Vienna, 2023

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This edition of the Annual Report pioneers the UNIDO reporting on progress towards its biennial targets at the aggregate UNIDO level. Priority is given to the reporting of targets established by the Programme and Budgets 2022–2023, where its indicators are a subset of the UNIDO Integrated Performance Results Framework (IRPF). A detailed set of data and information related to the indicators and targets is provided in the appendices of this report. These data and information have been used as the basis for the qualitative infographics in this report.

The pie charts presented on the first spread of each chapter show the percentage of fulfilment of the Programme and Budgets 2022–2023 targets within the IRPF as at 31 January 2023. A pie chart with ++ shows that target fulfilment exceeded 150 per cent.

Unless otherwise stated, all references to sums of money are given in United States dollars, and references to “tons” are to metric tons.

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Appendices (available online at [www.unido.org](http://www.unido.org))

Operational statistics • Project approvals under voluntary contributions • Technical assistance to least developed countries (LDCs) • Programmable funds • Programme for Country Partnerships (PCP) • Appointments of Individual Service Agreement (ISA) holders • Agreements and other Arrangements concluded by UNIDO in 2022 • Country promotion presentations/seminars organized by Investment and Technology Promotion Offices (ITPOs) in 2022 • Field representation • Overview of UNIDO workforce • Staff development • Industrial statistics • Results-based budgeting – results indicators

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## FOREWORD BY THE DIRECTOR GENERAL

2022 was a difficult year for all of us. The consequences of the pandemic, the increasingly visible effects of climate change, and the war in Ukraine – they all hit the poorest of the poor the hardest. Alongside the disasters triggered by climate change, the countries of the Global South are confronted with rising unemployment and energy, food and debt crises. These countries are not responsible for any of these crises. Industrialized countries and the states of the Global North must assume greater responsibility. International solidarity is necessary to combat and solve these global challenges. The international community knows what needs to be done and what the solutions are. We need to implement the SDG agenda, the Paris Climate Agreement and the Biodiversity Convention. Globally, we have the technologies and the knowledge to create a world without hunger, to protect the planet and to limit climate change.

To play its role more effectively, UNIDO implemented an ambitious organizational reform in 2022. We are setting new priorities in cooperation with our Member States. We have been able, despite enormously increased costs, to increase the implementation of technical projects by 17 per cent in 2022, especially in the areas of climate and environmental protection, food security and renewable energies.

Going forward, UNIDO will make progress in the development of new partnerships with the private sector and financial institutions. We will also further strengthen our collaboration with middle-income countries to enable the transformation of industrial systems, avoid the middle-income trap, and promote the implementation of the Secretary-General's *Our Common Agenda* and the Sustainable Development Goals.

We will be the Organization to help Member States in facilitating technology transfer and capacity-building through heightened South-South and triangular cooperation as we reform our field structure. Digitalization will indeed change everything, and we will enhance

our efforts to accelerate the development and adoption of innovations through the establishment of a dedicated innovation lab in 2022 in order to improve the efficiency and impact of our operations.

I would like to thank my predecessor, Li Yong, and his team for their successful work and I remain grateful to our Member States for their trust and support, particularly in the reform process I have started. I truly appreciate your confidence.

I continue to count on your strong support for UNIDO as we improve our impact and our important work towards a better future through inclusive and sustainable industrial development.

**Gerd Müller**  
Director General of UNIDO



# UNIDO at a glance



UNIDO was **established in 1966** and became a specialized agency of the United Nations in 1985



The Organization has **170 Member States** (as at 31 December 2022)



**Gerd Müller** was appointed **Director General** of UNIDO by the nineteenth session of the General Conference in November 2021



**€84.7 million** regular and operational budget (expenditure) of UNIDO in 2022



UNIDO employs **684 staff members** as well as 1,610 consultants on ISA contracts from 152 countries (as at 31 December 2022)



UNIDO contribution to the United Nations **resident coordinator system** approved by Member States for 2022: **\$2,237,177**



In addition to its Headquarters in **Vienna**, UNIDO has liaison offices in **Brussels, Geneva and New York**.

Its field network consists of **48** regional hubs, and regional and country offices covering **156 countries**.

UNIDO maintains **Investment and Technology Promotion Offices** in **9 locations** (Beijing, Bonn, Lagos, Manama, Moscow, Rome, Seoul, Shanghai and Tokyo).

**Regional sustainable energy centres** exist in **9 locations** (Bridgetown, Cairo, Kampala, Kathmandu, Luanda, Nuku'alofa, Praia, San Salvador and Windhoek).

The value of **technical cooperation delivery** in 2022 amounted to **\$180.3 million**

**\$200 million** net voluntary contributions in 2022 for project implementation, with a total portfolio of projects in hand of **\$621.9 million**

**133 million tons** of CO<sub>2</sub> emissions reduced in 2022 from the phasing out of ozone-depleting substances

**Projects implemented in 126 countries** in 2022

UNIDO participated in **103 United Nations country teams** in 2022



**GENERAL CONFERENCE**  
All Member States Meets every 2 years  
Next regular session 27 November–1 December 2023



**INDUSTRIAL DEVELOPMENT BOARD**  
53 Members Meets once a year  
Next regular session 3–6 July 2023



**PROGRAMME AND BUDGET COMMITTEE**  
27 Members Meets once a year  
Next regular session 15–17 May 2023



The primary objective of UNIDO is the promotion of **INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT (ISID)** in developing countries and economies in transition



Shared prosperity from industry



Economic competitiveness



Environmentally sustainable industry

**Technical cooperation**  
Analytical and policy advisory services  
Normative functions, standards and quality-related activities  
Convening for knowledge transfers, partnerships and networking

**STRENGTHENING KNOWLEDGE AND INSTITUTIONS**

**WE SUPPORT OUR STAKEHOLDERS**  
People  
Firms  
Institutions  
Governments  
Global actors



**MICRO**  
STRENGTHENING SKILLS AND CAPACITIES



**MESO**  
BUILDING QUALITY INDUSTRIAL ECOSYSTEMS



**MACRO**  
FORMULATING POLICY AND REGULATION

## TOP FUNDING PARTNERS FOR UNIDO PROGRAMMES AND PROJECTS IN 2022 (IN MILLIONS)



Japan \$11.6



Switzerland \$9.5



Italy \$8.9



China \$6.3



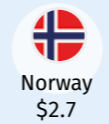
Sweden \$5.9



European Union \$41.9



Germany \$5.3



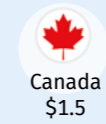
Norway \$2.7



United States of America \$2.1



Bahrain \$1.6



Canada \$1.5



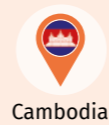
Global Environment Facility (GEF) \$57.2



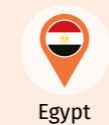
Multilateral Fund (MLF) \$18.7

## PROGRAMME FOR COUNTRY PARTNERSHIP (PCP)

Implementation



Cambodia



Egypt



Ethiopia



Morocco



Peru



Senegal

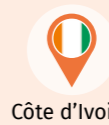


Zambia

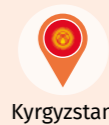


Nigeria

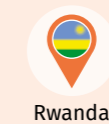
Programming



Côte d'Ivoire



Kyrgyzstan



Rwanda



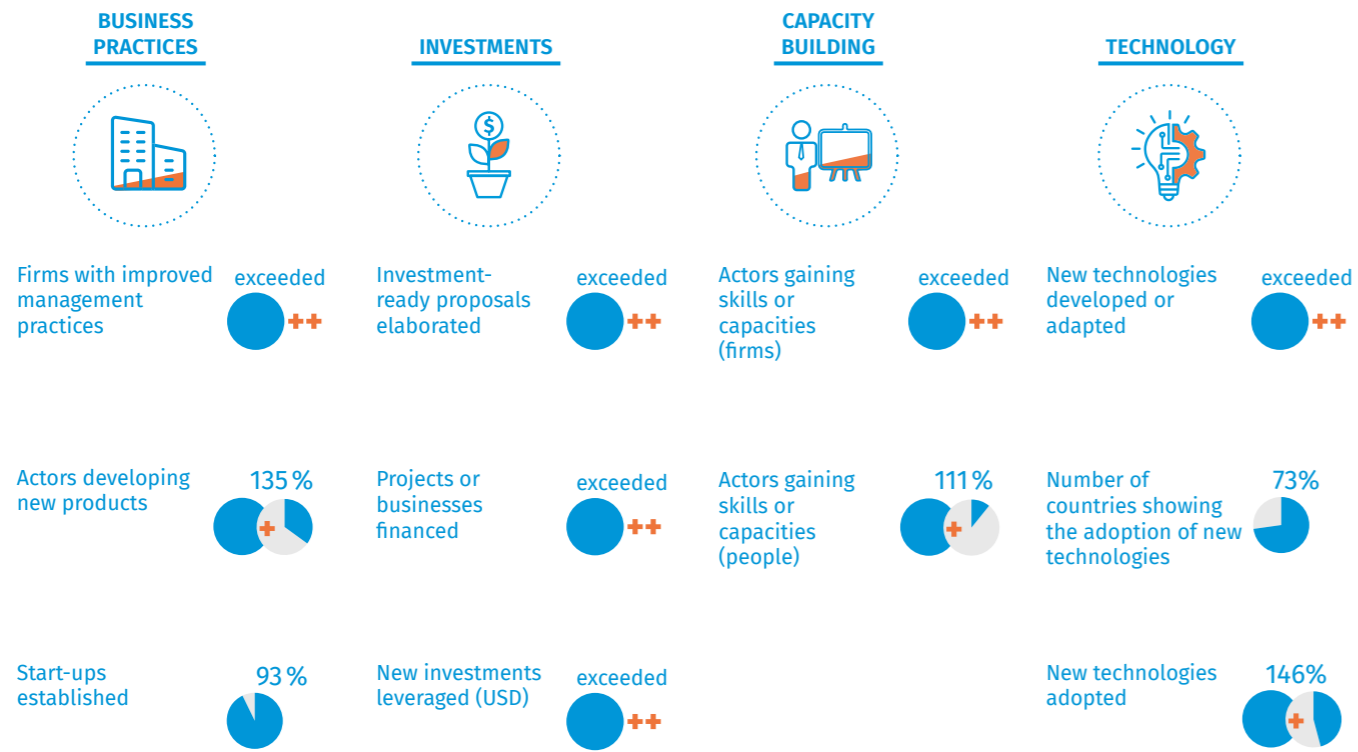
United Republic of Tanzania

Self-starter



Kenya

**PROGRAMME AND BUDGETS TARGETS: STATUS AT THE END OF 2022**



"Actors" refers to firms, including unipersonal businesses.

1.

**Transforming lives through innovative, inclusive and sustainable enterprises**



## INTRODUCTION

**THIS IS THE CORE OF THE UNIDO MANDATE** – on the ground, working directly with enterprises and people. By providing training and support to adopt the latest technology, innovate, and apply the best environmental practices, UNIDO helps these enterprises become more resilient and sustainable. UNIDO pays particular attention to women, youth and disadvantaged groups, so that they can also learn and become leaders with the ability to mentor others. At the same time, UNIDO programmes and projects build awareness and motivation for safe and sustainable products, increasing market demand so that these enterprises can become long-term sources of equitable jobs and ongoing skills development.

## SUPPORTING PROGRESS TOWARDS SHARED PROSPERITY



While the world is still struggling with the impact of the COVID-19 pandemic that wiped out years of progress in global health, economic growth and poverty reduction, a series of global economic shocks is further slowing recovery. Climate disasters have destroyed crops around the world, rising food and energy prices are forcing small businesses to close, and supply chain disruptions are hindering recovery in parts of manufacturing industry. The World Bank's latest *Poverty and Shared Prosperity* report shows that recovery is uneven; the richest countries

recovered more quickly than low- and middle-income countries, and income losses in the world's poorest countries were twice as high as in the richest. Innovative solutions to increasing prosperity and fighting poverty are needed today more than ever to recover lost progress and get back on track to meeting the Sustainable Development Goals.

To overcome these challenges and help firms to succeed, UNIDO works with partners to increase productivity and inclusion of the workforce, particularly among women, youth and disadvantaged groups. The Organization also assists in improving products and processes, introducing new innovations and technologies, strengthening compliance with standards and technical regulations, and promoting an overall culture of quality. At the same time, it builds the capacity of core business professionals in areas

Coffee Training Center, Ethiopia



including product development, skills development, cost accounting, environmental sustainability, quality assurance, marketing, and Fourth Industrial Revolution technologies. By using a holistic approach that provides tailored support for both firms and workers, including job seekers and entrepreneurs, UNIDO contributes to the development of entire manufacturing sectors.

### Building skills and leadership among women and youth

Firms and people are both the drivers of prosperity and its main beneficiaries. But in many countries, disadvantaged groups such as women, youth and displaced people lack the skills and qualifications they need to access the labour market. The global youth unemployment rate was 15.6 per cent in 2021 – more than three times the adult rate. Youth and women were also disproportionately affected by the COVID-19 pandemic. According to the International Labour Organization (ILO), global youth employment declined by

34 million between 2019 and 2020, and 2 million mothers dropped out of the workforce in 2020 to care for small children, nearly twice as many as their male peers.

UNIDO works with a range of stakeholders in the public and private sectors, academia and civil society to improve the skills base and qualifications of the industrial workforce, entrepreneurs and employment seekers, particularly women, youth and groups at risk of being marginalized. For example, UNIDO organized the “Learning and Knowledge Development Facility Forum” in October 2022, to promote industrial skills development and build a resilient workforce (see box).





## Learning and Knowledge Development Facility Forum 2022, Skills for Resilience: Are We Ready for a Skills Revolution?

Skills development and a resilient workforce are critical to meeting the labour market's increasing demand for skilled employees and to withstand global crises such as the COVID-19 pandemic, climate change and conflict-related disruptions. In a recent survey by a leading global consulting company, only 10 per cent of firms said they were equipped to reskill their employees.

To address this challenge, the UNIDO Learning and Knowledge Development Facility held its third virtual forum in Vienna, in October 2022. The Facility is a platform that promotes industrial skills development among young people in emerging economies. The theme for 2022 was *Skills for Resilience: Are We Ready for a Skills Revolution?*

More than 500 people participated in the event, including ministers from Cambodia, Liberia, Morocco, Sierra Leone, Somalia and Uganda; representatives from the European Union; United Nations agencies including the ILO and UNESCO; partners such as the European Training Foundation, Festo Didactic, the Swedish International Development Cooperation Agency and WorldSkills

International; representatives of the private sector and civil society; and young leaders. In their remarks, speakers stressed the importance of youth to support their economies and build a more resilient future.

*"To truly address young people's long-standing disparities and challenges, we must ramp up skills development, education, and training that is fit for the present and fit for the future,"* said Jayathma Wickramanayake, the United Nations Secretary-General's Envoy on Youth.

The Forum called on the international community and policymakers to bring all public, private, civil society and development actors together and to actively engage the private sector to take concrete steps to build resilience in skills development initiatives and address the skills mismatch; to foster the skills needed for the green and digital transformations, including people skills, soft skills, and entrepreneurial skills; and to promote more gender-sensitive approaches that also include marginalized groups. The outcome from the Forum will help inform the Facility's work programme in the coming years.

*"To truly address young people's long-standing disparities and challenges, we must ramp up skills development, education, and training that is fit for the present and fit for the future."*

Jayathma Wickramanayake, United Nations Secretary-General's Envoy on Youth



*I was the first entrepreneur in Tataouine to receive the start-up label, which is a great source of pride! This marks the beginning of a new era in the technology sector in the south of the country."*

Hajer El Hedi, a young woman entrepreneur

In all its activities, UNIDO works to address gender inequalities in industry to harness the full potential of women as contributors to economic growth. Outside of regular programme work, the UNIDO Gender Equality and Empowerment of Women Unit carried out several training courses and awareness-raising activities on gender equality and the empowerment of women for beneficiaries in the framework of its technical cooperation projects. For example, UNIDO co-hosted the fourth annual "Vienna Discussion Forum", a platform to examine gender equality in the context of the Sustainable Development Goals, together with UNODC and the Permanent Missions of Finland, Norway, and Sweden in Vienna.

Addressing youth unemployment is a critical issue in many low- and middle-income countries. In Tunisia, for example, nearly 40 per cent of young graduates are unable to find work. Together with the HP Foundation, HP Inc., the Italian Agency for Development Cooperation and USAID, UNIDO provided direct support to aspiring entrepreneurs and enterprises through training, business coaching and technical assistance to help them start and grow their businesses.

Young entrepreneurs supported by UNIDO in Tunisia



The six-year Mashrou3i project, which ended in September 2022, helped young entrepreneurs to launch 819 new start-ups (45 per cent led by women) and expand their businesses, creating 6,025 full-time equivalent jobs in Tunisia's economically disadvantaged regions. The project reached its targets and helped the Government of Tunisia to respond to the challenge of youth unemployment and reinvigorate the private sector, in particular through SME creation and development.

*"I was the first entrepreneur in Tataouine to receive the start-up label, which is a great source of pride! This marks the beginning of a new era in the technology sector in the south of the country,"* said Hajer El Hedi, a young woman entrepreneur who launched an interactive educational platform for teachers and students.

By fostering entrepreneurial skills and attitudes through projects like Mashrou3i, UNIDO enables young entrepreneurs to innovate and leverage digitalization to create jobs for themselves and others.

| Afghanistan women at a UNIDO training workshop



### Job opportunities for vulnerable communities

Many of the world's most vulnerable people live in countries affected by conflict. In 2022 alone, more than 100 million people became refugees or were displaced from their homes in their own countries. Large numbers of conflict-affected people, including internally displaced people and returnees, create challenges for host countries and communities to provide job opportunities and social safety nets.

But these communities also present opportunities. In post-conflict economies, the micro- and small-sized enterprise sector is an engine of growth, helping kick-start devastated economies, providing incomes and improving the well-being of affected communities. UNIDO is committed to continuing to integrate productive activities in post-crisis and fragile contexts in partnership with other United Nations agencies and development partners, as part of the shared approach to coordinating peacebuilding, development and humanitarian activities, also known as the peace-development-humanitarian nexus. Through tailor-made programmes, UNIDO provides training to help people in affected communities acquire the skills required to establish or expand a business to support themselves and their families. UNIDO also supports the rehabilitation or reconstruction of service centres and vocational and entrepreneurship schools,

and works with the local private sector and providers of business development services to create more jobs.

While helping to rebuild the economies of conflict-affected communities is an important part of reaching the Sustainable Development Goals and ensuring we leave no one behind, working in these environments is challenging. Programme targets can be impacted by renewed conflict, changes in government, or legislation that restricts economic activity.

Afghanistan, for example, suffers from ongoing instability and a complex humanitarian crisis. In this difficult environment, UNIDO worked to help SMEs develop the business management, vocational and technical skills needed to contribute more meaningfully to the country's economy.

While the private sector is made up almost entirely of SMEs, many businesses operate in the informal sector with little access to finance or training. With funding from the Japanese Supplementary Budget, UNIDO worked with the Afghanistan Women's Chamber of Commerce and Industry of Herat, IOM, UNHCR and UNAMA to provide quick-impact entrepreneurship development and technical skills training to internally displaced persons, returnees and host communities in Herat province, which currently hosts the highest number of displaced people and returnees in Afghanistan.

The training built the resilience of local micro-enterprises and family-operated businesses to enable them to adapt to the unpredictable business environment and develop alternative activities, such as silk weaving, saffron processing and jewellery making. By building the capacity of local trainers through a "training of trainers" programme in entrepreneurship development, the project continues to promote learning and support new entrepreneurs even after it ended in September 2022.

Nearly 50 per cent of the project's participants were women, exceeding the original target of 30 per cent. Despite its successes, the gains achieved by the project are now at risk due to new restrictions imposed on women's participation in the academic and economic sectors by the Taliban. This highlights the difficulty of creating sustainable change for vulnerable populations, particularly women, in post-conflict or crisis-affected countries.

### Strengthening agro-value chains, fighting global hunger

Contributing to a world without hunger is a key UNIDO priority. More than 800 million people are suffering from chronic hunger in the largest food security crisis in recent history. To address today's crisis and feed a growing global population, the world urgently needs to transform the global food system and strengthen agro-value chains to be as efficient and sustainable as possible.

The agricultural and agribusiness sectors present exceptional opportunities for eradicating poverty and hunger and adapting to climate change in low- and middle-income countries. Leveraging Fourth Industrial Revolution technologies and digitalization, including through the use of smart mechanization and precision agriculture and the application of digital tools for traceability and transparency along value chains, development of industrial design to access markets is key to creating resilient, sustainable and inclusive business opportunities.

With a special focus on agribusiness and food systems, UNIDO aims to build the capacity of workers and firms in the areas of increased productivity, food safety, quality compliance, packaging, and technology transfer in digitalization. UNIDO also promotes best practices through the development and dissemination of guidelines in the food production continuum to meet safety and quality requirements. This reduces foodborne illnesses and losses caused by contaminated products, which helps firms unlock trade opportunities in markets with strict quality standards.



“ I decided to move from agriculture to industry and create something new and innovative. My dream came true and now I can sell my own premium organic Zaatar mix – traditional yet unique.”

Youssef Fahed, founder, Cedar Scent

Adopting new technologies and skills can increase productivity even in rural agribusinesses dominated by traditional products and techniques. In Lebanon, the Mazeej initiative brought together farmers and producers making Zaatar mixes and by-products to improve the performance of the Zaatar value chain. Zaatar is a traditional Lebanese spice mix of oregano, sumac, roasted sesame and salt.

The project developed an innovative platform to help Zaatar MSMEs and cooperatives to attract new customers and penetrate national and international markets by upgrading production, improving health and safety conditions, and introducing new products. The project successfully transitioned cooperatives, MSMEs and entrepreneurs working in the informal sector to a network of knowledgeable and skilled agro-food producers working to improve the overall Zaatar value chain.

“I decided to move from agriculture to industry and create something new and

innovative”, said Youssef Fahed, who founded his own brand, Cedar Scent, through the Mazeej project. “My dream came true and now I can sell my own premium organic Zaatar mix – traditional yet unique.”

Through the project, funded by the Italian Agency for Development Cooperation and with Lebanon’s Ministry of Industry and Ministry of Agriculture, 26 MSMEs and cooperatives and more than 1,100 people – half of them women – increased their skills and technology capacities through training, workshops and coaching sessions. Despite Lebanon’s ongoing economic crisis, sales increased by 26 per cent among participating businesses. To further help the sector grow, the Ministry of Industry has approved new by-laws, protocols and a coordination committee to create regular public-private dialogue between Zaatar producers, SMEs, exporters and the ministry regarding all issues concerning the Zaatar value chain.



## Vienna Food Safety Forum 2022

The knock-on effects from the COVID-19 pandemic, climate change, rising costs and conflict have created an unprecedented global food crisis. More than 800 million people now suffer from chronic hunger. We urgently need to transform our global food system to meet today’s crisis and prepare to sustainably feed a projected global population of 10 billion people by 2050.

Food safety is a key determinant of human health and a key contributor to global food security. In October 2022, UNIDO, the Standards and Trade Development Facility, and the Department of Agriculture, Fisheries and Forestry of the Australian Government organized the “Vienna Food Safety Forum 2022” to share knowledge and experiences on data-driven innovation in food safety, and the regulatory frameworks, tools and partnerships needed to transform global food systems. More than 400 people from 65 countries attended the hybrid event, including experts from government ministries, regulators, food safety scheme owners, certification bodies, industry actors and development partners.

Participants stressed the importance of cross-collaboration across all sectors, particularly through public-private partnerships, and discussed current digital trends in food safety to achieve better public health outcomes and facilitate enhanced trade. The COVID-19 pandemic has accelerated the digitalization of data and information sharing, which supports informed decision-making and improved procedures across the food industry.

“Safe food is the cornerstone of our existence”, said Nicola Hinder, Chair of the Codex Committee on Food Import and Export Inspection and Certification System, and Acting Deputy Secretary of the Australian Government’s Agriculture Trade Group. Working together and sharing best practices and innovation, she added, is critical to guiding how the world manages its food systems for future generations.

UNIDO will use the findings from the Forum to pilot programmes and partnerships to improve food safety compliance and develop innovative solutions for the transformation of global food systems to contribute to a world without hunger.

“ Safe food is the cornerstone of our existence.”

Nicola Hinder, Codex Committee on Food Import and Export Inspection and Certification System

## SUPPORTING THE GROWTH OF ECONOMIC COMPETITIVENESS

Increasing productivity and competitiveness plays a major role in a firm's sustainable development and contribution to overall economic growth, especially within the manufacturing sector. However, many SMEs are at a disadvantage because they do not have access to finance, and their use of new technologies and digitalization is low. There is also a shortage of skilled workers, and standards and quality are not high enough to fully access domestic and global markets. The latest UNIDO *World Manufacturing Production* report shows that while the manufacturing industry is bouncing back from the impact of the COVID-19 pandemic, recovery has been uneven across countries, regions and sectors, with production in low-income countries still below pre-pandemic levels.

UNIDO works with SMEs to increase productivity and competitiveness by introducing innovations and new technologies, improving quality, adopting best practices, meeting standards and technical regulations, and promoting an overall quality culture.

### New innovations and technologies

The Fourth Industrial Revolution, which follows the three previous industrial revolutions of mechanization, electrification and automation, requires companies to implement and adopt new digital production technologies such as additive manufacturing (3D printing) and robots, as well as new production

management tools such as data analytics and artificial intelligence (AI). However, SMEs – particularly in low- and middle-income countries – face challenges in accessing new technologies and bridging the digital divide due to a combination of factors, including issues related to credit and finance, insufficient knowledge, a lack of qualified workers, and uncertainty about how to integrate advanced technology into business operations.

To address these challenges and make the Fourth Industrial Revolution work for all, UNIDO helps firms to innovate and react to market forces with better products, services, processes and resources, and to better prepare for and resist internal and external shocks. UNIDO provides SMEs with technical assistance, training and skill sharing on how to better promote exports and investment opportunities, strengthen trade infrastructure, and increase innovation and digital transformation. For example, as part of the United Nations High-Level Inter-Agency Working Group on Artificial Intelligence, UNIDO created a guide for SMEs on how to use and integrate AI and advanced technology into their businesses.

New technologies can turbocharge an already growing manufacturing sector. For example, India is the world's fifth-largest car market, and the country is emerging as a global hub for sourcing automotive components for South-East Asia, Japan, the Republic of Korea and Europe. India's automotive component industry contributes over 2 per cent of the

“The system of store management was not so robust earlier, as there was no recording of inventory. The ACMA-UNIDO cluster programme helped us to bring a change in our store systems.”

N. Vinayagam, ACEY Engineering

country's GDP and employs around 3 million people directly and indirectly.

The Uday Pride programme (UNIDO-DHI-ACMA Yojana – Professionalism, Responsibility and Innovation in Driving Excellence) aims to strengthen the capacities of small and medium-sized automotive component producers to meet the stringent quality, delivery and cost requirements of vehicle manufacturers. The programme helps SMEs overcome challenges related to low productivity, scalability, and inconsistent and insufficient quality. Addressing these issues makes them more efficient, reliable and cost-effective suppliers, enabling them to access domestic and global automotive supply chains.

In partnership with the Automotive Component Manufacturers Association of India (ACMA), Uday Pride has helped 281 automotive component manufacturers improve their business practices and adopt Fourth Industrial Revolution technologies. The results were impressive: the project reached 25 per cent more companies than the initial target, and participating manufacturers increased their sales by

25 per cent and productivity by up to 20 per cent.

N. Vinayagam, Plant Head at ACEY Engineering, one of the supplier companies, said the guidance had improved many structural processes. “The system of store management was not so robust earlier, as there was no recording of inventory”, he said. “The ACMA-UNIDO cluster programme helped us to bring a change in our store systems.”

The impact goes beyond India. The project developed a series of case studies and knowledge documents for other companies to learn best practices and plans to link with other UNIDO projects and experts across the globe.

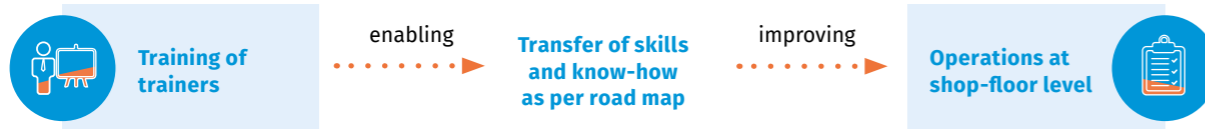
### Knowledge and technology transfer

UNIDO plays a unique role in connecting public and private sector partners, SMEs and entrepreneurs to share knowledge and skills to become more competitive. UNIDO does this directly by providing skills training and learning platforms and by



## ENGAGEMENT METHODOLOGY

### 1. COMPETENCY BUILDING through



### 2. LONG-TERM SKILLS DEVELOPMENT via



creating networks for companies to learn from similar industries.

Within countries, UNIDO promotes common facilities and services such as industrial parks and export consortia. By working together in a single location like an industrial park, companies can share resources and facilities, encouraging more sustainable practices like recycling and exchanging materials, energy, water and by-products. Between countries, UNIDO connects companies in low- and middle-income countries, so that they can share resources, knowledge and solutions to help each other improve their systems and increase their industrial capacity (see box on South-South and triangular cooperation).

UNIDO is assisting the Government of Azerbaijan in building an innovation ecosystem to unlock the country's potential for digital transformation and enable a smoother transition to the Fourth Industrial Revolution. To achieve this, UNIDO builds on its best practices providing training on a wide range of topics

related to innovation management, with opportunities to gain valuable insights from leading international experts.

Funded by the Government of Slovenia, the project organized eight workshops and training courses with more than 100 participants on innovation management, building start-up communities, and obtaining the necessary CE markings to sell products in the European Union. To encourage knowledge transfer and share best international practices in building innovation ecosystems and innovation-powered entrepreneurship, UNIDO organized a study tour to Slovenia for a delegation from the Innovation and Digital Development Agency of Azerbaijan.

UNIDO also developed four thematic modules on innovation management, business coaching, and skills for managing the digital transformation for the Digital Education and Learning Centre, an online learning platform developed under the project. The platform provides unlimited access to the pool of knowledge encompassing innovation management,



## South-South and triangular cooperation

Supporting technical collaboration between developing countries has always been a UNIDO priority. In February 2022, UNIDO established the Office of South-South and Triangular Cooperation to further enhance the Organization's efforts to build industrial capacity and infrastructure in low- and middle-income countries by sharing resources, knowledge and solutions among countries in the global South. The approach involves two or more Southern countries exchanging knowledge, skills, and resources to promote inclusive and sustainable industrial development, in some cases supported by a Northern partner.

"South-South cooperation leads to greater innovation as it provides opportunities for developing countries to learn from each other and to share best practices", said UNIDO Director General Gerd Müller.

UNIDO has 145 active projects utilizing this approach and is expanding its South-South collaboration, sharing best practices from existing projects. In September 2022, UNIDO and the Ministry of Commerce of China launched a joint initiative to explore possibilities for private sector engagement, South-South financing, and sharing solutions to mitigate the impact of the COVID-19 pandemic.

At the annual "Global South-South Development Expo" in Bangkok, UNIDO shared results from seven successful development initiatives. During the "African Union Summit on Industrialization and Economic Diversification" in Niamey, a UNIDO event focused on how to harness the opportunities for South-South cooperation within the African Continental Free Trade Area.

Five UNIDO projects are featured in the flagship publication of the United Nations Office for South-South Cooperation, *Good Practices in South-South and Triangular Cooperation for Sustainable Development, Volume 4*. More successes were published on the online platform The South-South Galaxy. For example, the Global Network of Regional Sustainable Energy Centres shares sustainable energy solutions among 108 countries in the global South. There are eight operating centres across Africa, the Arab Region, Asia and the Pacific, and Latin America and the Caribbean, with two more planned to further accelerate the energy transition.

Fourth Industrial Revolution and digital skills, digital improvement, marketing, and branding, thereby helping SMEs accelerate innovation, improve competitiveness, and access markets.

### Meeting international standards

To access international markets, economies must comply with regulations, standards and rules that guarantee the quality of products and their production processes. UNIDO plays a pivotal role in helping low- and middle-income countries create and implement the necessary quality infrastructure – such as standardization, metrology and accreditation – needed to increase competitiveness and access new markets. Once SMEs and entrepreneurs have met quality standards, UNIDO assists them in preparing their investment projects and accessing finance opportunities, and finding new markets, domestic and foreign, for their goods and services.

Aquaculture plays a significant and growing role in the provision of food, nutrition, and employment worldwide. If managed sustainably and in accordance with international standards, it can also contribute to the conservation of marine ecosystems and help address global hunger by preserving a critical global food source. For Colombia, meeting strict international standards is critical to maintaining its position as the number one supplier of tilapia to the United States of America. The Global Market Access Programme in Colombia is contributing to the ongoing growth in the shrimp and tilapia aquaculture sector and helping

suppliers deliver their products to processing plants for export by improving quality and standards compliance.

In the first two years of the four-year project, exports have grown by 37 per cent compared to the previous period. Through a series of training and technical assistance programmes to strengthen compliance capacity, two producers have earned the globally recognized Best Aquaculture Practices certification for the first time and 10 farms have been recertified.

Álvaro Méndez, Manager of the Méndez Aquaculture Processing Plant, participated in a metrology workshop that helped him understand the importance of proper measurement of weight and temperature to ensure they meet consistent standards. “It is a spectacular topic that we had not paid attention to”, he said. “There is a mismanagement about the purchase of the equipment. It can cause us to lose money or stop earning resources. They opened our eyes.”

Funded by the Norwegian Agency for Development Cooperation and in partnership with the Ministry of Commerce, Industry and Tourism of Colombia, the project also contributes to building the national quality infrastructure. With UNIDO involvement, the national standardization body adopted six new standards for all actors in the value chain, and seven laboratories are now participating in the laboratory assistance programme to analyse product quality. Further work is being done to provide policy recommendations for strengthening governance systems for the tilapia value chain.

## SUPPORTING THE ADVANCEMENT OF ENVIRONMENTALLY SUSTAINABLE INDUSTRIES

Pollution, climate change, biodiversity loss and over-exploitation of natural resources are having a catastrophic impact on human health, well-being and livelihoods, especially for those living in small island nations and low- and middle-income countries. A series of devastating climate-related disasters in 2022, from heatwaves and drought in Europe to floods in Pakistan to hurricanes in the Americas, have killed thousands of people, displaced entire communities and caused \$268 billion in economic losses according to insurance estimates by Swiss Re in December 2022. To protect the environment and people’s health and well-being, we must develop sustainable solutions that not only deliver economic benefits, but also support climate action and withstand climate-related shocks.

### Climate-neutral and circular economies

Fully implementing the United Nations Framework Convention on Climate Change and the Paris Agreement will not be possible without the transformation of industry, from major polluters to leading providers of innovative climate solutions. UNIDO helps its Member States fulfil their commitments to multilateral climate change and environmental agreements and to create climate-neutral and circular economies, where companies reduce waste and reuse existing materials and products as long as possible.

The Organization provides capacity-building, tools, skills training and technology for firms and entrepreneurs to transition to greener business models, particularly the development and use of efficient and renewable energy. UNIDO also works with private sector partners to encourage the uptake of innovative low-carbon technologies, best available techniques and best environmental practices to improve air quality, promote sustainable urban planning and reduce pollutants and greenhouse gas emissions.

For example, the electric grids that power industry contain transformers. In some cases, these transformers use oils that contain polychlorinated biphenyls (PCBs), which must be managed in an environmentally sound manner to avoid contamination and serious harm to human health and wildlife. UNIDO addresses these threats by assisting countries and industries, including the electricity, hydrocarbon and mining sectors, to establish environmentally sound PCB management systems, adopt best working practices, follow international standards and protocols, and implement new technologies for a cleaner, safer environment.

In the Plurinational State of Bolivia there was no specific legislation on PCB management. With funding from the Global Environment Facility and in partnership with the national Ministry of Environment and Water, UNIDO worked to introduce

policies and strengthen governance systems, use modern technologies to analyse and remove or reduce PCBs and related waste, create technical guidelines, and provide training on the environmentally sound management of the toxic chemicals.

The project helped to revolutionize the management of PCBs in the country, where the Government approved legislation on the management of PCBs and the Vice-Ministry of the Environment approved a national information system for the inventory and tracking of PCBs – both developed by the project technical team. The project also developed a range of technical guidelines and manuals and created and implemented a long-term treatment and elimination strategy for PCBs.

Polychlorinated biphenyls (PCBs) need to be managed to avoid contamination



The project trained 800 stakeholders, including authorities, inspectors and technicians, on Stockholm Convention regulations and national laws regarding hazardous waste and the environmentally sound management of PCBs. To ensure the new approaches are embedded in the sector, the project held five training sessions and 10 awareness campaigns that included participants not only from companies, institutions and non-governmental organizations (NGOs) in the electricity, hydrocarbon and mining sectors, but also students from three major universities studying to enter the industry.

“The project has contributed to strengthening students’ skills in the environmental sphere, mainly in building knowledge about PCBs in the Bolivian context”, said Gabriela Guisbert Lizarazu, Professor at Universidad Mayor de San Andres.

### Transition to greener business models

Making the shift to sustainable, climate-friendly technologies will necessitate change at the micro, meso and macro levels, and require firms to adopt circular economy practices in global and domestic value chains. UNIDO continues to encourage resource-efficient and cleaner production and the transfer of environmentally sound technologies at the industry level, and provides training, toolkits and guidance to reduce different sources of industrial pollution. These address the management of persistent organic pollutants (POPs) and other toxic chemicals, the use of mercury-free

technologies, chemical leasing and green chemistry, and the phasing out of ozone-depleting substances.

The UNIDO artisanal and small-scale gold mining programme shows how training and behaviour change can help create more environmentally responsible jobs in rural areas for youth and women and drive consumer demand for safer and more sustainable products. With firms and workers, the programme provides training and education on the negative effects of mercury use at mining sites; with consumers, UNIDO raises awareness on the importance of a formal and traceable gold supply to prevent the gold mining industry from financing human rights violations and conflict.

Engaging industry leaders to act as champions for the transition to a greener economy is key to encouraging change across an entire sector. In North Macedonia, UNIDO secured the support and leadership of many companies, including EVN Macedonia, the largest power utility in the country, to accelerate market transformation for industrial energy efficiency. As the industrial sector is the country’s largest energy consumer, accounting for 30 per cent of final energy use, increased efficiency can have a huge impact on national consumption levels. However, enterprises and senior management had very limited knowledge of what is technically feasible regarding energy efficiency in their factories, what best practices and technologies are available, and what the financial benefits are. There were no policies promoting industrial energy efficiency and there was a lack of institutional and market capacity.



With funding from the Global Environment Facility, and in partnership with EVN Macedonia, UNDP, UNOPS and USAID, UNIDO helped government institutions and enterprises to improve their energy management practices, energy performance, and reduction of greenhouse gas emissions. The results were impressive, leading to behavioural change in the sector’s leadership, shifts in business approaches at the enterprise level, and new government policies.

More than 130 companies and 250 industry and energy practitioners participated in the project’s technical and policy training sessions and events. Training on steam and compressed-air system optimization helped companies improve their

engineering design, monitoring, assessment and operation control practices for these systems.

The project equipped 23 companies with the internal competencies, tools and external support needed to implement Energy Management Systems in line with ISO 50001, a blueprint for adopting and improving energy-saving technologies, setting targets for energy use, and developing action plans to implement the systems and measure progress. Eight companies earned ISO certification in Energy Management Systems, and 68 energy professionals, 30 per cent of them women, were trained as qualified Energy Management Systems experts.

Over the period 2016–2021, project partner companies saved \$17.7 million and 221 GWh of energy and avoided the direct emission of 377,000 tons of CO<sub>2</sub>. To continue progress, the Ministry of Education and Science and the Center for Adult Education approved a new national occupational standard for Energy Management System Practitioner and an accompanying training programme, based on the project's best practices.

### Climate change adaptation and mitigation

Smallholder and subsistence farmers in many low- and middle-income countries are suffering some of the worst impacts of climate change: erratic rainfall and changing rainy seasons, increased droughts and floods, salinization of agricultural land due to rising sea levels and increased evapotranspiration of

irrigation water, and invasive crops and pests. Climate change is reducing crop yields, lowering the quality and nutritional value of key cereals and lowering livestock productivity. At the same time, global agriculture also contributes to climate change, generating 19-29 per cent of total greenhouse gas emissions according to the World Bank.

To make the sector more climate-neutral and help farmers cope with the impacts of climate change, the world must focus on adaptation and mitigation measures that help meet the food needs of a growing global population and enhance its sustainability and resilience to climate-related shocks. UNIDO develops and promotes integrated best post-harvest practices as well as tools and equipment to help smallholders and rural communities increase crop yields and quality, adapt to climatic changes, access new markets, reduce their environmental footprint, and consequently increase and diversify their income to drive economic growth.

Like many countries in West Africa, Senegal's agricultural sector is increasingly affected by climate-related shocks including erratic rainfall patterns and salinization of agricultural land, reducing crop yields and increasing food insecurity. To meet the food needs of a growing population, the sector, which makes up 60 per cent of the country's workforce, must develop sustainable production patterns that can adapt to and mitigate the impacts of climate change.

The Agricultural Value Chain Resilience Support Project, funded by GEF and implemented by UNIDO in partnership with

IFAD, increased the sustainability and resilience of small-scale agriculture and value chains to strengthen food security, increase incomes of smallholder farmers, and create employment for rural populations, particularly youth and women. The project's activities focused on climate change mitigation and adaptation measures, including improved water catchment facilities, sustainable land management, renewable energy, improved storage and processing techniques for food crops and products, capacity-building of smallholders, awareness-raising on climate risk reduction, monitoring of climate data, and sharing best practices.

The project helped nearly 5,000 households improve their livelihoods and contributed to innovative adaptation measures including the installation of 20 processing units for cereal and dairy products, 12 solar pumping stations for irrigation and 10 biomethanation units, which convert organic waste to manure or biogas. The project rehabilitated

substantial areas of land and mangrove forest, which helped it to exceed its CO<sub>2</sub> emission reduction targets and revitalized the oyster and beekeeping industries dependent on the coastal trees.

Bana Diouf, president of Mbella Goroum, one of the women's groups funded by the project, says beekeeping and protecting the mangroves increases her finances and helps fund her children's education. "I like beekeeping because it is good for my family and myself", she said. "We then use some of our savings to reforest the mangrove and protect it, because we know we have to take great, great care of it."

A key challenge moving forward is for farmers to use the information from the project's environmental impact monitoring system to continually adapt their farming techniques so they can continue to build resilience, maximize their crop yields and value addition, and mitigate the impact of climate-related shocks in the long term.

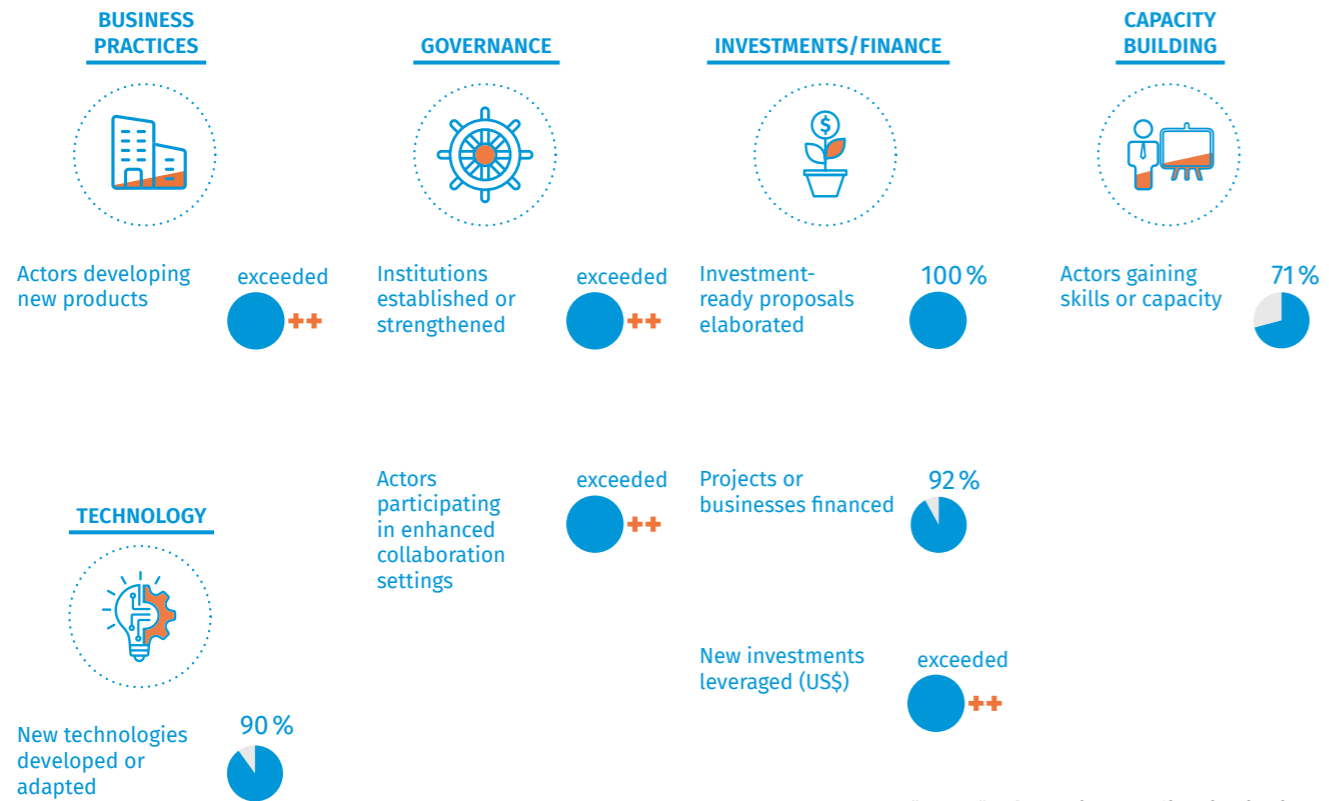


*I like beekeeping because it is good for my family and myself. We then use some of our savings to reforest the mangrove and protect it, because we know we have to take great, great care of it."*

Bana Diouf, president of Mbella Goroum



## PROGRAMME AND BUDGETS TARGETS: STATUS AT THE END OF 2022



"Actors" refers to intermediary institutions.

# 2.

## Scaling up to build a resilient industrial ecosystem



## INTRODUCTION

UNIDO helps networks for small businesses to efficiently deliver their products and grow. The Organization engages with stakeholders to trigger needed changes in business practices, technology, investment, governance, standards and policies. This helps create the infrastructure and sustainable supply chains needed to facilitate trade and provide access and fair deals to developing country producers. Collaboration among enterprises, public and private organizations, consumers and governments helps businesses and entrepreneurs to innovate, mobilize investments and access new markets. This interlinked system contributes to meeting global goals, such as the 2030 Agenda for Sustainable Development and the Paris Agreement on climate change.

## TRANSFORMING BEHAVIOUR TO ADVANCE SHARED PROSPERITY



An industrial ecosystem comprises all players in the value chain, including supply chain entities, service providers, business and industry associations, public and private institutions, chambers of commerce, financial institutions, academia and think tanks, and research and training centres. All these sectors and firms are interlinked, providing crucial products and services, ensuring coordination between businesses and the public sector, enabling the flow of knowledge and resources,

certifying adherence to standards and technical regulations, and facilitating innovation. Together, they form the ecosystem that is vital for businesses to prosper and innovate, for value chains to thrive, and for industry to transition towards inclusive and sustainable practices.

UNIDO works to build the capacity and resilience of the players in the industrial ecosystem, fostering greater linkages between the productive sector, policymakers and the research community. Bringing all stakeholders together encourages sharing of knowledge and best practices, which stimulates innovation and the scale-up of successful approaches and infrastructure to ensure no one is left behind, particularly women, youth and marginalized groups.

## Connecting agribusinesses

Effective partnerships are particularly important in the agribusiness sector. In many low- and middle-income countries, agricultural activities are small in scale and not connected. Without connections to other regions to learn of innovations or networks to share best practices, inefficient methods continue and successful interventions remain limited to individual producers or regions.

UNIDO works to create these connections, bringing together public and private partners and supporting the development of regional, subnational and local strategies. The Organization focuses on developing local knowledge and specific skills to manage natural resources and agribusinesses, particularly in the face of a changing climate. As women and youth make up a significant part of the agribusiness sector, UNIDO helps these disadvantaged groups in particular to create entrepreneurial strategies.

In Morocco, the agricultural sector is highly vulnerable to climate change, with increasing droughts, rising temperatures and changing rainfall patterns affecting agricultural and livestock productivity. To survive, rural communities must continually innovate and adapt, and share best practices and lessons learned across the country in real time.

Funded by the Agricultural Development Agency of Morocco and in partnership with



IFAD, UNIDO strengthened the capacity of rural populations in the mountainous areas of Azilal and Sefrou to increase and diversify their incomes and build resilience to climate change. The project supports the country's national development priorities, particularly farmers at risk, who make up pillar 2 of the *Plan Maroc Vert* (Plan for a Green Morocco).

The project reduced post-harvest losses, optimized the use of water and energy, and enhanced and diversified agricultural production to make it more resistant to climate-related shocks. UNIDO worked with the *Coopérative agricole des producteurs agricoles*, an agriculture organization in Ait Bouguemez, to acquire apple juice and

apple vinegar equipment to promote the existing production of apples in Azilal. The cooperative's 73 members have access to the facilities, and members received training on how to operate and maintain the machinery and meet the quality standards required in the value chain. To address water shortages and irrigation issues, UNIDO equipped and installed two smart weather stations linked to two agronomic stations, enabling rural communities to access national atmospheric data that can help them plan and adapt their farming techniques to a changing climate.

### Multilevel partnerships for digitalization

Thriving industrial ecosystems need impact-driven partnerships that bring together actors at the corporate, institutional and political levels. Multilevel partnerships gather expertise from all players in an industrial ecosystem: from individual contributors like entrepreneurs and consultants; from mid-level partners such as firms, academic institutions, NGOs and chambers of commerce; and from top-level stakeholders like regional or national governments and agencies. UNIDO helps Member States empower all stakeholders in the industrial ecosystem to build dynamic networks at the local, country and regional levels to disseminate knowledge and best practices, accelerate innovation, connect to global value chains, and mobilize public and private investments.

As in many countries, Jordan's productive sector is not creating enough jobs for the

60,000 young people who enter the labour market annually or providing new economic opportunities for women. The COVID-19 pandemic exacerbated these challenges, but it also offered opportunities. Companies that took advantage of e-commerce, digital infrastructures and global platforms dramatically increased their outreach in sourcing and selling, and their access to global value chains and markets.

The LevelUP Accelerator programme built on this experience, aiming to help women and youth innovators access global markets and fundraising opportunities, grow their businesses, and create job opportunities. Funded by the Italian Agency for Development Cooperation, the project focused on three manufacturing value chains: the fashion, natural cosmetic and phytopharmaceutical – that is, herbal medicine – sectors. The initiative identified women and youth innovators and entrepreneurs hoping to create a new start-up or already running high-potential SMEs and encouraged them to integrate digitalization into their business models. To do this, the project created a multilevel network of industry experts, NGOs, foundations, innovation hubs, incubation programmes, youth and women's business associations, chambers of commerce, and public and private organizations.

Participants from more than 350 firms and start-ups, including women and youth entrepreneurs, gained new skills through the project. Entrepreneurs in the incubation phase learned how to develop bankable business plans and pitch decks, creating 27 investment-ready proposals. Fifteen existing SMEs, 86 per cent of which



*In partnership with UNIDO, we've designed a seven-month learning and acceleration programme to help Jordanian entrepreneurs build world class businesses that will create jobs and contribute to the diversification of the Jordanian economy."*

Karim Samra, founder and CEO, Changelabs



were run by women, scaled up their activities, and 30 per cent of those were declared of "high interest" by a venture capital fund.

"In partnership with UNIDO, we've designed a seven-month learning and acceleration programme to help Jordanian entrepreneurs build world class businesses that will create jobs and contribute to the diversification of the Jordanian economy", said Karim Samra, founder and CEO at Changelabs, part of the LevelUP network.

The LevelUP Accelerator trained a global community of mentors and shared the lessons learned from the Jordan project, making it a successful model that could be replicated and scaled up in other countries.

### Public-private partnerships

Public-private partnerships based on a shared vision of sustainable development are key to advancing prosperity for all and

achieving the Sustainable Development Goals by 2030. By combining the technical know-how, expertise and financing of the private sector with the regulatory and coordination authority of the public sector, these partnerships can improve quality and productivity along the value chain, create new market opportunities for products and services, and develop the enabling environment needed for industries to thrive.

Coffee is Ethiopia's largest export product, with more than 20 million people involved in its production and trade. However, the lack of technical knowledge, prevalence of traditional farm management systems, and absence of unified quality standards have hampered production and negatively affected coffee quality. Beans that should have been exported at a high price were instead sold for a low price in the local market.

In a project financed by the Italian Agency for Cooperation and Development, UNIDO brought the Ethiopia Coffee and Tea Authority, the government agency

responsible for regulating coffee exports, together with illycaffè, a leading global coffee company, and the Ernesto Illy Foundation to increase the quality and the sustainability of the entire coffee value chain in Ethiopia.

The project assisted small producers and cooperatives to adopt Good Agricultural Practices, a set of international standards for the safe and sustainable production of crops and livestock. It helped farmers increase yields and improve quality by facilitating the transfer of technical skills, using agricultural equipment that optimizes the post-harvest process, building infrastructure that improves quality during the coffee washing phases, establishing quality control laboratories, and implementing modern marketing techniques.

At the meso level, the project created the Coffee Training Center, housed in the premises of the Ethiopian Coffee and Tea Authority in Addis Ababa, to address the shortage of specialized workers. Modelled on illycaffè's Università del Caffè, the centre provides training and serves as a platform for knowledge and technology

transfer for all workers in the coffee value chain, from field agronomists to coffee cuppers and roasters. The initiative has significantly increased the focus on quality of the coffee that Ethiopia now exports to global consumers.

“Now we know the value of our coffee. Thanks to UNIDO, we are aware that it is worth much more and is more appreciated. Now we can expand our opportunities as farmers, as a cooperative, and as a community”, said Shamsiya Korte, who manages her family coffee farm and is serving as vice-chair of a cooperative in Delo Mena, Oromia region. After participating in the project, her annual average income increased by 7.6 per cent.

More than 30,000 small coffee farmers like Korte have also benefited from the project's technical assistance, increasing both the quantity and quality of their products and generating higher incomes: output rose by 43 per cent, and 80 per cent of target beneficiaries produced coffee which has been cupped from Grade 3 and above, fetching a higher price.

**“Now we know the value of our coffee. Thanks to UNIDO, we are aware that it is worth much more and is more appreciated. Now we can expand our opportunities as farmers, as a cooperative, and as a community.”**

Shamsiya Korte, coffee farmer and cooperative vice-chair



## TRANSFORMING BEHAVIOUR TO ADVANCE ECONOMIC COMPETITIVENESS

In low- and middle-income countries, the private sector mainly consists of MSMEs that generate a large share of employment and income opportunities. Often, however, their development potential remains untapped, as firms operate in isolation, follow uncompetitive production models and lack the connections to dynamic business partners that could bring in new expertise. UNIDO seeks to boost the development of a competitive private sector and contribute to poverty reduction by building sustainable linkages between MSMEs, their larger-scale business partners, and support institutions, such as universities and research institutes, business associations and financial organizations.

By creating partnerships across multiple sectors, MSMEs increase their competitiveness through economies of scale, the use of shared services such as industrial parks, and access to new sources of training, expertise and knowledge platforms. Partnerships also open doors for marginalized groups, particularly women, youth and people in conflict-affected communities, to participate in economic activities on fairer terms.

### Digitalization and innovation clusters

UNIDO works to strengthen national and regional quality infrastructure institutions, such as industrial parks and shared facilities, to contribute to a better business environment for MSMEs. The Organization

cooperates with governments and certification bodies to advance best practices in standard-setting and harmonization; accreditation of conformity assessment agencies; scientific, legal and industrial metrology; and services for conformity assessment and market surveillance. All these elements contribute to protecting consumers, workers and the environment. UNIDO also engages with business support organizations that enable groups, or “clusters”, of MSMEs to take advantage of common facilities and services to increase their competitiveness and economies of scale.

As the world emerges from the COVID-19 pandemic, it is increasingly clear that building strong, innovative national health sectors is a global priority. UNIDO, together with the Slovene Enterprise Fund (SEF) and BioCubaFarma, created the Slovenian-Cuban innovation cluster in the biopharma and medical sectors to advance the technologies of the Fourth Industrial Revolution, increase economic growth, and contribute to overall health and well-being in both countries. The cluster already includes 26 Slovenian and Cuban companies and institutions, and has developed its own business model, definition of services and areas of action, members and roles. The project fostered technology transfer and collaboration opportunities in three priority areas: projects related to COVID-19, the application of Fourth Industrial Revolution technologies, and the biotech and medical industries.

“

*Together with UNIDO we are able to create valuable international partnerships among policymakers and research and knowledge-based institutions and companies to empower SMEs and promote investment and technology. The Slovenian-Cuban biotech cluster is already one of them.”*

Maja Tomanič-Vidovič, Director, SEF



Study tours in Cuba and Slovenia enabled companies and institutions to exchange knowledge, best practices and innovations. Training programmes, seminars and workshops on innovative business models and market trends in the sector helped companies improve business practices and competitiveness. Using the UNIDO Computer Model for Feasibility Analysis and Reporting tool (COMFAR), the cluster identified selected prioritized projects to create investor-ready proposals.

The initiative developed a portfolio of 39 innovative projects and identified collaboration opportunities, such as a new data analysis system to accelerate research and development and clinical trials, the exploration of new vaccine technologies, and promising treatments for cancer and Alzheimer's. The UNIDO project, funded by the Government of Slovenia and SEF, aims to serve as a model for further interregional cooperation that could be

replicated in other countries in Latin America and the Caribbean and south-eastern Europe.

“Together with UNIDO we are able to create valuable international partnerships among policymakers and research and knowledge-based institutions and companies to empower SMEs and promote investment and technology. The Slovenian-Cuban biotech cluster is already one of them”, said Maja Tomanič-Vidovič, Director of SEF.

### Investment and technology networks

UNIDO links international investors and technology providers to local value chains and SMEs to attract foreign direct investment and support the transfer, use and sharing of new technologies. The global UNIDO Investment and Technology Promotion Office network, for example,



## Progress by innovation

Addressing global challenges in a complex world calls for a rethinking of existing approaches to development cooperation. Technology-enabled innovation is unlocking the potential of novel tools and methods, which is why UNIDO has adopted “progress by innovation” as its motto.

Leveraging technology for human prosperity is key in a world shaped by the digital transformation and AI. To support Member States, UNIDO has established the Division of Digital Transformation and Artificial Intelligence Strategies (DAS). DAS implements technical cooperation projects and disseminates normative products to foster productive transformation with digitalization and AI. This is done by strengthening innovation ecosystems, supporting smart and lean manufacturing, developing local and national plans, assessing digital and AI readiness for firms, and supporting policy capacity design for governments.

Digital transformation is also integrated into UNIDO's work on circular economy, environment, energy transition and agribusiness. When delivering programmes, the Organization considers the development context and regional differences to ensure that digital transformation and AI can be harnessed to achieve higher developmental impact.

To drive discovery, creation and scaling of novel development solutions within the Organization, the flagship Innovation Lab was created in 2022. The Lab will work to accelerate the development and adoption of innovations across UNIDO to improve the efficiency and impact of its operations. It promotes collaboration between the Organization's divisions and offers a state-of-the-art platform to engage with Member States, knowledge and innovation communities, and other partners. It provides a space for UNIDO staff and their networks to design, experiment and apply new tools and development approaches. UNIDO will gradually introduce structured programmes to help strengthen a culture of creativity and collaboration across the entire Organization.

continuously expands its pool of corporate partners with Fourth Industrial Revolution expertise to promote the transfer of new technologies to low- and middle-income countries. Through this network, UNIDO is also setting up the first Fourth Industrial Revolution alliance to advance digitalization with leading partners from industries, academia, institutions and non-governmental organizations. The Organization also works with investment promotion agencies to attract and facilitate investment, shift investment promotion to the virtual space to reach more investors, and encourage the use of smart, digital solutions to track and analyse investment-related data.

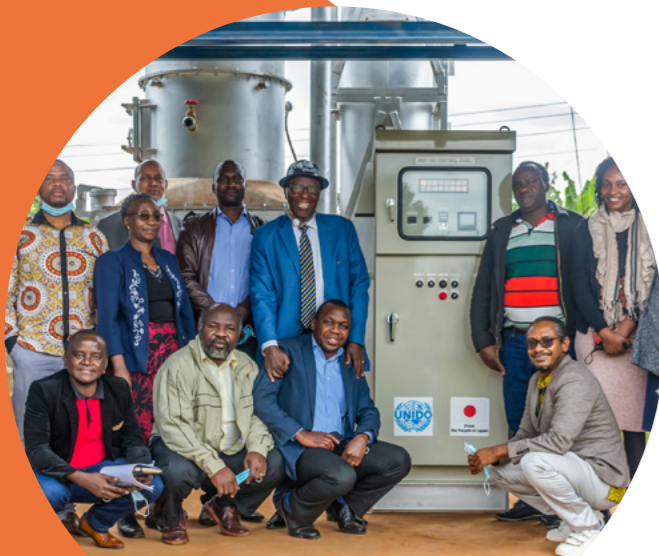
The COVID-19 pandemic revealed massive worldwide inequalities. While high-income countries had access to modern health care facilities, medicines and personal protective equipment like masks and gloves, many low- and middle-income countries lacked

the infrastructure, medical supplies and equipment to confront the pandemic. To strengthen global efforts against COVID-19, UNIDO partnered with 12 Japanese companies to transfer Japanese technologies and provide technical training to 10 countries in Africa and Asia. Funded by the Ministry of Foreign Affairs of Japan and together with the UNIDO Investment and Technology Promotion Office in Tokyo, the demonstration project connected local and national governments, Japanese companies, and health care facilities in each country.

In Kenya, for example, in partnership with Nairobi Metropolitan Services and KINSEI SANGYO Co. Ltd., UNIDO implemented a small-scale gasification incinerator system for medical waste at Mutuini Sub-District Hospital in Nairobi to detoxify hazardous substances that are disposed of at the hospital, thereby protecting medical workers and waste handlers from the risk of secondary infections. Fifty-seven engineers and operators were trained and 75 per cent of the beneficiaries were women.

“Before the incinerator was installed, we accumulated medical waste until we could bring it to another hospital for disposal”, said Josephine Nguri, Medical Superintendent and Clinical Pharmacist at the Mutuini Sub-District Hospital. “The incinerator has changed much of our awareness about waste; more waste segregation is being done now, compared to before.”

Medical waste incinerator to prevent secondary infection with COVID-19 at Mutuini Hospital



In addition to smokeless incinerators for waste disposal, the project provided hospitals and health facilities with training and new technologies such as antibacterial coatings for hospital equipment, improved wastewater management, water purification systems, blood screening machines, and local production facilities for medical-grade disinfectant. By strengthening key medical infrastructure, the project helped to address the gap between high-income and low- and middle-income countries in fighting the pandemic, strengthening the entire global health system. Beyond the COVID-19 pandemic, the improved technology also contributes to better health care overall, and helps countries be better prepared for future health crises.

### Mobilizing investments

To attract investors, countries must create an enabling environment for capital to flow in and reach new markets. With its global reach and vast network of partners, UNIDO has a unique role in helping entrepreneurs, businesses, investment institutions and countries to mobilize investment at all steps in the process, from business planning, feasibility studies and high-quality investment proposals to promotion, partnerships and pro-business policies and legislation.

COMFAR enables MSMEs to both plan and analyse the economic feasibility of a potential project. The Organization supports governments as they create and pass legislation to facilitate investment. UNIDO works with investment promotion

agencies to attract investment, and helps countries and industries to create online investment promotion platforms. This makes it easier for potential investors to search and select investment opportunities – and gives companies a much broader global investment pool. UNIDO also organizes investment and technology forums, investment advisory services, technology exhibitions and investment promotion events.

UNIDO pays particular attention to addressing the huge gender disparity in investments; in emerging markets, only 7 per cent of funds from private equity and venture capital is invested in women-led businesses. UNIDO has developed a publicly accessible online training series on the benefits of investing through a gender lens, to build the capacity and increase sensitization of investors, women entrepreneurs and the wider public towards more inclusive, sustainable and bias-free investments.

In Cuba, there is a crucial need for innovative technologies, skills upgrading and new strategies for national investment, particularly in the local packaging sector. Building on a long-standing collaboration with the Ministry of Foreign Trade and Foreign Investment of Cuba, UNIDO worked with the Government to attract foreign investment, boost job creation, strengthen industrial competitiveness, and improve the overall business environment and sustainability in the packaging sector of the agro-food industry. Funded by the Italian Agency for Development Cooperation and supported by the UNIDO Investment and Technology Promotion Office in Italy, the project organized

“*Becoming a WPO member is a great opportunity for the CNEE to access relevant information, training, specialized technical advice and the assimilation of new technological and productive know-how, to optimize management and local industrial development in Cuba.*”

Yamilín González Milián, Deputy Minister, Cuban Ministry of Industries

training, study tours and workshops that strengthened the skills and managerial capabilities of entrepreneurs, managers, administrators and government staff.

To reduce the time frames necessary to start a business, the project launched VUINEX, the Single Window for Foreign Investment web platform. UNIDO also trained 20 members of the Cuban Government on COMFAR to improve the quality and consistency of investment proposals and help entrepreneurs create and expand their businesses and attract new investors. The Government will introduce COMFAR in every province to facilitate the evaluation of investment proposals. To strengthen industry compliance with international standards,

UNIDO acquired laboratory and measuring equipment for the National Packaging Center of Cuba (CNEE).

As a sign of the Government’s commitment to continuous improvement in the sector, Cuba became a member of the World Packaging Organisation (WPO) in 2022.

“Becoming a WPO member is a great opportunity for the CNEE to access relevant information, training, specialized technical advice and the assimilation of new technological and productive know-how, to optimize management and local industrial development in Cuba”, said Yamilín González Milián, Deputy Minister of the Cuban Ministry of Industries.

## TRANSFORMING BEHAVIOUR TO ADVANCE ENVIRONMENTALLY SUSTAINABLE INDUSTRIES

Climate change is a global challenge requiring urgent action. At the same time, the global demand for energy and resources continues to increase, especially in low- and middle-income countries with growing economies and industrial sectors. Achieving the Paris Agreement goal of

limiting global warming to below 2°C calls for the rapid development, deployment and adoption of innovative solutions at a scale and pace that will bring about transformational change without compromising economic and industrial development.

## Cleantech and energy efficiency

As low- and middle-income countries pursue their industrial growth targets, UNIDO helps them to develop industry and services that rely on resilient infrastructure, sustainable supply chains and low-energy systems. The UNIDO global Cleantech programme, for example, helps SMEs and entrepreneurs to develop cutting-edge solutions to environmental challenges. UNIDO develops and strengthens eco-industrial parks that promote environmentally sustainable solutions and practices, foster the exchange of ideas, and accelerate the pace and scale-up of innovation.

In Senegal, for example, promoting sustainable change supports the country’s commitment to a sustainable, low-carbon path to industrialization. Senegal has abundant solar, wind and bioenergy potential, yet it remains largely dependent on costly imported oil and diesel. Introducing and scaling up renewable energy and energy-efficient solutions and implementing the principles of a circular economy will enable the country’s industries to expand while ushering in a more sustainable path to economic growth and reducing greenhouse gas emissions.

The Senegal Sustainable Cities project, supported by GEF, promotes renewable energy, energy efficiency and integrated waste management in Dakar and the Diamniadio industrial park. The project successfully developed 10 pilot projects that achieved 2 MW of installed renewable energy systems and 56,000 MWh of energy savings, and avoided 5.5 mg toxic equivalent quantity of POPs and 35,000 tons of CO<sub>2</sub>.



Solar panels installed at Eiffage Sénégal

Through the project’s extensive technical assistance programme, government officials, plant managers, engineers and industry experts gained insights into how green technologies can increase energy security and reduce financial and environmental costs. At the same time, the project equipped them with the expertise, tools, business models and best practices to take such projects forward and scale them up across Senegal.

As one of the 10 pilot projects, concrete producer Eiffage Sénégal installed 84 solar panels on the plant’s roof. Now 30 per cent of the energy needed to power the plant is renewable, saving 1,385 kg of carbon emissions every month. The plant also installed equipment to recycle any leftover concrete when a construction project finishes.

“These are things we have wanted to do, but perhaps it would have taken us 5 or 10 years to get there”, said Missira Keita, Head of Sustainability at Eiffage Sénégal. “Our vision is to take this experience, then do it on another site, even in another country. It has really enhanced our way of thinking about low-carbon equipment. And because of our position and our influence, we can pass these benefits on.”

### Innovative sustainable technologies

UNIDO helps companies access the finance, expertise and technology needed to shift away from a resource- and energy-inefficient linear economy towards a circular, closed loop economy – where

resources remain within the industrial ecosystem and are continually reintegrated along the value chain. UNIDO works with all stakeholders in an industrial ecosystem not only to create and scale up environmentally sustainable solutions and innovations, but also to help the public, producers and users to accept and adopt the new technologies.

In the transportation sector, the use of electric vehicles helps countries to meet their climate targets. China’s automobile market – the world’s largest – is a significant driver of growing petroleum consumption, greenhouse gas emissions and poor air quality. While the use of electric vehicles is increasing, they are still powered by grid electricity that is largely based on fossil fuels, predominantly coal. Increasing the use of electric vehicles powered by renewable energy is a key component of mitigating climate change and improving the overall health and well-being of communities in China. It also creates new jobs and business opportunities.

With funding from the Global Environment Facility, and supported by the Government of China, UNIDO set up low-carbon urban transportation demonstration zones in Shanghai and Qingdao. The project integrated electric vehicles and renewably sourced electricity, developed technical regulations and policies, piloted and built charging infrastructure, and raised public and industry awareness of the feasibility and benefits of the new technology.

To make this work, UNIDO created a supportive industrial ecosystem made up of multiple stakeholders, many of which had never collaborated before: municipal and national government agencies; the transport and energy sectors; private sector manufacturers of vehicles, batteries and charging stations; and consumers.

For new technologies to be adopted, they must be easily accessible for producers and consumers. To address consumers’ concerns about where to charge the cars, the project built enough charging stations. Awareness campaigns and demonstration projects in the major cities of Shanghai and Qingdao showed the public that the system works. Nine other cities followed, preparing demonstration projects of their own. To address private sector concerns about sustainability and profitability, the Government adopted new policies in support of the industry and incentives for getting involved. To ensure government officials and industry experts fully understand the new technology and have the skills needed to transform the sector, UNIDO hosted training courses, workshops and webinars.

The project significantly exceeded its targets and is already being expanded into other regions. More than 2.1 million tons of direct and indirect greenhouse gas emissions were avoided, 2,331 per cent above target; and 2.7 million MWh of energy was saved, 3,780 per cent above target. The co-financing targets for the project, initially set at 5:1 (raising an additional \$5 for every \$1 of GEF financing) reached an impressive ratio of 19:1.

Building an industrial ecosystem where all partners understand the benefits of shifting to sustainable energy, and have the skills to do so, is critical to expanding successful projects like these. While the project was a success, the lessons learned highlighted the need to keep pushing forward to make lasting change, by further strengthening institutional capacities and coordination between stakeholders, and building widespread support for, and use of, electric vehicles powered by renewable energy.

### Advancing the green economy

Achieving the Sustainable Development Goals and the goals of the Paris Agreement requires unprecedented economic and industrial transformation driven by innovation and investments that deliver global sustainability solutions. UNIDO brings together businesses, governments and consumers to promote the principles of a circular economy. This includes creating a greener production chain, encouraging products to be used longer and be built to last longer, and improving the handling of materials when the products can no longer be reused or repurposed.

UNIDO supports the establishment of reclaim centres and treatment facilities for handling refrigerants and other chemicals, both during service and at end-of-life, including recovery and reuse. Together with GEF, the UNIDO Greenchem programme helps academia and the private sector in a number of countries



| New energy vehicles in China



to scale up green chemistry to replace POPs, mercury and microplastics by promoting innovation, building the capacity and skills of industry experts, and creating a global green chemistry network.

Introducing these initiatives at scale requires global reach and strong collaboration across a diverse range of partners. Through the Partnership for Action on Green Economy (PAGE), UNIDO partnered with ILO, UNDP, UNEP and UNITAR to support countries and regions in reframing economic policies and practices around sustainability. The initiative works at micro, meso and macro levels, and includes training and knowledge transfer at the firm and worker level, creating strategic alliances among multiple stakeholders to conduct studies and fund innovative solutions to sustainability challenges, and working with governments to develop and implement green policies.

Since PAGE was established in 2013, it has grown into a prominent alliance of five United Nations agencies, eight funding partners, 22 countries, and 256 partners from institutions, government ministries, civil society and the private sector. Together, the partnership has created new inter-agency green economy mechanisms and strategies, and strengthened national capacities to finance and implement them.

In Uruguay, for example, where UNIDO had already been promoting circular economy activities through the annual National Circular Economy Awards, PAGE set up a Research and Innovation Fund for the Circular Economy. The fund promotes research and innovative circular economy practices to find solutions to improve production processes across multiple sectors and strengthen the resilience of food value chains. Examples of ongoing projects include applying Fourth Industrial

Revolution technologies to address waste management in the construction sector, improving circular economy practices in the recovery and purification of lactose from whey, and development of an AI system to produce personal care products without plastic packaging.

“We identified circular economy and the generation of green employment as tools that have to be put in place for the activation of economic activity... We think that this is a good situation for a country that relies very much still on primary production in agriculture and agroindustry”, said Omar Paganini, Uruguay Minister of Industry, Energy and Mining.

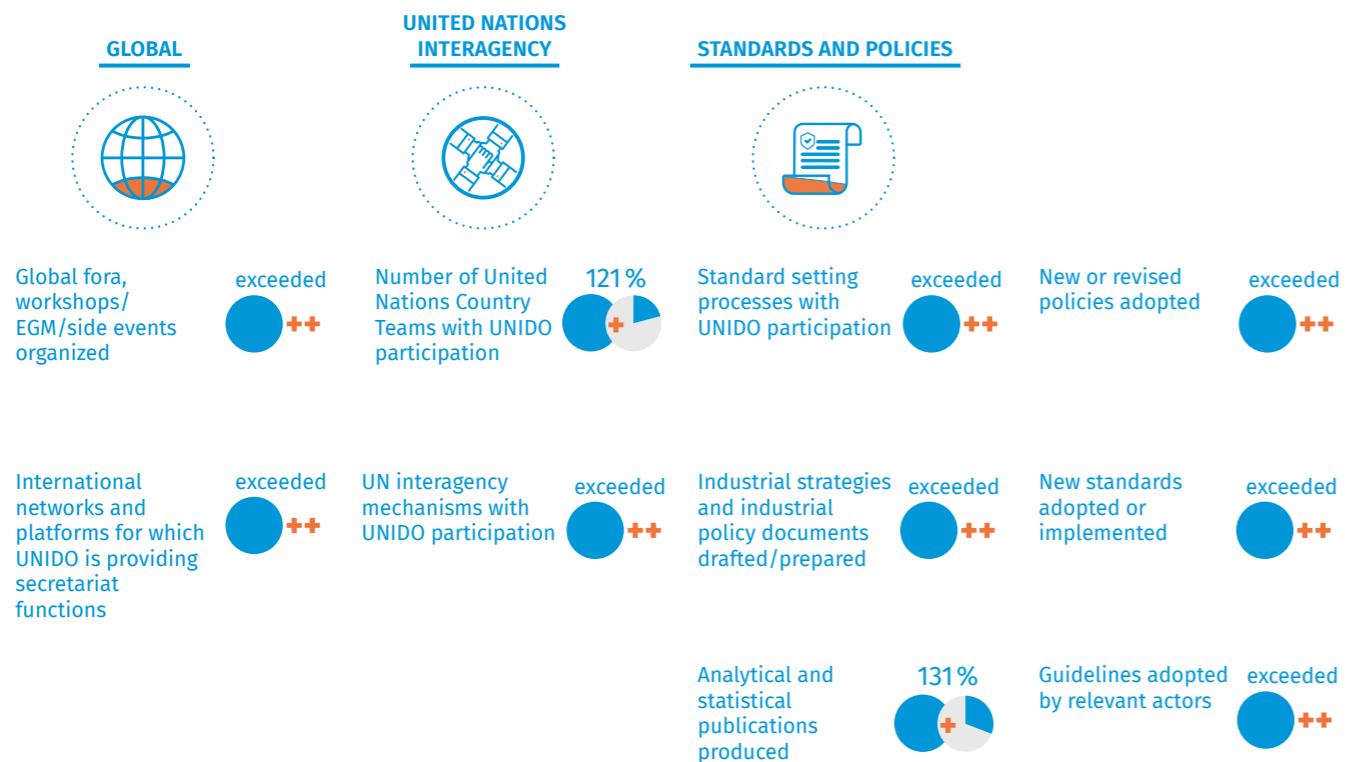
PAGE has led to concrete change throughout its global partnership. Through integrated technical advice, analysis and training, PAGE has helped 16 countries create and implement 97 policies that promote green economic activities. Sixty-five countries have requested to become part of the PAGE network, highlighting the global desire for a transition to a greener economy – and the need for technical support and partnerships to make it happen.

“

***We identified circular economy and the generation of green employment as tools that have to be put in place for the activation of economic activity... We think that this is a good situation for a country that relies very much still on primary production in agriculture and agroindustry.”***

Omar Paganini, Uruguay Minister of Industry, Energy and Mining

**PROGRAMME AND BUDGETS TARGETS: STATUS AT THE END OF 2022**



"Actors" refers to government bodies and global actors.

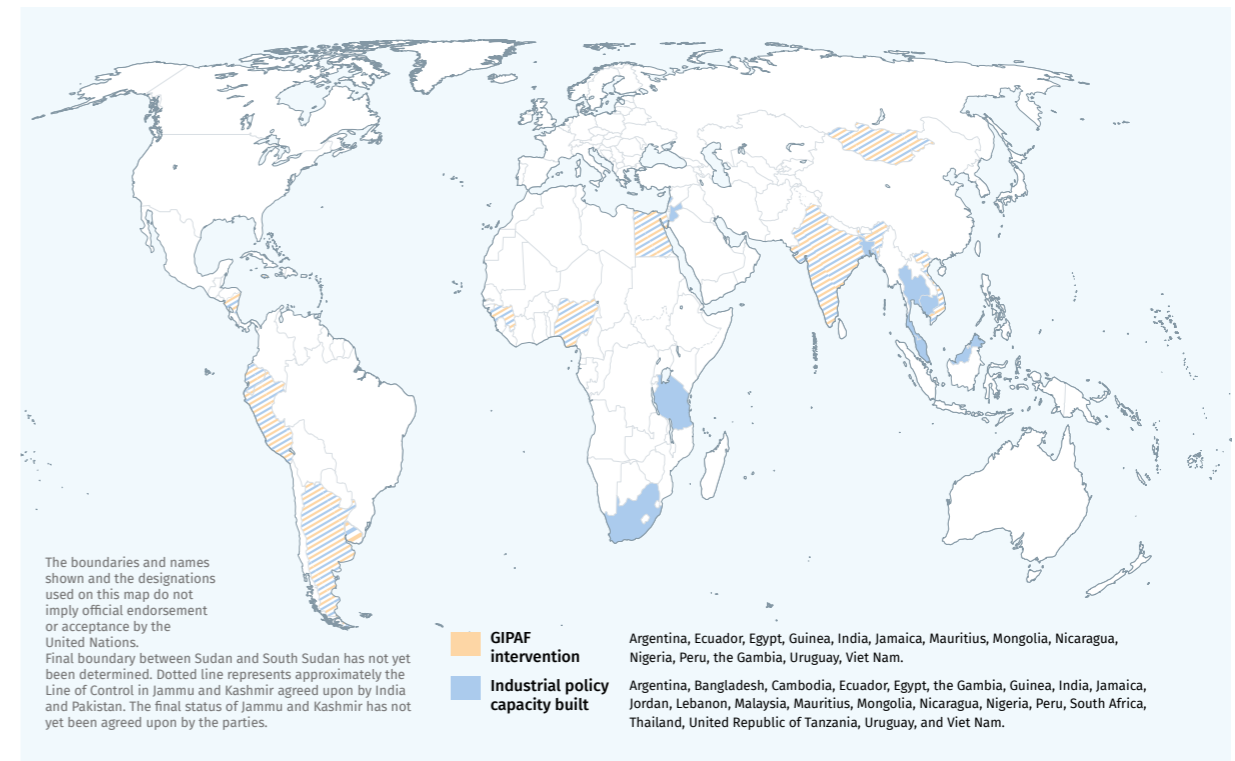
# 3.

## Accelerating the common agenda: inclusive and sustainable industrial development in the global, regional and national policy agendas



## INTRODUCTION

Developing sustainable industrial capacity requires evidenced-based policies, strategies and norms that support industrial growth and resilience. UNIDO works with local and national governments to develop and update industrial policies that drive sustainable economic transformation and growth. At the same time, work continues at the global and regional levels advocating for inclusive and sustainable industrialization in development strategies and policies.



## CAPACITY DEVELOPMENT AND INDUSTRIAL POLICY ADVICE

UNIDO helps Member States to strengthen their capacity to develop policies that build strong industrial systems. This is done through advice and collaboration with many organizations, institutes and academic institutions.

Two major projects with the German development agency GIZ are expanding this support. The toolkit Enhancing the Quality of Industrial Policies, called EQUiP, was revamped in 2022. It now supports all low- and middle-income countries, and a new cadre of EQUiP trainers and policy facilitators were certified to meet the capacity-building demand.

To address the large number of Member States' requests for short-term and small-scale policy support, the Global

Industrial Policy Advice Facility (GIPAF) was set up as a pilot, funded by Germany, to enhance policy analysis and development capacities, as well as improving the effectiveness of industrial policies. UNIDO significantly increased its reach, deploying over 19 individual interventions in 16 countries. Examples include providing training in value chain and competitiveness in Ecuador and Nicaragua and on productivity, trade and digitalization in Mauritius, and reviewing state industrial policies in Nigeria.

Through training courses and webinars, UNIDO built stakeholders' capacity to develop manufacturing policies in agribusiness, textiles, the auto industry and information and communication technologies (ICT). Collaboration with

governments contributed to the design, revision and implementation of industrial strategies and policies, and developed the capacity of the Central Asia Regional Economic Cooperation (CAREC) Program for industrial policy in its 11 partner countries in Central Asia, as well as in 22 other countries.

Other engagements include a collaboration between UNIDO and UN Women, resulting in an updated guide, *Gender equality in the sustainable energy transition*. Research findings and case studies illustrate practical measures to ensure that women and men equally lead, participate in and benefit from this transition. Partnership with the OECD on a policy report series, *Productivity Transformation and Policy Review*, has expanded beyond

middle-income countries to least developed countries. The policy series provided tailored policy documents for Bangladesh and Togo to address their specific industrial development needs.

Motivated by the UNIDO motto, "Progress by innovation", the Organization will further develop innovative ways to help Member States to strengthen their industrial policymaking capacity. Work is under way to establish the Multilateral Industrial Policy Forum. This Forum will support policy dialogues and the sharing and mutual learning among stakeholders on industrial policy matters, with a focus on digitalization, energy and environment.

## DATA DRIVING INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT

UNIDO produces and disseminates global industrial statistics products to help Member States monitor short- and long-term patterns of industrial performance. This includes tracking the post-pandemic recovery of industrial production and the impacts of other external shocks. Monthly and quarterly data covering more than 100 economies were regularly disseminated through *World Manufacturing Production* reports and electronic databases, providing timely statistical evidence that can help track dynamic industrial production changes. Starting in 2022, all UNIDO statistical databases were distributed free of charge, following the open data policy. UNIDO led an inter-agency group on nowcasting and forecasting, and held a virtual international workshop on nowcasting methodologies focusing on the SDG indicators.

The *International Yearbook on Industrial Statistics 2022* was released in a new format, making it available to a wider audience in a way that is both informative and engaging. The revamped *Yearbook* presents the latest trends in industrial sectors around the world. It includes a comprehensive account of the impact of the COVID-19 pandemic in different regions and industries and the subsequent recovery. The thematic chapter of the 2022 *Yearbook* focused on the state of structural transformation and industrial development in least developed countries, calling for better industrial statistics as the main

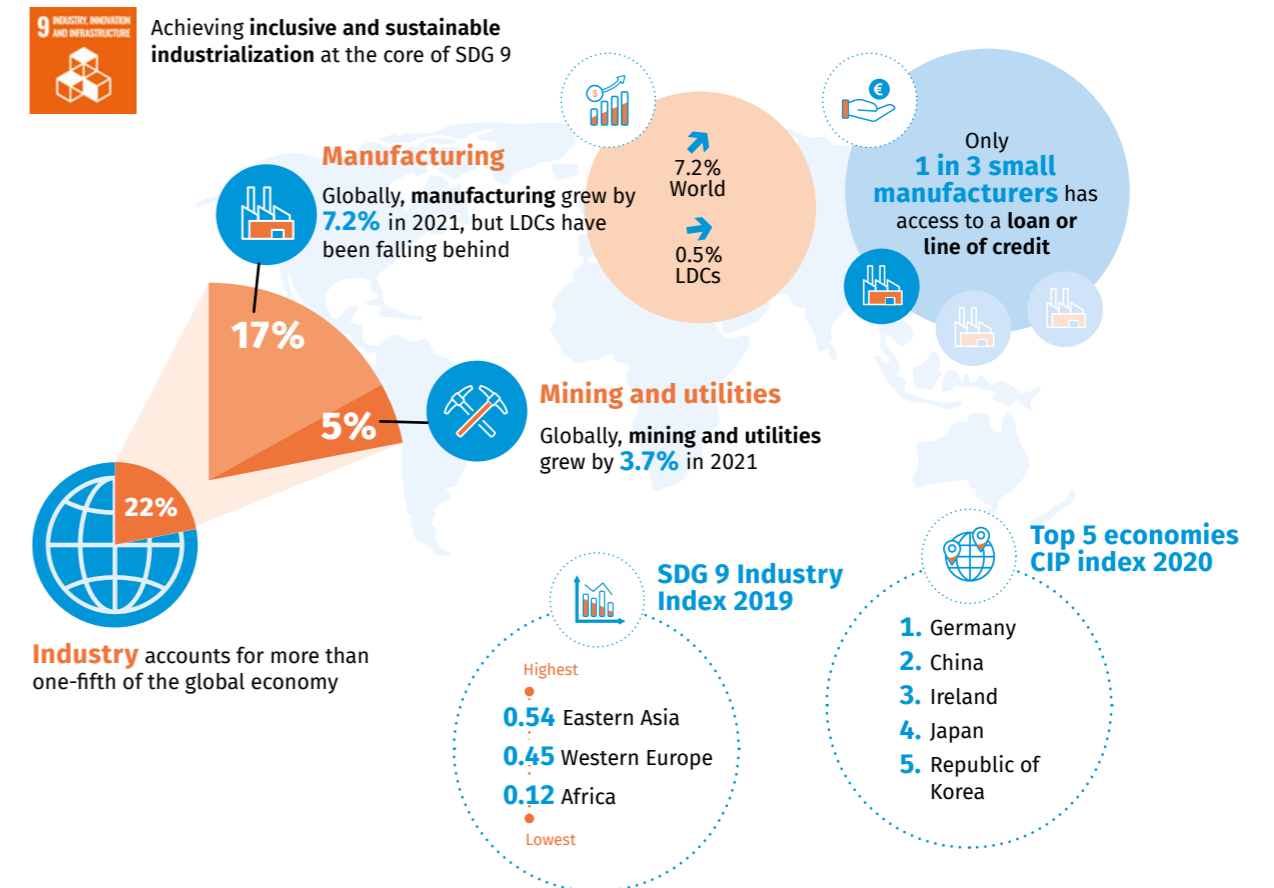
source of evidence for guiding their industrial policy and progress towards SDG 9. All insights were presented through dashboards, visualizations and concise analysis, including its statistical databases, Competitive Industrial Performance (CIP) Index and SDG 9 Progress Indicators.

UNIDO provided data and narratives for the Secretary-General's 2022 reports on progress towards the SDGs, the Sustainable Development Goals Report and Progress Chart. The Organization also supported Member States with the SDG-9 Industry Tracker, a data-driven tool that tracks performance and progress on SDG-9 industry-related targets and indicators. A regional progress analysis was published to support the implementation of SDG-9 in Latin America and the Caribbean, while collaborative activities were undertaken with several United Nations economic commissions.

UNIDO continued to work closely with Member States to develop their capacities in the area of industrial statistics. In the medium term, this support should result in a closer alignment with international guidelines and recommendations. In addition to ongoing projects in Cambodia, Jordan and Members of the Commonwealth of Independent States, UNIDO started a new statistical project in 2022 with the Ministry of Industry and Advanced Technology of the United Arab Emirates and the Gulf Organization for Industrial Consulting.

## GLOBAL INDUSTRIAL STATISTICS

### Key figures



## REPORTING TO THE HIGH-LEVEL POLITICAL FORUM

The 2022 United Nations High-Level Political Forum on Sustainable Development (HLPF) focused on how recovery policies can reverse the negative impact of the COVID-19 pandemic and other crises while advancing the implementation of the 2030 Agenda for Sustainable Development.

The UNIDO Industrial Development Board prepared an input document from the

perspective of inclusive and sustainable industrial development (SDG 9) to support this year's review of the following SDGs: 4, 5, 14, 15, and 17. The document assessed challenges and opportunities, and recommended actions and policies that support the principle of leaving no one behind. It acknowledges the Decade of Action and Our Common Agenda as means to trigger the required transformation towards economies with sound and

efficient resource management that would be more resilient to future pandemics, climate change impacts and other global challenges. It calls for people-centred green investments, promoting economic revitalization and quality education, and the creation of new skilled jobs and quality infrastructure, taking into account the role of women and youth as agents of change.

During the HLPF in July 2022, UNIDO also contributed to discussions and side events, including with Austria, Sao Tome and Principe, ITU and WIPO on Advancing Quality Education for Economic and Digital Transformation in the 21st Century and with UN DESA and the international network on gender and sustainable energy ENERGIA titled Interlinkages Between SDG 5 and SDG 7: Closing Gender Data Gaps to Inform Energy Decision Making.



HLPF2022 in New York  
Photo: IISD/ENB | Kiara Worth

## SUPPORTING THE STRENGTHENING OF THE UNITED NATIONS DEVELOPMENT SYSTEM

UNIDO remains committed to strengthening the United Nations development system and continues to support the reform initiated through General Assembly resolution 72/279 for a more cohesive collaboration among development partners to advance the SDGs. The Organization continued to contribute as a member of the United Nations Sustainable Development Group and other inter-agency coordination mechanisms. At the country level, UNIDO supports the analytical functions of United Nations country teams and resident

coordinator offices, particularly in the preparation of common country assessments and United Nations Sustainable Development Cooperation Frameworks, drawing on its various industrial statistical databases, analytical reports and research. UNIDO also continued its strategic engagement with resident coordinators, including through meetings with newly appointed coordinators and meetings of the Director General with resident coordinators during his official visits abroad.



## COP27 and the Global Renewable Hydrogen Forum

At the 2022 annual climate change conference, UNIDO Director General Gerd Müller participated in a High-Level Round Table focused on ways to enhance investments in the field of green hydrogen to confront climate change and activate the role of the private sector. Co-chaired by Abdel Fattah El-Sisi, President of Egypt, and Olaf Scholz, Chancellor of Germany, the event highlighted the need to bundle efforts to advance the development of green hydrogen across the globe.

At this round table, President El-Sisi and Alexander De Croo, Prime Minister of Belgium, announced the launch of the Global Renewable Hydrogen Forum. The Forum is a multi-stakeholder public-private platform to facilitate the use of renewable hydrogen to foster decarbonization of industries and accelerate a just transition, and to identify the best instruments to enable the cross-border trade of renewable hydrogen between countries. It does this by bringing together public authorities, the private sector, port authorities, and intergovernmental organizations. UNIDO is the main partner of the initiative, together with the International Renewable Energy Agency (IRENA), the Hydrogen Council and the Green Climate Fund.



UNIDO Director General Müller at COP27 and the Green Renewable Hydrogen Forum

UNIDO also hosted an event, Future Energy – Green Hydrogen, with the COP27 Presidency and international partners that brought together 200 important stakeholders and opinion leaders to address the potential of green hydrogen to drive low-emission industrial development and decarbonization. Moderated talks supported by multimedia, live performances and audience interaction provided an overview of the history of energy development and its impact on the African continent, and reinforced the necessity for all groups to work together.

## THE G20 AND BRICS: ENGAGING IN GLOBAL GOVERNANCE FOR THE FUTURE

Under the presidency of Indonesia, UNIDO maintained a strong engagement with the G20, providing expertise in multiple working groups and ministerial meetings as an officially recognized knowledge partner. The Organization played a prominent role supporting the presidency in advancing deliberations on industry-related matters, notably in the trade, investment and industry working group, whose ministerial meeting was also attended by the Director General, Gerd Müller. The Indonesian G20 presidency concluded with a leaders' declaration, which expressed an interest in continuing to address industry-related issues in the broader G20 process, including discussions on policy coherence between trade, investment and industry.

UNIDO provided policy recommendations for G20 discussions on the environment, with perspectives on energy transition and resource-efficient and cleaner production, as well as inputs on strengthening the recovery and resilience of MSMEs and on the Green and Blue Economy. The leaders' declaration also committed to promoting investment in sustainable infrastructure, industry and innovative technologies to support clean energy transitions. UNIDO also worked with Think20 (T20), a G20 engagement group, in the area of trade, investment and growth.

The BRICS Forum on Development of Industrial Internet and Digital Manufacturing was held in Xiamen, China to focus on the opportunities and

challenges of digital transformation in manufacturing industry. In his keynote speech, the Director General highlighted the UNIDO role as a platform for technology and knowledge transfer, and pledged ongoing commitment to supporting BRICS countries in their digitalization and industrialization priorities. At the Twelfth Meeting of the BRICS Trade Ministers, the Director General highlighted the role of innovative technologies such as green hydrogen for sustainable industrial development. The Organization also released a requested report to members on policies and pragmatic measures to enhance trade, investment and environmental sustainability through green industrial policies. It highlighted the idea that “decoupling” growth from environmental degradation is possible through a carefully assessed set of policies, and can be a key strategy for the competitiveness of the BRICS.

As UNIDO continues through its organizational transformation, consultations are ongoing with BRICS Members to arrange bilateral strategic dialogues in 2023 to review and enhance the current partnerships and seek new areas of cooperation.



## Financing for industrial development

In 2022, UNIDO strengthened its yearly contribution to the *Financing for Sustainable Development Report*, which is jointly prepared by the Inter-agency Task Force on Financing for Development to follow up on the Addis Ababa Action Agenda (AAAA). As an active member of the Task Force since the first report in 2016, UNIDO regularly contributes to various chapters focused on action areas of the AAAA, most notably, the chapter on science, technology and innovation and capacity-building, and the thematic chapters that guide the narrative of the full report each year.

The 2022 ECOSOC Forum on Financing for Development recognized that inclusive and sustainable industrial development is an important source of productive capacity

enhancement and income generation while contributing technological solutions for environmentally sound industrialization. The Forum requested the Task Force to analyse pathways to sustainable industrialization, and how industrial policy, together with public and private finance, can support inclusive and sustainable development. The most recent *Financing for Sustainable Development Report*, to be presented at the eighth ECOSOC Forum on Financing for Development in April 2023, has a thematic focus on financing a sustainable and inclusive industrial transformation. It was prepared with the strong support of UNIDO.

**PROGRAMME AND BUDGETS TARGETS: STATUS AT THE END OF 2022**

**PROGRAMMES**



Number of interventions or joint programmes with United Nations system entities



**EVALUATION/ OVERSIGHT**



Percentage of management action plans (MAPs) and/or recommendations from internal audit and evaluations implemented on time



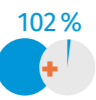
**PORTFOLIO MANAGEMENT**



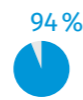
Breakdown of new programme/project documents meeting quality requirements at appraisal



Number of interventions (project/programmes) in partnership with non-United Nations institutions



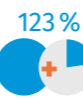
Number of ongoing projects, CPs and PCPs



Percentage of programmes/projects per gender marker category



Transparency (as per IATI standards)



# 4.

## Effective strategic management for results



## INTRODUCTION

Transforming industrial policies and practices requires results-driven programmes and project support and coordination. UNIDO has established tools, processes and frameworks, including a set of indicators to track organizational performance and identify needed adjustments as the work evolves. This includes establishing accountability frameworks, analysing the effectiveness of partnerships, and data collection mechanisms to improve its results-based management and effectiveness. In each region, staff work with national governments and policymakers to manage programmes and projects, and turn action into results.

## AFRICA

At the start of 2022, overall manufacturing activity was up by 4 per cent over the previous year, showing signs of recovery from the COVID-19 pandemic. Nigeria and South Africa, two of the largest manufacturing nations on the continent, showed stable growth rates of five per cent and almost one per cent respectively. However, inflation, a global production and trade slowdown, and the impact of the armed conflict in Ukraine could further risk the development trajectory of the region. Disruptions to agricultural production and supply chains decreased food security and pushed almost two million Africans into extreme poverty. Africa's low vaccination rates are affecting COVID-19 infections and constraining faster economic recovery.

### UNIDO at work in Africa

UNIDO works with Governments, the private sector and other stakeholders to address these regional challenges through 13 country programmes and numerous technical cooperation projects. Safeguarding the environment and creating shared prosperity are top priorities. GEF has been a major donor in these initiatives, including its Least Developed Countries' Fund



Women's fish processing and trading unit in Kebele 13 district of Bahir Dar City

and Special Climate Change Fund. With support from the European Union and Sweden, youth in Liberia received technical and vocational training to increase their employment opportunities, and a public-private development partnership is opening up jobs in the heavy industrial equipment and commercial vehicles industry in the Democratic Republic of the Congo, as well as in the transport and construction machinery sectors in Zambia.

To enhance economic competitiveness, UNIDO is leading European Union-funded projects to increase exports from Mozambique and Kenya in the agribusiness sectors. With support from Germany, UNIDO is improving the national quality infrastructure and ecosystem for entrepreneurship and innovation, particularly for women- and youth-led MSMEs, in the United Republic of Tanzania. In Ghana, with support from Global Affairs Canada and GEF, UNIDO strengthened engagement with government and other stakeholders in support of the country's transition towards circular economy approaches that reduce waste and increase efficiencies.

In 2022, UNIDO had seven programmes for country partnership (PCPs) to support programme design, implementation and investment in selected priority sectors. Pilot PCPs are building agro-industrial parks in Ethiopia and agro-poles in Senegal to expand agribusiness, and in 2022 a new initiative to promote clean-tech innovation was

## THE REGION AT A GLANCE

**45** UNIDO Member States

**29** LDCs **6** SIDS **23** MICs

**19** UNIDO local presence in 19 countries, including regional hubs in Ethiopia and Nigeria and a regional office in South Africa

**10** Country programmes (2022)

**7** PCPs in Côte d'Ivoire, Ethiopia, Nigeria, Rwanda, Senegal, the United Republic of Tanzania, and Zambia. Self-starter PCP in Kenya.

**\$73.1** million Technical cooperation contributions (2022)

Member States	22.05
EU	17.26
GEF	20.35
MLF	7.38
Others	6.09

**36** Current UNSDCFs signed (total)

- New UNSDCFs signed in 2022
- Burundi (2023–2027)
  - Cabo Verde (2023–2027)
  - Gabon (2023–2027)
  - Nigeria (2023–2027)
  - Sao Tome and Principe (2023–2027)
  - South Sudan (2023–2025)
  - Zambia (2023–2027)



launched in Senegal. In Nigeria, a feasibility study for an industrial park in Imo State is expected to develop into a flagship programme, and a new memorandum of understanding with Japan is addressing plastic pollution in Nigeria.



**UNIDO policy advice increasing food safety, reducing pollutants and expanding safer industrial practices**

UNIDO works across sectors to develop evidence-based policies and strategies that support the development of small businesses at the national and regional levels. New policies and guidelines developed with UNIDO support are helping the energy sector be more efficient, from small-hydropower initiatives in Burundi and Nigeria to industrial energy efficiency in South Africa.

● New strategies and environmental sustainability plans are helping 20 countries to meet international environmental conventions. This includes phasing out the use of mercury and hydrochlorofluorocarbons, which are chemical compounds commonly used in the foam, refrigeration, and air conditioning sectors that destroy the protective ozone layer and contribute to climate change.

UNIDO is also developing guidelines and training on food safety and quality standards through the West African Competitiveness Programme and the Global Quality Standard Programme (GQSP) to increase opportunities for businesses producing and trading food products.



**Africa mobilizing to become the growth continent of the twenty-first century**

A range of new support mechanisms were introduced and commitments made by Heads of State, partners and donors at the African Union Summit on Industrialization and Economic Diversification hosted by the Government of Niger in November.

Speaking at the opening ceremony, UNIDO Director General Gerd Müller called for a Marshall Plan for Africa that includes a well-developed vaccine production capacity, a growing automobile industry and steps towards achieving agricultural self-sufficiency on the continent. UNIDO held special sessions on creating economic zones and industrial parks, digitalization and AI, and the provision of more opportunities for youth and women in the Sahel.

To support the common African agro-parks programme, UNIDO launched the *UNIDO Guidelines for Planning, Development and Management of Integrated Agro-Food Parks* at the Summit. The Organization also showcased how Africa can develop higher-value bamboo products, and use agro-waste to replace single-use plastics.

renewable energy resources like solar and wind power that are plentiful on the continent. By 2050, 21 per cent of the world’s total energy demand will be for hydrogen, of which two thirds will be for green hydrogen. UNIDO introduced its Green Hydrogen Industrial Cluster model at the Summit to help countries invest in renewable power projects and increase their attractiveness for a range of energy-intensive industries, including the steel and chemical industries.

Two new tools supporting better qualitative analyses and more accurate forecasts were also announced at the event. The African Industrial Observatory is under development by UNIDO and the African Union. It will provide data to help identify sector changes and improve industrial policy design. The African Industrialization Index, developed by the African Development Bank, provides a first-ever comprehensive picture of the progress of industrial development covering 52 African countries from 2010 to 2021.

The Summit ended with an agreement to move forward in 10 key areas to increase industrialization and economic diversification.

Within the energy sector, green hydrogen is a promising export option for many African countries because it is created with

African Union Summit on Industrialization and Economic Diversification

**+ “... welcomes UNIDO’s commitment to strengthen regional approaches that will help align Member States’ strategies to take advantage of trade opportunities in the African Continental Free Trade Area (AfCFTA)”**

Statement of the African Group at the UNIDO 50<sup>th</sup> session of the Industrial Development Board



## ARAB REGION

The ongoing conflict in Ukraine, price hikes in food commodities and wider inflationary pressures affected many countries in this region in 2022, causing a devaluation of the currencies of Egypt, Lebanon and Tunisia. Lebanon continues to suffer from the repercussions of the port explosion, energy shortages and a deteriorating economy, and political stabilization remains elusive in many countries.



### Country-level support to increase green investments

UNIDO helps two PCPs to leverage additional investment in priority sectors. In Egypt, eco-industrial parks are being developed with support from Switzerland to reduce waste and greenhouse gas emissions while attracting investments and creating jobs. UNIDO is also helping the country reduce the amount of plastic waste leaking into the environment.

The Organization is raising awareness of existing sustainable plastic production and consumption patterns among stakeholders, producers and consumers. Alternative greener approaches are being demonstrated through technical assistance funded from Japan to small- and medium-sized enterprises. Seven new projects on biodiversity, climate resilience, women's empowerment, climate-tech, and developing SMEs are in the planning phase.

### UNIDO at work in the Arab region

To create new jobs and sustainable energy sources, UNIDO is building institutional capacities for improved policies and practices. The Organization is assessing the policy capacity gap in Egypt, and is working with the Gulf Organization for Industrial Consulting to develop an industrial information system in the United Arab Emirates. Projects on digital transformation, circular economies, technical and vocational education and training, industrial zones and decarbonization are under way in many countries, including Algeria, Egypt, Iraq, Jordan, Lebanon, Morocco, Sudan and Tunisia.

In Morocco, the UNIDO PCP is assisting the country to meet its goal of being one of the most competitive low-carbon industrial bases in the world. Projects include developing a decarbonization road map, accelerating the use of green hydrogen, and transitioning to circular economy value chains, with two pilot projects demonstrating the value of recycling pre-consumer textile waste. A portal on industrial zones was launched to promote investment in industry and strengthen competitiveness. Morocco also joined PAGE and the Global Alliance on Circular Economy and Resource Efficiency (GACERE).

E-commerce training sessions help empower women to lead successful businesses



## THE REGION AT A GLANCE

**20** UNIDO Member States

**4** LDCs **1** SIDS **10** MICs

**8** UNIDO local presence in 8 countries, including an ITPO in Bahrain and a regional hub in Egypt

**2** PCPs in Egypt and Morocco



**14** Current UNSDCF signed (total)

**New UNSDCF signed in 2022**

- Algeria (2023–2027)
- Libya (2023–2025)
- Saudi Arabia (2022–2026)
- Yemen (2022–2024)

## Promoting women-led businesses

In 2022, UNIDO co-hosted a women's business forum in 2022 with the Union for the Mediterranean, to help empower women to be successful entrepreneurs, traders, workers and professionals. The event brought together international decision makers and experts from the public and private sectors to increase opportunities for women and girls in the region. Workshops focused on learning how to access finance and participants joined an online network organized by the Middle East and North Africa (MENA) Women Business Club. "Ecommerce trainings can alleviate women's heavily loaded professional and personal agenda", said Sana Ghenima from the Association Femmes et Leadership in Tunisia. The women also travelled to see women-led businesses in Barcelona, Spain, giving them broader exposure to systems and mentors.

A discussion panel at the women's business forum in 2022 co-hosted by UNIDO with the Union for the Mediterranean



## Reducing climate change through green hydrogen and waste reduction

The United Nations climate change conference COP27 was held in Egypt in 2022. UNIDO provided support to the country to prepare for this international event and promote green hydrogen. Leading up to COP27, a UNIDO and UNECE conference explored business models for the textile and leather industry that have less impact on the climate. The industry has great potential for international trade, particularly in Egypt, Morocco and Tunisia. UNIDO is helping these countries through the SwitchMed programme to improve waste management and the traceability of products. Transparency remains critical to demonstrate compliance with the environmental, social and governance conventions in order to access international markets.



## UNIDO provides data and support to develop industrial policies and processes

UNIDO works with both the United Nations and other partners to help this region strengthen its capacity to build strong policies and practices. The Organization provides vital data for decision-making. It is a key member of the United Nations Country Teams in 16 countries, updating data for the Common Country Analysis and SDG9 on industry, innovation and infrastructure. The Organization's data and expertise are also used for eight United Nations Sustainable Development Cooperation Frameworks that guide the United Nations programme in those countries. They are also used to develop industrial country profiles.



**+** *For the Arab region, the priorities are "... to create job opportunities with priority given to women and youth, and to support entrepreneurship, focusing on the most needy areas at the national level, reducing poverty, social inequality, and noting the importance of capacity-building and technology transfer that meet national needs, in addition to industry and innovation."*

Statement of Egypt, on behalf of the Arab countries at the UNIDO 50<sup>th</sup> session of the Industrial Development Board

## ASIA AND THE PACIFIC

The COVID-19 pandemic lockdowns affected some 829 million informal workers across the region, pushing an estimated additional 85 million people into extreme poverty since the start of the pandemic. Despite the remote-working revolution, inequalities in education and the labour market widened as only one in two people have access to the internet. People also struggled in 2022 with inflated food and fuel prices. Climate change continued to threaten the region, which produces about half the world's carbon dioxide.

### UNIDO at work in Asia and the Pacific

UNIDO has 10 country programmes in this region working with Governments and other stakeholders to research, analyse and plan transforming industrial strategies to address these challenges. Building climate resilience, curbing emissions, supporting trade integration and developing skills are top priorities. During the Director General's visit to the Philippines in 2022, a Joint Declaration was signed with the Department of Foreign Affairs to strengthen cooperation in matters related to food security, innovation and climate change.

The PCP in Cambodia has brought together multiple stakeholders to design and implement programmes that build the country's agricultural economy. In 2022, the Programme developed the country's first-ever food safety certification scheme for fish and fishery products. The seal motivates business owners to comply with certification because the assured safety of their food products attracts buyers. By building consumer trust, the seal improves the industry's competitiveness and access to more markets.



Cambodia Food Safety Certification Scheme beneficiary

- MACRO
- MESO
- MICRO

### Working with United Nations partners to enhance market access, green economies and opportunities for youth

UNIDO works closely with other United Nations agencies at the country level, ensuring coordinated national and regional planning and support within a United Nations cooperation framework and budget. Six joint projects are under way in the region. With support from the Sustainable Development Goals Fund, UNIDO is working in Indonesia with UNDP, UNEP and UNICEF to modernize small and medium-sized enterprises and enhance their access to larger markets.

In Cambodia, as part of the PCP, UNIDO is implementing the second phase of the project supporting employment for youth with ILO, UNESCO and UNICEF. In 2022, this project supported over 100 start-ups and micro-, small and medium-sized enterprises. More than three quarters reported improved business performance. Over 2,000 individuals acquired skills in digital literacy, professional branding and entrepreneurship.

## THE REGION AT A GLANCE

**32** UNIDO Member States

**10** LDCs **11** SIDS **28** MICs

**14** UNIDO local presence in 14 countries, including ITPOs, as well as a regional hub in Thailand and regional offices in China and India

**10** Country programmes (2022)

**1** PCP in Cambodia



### Current UNSDCFs signed (total)

**18** New UNSDCFs signed in 2022

- Islamic Republic of Iran (2023–2027)
- Mongolia (2023–2027)
- Pakistan (2023–2027)
- Sri Lanka (2023–2027)



### UNIDO policy support to increase digitalization, trade liberalization and climate action

UNIDO helps strengthen the capacities of local governments in research and statistics. This support is particularly useful for middle-income countries, which account for more than 75 per cent of the region's GDP. Harmonized policies strengthen their integration into regional and global value chains.

To support trade liberalization and economic globalization, UNIDO has supported the organization of the China International Import Expo since 2018. This large-scale event, hosted by the Government of China, is aimed at opening the Chinese market to the world.

UNIDO also helps these expanding markets to develop efficient, sustainable industrial systems. UNIDO is implementing a project funded by the Republic of Korea to raise awareness on the value of digitalization by initiating a policy dialogue with representatives of government, academia and the private sector in India, Indonesia, the Philippines and Viet Nam. Digital technologies can be used to decrease the amount of energy and resources used during production, and they also help reduce the impact of climate change. In 2022, UNIDO conducted a Bridge for Cities virtual event, gathering attendees from 85 countries, to hear experts and city leaders discuss the impact of climate action on cities. This was a special advocacy session commemorating World Cities Day.



***“... commends the Organization for its technical assistance and capacity-building programmes provided to Member States, particularly developing countries, middle-income countries and Least Developed Countries. Such efforts must continue with a view to strengthening partnership, cooperation and knowledge-sharing among Member States, as well as with other stakeholders, including through South-South, North-South, and triangular cooperation.”***

Statement of the G77 and China at the UNIDO 50<sup>th</sup> session of the Industrial Development Board



### Improving livelihoods in rural communities in the Sindh region of Pakistan

The Sindh region of Pakistan suffers from deep and extensive poverty, and the pandemic only worsened the situation. Micro-, small and medium-sized enterprises play a major role in building back, and offer more opportunities for women.

In 2022, UNIDO launched the Poverty Alleviation and Inclusive Development Across Rural Sindh Programme to support the Sindh government in its poverty reduction strategy. The five-year, \$50 million project funded by the European Union is helping to establish MSMEs, upgrade public infrastructure and assist the Sindh government to optimize public resources. The goal is to cut the poverty level in half and ensure equal access to basic services and economic resources by 2030.

The work provides an excellent example of the new focus on transforming action into results in the Asia-Pacific region. At the micro level, local communities are getting involved to drive development and empower women. At the meso level, urban economic clusters are being introduced through small cooperatives to scale up the



development of SMEs to drive poverty reduction. At the macro level, public services are being consolidated in rural growth centres for planning, service delivery and to generate economic activity. Each of these activities is integrated with the others to build and strengthen the potential to raise people out of poverty and develop long-term economic security.

Faisal Ahmed Uqaili, Secretary of Planning and Development in Pakistan, called this an important programme at the launch: “With UNIDO support, this work plays a critical role in meeting the objectives of the Sindh Poverty Reduction Strategy.”

## EUROPE AND CENTRAL ASIA REGION

The ongoing armed conflict in Ukraine has put the region’s recovery from the COVID-19 pandemic at risk, further disrupting supply chains and causing widespread increases in energy prices. UNIDO estimates that Ukraine’s manufacturing sector contracted by at least half in 2022. According to the IOM, more than seven million Ukrainians were refugees in 2022, with the majority in neighbouring European countries.

### UNIDO at work in Europe and Central Asia

UNIDO is working with the Government of Ukraine to develop a green recovery programme for inclusive and sustainable industrial development in the country, in synergy with the strategic frameworks of the Government of Ukraine and the United Nations Transitional Framework 2022–2023. UNIDO undertakes analytical work to identify the most acute needs and solutions for activities that will help restore the livelihoods of the affected people and most vulnerable groups.

UNIDO is also helping develop new approaches to strengthen the resilience of economic systems to external shocks. The

Organization helps SMEs – including those run by women and youth, who are often left out of such opportunities – to modernize and upgrade, and to expand their markets. To reduce the impact of industrial operations on climate change, UNIDO is helping businesses reuse materials and introduce cleaner production and renewable energy applications.

New agreements concluded in 2022 include a road map for cooperation with Slovenia and a cooperation framework with Azerbaijan. A new programme with Georgia was also formulated.



Roadmap for cooperation with Slovenia



### UNIDO fosters partnerships for development cooperation

In 2022, UNIDO established a platform for dialogue with Bulgaria, Croatia, Cyprus, Czechia, Hungary, Malta, Poland, Romania and Slovenia to provide opportunities for countries to identify synergies and exchange best practices. The resulting priorities for bilateral and multilateral cooperation include green industry, the digital transformation, the competitiveness of SMEs, and job creation.

UNIDO and its nine development partners in Europe cooperate in diverse areas across geographical regions. Slovenia financially helps UNIDO projects to innovate and strengthen the private sector in Azerbaijan, Bosnia and Herzegovina, Cuba, Egypt and Serbia. In Georgia, funding support from Poland is helping foster the country’s sustainable energy future and Czechia is helping to increase the competitiveness of MSMEs using the UNIDO cluster approach. This platform provides opportunities for the countries to learn from each other, share best practices, and increase the speed of innovation across the region.



Regional conference

## THE REGION AT A GLANCE

**40** UNIDO Member States

**19** MICs

**9** UNIDO local presence in 9 countries including ITPOs and liaison offices, and Headquarters in Austria

**4** Country programmes (2022)

**1** PCP in Kyrgyzstan

**\$9.0 million** Technical cooperation contributions (2022)

Member States	2.43
EU	2.37
GEF	2.15
MLF	1.81
Others	0.26

**13** Current UNSDCFs signed (total)

- New UNSDCFs signed in 2022
- Montenegro (2023–2027)
  - Republic of Moldova (2023–2027)
  - Serbia (2021–2025)
  - Tajikistan (2023–2026)



**Working with United Nations partners to increase digitalization, competitiveness and environmental practices**

UNIDO works closely with United Nations agencies in the region. The Organization is an active member of the United Nations Digital Transformation Group for Europe and Central Asia. It contributed to the common Digital Development Country Profile for Ukraine, and co-organized the peer-learning round table on SDG 17 on partnerships and a session on digitalization within the 2022 Regional Forum for Sustainable Development for the UNECE Region.

UNIDO is increasing private sector competitiveness in Georgia in cooperation with the FAO, IOM and UNDP. With funding provided by the European Union, UNIDO completed the first-of-its-kind mapping of 57 emerging and potential clusters. The

Organization selected nine clusters for study, identifying the marine fishing and pharmaceutical clusters for development.

The EU4Environment programme in the Eastern Partnership region, co-implemented with the OECD, UNECE, UNEP and World Bank, has promoted resource-efficient and cleaner production practices and techniques. It has also demonstrated opportunities for green growth and introduced mechanisms to better manage environmental risks. UNIDO introduced 33 innovations and potential energy, water and material savings of more than €385,190 yearly, while reducing the amount of generated waste and CO<sub>2</sub>-equivalent emissions during production.



*“We take note of the Director General’s priority agenda ...: food security, agribusiness development and fair supply chains, energy efficiency and improved access to renewable energy to reduce industrial greenhouse gas emissions. We have a long-standing cooperation in these areas and we look forward to its strengthening in order to make further progress towards achieving the SDGs and to facilitate a green transition worldwide.”*

Statement of the European Union and its Member States at the UNIDO 50<sup>th</sup> session of the Industrial Development Board

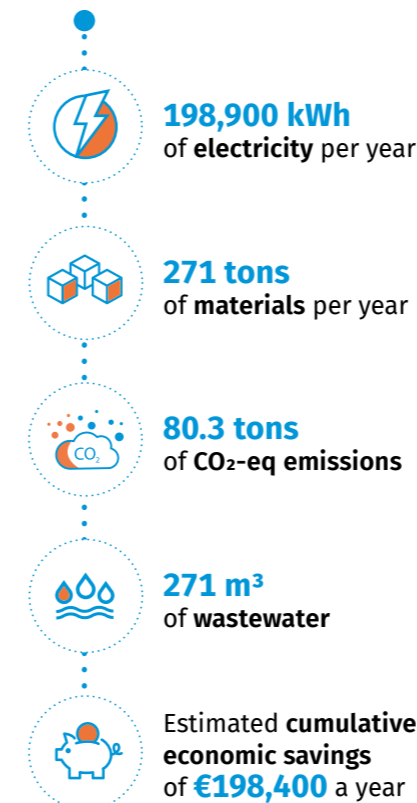


**Advancing women’s economic empowerment**

In 2022, UNIDO published a set of best practices, smart solutions and policy recommendations in the areas of women’s economic empowerment, entrepreneurship and leadership. Examples of both public and private projects demonstrate the impact and leading experts provide important commentary.

The publication mentions that research demonstrates that having a minimum of three women on a board of directors enables the generation of higher profits. Reaching this requires investments in capacity-building. UNIDO developed a free online training course Digital Business Innovations for Women Entrepreneurs and Managers. More than 600 participants have signed up for the course from over 65 countries. A group of women who recently completed the course said that training like this is giving them the qualifications and knowledge to succeed in modern environments.

**Annual potential savings at BNAKAT LLC:**



## LATIN AMERICA AND THE CARIBBEAN

Although businesses in this region began reopening in 2021 following the COVID-19 pandemic shutdowns, inflation and social challenges have increased poverty and inequality. Women have a higher unemployment rate and a lower labour participation rate than men.

The region has the lowest carbon emissions compared to similar economies because of its renewable and low-carbon energy technologies. However, it remains disproportionately affected by the consequences of climate change, hosting 13 of the 50 most affected countries worldwide.

### UNIDO at work in Latin America and the Caribbean

UNIDO is helping the region transform into a new green industrial development model, taking advantage of the countries' natural endowments and rich biodiversity. To improve regional integration and accelerate change, the Organization launched a platform for SDG 9 on industry, innovation and infrastructure, which serves as a one-stop shop for publications, events, a network of experts and focal points from ministries of industry, as well as funding and training opportunities.

Regional priorities for UNIDO were identified within a South-South cooperation framework at the high-level regional conference SDG 9: Progress by Innovation in Latin America and the Caribbean. It launched the Latin American Network for Industrial Development with

Equality, which is expected to contribute to mainstreaming gender in the industrial development agenda and expanding opportunities for women. With the financial support of Norway, training was provided on how to carry out analyses to develop gender-responsive projects. This training will also be expanded to other regions.

UNIDO launched the Renewable Energy Innovation Fund in Uruguay with UNDP, UN Women, and multiple national programmes and ministries covering industry, energy, mining, environment, budget and planning, and power plants administration. Financing from the Joint SDG Fund leverages co-financing from regional development and private commercial banks, offering a new model for development cooperation.



### Helping countries strengthen renewable energy and agricultural industrial chains

UNIDO has five country programmes to implement agreed priorities. One of the newest, in Cuba, focuses on energy efficiency and renewable energy including solar photovoltaic power, developing an innovation cluster model for biopharma, and fostering international partnerships on energy and environment.

In the Bolivarian Republic of Venezuela, a project to strengthen seven agricultural industrial chains is the first UNIDO project to be financed by the Development Bank of Latin America. This is important because the majority of the region's countries are categorized as middle-income, making them ineligible for many of the traditional funding sources focused on the needs of low-income countries.

The PCP in Peru is supporting the bamboo value chain in the San Martin Region through PAGE, with support from ILO. Bamboo is a renewable natural resource that makes ideal construction materials. Its famously rapid growth also absorbs large amounts of CO<sub>2</sub>, helping to mitigate climate change.

## THE REGION AT A GLANCE

**33** UNIDO Member States

**1** LDCs **16** SIDS **24** MICs

**7** UNIDO local presence in 7 countries including a regional hub in Mexico and a regional office in Uruguay

**3** Country programmes (2022)

**1** PCP in Peru



**27** Current UNSDCFs signed (total)

New UNSDCFs signed in 2022

- Plurinational State of Bolivia (2023–2027)
- Chile (2023–2027)
- Ecuador (2022–2026)
- Bolivarian Republic of Venezuela (2023–2026)
- United Nations Multi-country Sustainable Development Framework for the English and Dutch Speaking Caribbean (2022–2026)



## UNIDO supports both regional and national policy development

UNIDO provides advice to governments to help shape and implement effective industrial strategies. Substantial dialogues and consultations held with the Group of Latin America and the Caribbean countries identified priorities for UNIDO assistance.

These include decarbonizing industry, energy transition, digital transformation and innovation, and establishing multi-stakeholder digital platforms for knowledge exchange and technology transfer.

**+** *“... we are convinced that UNIDO is in a position to make important contributions to achieving the Sustainable Development Goals, in particular SDG 9 focused on building resilient infrastructure, promoting sustainable industrialization and fostering innovation, and assisting countries to achieve the commitments made in the Paris Agreement.”*

Statement of the Group of Latin American and Caribbean Countries (GRULAC) at the UNIDO 50<sup>th</sup> session of the Industrial Development Board

■ ■ ■  
 ■ ■ ■ MESO  
 ■ ■ ■ MICRO

## United Nations coordination improving fish farming and providing more opportunities for women and youth

Many jobs in the region are in the informal sector, which means that salaries are very low and close to the subsistence level, and workers are not provided with health care or a pension. With funding from the Trust Fund for Latin America and the Caribbean, a “training of trainers” programme will support the formalization of freshwater fish farmers in El Salvador and Honduras interested in joining or starting a cooperative.

With UN Women, UNIDO taught beneficiaries in Bogota how to analyse and measure the

linkages between gender inequality and industrial development, and to design policies and programmes that promote women’s economic empowerment.

To protect and empower young people whose livelihoods and dignity have been affected by the COVID-19 pandemic, UNIDO, UNFPA and UNODC are working together to support at-risk youth in the state of Hidalgo, Mexico, through public policy and practice recommendations.





“ *‘Progress by Innovation’ is UNIDO’s motto.*

*We ensure that the voice of the poorest countries is heard, those that are hardest hit by the multiple crises.*

*We need to be a strong partner for countries, support transfer of know-how, technologies and investments.”*

Director General, Gerd Müller  
at the UNIDO 50<sup>th</sup> session of the Industrial Development Board

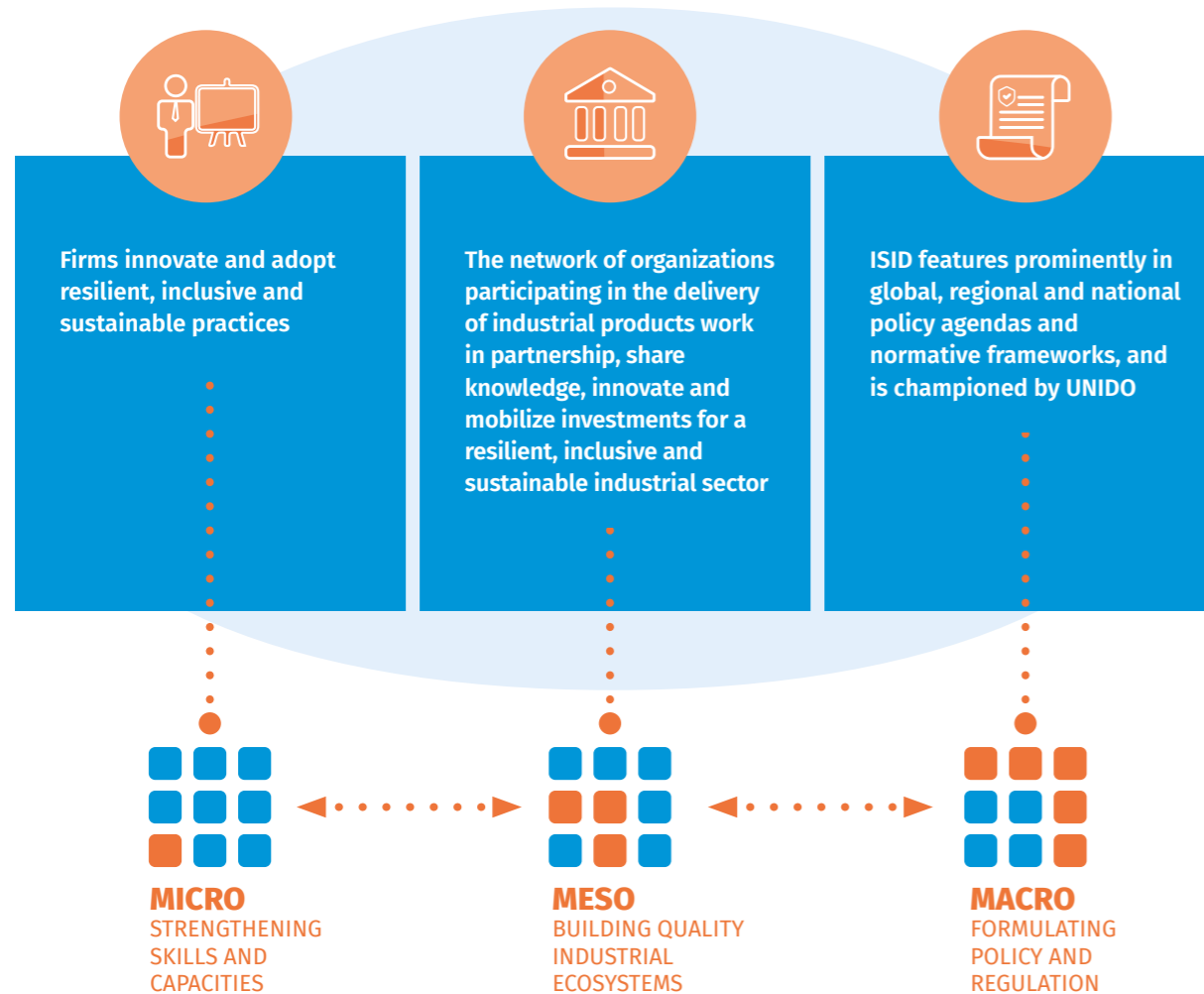
## TRANSFORMING UNIDO ACTION INTO RESULTS

In 2022, UNIDO took an important step and implemented its first-ever results-based budget to better illustrate its impact. It shows the links between the pledges that the Organization makes to its stakeholders, and the everyday work of colleagues and partners around the globe who are engaged in a set of practical and complex technical cooperation activities.

The Programme and Budgets 2022–2023 is a blueprint that aligns resources by results, with corresponding indicators to track

progress and provide valuable feedback for learning and adaptation. This approach is being used across United Nations agencies, and should accelerate industrial scale-up for UNIDO stakeholders by increasing efficiencies in building capacity and systems.

Targets have been set and progress towards their achievement is closely monitored to identify shortfalls and to adapt to an ever-evolving environment. Just as important, a system of independent



verification is being established to ensure accurate and unbiased reporting. Personnel across the Organization are integrating these new processes to speed up the transformation.

This new system supports the pathway from, at the micro level, strengthening skills to building quality enterprises at the meso level to creating and revising national and international policies and regulations at the macro level. Using a theory of change, activities are designed to encourage specific behaviours matched to the actors involved. Work is carried out simultaneously among these three levels and in different combinations because the links between each are necessary to create sustainable, equitable growth and security. This report provides a view into this transition.

Just as UNIDO works to build skills and capacities to increase equitable industrialization, so too is it increasing its own capacity to plan, monitor and deliver the clear and necessary results to those who depend on its support.

Signalling the Organization’s commitment to gender equality, the UNIDO Gender Strategy 2020–2023 is implemented across the Organization, with ongoing training such as a workshop on gender mainstreaming for agribusiness project teams. In 2022, 41 per cent of UNIDO projects were assessed to have significantly contributed to gender equality and the empowerment of women.

## Legal services support

Through sound and impartial legal advice and expert legal assistance, the Office of Legal Affairs and Compliance promotes compliance with the rule of law and manages legal risks in all UNIDO activities. It also defends the Organization’s rights, positions and interests in contractual and litigation matters.

In 2022, the Office responded to over 900 requests for legal assistance. It supported the effective strategic management of the Organization by reviewing more than 25 administrative issuances and other internal policies relating to, for example, the Secretariat restructuring, and directly contributed to the finalization of over 20 United Nations Sustainable Development Cooperation Frameworks concluded with Member States. Appendix G to this report consolidates the list of agreements and arrangements concluded in 2022. The Office also provided substantive legal assistance in connection with the thirty-seventh session of the Programme and Budget Committee and the fiftieth session of the Industrial Development Board.

## Ethics and accountability

The Ethics and Accountability Unit (EAU) fosters an organizational culture of ethics, transparency and accountability. It helps UNIDO personnel to comply with the guiding principles and core values of integrity, professionalism and respect for diversity. EAU was institutionalized in 2020, and has since then revised the Policy on Financial Disclosure and Declaration of Interest, modernized the submission and

review tool, and rolled out mandatory training for all UNIDO personnel on ethics and integrity.

In 2022, EAU began an ambitious medium-term exercise to sharpen its comprehensive ethics framework and integrity system to maintain the Organization's credibility and strengthen the trust of UNIDO Member States, donors and partners. This includes developing a new Code of Ethical Conduct aligned with the Standards of Conduct for the International Civil Service that fulfils a recommendation issued by the Joint Inspection Unit (JIU) of the United Nations System and by the UNIDO External Auditor. To enhance the protection of whistleblowers, the policy for the protection against retaliation for reporting misconduct or cooperating with audits or investigations of 2010 is under review.

The UNIDO restructuring has added responsibility to EAU as the focal point for JIU reviews responding to audits and external evaluation, including fraud-related activities and the personnel data protection policy. EAU is also responsible for protection from sexual exploitation and abuse and its related policy, a draft of which is under finalization, together with an online self-paced mandatory training to raise awareness on this topic.

EAU collaborates across UNIDO and with other organizations, inter alia in facilitating the organization of the International Fraud Awareness Week, and by being an active member in the Ethics Network of Multilateral Organizations. It cooperated with Vienna-based United Nations organizations (VBOs) on joint training and

advocacy opportunities. The Dignity and Inclusion Learning Initiative, which the unit helped develop and facilitate with other VBOs, was recognized in 2022 as an outstanding achievement in the area of standards of conduct, diversity and inclusion.

EAU will build on the momentum generated by the internal reforms to ensure a culture of high ethical behaviour, aligned with best practices in the United Nations system.

### Evaluation and internal oversight

The Office of Evaluation and Internal Oversight (EIO) provides core functions of independent evaluation, audit and investigation. This work covers the Organization's internal affairs and the projects and programmes it implements across the globe. The service helps UNIDO adapt to changing environments and emerging priorities, and strengthens the Organization's credibility and confidence among stakeholders. The investigation function contributes to the culture of accountability, ethics, integrity and good governance within UNIDO.

In 2022, the Office conducted and published a strategic evaluation of the PCP in Senegal, the Medium-Term Programme Framework (MTPF) 2018–2021, UNIDO capacities to contribute to transformational change, and twelve project evaluations. Agreed management action plans emanating from strategic evaluations were followed up for implementation. EIO also initiated evaluations of the PCP in Peru and the PCP Framework.

To help build and strengthen national evaluation capacities in Member States and to reinforce the evaluation culture in UNIDO, EIO developed an online evaluation training course that will be launched in 2023. The office also actively participated in the United Nations system and international evaluation networks, including coordinating reviews of the United Nations Joint Inspection Unit and highlighting key recommendations for management's attention.

Audits were conducted on long-term agreements in procurement, assurance review of the promulgation and

operationalization of administrative issuances, the full cost recovery process, and follow-up of management action plans agreed for previous audits, assurance reviews and advisory engagements. The office also provided ad hoc advice to management on donor agreements and assessments.

In its role as Secretariat to the UNIDO Independent Oversight Advisory Committee, the office has facilitated strategic dialogues with senior management and engagements with the Board to enhance UNIDO overall governance and accountability.





■ ■ ■ **MACRO**  
■ ■ ■ **MESO**  
■ ■ ■ **MICRO**

## Regional efforts stop open burning, reducing dioxin and CO<sub>2</sub> emissions by more than 90 per cent

Open burning is one of the main sources of persistent organic pollutants (POPs). These are toxic chemicals that stay in the environment for several years and can make people and animals ill. Five countries in the East and South-East Asia region agreed to minimize or, where feasible, eliminate these toxins by signing the Stockholm Convention on POPs: Cambodia, Lao People's Democratic Republic, Mongolia, Philippines and Viet Nam.

Working with UNIDO over the past seven years, the countries have reduced overall dioxin and CO<sub>2</sub> emissions by more than 90 per cent and increased the amount of recyclable city-generated waste by up to 70 per cent. These significant achievements are due to a multi-pronged approach to raise awareness in the communities, establish demonstration sites, strengthen local institutional capacities, and improve national and regional legislation. Led by UNIDO and funded by GEF, the project ended in June 2022 but is being replicated in other countries, offering improved environments and better jobs.

Communities and local businesses learned the risks of open burning of agricultural residue, sugarcane, backyard trash and waste through educational materials in English and local languages. A system of "training of trainers" and a new university course on POPs and waste ensure ongoing education beyond this project.

All five countries updated national regulations on open burning and put in place financing mechanisms and incentive systems for improved solid waste management techniques and environmental practices. Ministries of Environment hosted 10 demonstration sites, with almost half the participants being women. New project equipment and technical support provided expanded business opportunities and significantly increased productivity.

Using a new plastics pelletizing line and two new plastic pipe production lines provided by the project, the Saplast recycling plastic company in the Lao People's Democratic Republic reduced production time of recycled high-density polyethylene pipes by 67 per cent and increased production capacity by 196 per cent. In Viet Nam, the Minh Khai craft village used a new production line to manufacture construction bricks, tiles, and roofing materials from recycled materials compliant with national norms and standards. A pilot structure using these materials cost 40 per cent less than normal materials, and the products are now being marketed. In Mongolia, hot ashes from coal stoves used to be mixed with household wastes, creating fires in backyards and landfills. Now communities send those ashes to a dedicated place, and the other household waste is automatically sorted at the landfill in this project.

As a result of these multiple approaches, open burning has stopped completely at all project sites, and cities not in this pilot are now replicating these practices. Two more cities in Mongolia are constructing landfills, two Philippine cities are planning central materials recovery facilities, and four Cambodian cities are setting up composting in their communities.

The Minister of Environment of Cambodia Say Sam Al underlined the value: "UNIDO has helped create strong partnerships and brought together the development community and the private sector. Through close integration of our joint efforts, we have delivered concrete and sustainable results."



**70 jobs** created across 5 countries



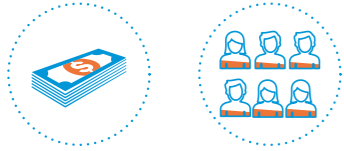
**3 businesses** upgraded



**\$37 million** invested by municipalities and companies

## PROGRAMME AND BUDGETS TARGETS: STATUS AT THE END OF 2022

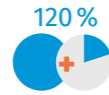
### INPUTS AND RESOURCES



Technical cooperation delivery - expenditures



Voluntary contributions: Net approvals



Core staff geographical diversity index



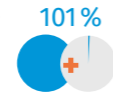
Regular financial resources - total approved gross budgets



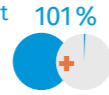
Programme support cost recovered



UNIDO workforce geographical diversity index



Programme support cost recovered



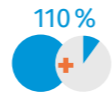
### CORPORATE SERVICE EFFICIENCY



Procurement timeline

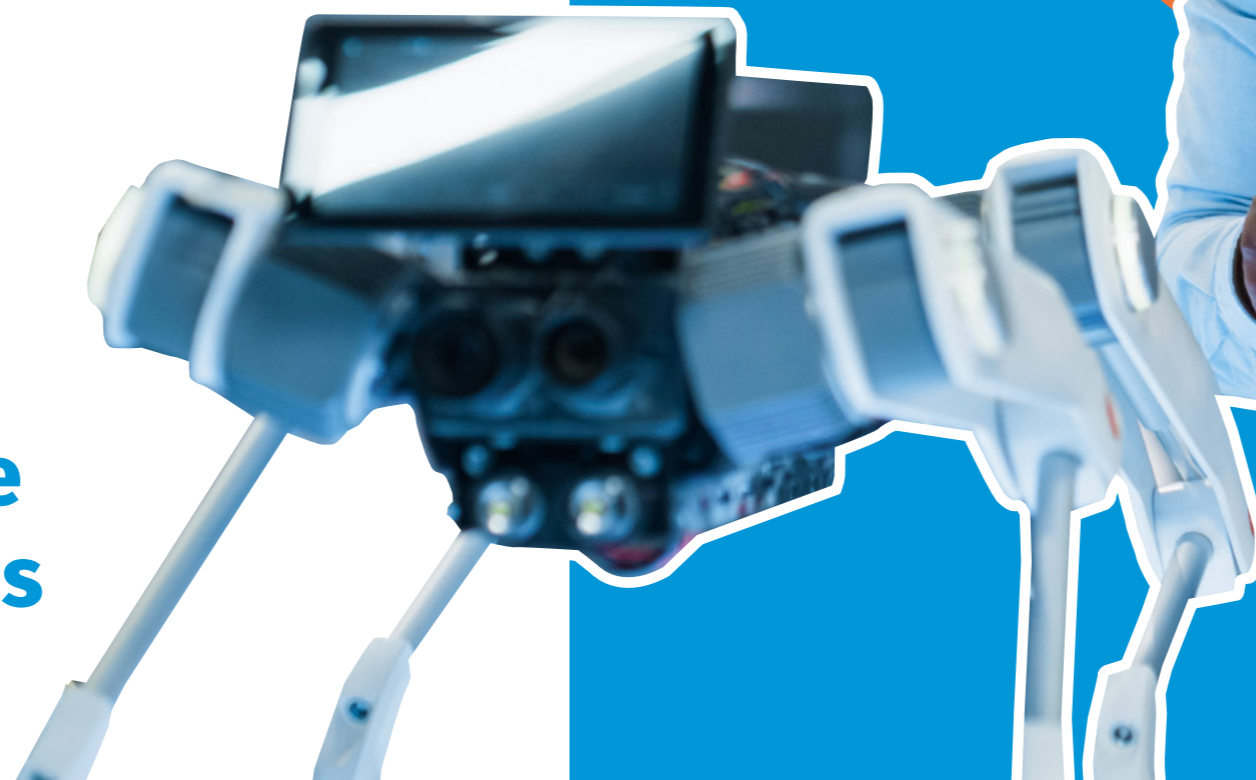


ICT operational efficiency



# 5.

## Excellence of corporate services and operations



## INTRODUCTION

Underpinning all UNIDO work is the critical support of corporate services and operations. Just as the Organization trains people and organizations to industrialize and innovate, it also demands the same levels of critical thinking internally. The efficient and effective management of financial services, human resources, procurement, general services, logistics, and information technology services contributes to the rate of transformation. The digitalization of operational systems improves performance in services and operations. Enhancing staff skills and operational efficiency enables the Organization achieve its targeted results.

## FUNDING AND FINANCIAL CONTRIBUTIONS

The overall volume of funding approved for UNIDO technical cooperation services in 2022 amounted to \$200 million, net of programme support costs, primarily due to unprecedented support from the European Union coupled with renewed strong support from Member States and funding partners such as GEF and the Multilateral Fund for the Implementation of the Montreal Protocol (MLF). The delivery of technical cooperation services grew marginally compared to 2021 and reached \$180.3 million.

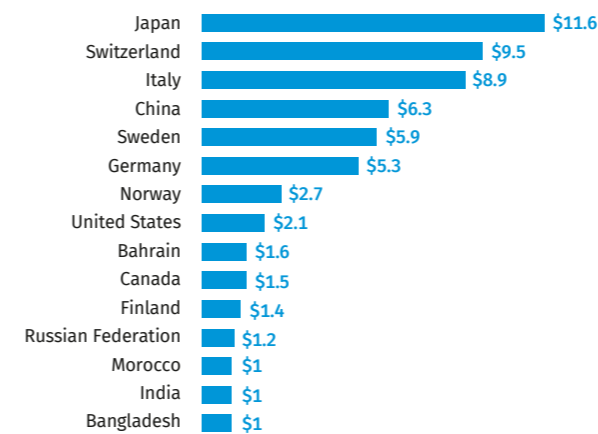
Funds mobilized amounted to \$228.1 million, which represents an increase of 17 per cent compared to 2021. The portfolio of projects and programmes for future implementation grew to \$621.9 million, with future payments under already signed agreements

accounting for \$235.7 million, which will support the continued delivery of services in the next years.

Voluntary contributions from governmental donors and the European Union reached \$77.3 million and \$41.9 million respectively. The contributions from UNIDO Member States totalled \$62.8 million, led by Japan with \$11.6 million, Switzerland with \$9.5 million and Italy with \$8.9 million.

The trend of increased funding from GEF was sustained in 2022 and led to approvals of \$57.2 million, while MLF remained stable with approvals amounting to \$18.7 million.

Independent reviews of UNIDO policies and procedures, notably the Third Party Review of Agency Compliance with GEF Minimum



Governmental funding partners with voluntary contributions exceeding \$1 million net of programme support costs (in millions).

Standards were undertaken, confirming the Organization's full compliance with the latter. This is also testimony to UNIDO's continued efforts to remain at the forefront of best practices.

The geographic focus of UNIDO funding partners in 2022 prioritized UNIDO technical cooperation activities in Africa as per the previous years, with \$73.1 million, followed by global and interregional interventions with \$45.5 million, Asia and the Pacific with \$31.4 million, the Arab region with \$27.5 million, Latin America and the Caribbean with \$13.4 million and \$9.0 million for Europe and Central Asia.

Thematically, the focus of funding partners was on the impact of environmentally sustainable industry, attracting the main share of overall funding with \$108.6 million, followed by the impact of economic competitiveness with \$48.9 million, and creating shared prosperity from industry and cross-cutting services with \$31.2 million and \$11.3 million, respectively.

In addition to the support provided to UNIDO technical cooperation activities, the Governments of Austria, China, Finland, Germany, Italy and Japan also contributed to the UNIDO Junior Professional Officer Programme, and provided young professionals with an opportunity to acquire valuable work experience in the field of international cooperation and to contribute to the UNIDO mandate.

## Contributions from global funds: Global Environment Facility, Multilateral Fund for the Implementation of the Montreal Protocol and the Green Climate Fund

The partnership with GEF was further strengthened in 2022 with the eighth (GEF-8) funding cycle. The overall level of the funding accessed by UNIDO over the GEF-7 period (2018–2022) reached \$181 million. Concurrently, UNIDO began developing its GEF-8 programming strategy and a portfolio of projects in July 2022. The submissions will be considered by GEF at its June and December 2023 Council meetings. The new UNIDO-GEF portfolio will address key environmental challenges, including industrial decarbonization, application of green hydrogen technologies, green chemistry innovation, sound waste management, innovative investment models in adaptation solutions, and sustainable practices in artisanal and small-scale gold mining, the textile and garment sectors, and e-mobility.

UNIDO also expanded its cooperation with the Green Climate Fund (GCF) under its portfolio of readiness projects and has

submitted its first climate project proposals, which are currently being reviewed by GCF. In 2023 UNIDO will work with GCF on the finalization of its Entity Work Programme, which should pave the way for the Organization to establish its GCF climate project portfolio. After the accreditation of UNIDO to the Adaptation Fund in late 2020, the Organization's first regional and national concepts in Africa and Asia were approved by the Adaptation Fund in 2021 and 2022 respectively. The full-scale proposals will be submitted to the Adaptation Fund in 2023. The portfolio on climate adaptation is expected to expand in 2023 through UNIDO's continued engagement with the GEF Least Developed Countries and the Special Climate Change Funds (LDCF and SCCF), GCF and the Adaptation Fund, further diversifying cooperation opportunities.

The cooperation with MLF remained strong in 2022, with projects in 69 countries to phase out hydrochlorofluorocarbons (HCFCs) and phase down hydrofluorocarbons (HFCs). UNIDO activities under the Montreal Protocol during the reporting period led to a reduction of 133 million tons of CO<sub>2</sub>-equivalent emissions. MLF also approved preparatory funding of Kigali Implementation Plan (KIP) activities for 41 countries as well as preparatory funding for one pre-implementation plan investment project. In 2022, UNIDO became the first agency entrusted with projects under the Kigali

Amendment to the Montreal Protocol, namely a pre-implementation project for Ecuador and a first-ever start-up of a Kigali HFC phase-down implementation plan for Niger.

### Funding from the United Nations, multipartner trust funds and UNIDO-managed trust funds

UNIDO is currently participating in 103 United Nations Sustainable Development Cooperation Frameworks (UNSDCFs) and United Nations Development Assistance Frameworks (UNDAFs), which underlines the relevance of the UNIDO mandate and the efforts deployed by the organization to contribute to common and coherent United Nations system-wide approaches. Funding from United Nations agencies and multi-partner trust funds for UNIDO services totalled \$6.5 million.

Contributions to the thematic trust funds of UNIDO remained modest in 2022 notwithstanding the commitments made by Member States in the context of the Funding Compact. Considering the important needs of the Organization in terms of resources that enable it to respond swiftly to demands for its assistance, Member States are encouraged to renew their support towards predictable and flexible funding.

## HUMAN RESOURCE SERVICES

A major change and organizational renewal were implemented in 2022 resulting in employee movements and new challenges and opportunities. The workforce was relatively stable. Actual headcount in 2022 increased by 1 per cent from 2021. Geographical diversity improved from 135 countries represented in 2021 to 152 countries in 2022 (17 new nationalities on-boarded). There were growths in non-core human resources: Technical Cooperation-funded staff from 64 to 78; Junior Professional Officers from 7 to 14; Seconded Experts from 1 to 3; Partner

Experts from 1 to 2; and Interns from 127 to 134. Firm pipelines were also built up for all areas; this is the future growth area. Sixty-one per cent of core staff resources remained with the Core Technical and Programmatic Services. The organizational restructure now establishes a baseline of core resources with room for growth. To support organizational learning, training and development during the period of organizational change and transformation, a separate organizational unit with an expanded terms of reference was established.

## PROCUREMENT

Procurement Services (PRO) managed a total volume of more than US\$155 million and over 9,000 contracts in 2022, contributing to the full achievement of the year's technical cooperation implementation target and the Organization's efficient operation at Headquarters, Field Offices as well as with regard to the Vienna International Centre (VIC). A revised Procurement Manual was published in March 2022 and PRO started implementation of the Grants Manual released in late-2021. These additions established a solid platform for the management of significantly larger transactional volumes that follow best

practice in terms of the Organization's service quality and compliance management. PRO continued to support the contractual needs of many high-profile programmatic initiatives, and proactively responded to the internal and external training needs in procurement. Several outreach activities and international procurement seminars carried out along with other United Nations organizations continued via digital platforms or at physical events engaging with UNIDO Member States including Croatia, Czechia, Germany, Hungary, Israel, Italy, Morocco and Slovakia.



## INFORMATION TECHNOLOGY AND DIGITALIZATION SERVICES

UNIDO is experiencing increased data management requirements, as well as heightened information security risks. During 2022, a rapid self-assessment and benchmarking exercise against best practices across the United Nations system and major IT service providers found that UNIDO is a late adopter of many technologies and digital solutions. These are essential to deliver an innovative and secure working environment for headquarters, field networks, Member States, partners and beneficiaries.

To create a more resilient IT and digital environment, Information Technology and digitalization services developed a new framework built upon five pillars: a collaborative environment, information security, resilience and business continuity, digital innovation, and digital skills and adaptability.

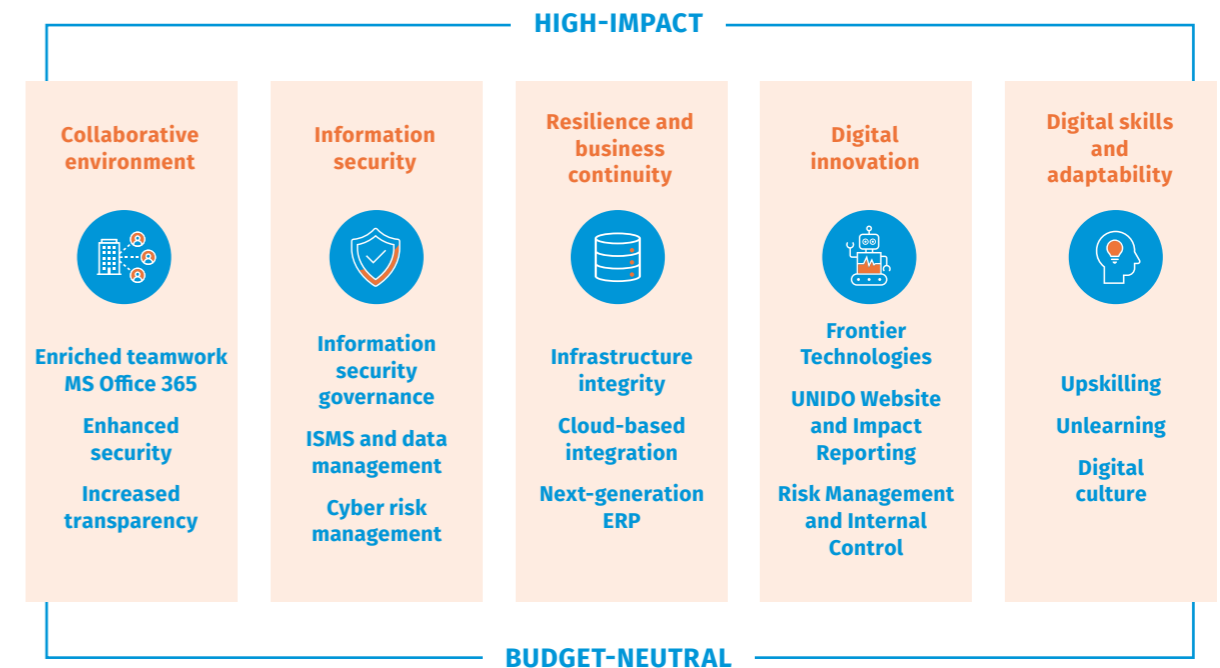
To support this, a number of changes were made in 2022 to move towards the new framework. These include working with the United Nations International Computing Centre (UNICC) to implement Microsoft 365, including Teams, for personnel to efficiently communicate and collaborate with colleagues across the Organization or external stakeholders. The software also allowed the Organization to implement enhanced security features to minimize the risk posed by cyberattacks. The Cybersecurity Awareness Programme has expanded through yearly training for all personnel and continuous phishing tests

to prevent data breaches. Two events were organized with over 450 participants: a webinar on human factors in cybersecurity, and a cybersecurity month campaign using gamification, challenges and incentivization. In addition, the UNIDO Security Scorecard used by other United Nations agencies continues to have a high score of “A”, above the United Nations average.

A new cloud-based e-recruitment system called SAP SuccessFactors offers a more streamlined workflow and better user experience. The 2022 launch successfully signed up 15,000 candidates in less than six months. Feedback from users has been positive, with many praising the ease of use and flexibility of the system.

Several critical online reports and dashboards in finance (full cost recovery, result-based budgeting), human resources (workforce analysis), and donor reporting were well received. In November, a new internal e-correspondence system was implemented with better workflows, security and monitor controls.

A new UNIDO public website is under development to align with the new vision. It will be launched in early 2023 with a modern design, mature information architecture, and refreshed content strategy, making it easier to navigate on all devices and providing information in a more concise and user-friendly format.



## FACILITY MANAGEMENT SERVICES

Facility Management Services is responsible for the smooth, reliable and safe operation of all technical facilities and installations at the Vienna International Centre. For the seventh consecutive year, UNIDO received the UNFCCC certificate of climate neutrality for the Centre.

In 2022, new equipment and upgraded systems reduced energy consumption and maintenance effort. This includes the main drinking water pipes for the supply of Buildings F and G and the cafeteria kitchen, drinking water pipes for the kitchenettes in Buildings A and B, and conference equipment and facilities in Buildings C and M and the UNIS multimedia room in G05.

To improve safety, ten 40-year-old transformers in Buildings A, B, F and G and high voltage cables between the collector

and Buildings D and E were replaced and emergency and escape route lights in Buildings D and E installed. Elevator cabins in Buildings A and B were refurbished and smart elevator technology was introduced in Building A, fulfilling standards for persons with physical challenges. The Real Time Asset Location and Tracking System was installed in Buildings F and G, and 350 Wi-Fi access points were updated with new devices in Buildings C, F, G and M. Security systems in the Centre were updated to state-of-the-art technology, including access, alarm and video surveillance equipment. Memorial Plaza, including the fountain area, was refurbished to address severe water leakages penetrating into the park decks and damaging the concrete structure. Throughout the green areas of the Centre, 460 metres of defective main irrigation pipes were replaced.



## Change management



UNIDO personnel were further briefed about the reforms in detail at a town hall meeting in October 2022

A new Office of Change Management is now in place, acting as a focal point to oversee and implement structural and cultural change across the Organization. The office explains the new vision and rationale for change, provides guidance to staff and management on work improvement initiatives, acts as a mediator, supports the setting up and operation of official and informal teams, and promotes a culture of efficient service delivery.

The office has initiated numerous activities to translate into action the new management principles, such as shared responsibility, staff

empowerment, cross-organizational collaboration, self-responsibility and problem solving. These include communication and active engagement with staff and management about the change, developing and monitoring a change management framework, promoting new work principles and organizational culture via messages to staff, and establishing a network of change agents that allows for two-way communications between staff and management.

## LEARNING AND DEVELOPMENT

A new Learning and Development Services was established to provide additional opportunities to upskill and reskill the workforce for the new, innovative UNIDO. This includes formal training for staff to learn the necessary skills to succeed, as well as supporting staff for informal learning and growth, and co-creating

opportunities for personal and professional growth. Learning topics in 2022 covered diversity, equity and inclusion, cybersecurity, fraud prevention, risk management, managing work-life balance, process and policies, digital skills, adaptability, empathy, team building, productivity and collaboration software.



## Digital transformation

UNIDO is creating a modern organization, equipped with properly trained staff and infrastructure. An assessment with external partners helped identify digital skills gaps and development paths to ensure UNIDO has the necessary talent and innovative techniques to embrace and implement new digital technologies and best practices, and develop a succession plan. As a result, a new digitalization team, agile working methods and an innovative working space are being introduced.

The Organization is using frontier technologies to automate many processes, which reduces inefficiencies by speeding up processing and enhancing controls, risk management and coordination. In close cooperation with financial services, Robotic Process Automation was introduced for travel advances and donor reporting. The digital process generated over 300 annual donor statements, improved transparency and compliance with donor requirements, and saved up to 67 per cent in

senior management time in approval tasks. Travel services automated over 1,500 travel advances, processing cash advances by producing a list of upcoming trips and performing several checks. This mitigated the risk of human error and ensured adequate controls are invoked by enforcing travel-related financial rules.

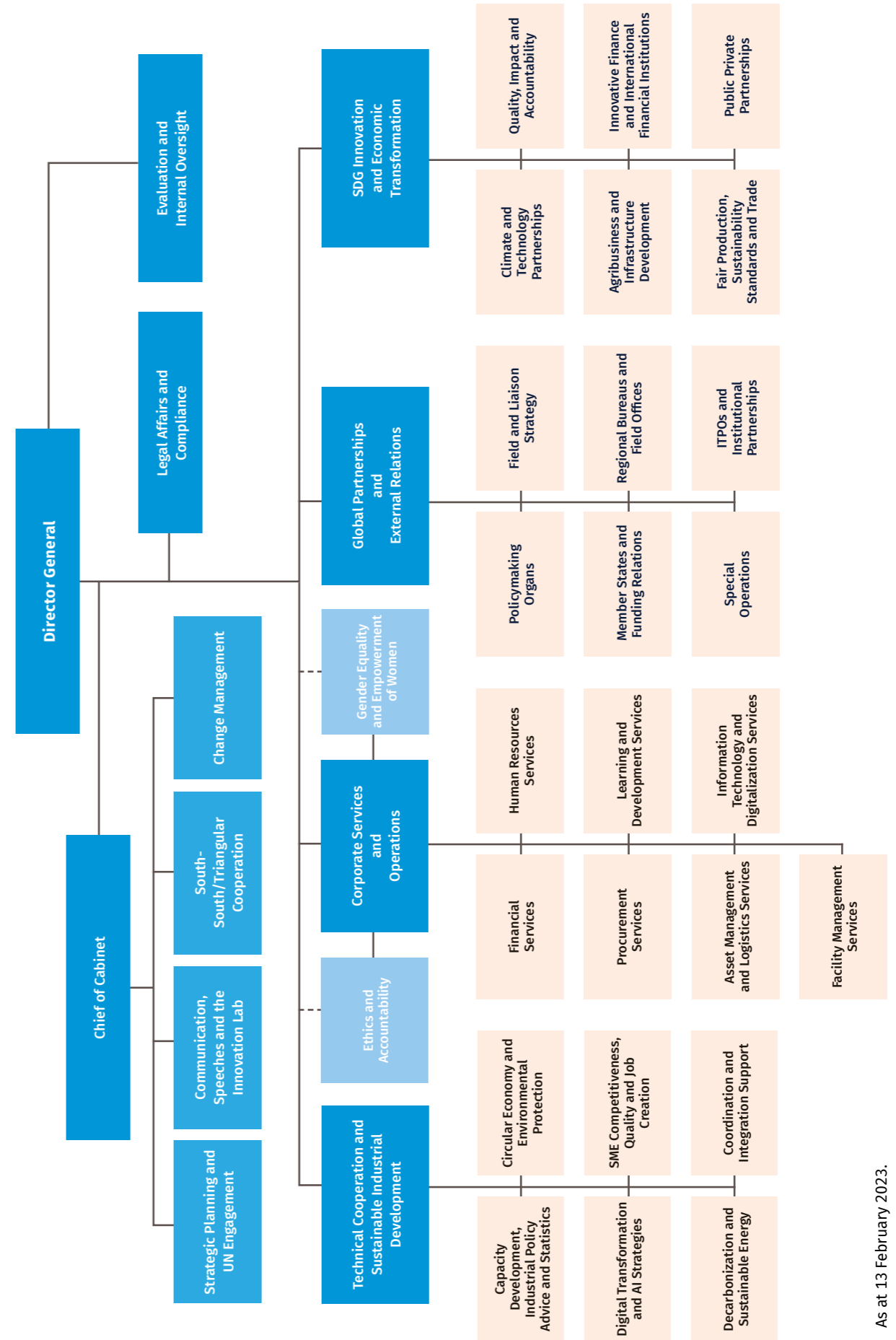
Efforts are being made to fully automate the uploading and reconciliation of all of the UNIDO treasury's bank statements by using robotics. The robot currently handles around 300 bank statements and 1,200 bank vendor requests a year, streamlining the process, strengthening controls and reducing the risk of human error.

The use of machine learning and AI is being piloted with technical cooperation project documents to improve data quality and better illustrate the impact of UNIDO support to Member States.

## ABBREVIATIONS

<b>BRICS</b>	Brazil, Russian Federation, India, China and South Africa	<b>POP</b>	persistent organic pollutant
<b>CFC</b>	chlorofluorocarbon	<b>SDG</b>	Sustainable Development Goal
<b>CO<sub>2</sub></b>	carbon dioxide	<b>SIDS</b>	small island developing State
<b>COMFAR</b>	Computer Model for Feasibility Analysis and Reporting	<b>SME</b>	small and medium-sized enterprise
<b>EAU</b>	Ethics and Accountability Unit	<b>UNAMA</b>	United Nations Assistance Mission in Afghanistan
<b>EIO</b>	Evaluation and Internal Oversight	<b>UNDESA</b>	United Nations Department of Economic and Social Affairs
<b>EU</b>	European Union	<b>UNDP</b>	United Nations Development Programme
<b>FAO</b>	Food and Agriculture Organization of the United Nations	<b>UNECE</b>	United Nations Economic Commission for Europe
<b>GCF</b>	Green Climate Fund	<b>UNEP</b>	United Nations Environment Programme
<b>GDP</b>	gross domestic product	<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>GEF</b>	Global Environment Facility	<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>HLPF</b>	high-level political forum on sustainable development	<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>IFAD</b>	International Fund for Agricultural Development	<b>UNICEF</b>	United Nations International Children's Emergency Fund
<b>ILO</b>	International Labour Organization	<b>UNIS</b>	United Nations Information service
<b>IOM</b>	International Organization for Migration	<b>UNITAR</b>	United Nations Institute for Training and Research
<b>ITPO</b>	Investment and Technology Promotion Office	<b>UNODC</b>	United Nations Office on Drugs and Crime
<b>LDC</b>	least developed country	<b>UNOPS</b>	United Nations Office for Project Services
<b>MIC</b>	middle-income country	<b>UNSDCF</b>	United Nations Sustainable Development Cooperation Framework
<b>MLF</b>	Multilateral Fund for the Implementation of the Montreal Protocol	<b>USAID</b>	United States Agency for International Development
<b>MSME</b>	micro-, small and medium-sized enterprise	<b>WIPO</b>	World Intellectual Property Organization
<b>OECD</b>	Organisation for Economic Co-operation and Development		
<b>PAGE</b>	Partnership for Action on Green Economy		
<b>PCB</b>	polychlorinated biphenyl		
<b>PCP</b>	Programme for Country Partnership		


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