



UNITED NATIONS  
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# PRS NEWSLETTER

Policy Research and Statistics Department

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Dear Readers,

UNIDO and PRS have been extremely busy over the last few weeks. UNIDO's General Conference (GC) under the theme "Building a Better Future" took place from 29 November to 3 December 2021, and was hosted as a hybrid event at UNIDO headquarters. The Industrial Development Report 2022 "The Future of Industrialization in a Post-Pandemic World", UNIDO's biennial flagship publication—which is coordinated by PRS—was launched at the GC's 6<sup>th</sup> Plenary Meeting on 1 December. The IDR's main findings and messages, which are included in this newsletter, were presented at the event and discussed with a panel of prominent industrial development experts. The aim of the event was to stimulate debate on future courses of action to build back better from the pandemic crisis in light of the fact that UNIDO, now more than ever, must capitalize on its wealth of expertise to get countries back on track to achieve the Sustainable Development Goals.

Many other events were organized throughout November and December. PRS colleagues contributed their knowledge and insights on topics ranging from industrial innovation, green and digital economies, post-pandemic industrial policy, global and regional value chains to sustainable energy solutions. This newsletter provides an overview of PRS's extensive activities in recent weeks with links to further information on these valuable contributions.

As 2021 draws to a close, the discovery of the SARS-CoV-2 variant Omicron is a sobering reminder that the pandemic will continue to affect our lives in 2022. Although the world is slowly learning to live with COVID-19 as an endemic disease, the virus continues to teach us important lessons, such as how to better prepare and respond to disruptions and how interlinked all countries are. It emphasizes the need for close and inclusive multilateral cooperation across borders and industries to successfully address global problems that affect us all; be it the rapid development of vaccines and medical treatments, to spurring innovation and digitalization or the decarbonization of industry.

Going forward, UNIDO, alongside governments, the private sector and non-government organizations, needs to continue to forge ahead to achieve inclusive and sustainable industrial development, to ensure equitable vaccine allocation and local production capacities, make progress towards achieving zero emissions by 2050, accelerate the

adoption of technology and digitalization in developing countries and foster innovation, to name just a few. We have worked hard in 2021 to promote UNIDO's mandate and to help our Member States build back better. We will roll up our sleeves and get back to work again after a short, well-deserved break over the holidays.

I hope you enjoy reading this newsletter and find it useful.

With best wishes for the holiday season and the coming year.

### **Hiroshi Kuniyoshi**

Deputy to the Director General and Director ad interim of the Department of Policy Research and Statistics, EPR/PRS

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Our newsletter mailings are a convenient way to stay connected and keep readers up to date on PRS's latest news. Previous editions of the newsletter are available [here](#).

We welcome any feedback, comments and suggestions for further improvements at [prsnewsletter@unido.org](mailto:prsnewsletter@unido.org).

## **PUBLICATIONS**

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### **Industrial Development Report 2022**

#### **The Future of Industrialization in a Post-Pandemic World**

The Industrial Development Report (IDR) 2022 analyses how the COVID-19 pandemic has affected the industrial sector in different regions and countries around the world and the role played by the industrial sector during the crisis and in driving post-pandemic recovery. The report provides fresh quantitative and qualitative evidence at the country, industry and firm level to document the crisis' impacts, and explores the drivers of resilience and vulnerability. One of the key findings is that manufacturing remains the backbone of our economies, and industrial capabilities have contributed to mitigating the negative impact of the crisis and have fostered socioeconomic resilience. Another key finding is that digitalization has supported countries' resilience during the pandemic. This result highlights the importance for developing countries to further strengthen their digital capabilities to prepare for the post-pandemic future. The IDR 2022 also highlights three important megatrends expected to shape the post-pandemic landscape – digitalization, production rebalancing and industrial greening. These megatrends must be taken into account by developing countries when designing their recovery strategies, which must be green, inclusive and more sustainable. The findings documented in the IDR 2022 reiterate the significance of Sustainable Development Goal (SDG) 9—which lies at the core of UNIDO's mandate—to the achievement of the 2030 Agenda for Sustainable Development. Based on these findings, the report provides policy recommendations and calls the international community to act promptly and with genuine commitment to build a better post-COVID-19 future. The full report is available [here](#).

#### **VEF Virtual Series Industry Track Policy Brief**

The [Vienna Energy Forum](#) (VEF) Virtual Series is an initiative launched by UNIDO in partnership with the Food and Agriculture Organization (FAO), United Nations

Environment Programme (UNEP) and Sustainable Energy for All (SE- forALL). This policy brief examines pathways that stimulate and promote economic recovery in industry. Both developing and developed countries still power many of their industrial sectors with fossil fuels, and industrial productivity is only slowly improving. Achieving energy and climate goals in industries will require: i) improved energy efficiency; ii) electrification of end-uses based on renewable sources; iii) direct use of renewable heat and sustainable biomass; iv) indirect use of renewable electricity through green hydrogen, e-fuels and feedstocks; and v) carbon capture technologies.

## **IAP Articles**

### **Managing demand-led industrial development in the global green economy**

*By F. Malerba, F. Landini and R. Lema*

This study focuses on three renewable energy industries in China (wind, biomass and hydropower), which the local market and domestic demand played an important role in before they began to expand at the global level. Although the three industries developed at different times and have distinctive technological characteristics, they were all significantly influenced by the timing and sequence of policies, technological developments and firms' learning processes. A simulation model was devised based on these industries' experiences to develop a baseline scenario and compare it with counterfactual experiments. Demand-led industrial development trajectories are complex and the sequence and order of events in the catching-up process play a fundamental role. This sequencing and interplay of events can be studied using the simulation model developed in this study. The results highlight that policymakers must consider complementarities that cut across environmental, industrial and innovation domains when promoting latecomer development. To prevent coordination failures, continuous efforts to co-design policies across ministries and governmental agencies must remain at the top of the agenda.

### **Place-based policies: How to design them and why**

*By J. Südekum*

A gradual paradigm shift towards regional- and place-based policies has been evident in recent years. Such policies typically do not take the form of direct monetary transfers to households but consist of subsidies or targeted infrastructure investments with the aim of "reactivating" economic activity in recipient areas. Three key principles have been developed within the scope of research conducted for the Organisation for Economic Co-operation and Development (OECD) to design effective place-based policies: 1) smart specialization, i.e. available local competencies, comparative advantages and specializations within the respective region should be exploited; 2) avoidance of zero-sum thinking and aiming for win-win outcomes, i.e. programmes should focus on investments with long-term payoffs; 3) local government must have the capacities and resources to effectively absorb the various funding opportunities and ensure that funding flows into meaningful projects with sustainable economic returns.

### **Uptake of pollution mitigating technologies in Kenya and Uganda**

*By H. Pacini, K. Munene and K. Attafuah-Wadee*

The uptake of pollution mitigation technologies in Kenya and Uganda has been limited due to financial barriers (such as high initial capital expenditure and lack of access to affordable local financing and supplier terms), technical barriers (e.g. lack of market-relevant information about the solutions' market potential and limited technical skills to commercialize and maintain these technologies) as well as regulatory barriers. A network analysis was used to identify pollution mitigation solutions that can tackle multiple types of pollutants in the two countries. Of the 31 potential solutions surveyed, a total of 29 solutions can be provided by domestic suppliers; 18 are available both domestically and abroad while only 6 solutions can be provided exclusively by international suppliers. The majority of identified solutions—ranging from water treatment solutions, dust collectors and biotreatment of residues—are in early stages of adoption, but are indispensable for the long-term sustainability of Kenya's and Uganda's growing manufacturing capacities.

### [Learning from tumultuous times: Structural risks in international trade](#)

*By O. Reiter and R. Stehrer*

The supply bottlenecks experienced in 2020 underscored countries' strong dependence on goods produced elsewhere. A "product risk index" is constructed that consists of five subcomponents, which maps and quantifies potential structural weaknesses in global trade. One of these subcomponents is an indicator of the extent to which the export of a given product is concentrated in a small number of exporting countries: the larger a country in terms of market share of a given product, the more likely it is that this product will be classified as "risky". The findings show that 1) dependence on risky high-tech imports is high, especially high-tech industries' dependence on such imports; and 2) the importance of Southeast Asia—in particular China—as exporters of these products has grown. The structural dependencies in international trade call for policy measures that will alleviate them and make value chains more robust and resilient against shocks.

### [Other Publications](#)

#### [World Manufacturing Production – Statistics for Quarter III 2021](#)

##### **Current pandemic trends bring more uncertainty to economic prospects**

The most recent data for global manufacturing production in the third quarter of 2021 indicate a stabilization after the COVID-19 related economic disruption in the previous year. While the economic trajectories vary significantly among countries, the majority experienced solid increases in manufacturing production compared to 2020. China, for example, bounced back quickly and has already exceeded its pre-pandemic production level since the third quarter of 2020. Nevertheless, in the third quarter of 2021, China experienced the lowest annual growth rate (4.6 per cent) since 2006, excluding the first two pandemic-related quarters in 2020. Production in the developing and emerging industrial economies group witnessed greater volatility, even falling below pre-pandemic levels. Industrialized economies, on the other hand, have exceeded their pre-pandemic production level since the first quarter of 2021 and have now achieved a stable year-over-year growth of 6.1 per cent. The most recent UNIDO forecasts of manufacturing value added (MVA) in 2021 point towards stabilization following the upheaval caused by the COVID-19 outbreak and resulting containment measures around the world. Global manufacturing production is expected to grow by 7.3 per cent in 2021, while China's manufacturing sector will most likely expand by 8.4 per cent. MVA in industrialized

economies is estimated to grow by 7.2 per cent in 2021, while the manufacturing sector of developing and emerging industrial economies (excl. China) is expected to recover at an even faster pace, bouncing from a drop of 6.1 per cent in 2020 to an increase of 5.7 per cent in 2021.

## RECENT EVENTS

### [Post-pandemic industrial policy: jobs, growth, sustainability and resilience](#), 17 November

PRS's Smeeta Fokeer contributed to this virtual dialogue involving members of the [UN Committee for Development Policy](#) (CDP), [UN Department of Economic and Social Affairs](#) (UN DESA) and UNIDO on post-pandemic opportunities and challenges in industrial policy. Industrial policy has witnessed a revival as governments face the simultaneous challenges of securing economic recovery, addressing deep inequalities magnified by the COVID-19 crisis, transitioning to a low-carbon economy and adapting to climate change. This dialogue addressed the question what needs to be fundamentally different in post-pandemic industrial policy to reconcile ecological, social and economic ambitions. A live recording of the dialogue is available [here](#).

### [Industrialization in sub-Saharan Africa: Seizing opportunities in global value chains](#), 23 November

PRS's Frank Hartwich participated as a panelist in the launch of the World Bank's most recent book [Industrialization in sub-Saharan Africa : Seizing opportunities in global value chains](#). The book reassesses the prospects of industrialization in sub-Saharan Africa through integration into global value chains and examines the role of policy in enhancing these prospects for successful industrial development. The main question is not if, but how Sub-Saharan African countries should pursue industrialization. Douglas Gollin, Professor of Development Economics at Oxford University reviewed the book. In the subsequent discussion, the importance of SME development was emphasized as was the need to increase productivity and structural information of Africa's industries. The other panelists were Edward Brown, Senior Director, Research & Policy Engagements, Africa Center for Economic Transformation; Margaret McMillan, Professor of Economics at Tufts University; Thomas Mélonio, Director of Innovation, Research and Knowledge at the French Development Agency and Albert Zeufack, Africa Region Chief Economist at the World Bank Group.

### [Building resilient regional/continental value chains in Africa: From diagnostics to the planning of action](#), 24 November

In preparation of the [African Union Summit on Industrialization and Economic Diversification](#), which will take place early next year, UNIDO organized this pre-event together with the [African Union Commission](#) (AU Commission). The meeting was attended by over 50 participants engaged in value chain development in Africa. UNIDO's Deputy to the Director General, Mr. Hiroshi Kuniyoshi, opened the meeting, emphasizing that Africa should embrace a self-supporting regional development agenda. A keynote address was presented by PRS's Frank Hartwich and Christoph Hammer, who discussed interregional trade and regional value chain integration in Africa. The ensuing panel discussion focused

on the way forward for regional value chain (RVC) development in Africa, including the setting up of regional development programmes, policy adjustments, regulations, engagement of the private sector, distribution of roles and allocation of resources. The panelists included representatives from the AUC, UNECA, AUDA-NEPAD, ECOWAS, ECCAS, ILO, ITC and AfreximBank. The AUC concluded the meeting with remarks on possible elements to be included in an action plan for RVC diagnostics and programme development in Africa. More information about the event is available [here](#).

### **[Building industry differently after COVID: Fostering resilience and regional value chain development](#), 25 November**

This side event was organized as part of UNIDO's 9th Ministerial Conference of the Least Developed Countries – The next decade of action: Accelerating ISID in LDCs. The meeting brought together industrial policy experts and practitioners to discuss the future of manufacturing in least developed countries (LDCs) in the post-COVID era. The meeting was opened by Ms. Miniva Chibuye, Economic Affairs Officer, UN-OHRLS and UNIDO Deputy to the Director General, Mr. Hiroshi Kuniyoshi, who emphasized that the set of industrial policies of previous decades are too outdated to deal with the new challenges we face today and urged participants to discuss ways forward for industrial policies in LDCs. The keynote address was presented by PRS's Frank Hartwich and Christoph Hammer. They provided data on the impact of the pandemic on LDCs' industries and their responses in terms of less-distant sourcing and promoting local production. The discussions among the high-level panelists focused on anecdotal evidence of the pandemic's effects on different industries and policy responses. The results of the event are expected to be picked up at the LDC5 conference in Doha in January 2022, where PRS, in collaboration with UNCTAD, will organize a side event on "A new generation of industrial policies for LDCs". The recommendations of that event will inform the Doha Programme of Action for LDCs, which—among others—aims at promoting inclusive and sustainable industrialization and, by 2030, to double industry's share of employment and gross domestic product in LDCs.

### **[Industrial innovation to accelerate transitions towards greener and digital economies](#), 25 November**

In the context of the [8th European Conference on Corporate R&D and Innovation \(CONCORDI\) 2021 – Industrial innovation for competitive sustainability](#), held virtually from 22–25 November 2021, with 625 registered participants from 79 countries, UNIDO convened two plenary sessions to discuss the greening of the economy and digitalization as two megatrends shaping the future of industrialization. Due consideration was granted to the effects of the ongoing pandemic on the digitalization and greening agendas, which has introduced the notion of resilience as an additional driver for policy, capacity development and cooperation at different levels. During his remarks at the Opening Plenary to CONCORDI 2021, Mr Hiroshi Kuniyoshi, Deputy to the Director General, emphasized the relevance of "strengthening multilateralism, international coordination and collaboration around industrial innovation and industrial policy issues" as crucial factors to building back better and to enabling developing countries to be better prepared to address the twin transition towards digitalization and the greening of manufacturing. The plenary session entitled "The future of industrialization in a post-pandemic world: Focus on developing countries" served to discuss the opportunities and challenges developing countries face to accumulate the industrial capabilities needed to tackle



digitalization and economic greening. The plenary session “Inclusive and sustainable industrial recovery through digital transformation” addressed different factors that can determine success in endorsing the twin transition towards the green and digital economy.

### **[The Inclusive and Sustainable Competitive Industrial Performance index \(ISCIP\): Implications for Africa, 30 November, ICAE2021](#)**

PRS’s Nicola Cantore and Charles Fang Chin Cheng (UNIDO Consultant) presented their paper at the [13<sup>th</sup> International Conference on Applied Energy \(ICAE2021\)](#) during Session 2 “Energy Management, Policy and Economics”. The Inclusive and Sustainable Competitive Industrial Performance Index (ISCIP) is a first attempt to expand the Competitive Industrial Performance index approach by including competitiveness, social and environmental indicators. The results of this approach indicate that compared to the traditional CIP index, countries’ ISCIP rankings change, but that high-income countries tend to remain at the top of the list. Using different methods of aggregation, the results are surprisingly consistent. The full report can be found [here](#).

### **[Launch of the Industrial Development Report 2022, 1 December](#)**

The Industrial Development Report (IDR) 2022 was launched at a plenary event of the nineteenth session of the [UNIDO General Conference](#). Opening the event, UNIDO’s Director General, Li Yong, called for active international engagement to foster an inclusive and sustainable post-pandemic recovery. The report’s main findings were presented by UNIDO’s Deputy Director General Mr. Hiroshi Kuniyoshi, who emphasized that manufacturing has kept economies afloat during the pandemic crisis and continues to drive them forward, and that industrial capabilities and digitalization play an important role in supporting countries’ resilience. A lively discussion among the panel members, which consisted of high-level policymakers and prominent industrial development experts, followed the presentation of the IDR 2022’s findings. HE Ms. Victoria Hernández Mora, Minister of Economy, Industry, and Commerce of the Republic of Costa Rica, remarked that industry was the least affected economic sector in Costa Rica, also due to the timely development of containment measures to allow industries to continue operating safely. Ms. Xiaolan Fu, Director of the [Technology and Management Centre for Development](#) at the University of Oxford, reiterated that the new digital technologies represent a window of opportunity for accelerating industrial transformation in the global South. Mr. Jeffrey Sachs, President of the [UN Sustainable Development Solutions Network](#), stressed that all countries need to accelerate the shift to a green industrial sector and to transform their energy systems; this will require an increase in the access of developing countries to adequate financing and technologies. The panelists agreed on the need for renewed international commitment and collaboration mechanisms to build a better post-COVID-19 future. The event was moderated by Ms. Bethany Bell, BBC, and was livestreamed on UNIDO’s website (see [press release](#) of the event).

### **[Accelerated climate change and the Food-Energy-Water Nexus, 3 December](#)**

PRS’s Nicola Cantora co-moderated this panel discussion, which was organized by UNIDO in partnership with [Jülich Forschungszentrum](#) and the scientific journal [Applied Energy](#) within the scope of [ICAE2021](#), the 13<sup>th</sup> International Conference on Applied Energy “Sustainable Energy Solutions for a Post-COVID Recovery towards a Better Future”. The event focused on the industrialization of countries to enhance economic growth and

inclusiveness by presenting their effectiveness in fighting climate change. Another topic of debate was the job creation potential of developing countries for decarbonized economic development. A report produced by the [Global Green Growth Institute](#) in collaboration with UNIDO and the [International Renewable Energy Agency](#) (IRENA) entitled “[Assessing Green Jobs from Renewable Energy and Forestry Investments for Developing and Emerging Economies](#)” was presented and discussed as well. More details about the panel discussion are available [here](#).

### **[Revival of industrial policy – prospects for establishing a global industrial policy forum for multilateral policy learning and knowledge sharing, 3 December](#)**

This side event, which was held during UNIDO’s 19<sup>th</sup> General Conference (29 November to 3 December), was prompted by the urgent need among countries to revive their industrial policies, to share experiences and best practices, and to promote policy learning. The panel members concurred that achieving the SDGs is not possible without industrial policy, and emphasized the importance of strengthening policymakers’ industrial policy capacities. The panel recommends the establishment of a multi-stakeholder forum that focuses on industrial policy. Inter alia, it also proposed that the forum should facilitate the identification of common industrial development priorities among Member States, as well as identifying areas of collaboration and synergies, while enabling the design and implementation of more effective industrial policies. Another dimension suggested by the panel for the forum to become a peer-learning mechanism for new-generation industrial policy formulation. More information on the side event is available [here](#).

### **[2021 Forum on Globalization and Industrialization, 6–7 December](#)**

The 2021 Forum on Globalization and Industrialization (FGI) “Rewiring Global Production Networks for Sustainability” and the accompanying Research Conference on Sustainability in Global Supply Chains were jointly organized by UNIDO, [the Kiel Centre for Globalization](#) (KCG) and the [Kiel Institute for the World Economy](#) (IfW Kiel), together with the [Research Network on Sustainable Global Supply Chains](#), the [German Institute for Global and Area Studies](#) (GIGA Hamburg) and the [German Development Institute](#) (DIE-GDI). Over two days, the Forum brought together over 580 participants from over 50 countries in virtual plenaries and discussions. In his opening remarks, UNIDO’s Deputy to the Director General Hiroshi Kuniyoshi highlighted the need for close and inclusive multilateral cooperation. The first two sessions of Day 1 “Linking supply chain sustainability to the global sustainability agenda” and “Sustainable supply chain governance systems and the role of (national) governments” addressed how supply chain sustainability links to the global sustainability agenda, as well as challenges and ways forward regarding the sustainable governance of supply chains given that firms operate in multiple countries. In sessions 3 “Innovative approaches to achieving sustainability in global supply chains” and 4 “Measuring and monitoring the sustainability of global supply chains: current practices and future directions” of Day 4 explored concrete ways to measure and monitor sustainability and steps to achieve sustainability along the entire supply chain. The need for close public-private partnerships based on better evidence, such as the collection of new and relevant data, was a common thread. More information can be found [here](#).

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## **PROGRAMMES AND PROJECTS**



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## **Science, Technology and Innovation (STI)**

### **Second Expert Group Meeting, 23 November**

The second Expert Group Meeting (EGM) to review a report on experiences mobilizing science, technology and innovation for industrial development took place between PRS and STEPI, a think tank specialized in STI policy issues, based in the Republic of Korea. The report, which will be the outcome of a collaboration between UNIDO and STEPI, includes three cases studies on the Republic of Korea, China and Thailand. Once completed, the report will serve as background material to support UNIDO's industrial policy services, as it will provide concrete examples of how Asian countries have mobilized STI to achieve industrial development targets. It will also showcase how STI contributes (or not) to addressing the challenges of digitalization and sustainability in those countries. The meeting included three external reviewers from UNSCAP, UNCTAD and GRIPS (National Graduate Institute for Policy Studies).

### **UN-IATT Work Stream 6 Series on STI policy for SDGs for the SADC Region, 6–10 December**

The objective of this series of five online training sessions designed by the UN Inter-Agency Task Team (IATT) on Science, Technology and Innovation (STI) for SDGs Work Stream 6 on Capacity Building (WS6) was to build awareness and understanding of the key aspects of STI policies and instruments, as well as innovation and entrepreneurship, monitoring and evaluation processes, and how these relate to the SDGs. The training specifically addressed STI officials, practitioners and experts from African countries, in particular from the Southern African Development Community (SADC). The sessions aimed at engaging participants in interactive discussions and practical reflection on existing approaches, case studies and national experiences in establishing and managing STI in the context of the SDGs. The trainings are delivered by UN-IATT entities, including UNIDO, UNCTAD, UNESCO and others.

## **Statistics**

### **e-Learning course Sustainable Development Goal 9 (SDG-9): Industry, Innovation and Infrastructure, 8 November to 10 December**

UNIDO Statistics and the UN Statistical Institute for Asia and the Pacific (SIAP) launched an e-learning course on Sustainable Development Goal 9 (SDG-9): Industry, Innovation and Infrastructure. This course was designed to provide a strong foundation for the main pillars of SDG-9, the relationship of this goal and the 2030 Agenda with ISID, including its contribution to building peace and prosperity for all. The target participants were government statisticians from national statistical offices, representatives of the Ministry of Industry and Investment Promotion Agencies (IPAs) who are involved in compiling, disseminating and analysing statistics and indicators on industry, innovation and infrastructure and conducting policy for industrial growth and investment attraction. Around 80 participants registered to participate in the course.

### **Webinar on the Competitive Industrial Performance (CIP) index in Uzbekistan**

UNIDO Statistics and the Ministry of Economic Development and Poverty Reduction of the Republic of Uzbekistan organized a webinar on the calculation and use of the Competitive Industrial Performance (CIP) index. In addition, one session of the webinar focused on tracking the performance and progress towards SDG-9 industry-related targets and indicators.

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