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PRS NEWSLETTER

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Dear Readers,

The COP26 climate summit is currently underway in Glasgow, Scotland, bringing together world leaders, representatives of NGOs, business and civil society organizations to discuss the future of the global climate crisis and key aims, including securing global net zero by 2050, protecting communities and natural habitats, and mobilizing finance for climate action. They have pledged to cut methane emissions by 30 per cent of 2020 levels and to end deforestation by 2030. Several countries have also committed to end public financing for fossil fuel energy projects by the end of 2022. Moreover, the world's biggest financial players have announced USD 130 trillion of private capital to reduce carbon emissions and achieve net zero. This clearly reflects the commitment of industry to play its part in meeting the goals of the Paris Agreement. It is indisputable that public-private partnerships will be crucial in transitioning the economy to net zero.

At the same time, many developing and emerging countries have vast energy reserves that could be harnessed to fuel their development and lift millions out of poverty. These countries have come under increasing pressure to abandon fossil fuels and to shift to renewable energy, although they have thus far contributed relatively little to global CO₂ emissions. The [“net zero” anxiety](#) that many African countries are currently facing is discussed in this newsletter. At the same time, recommendations on [post-COVID-19 pathways to low-carbon industrialization](#) are presented in another contribution.

Other topical issues are also covered in this newsletter, including the [building of a sustainable vaccine manufacturing sector in Africa](#). This is of particular relevance considering that the reality is slowly sinking in that a contingency plan for a long-term response to COVID-19 is essential, i.e. that we will have to adapt to life *with* the virus rather than focus on how to end it. In this context, [innovation policies in the health sector](#) will also be of particular importance.

I invite you to read more about these and many other contributions PRS is making to address the challenges our world is facing.

Hiroshi Kuniyoshi

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

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.

PUBLICATIONS

[Deindustrialization in developed countries amid accelerated globalization: Patterns, influencers, and policy insights](#)

By K. Vu, N. Haraguchi (UNIDO), and J. Amann (UNIDO Consultant)

This article was published in the journal [Structural Change and Economic Dynamics](#) (Volume 59) and examines the dynamics of deindustrialization in developed countries during the 1970–2015 period. It investigates the patterns and factors underlying manufacturing employment growth and finds that deindustrialization is a persistent pattern that underwent a significant structural change in the post-1990 period, during which the acceleration of globalization appeared to have had a considerable effect. Industries with higher relative labour productivity are far more resistant to deindustrialization, particularly in the post-1990 period, an effect that is stronger for low-tech industries. Deindustrialization tends to be more severe in countries with larger populations and a deficit-prone trade balance. These links have become more pronounced in the post-1990 period.

[Working Papers](#)

[Post-COVID-19 pathways to low-carbon industrialization](#)

By S. Fokeer (UNIDO)

While industry continues to be the engine of growth for most countries, its high reliance on energy makes it unsustainable. The pandemic has accentuated that the case for climate action is more urgent than ever. The transition to low-carbon industrialization includes the uptake to sustainable energy solutions and digitalization, especially by small and medium enterprises and hard-to-abate industries. To achieve this transition, major bottlenecks, such as limited access to technology, skills, knowledge, finance, weak policy and regulatory frameworks and coordination failures, need to be addressed. The necessary policy measures include policy coordination, regulation, knowledge brokerage, innovation promotion, demand creation and public procurement. Countries must leverage the opportunities provided by COVID-19 recovery plans to reap the benefits of sustainable energy solutions to ensure that we build back better.

IAP Articles

Adoption of investment facilitation measures for development

By A. Berger, A. Dadkhah and Z. Olekseyuk

An Investment Facilitation for Development (IFD) agreement could facilitate the attraction and retention of foreign direct investment (FDI), a crucial source of development finance to achieve the Sustainable Development Goals (SDGs). The Investment Facilitation Index (IFI) provides a snapshot of countries' investment facilitation efforts, identifies major advances countries have made and the challenges they face in implementing the IFD agreement's conditions. Countries with the lowest FDI levels and that lack adequate policy tools to attract FDI have the lowest adoption rate of investment facilitation measures. An IFD agreement might exert pressure on countries to reform their investment facilitation policies, but many developing countries will need additional technical and financial assistance to adopt and implement sound investment facilitation measures. The IFI can play a valuable role in helping identify adoption gaps and in prioritizing technical assistance and capacity-building needs.

The changing landscape of international business post-COVID-19

By N. Pisani

Four trends will be of particular relevance when formulating prospects on how the international business landscape might evolve in the aftermath of the COVID-19 pandemic. First, COVID-19 will have an uneven impact on international business. The World Trade Organization (WTO) expects the world merchandise trade volume to decline less than initially expected. However, foreign direct investment (FDI) flows will take significantly longer to recover. Secondly, China's role as an export powerhouse implies that changes in its economic priorities will have major ripple effects on the international business landscape. The country's increasing focus on its own market will have major implications for multinationals that have been importing goods from China and—in response to growing protectionist measures at home as well—may start looking for domestic alternatives to source goods from. Third, The relevance of international mergers and acquisitions will continue to rise. Fourth, the world's biggest multinationals have displayed a strong home-region orientation over the last decade. In view of rising tensions and stronger localization pressures from national governments, a further escalation in the regionalization trend can be expected in the near future.

Vaccines for Africa: An industrial development approach to regional vaccine supply

By P. Gehl Sampath and J. Pearman

To build a sustainable vaccine manufacturing sector in Africa, local companies need access to technology and know-how, as well as some degree of market certainty to justify investment. First, coordination between supply expansion through large companies and local production initiatives is crucial for ensuring a receptive market for new entrants. Second, the selection of diversified vaccine technologies will be necessary to ensure the industry's longer-term sustainability. Finally, the investments of funds and efforts need to be underpinned by guaranteed market access. International funding partners can stimulate the development of an African vaccine industry through investment support,

but governments have a crucial role to play in terms of effectively implementing industrial policies and creating a favourable environment for such investments to yield dividends. Specific policies should also include the establishment of dedicated national or regional R&D centres, complemented by centres of excellence in partnership with local universities to promote skills creation.

Opinion Pieces

The COVID-19 pandemic and the call for innovation policies in the health sector


By J. Paranhos and F. Steiner Perin

The global interdependence of the pharmaceutical market and the global dependence on active pharmaceutical ingredients (API)—inputs needed to produce medicines and vaccines—from China and India became vividly clear during the pandemic. The case of Brazil is used to illustrate the importance of sustained industrial and science, technology and innovation (STI) policies for innovation-driven growth in the health sector, particularly in developing countries. The COVID-19 crisis has demonstrated that countries' domestic capacity to develop and produce vaccines and medicines makes all the difference during a health crisis. Recovery from the pandemic will require a review of the growth model adopted in recent years and additional support for strategic industries for the benefit of society as a whole. As the case of Brazil demonstrates, the government's past industrial and STI policies were effective in increasing the manufacturing capacities of national pharmaceutical firms. Clearly defined, sustained and long-term policies are necessary to limit the risks associated with innovative activities that focus on the weakest links and unmet health needs. The COVID-19 pandemic has taught us that sustained innovation policies aligned with public health needs are crucial to create productive and innovative capacities to meet unmet demands.

After COVID-19: "Net Zero" anxieties on Africa's Copperbelt and Savannah

By S. Kayizzi-Mugerwa

Africa's relationship to its rich natural resources might never be the same again post-COVID-19 and in the wake of the global decarbonization agenda. Over the past 20 years, oil and gas explorations have contributed to Africa's economic optimism and sense of self-determination. The industrialization of Africa, notably of low-income sub-Saharan Africa, was suddenly no longer considered a remote prospect. Yet the effect of the COVID-19 pandemic has more determinedly nudged decarbonization strategies forward, raising serious questions about the paths to development low-income and emerging economies should pursue as markets respond to the realities of "Net Zero". The asymmetric impacts of the decarbonization agenda on resource-rich African countries is explored drawing on the examples of Uganda, a crude oil exporter, and Zambia, a key copper exporter. While the post-COVID-19 period will have detrimental effects for new oil and gas producers such as Uganda, it will have positive effects for Zambia and other copper-producing countries. If the "Net Zero" agenda becomes a stringent determinant of the global development path, it is worth considering which development vehicles have the capability of pushing African countries forward, including the shape industrialization and manufacturing—the foundations of earlier waves of global prosperity—should take on the continent.



RECENT EVENTS

[The United Nations World Data Forum, 3-6 October](#)

The United Nations World Data Forum 2021 (UNWDF2021) provided a space for discussions between data producers and users. Through its presence in-person at the UNWDF2021, a team composed of EPR/PRS/RPA and EPR/PRS/STA staff had the opportunity to engage with a variety of representatives from National Statistical Offices (NSOs) as well as ministries from more than 20 countries on a number of topics related to industrial data and inclusive and sustainable industrial development. UNIDO's Industrial Analytics Platform (IAP) was also presented to the participants at the Forum, allowing the data community to provide feedback on the prototypes of the newest IAP data tools.

[Hybrid policy workshop: Improving Industrial Policy Intervention, 5-7 October](#)

A UNIDO team was invited to take part in the hybrid policy workshop with a keynote presentation and a workshop to present UNIDO's data tools. The event aimed to foster dialogue between academics, policy analysts and international organizations to improve industrial policy interventions. The keynote addressed the impact of COVID-19 on manufacturing and how the global value chain (GVC) paradigm might change over the coming decade. Additionally, UNIDO's Industrial Analytics Platform was presented, introducing the available tools to the participants and how they can be used to inform policymaking. Participants noted that the IAP is a "very well crafted data visualization for industry characteristics and performance for a large set of developed and developing countries."

[Innovation in the health industry: Are we doing enough? A LAC perspective on industrial policy, 27 October](#)

This webinar for and with policymakers and industry specialists, which was attended by 45 participants, concluded that the availability of health products for populations in Latin American and the Caribbean (LAC) needs to be improved, especially generics, vaccines and biologics. Local products are cheaper and generate jobs. COVID-19 has once again demonstrated that dependence on imports is too risky. LAC countries have de-invested in the health industry over the last decades and have therefore become dependent on (expensive) imports of health products. The LAC's health industry needs more public support than other industrial sectors due to its dependence on research and development (R&D) and the need to comply with the standards of the Global North regulatory agencies. Moreover, regulations and norms need to be adapted to provide incentives to local firms in the health industry. Connections between research and manufacturing can help increase innovative capacities and foster local development of projects, while collaboration across borders in the form of coordination, sharing of best practices and financing is the only way to build up larger innovative capacities and reaching economies of scale in production, public procurement and private demand.

Recomendaciones para políticas industriales orientadas a los objetivos de desarrollo sostenible en un mundo post-pandemia, 3 November

PRS's Fernando Santiago delivered a keynote presentation to students of the Economics Department at the National Autonomous University of Mexico (UNAM). His presentation was entitled 'Recommendations for industrial policies geared towards the SDGs in a post-pandemic world'. He argued that the COVID-19 pandemic demonstrated how manufacturing can help build social and economic resilience and that the challenge we now face is how to turn the crisis into a window of opportunity to promote more sustainable and inclusive industrialization guided by the SDGs.

FUTURE EVENTS

2021/2022 Intersessional Panel of the UN Commission on Science and Technology for Development (CSTD), 17–19 November

PRS's Fernando Santiago will represent UNIDO at the 2021/2022 Intersessional Panel of the UN Commission on Science and Technology for Development (CSTD) in a session entitled "Industry 4.0 for inclusive development" on 17 November. At its twenty-fourth session held in May 2021, the CSTD selected the topic of "Industry 4.0 for inclusive development" as one of its two priority themes for the 2021–2022 inter-sessional period. The second priority theme is "Science, technology and innovation for sustainable urban development in a post-pandemic world". Some of the main questions to be addressed include: How can developing countries take advantage of the window of opportunity presented by Industry 4.0 technologies for technological upgrading and economic catch-up? What can governments do to ensure that Industry 4.0 does not increase inequality? What is the role of international cooperation in facilitating this process? Based on the collection of inputs from members of the UNIDO Working Group on STI, Fernando Santiago contributed to the preparation of the [Issues Paper on Industry 4.0 for Inclusive Development](#), which will be the basis for the discussion. The full programme is available [here](#).

CSTD 2021-2022 Inter-sessional Panel Side event: Working level meeting of the Financing for Development Initiative Cluster III, the Technology Component, 19 November


UNIDO was invited to contribute to a working level meeting at a side event to the Intersessional Panel of the CSTD. The side event will gather Cluster III partners to discuss country level implementation with the UN Country Team from selected pilot countries, namely Jordan, Zambia, Samoa and Senegal. The objectives of this side event is to (i) inform the UN Country Team on the Cluster III Partners' activities, leveraging each entity's expertise and know-how in specific areas; (ii) explore possibilities to target more specific outcomes and mobilizing resources to support FFDI in technology for the pilot countries, and (iii) focusing activities on selected pilot countries where joint activities and events could be organized under the umbrella of the Cluster III and FFD Initiative. UNIDO provided inputs on its work in Jordan, Senegal, and Zambia. The UNIDO representative will share thought on how to implement the activities in coordinated ways with other Cluster III partners.

[CONCORDi 2021: Industrial innovation for competitive sustainability](#), 22–25 November

The virtual 8th European Conference on Corporate R&D and Innovation, which is organized by the [Joint Research Centre](#) of the European Commission in association with the [European Association for Research and Technology Organisations](#) (EARTO), the [Organisation for Economic Co-operation and Development](#) (OECD) and the United Nations Industrial Development Organization (UNIDO), aims to identify the research, business and policy challenges in this area for the decade to come, and to provide guidance to the EU industrial research and innovation policy agenda. CONCORDi 2021 is organised around the main themes of (i) industrial transition in times of recovery; (ii) industrial innovation for sustainable transformations; (iii) industrial strategy in a post-pandemic world: Focus on developing countries and (iv) technology infrastructures to deliver on the twin transition. The Plenary Session on The future of industrialization in a post-pandemic world: Focus on developing countries on 24 November will be chaired by Nobuya Haraguchi, Chief of Research and Industrial Policy Advice Division, and Hiroshi Kuniyoshi, Deputy to the Director General, will present the opening remarks “Fostering inclusive, sustainable and resilient industrial development through digital and green technologies”. The full programme is available [here](#).

[The 2021 Forum on Globalization and Industrialization on “Rewiring global production networks for sustainability”](#) and the [Research Conference on “Sustainability in Global Value Chains”](#), 6-7 December 2021

UNIDO, the [Kiel Centre for Globalization](#) (KCG), the [Kiel Institute for the World Economy](#) (IfW Kiel), the [German Institute for Global and Area Studies](#) (GIGA Hamburg), and the [Research Network Sustainable Global Supply Chains](#) are jointly organizing the 2021 Forum on Globalization and the accompanying Research Conference on Sustainability in Global Supply Chains. The COVID-19 pandemic has had a significant impact on global production networks, i.e. global value chains (GVCs). It has impressed a sense of urgency on governments and internationally operating enterprises to re-evaluate their approaches towards ensuring resilience and sustainability in their supply chains. The pandemic opens an opportunity to rethink established practices, embrace resilience and sustainability as a core value creator, and link long-term recovery strategies to the guiding principles and objectives of the UN’s 2030 Agenda for Sustainable Development. The event convenes stakeholders from government, academia, the private sector and civil society to discuss paths towards advancing sustainability practices in GVCs. It aims to establish a platform to discuss the challenges and opportunities of sustainable production in GVCs. Specifically, the forum will explore policies, governance modes as well as novel business models that can foster inclusiveness and sustainability in global production networks, thus supporting the joint global efforts to build back better.



PROGRAMMES AND PROJECTS

Update on UNIDO's policy work around digitalization and the 4IR

PRS's Fernando Santiago, Alejandro Lavopa and Adnan Seric had a meeting with a group of researchers from the Federal University of Rio de Janeiro (UFRJ), the University of Campinas (UNICAMP) and the Universidad Federal Fluminense (UFF) on 15 October to exchange knowledge on industrial policies, digitalization and industrial development in Brazil and other developing countries. The group of Brazilian researchers presented some of their findings on digitalization in Brazilian manufacturing firms based on two rounds of surveys. The first wave of surveys served as a contribution to the IDR 2020. The PRS team presented recent work carried out on industrial policy to foster digitalization in manufacturing, discusses the IAP and some of the ongoing developments around a tool to capture digitalization in firms, as well as some findings from the UNIDO COVID-19 surveys, focusing on how the adoption of advanced digital technologies is associated with enhanced resilience in manufacturing firms.

UNIDO – USJ Master's degree programme on industrial development in Beirut

A new Master's degree programme on industrial development offered by UNIDO at Beirut's University of Saint-Joseph was officially inaugurated on 21 October in the presence of Lebanon's Minister of Industry, Mr. Georges Bouchikian. He was joined virtually by the Rector of Saint-Joseph University, Mr. Salim Daccache and the Dean of the Faculty of Science, Mr. Richard Maroun, as well as by UNIDO's Regional Director, Mr. Bassel El Khatib. The programme, which is targeted at students from Lebanon and the wider region, consists of two modules. The opening lecture was given by Ms. Nilgün Tas from UNIDO's Environment Department.

The first module on *Eco-design for a Circular Economy*, which introduces attendees to the to the basic principles and concepts of eco-design for a circular economy and the role industry can play to support it. It will enable attendees to better understand the most pressing environmental trends and issues that affect industry today and teach them about the functioning, relevance and effectiveness of circular economy design instruments for successful implementation of a circular economy. Module 2, *Introduction to inclusive and sustainable industrial development and evidence-based industrial policymaking*, will help attendees understand basic methods used for a comprehensive and integrated industrial performance diagnosis. Participants will learn about core principles of industrial data analysis and be introduced to different tools to evaluate the current situation of their countries' manufacturing industry and specific sub-sectors. The module will also include environmental as well as social indicators.

Third UNIDO – KOICA training programme on Policies for Inclusive and Sustainable Industrial Development

On 1 November 2021, the third edition of the UNIDO-KOICA training programme on Policies for Inclusive and Sustainable Industrial Development will open for policymakers from Southeast Asia. The workshop is the third and last of a series of such programmes. Initially planned to take place in Seoul, the programme has been conducted online due to the pandemic. Hosting participants from Cambodia, India, Laos PDR, the Philippines and Viet Nam, the workshops have enabled participants to better understand the policy

implications of inclusive and sustainable industrial development with a particular focus on evidence-based industrial policymaking. Featuring examples from the Republic of Korea's path to industrialization, the two-week event covers all aspects of industrial development, including diversification, global value chains, gender and employment, circular economy, STI and Industry 4.0. Lecturers will include renowned representatives from academic and government institutions of the Republic of Korea as well as senior UNIDO staff members.

