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SDG 9

Industry, innovation and infrastructure

Monitoring SDG-9 industry-related indicators in the Arab region





Objective

Increase data availability and reporting, improve data flows and enhance the use of **SDG 9 industry-related indicators** for policy guidance and evaluation

- Enhance understanding of SDG-related metadata
- Improve statistical capacities to invigorate production and use of comparable SDG indicators
- Strengthen inter-institutional coordination to facilitate production of SDG indicators and data flow
- Share and discuss country challenges in measuring SDG indicators



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Contents

- UNIDO and the 2030 Agenda for Sustainable Development
- Description of SDG 9 industry-related indicators, including their compilation, methodological details and other metadata
- Tools for tracking progress along SDG 9 industry-related targets
- Q&A and discussion



UNIDO Statistics Division

- i. Compilation, updating and dissemination of international databases with structural and short-term industrial statistics
- ii. Methodological and analytical products based on statistical research and experience of maintaining internationally comparable industrial statistics
- iii. Contribution to the development and implementation of international statistical standards and methodology
- iv. Technical cooperation services to countries in the field of industrial statistics
- v. **SDG9 global monitoring**



UNIDO and the 2030 Agenda



Inclusive and sustainable industrial development (ISID)

- UNIDO's mission is to **promote and accelerate inclusive and sustainable industrial development** in Member States.
- "Inclusive" in this context means that industrial development must include all countries and all people, and **offer equal opportunities** and an **equitable distribution of the benefits** of industrialization to all stakeholders.
- "Sustainable" addresses the need to **decouple** the prosperity generated from industrial activities from excessive natural resource use and negative environmental impacts.

Sustainable Development Goal 9 (SDG 9)

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



9 INDUSTRIES, INNOVATION AND INFRASTRUCTURE



- Inclusive and sustainable **industrialization**, together with **innovation** and **infrastructure**, can unleash dynamic and competitive economic forces that generate employment and income
- They play a key role in introducing and promoting know-how and new technologies, accelerating international trade and enabling the efficient use of resources



INFRASTRUCTURE

9.1.1 Proportion of the rural population who live within 2 km of an all-season road

9.1.2 Passenger and freight volumes, by mode of transport

9.a.1 Total official international support (official development assistance plus other official flows) to infrastructure

INNOVATION

9.c.1 Percentage of population covered by a mobile network, by technology

9.5.1 Research and development expenditure as a percentage of GDP

9.5.2 Researchers (in full-time equivalent) per million inhabitants

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



INDUSTRY

9.2.1 Manufacturing value added as a proportion of GDP and per capita

9.2.2 Manufacturing employment as a proportion of total employment

9.3.1 Percentage share of small-scale industries in total industry value added

9.3.2 Percentage of small-scale industries with a loan or line of credit

9.4.1 CO2 emission per unit of value added

9.b.1 Percentage of medium and high-tech manufacturing value added in total value added



ISID and SDG 9 industry indicators

SDG 9 industry-related targets cover all three dimensions of sustainable development

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Advancing economic competitiveness

- 9.2.1: Manufacturing value added as a proportion of GDP and per capita
- 9.b.1: Proportion of medium and high-tech industry value added in total value added

Creating shared prosperity

- 9.2.2: Manufacturing employment as a proportion of total employment
- 9.3.1: Proportion of small-scale industries in total industry value added
- 9.3.2: Proportion of small-scale industries with a loan or line of credit

Safeguarding the environment

- 9.4.1: CO₂ emissions per unit of value added



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UNIDO's role in SDG 9 monitoring

UNIDO is the **custodian agency** of six SDG-9 industry-related indicators

- Responsible for collection, compilation and dissemination of timely, internationally comparable SDG indicators
- Goal of strengthening statistical capacities for the production of statistics for SDG 9 and ISID
- Role in supporting member States in formulating their development plans and programmes in the context of SDG 9 and ISID
- Global, regional and national reporting



SDG reporting

National	Thematic	Regional	Global
<p>SDG national reports Voluntary National Reviews (VNRs)</p>   	<p>Thematic reports published by international agencies</p> <ul style="list-style-type: none"> • UNIDO's report on inclusive and sustainable industrial development • UN Women's report on gender indicators • ILO's report on decent work  	<p>SDG regional reports</p> <ul style="list-style-type: none"> • UNECA • UNECE • UNECLAC • UNESCAP • UNESCWA 	<p>SDG Global Report SG report SDG Progress Chart</p>  



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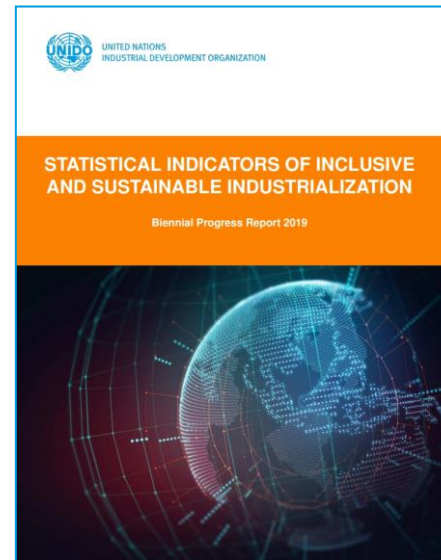
UNIDO Biennial Progress Report

Statistical indicators of inclusive and sustainable industrialization

2017 Setting the SDG 9
baseline scenario



2019 Analysis of global
progress on SDG 9

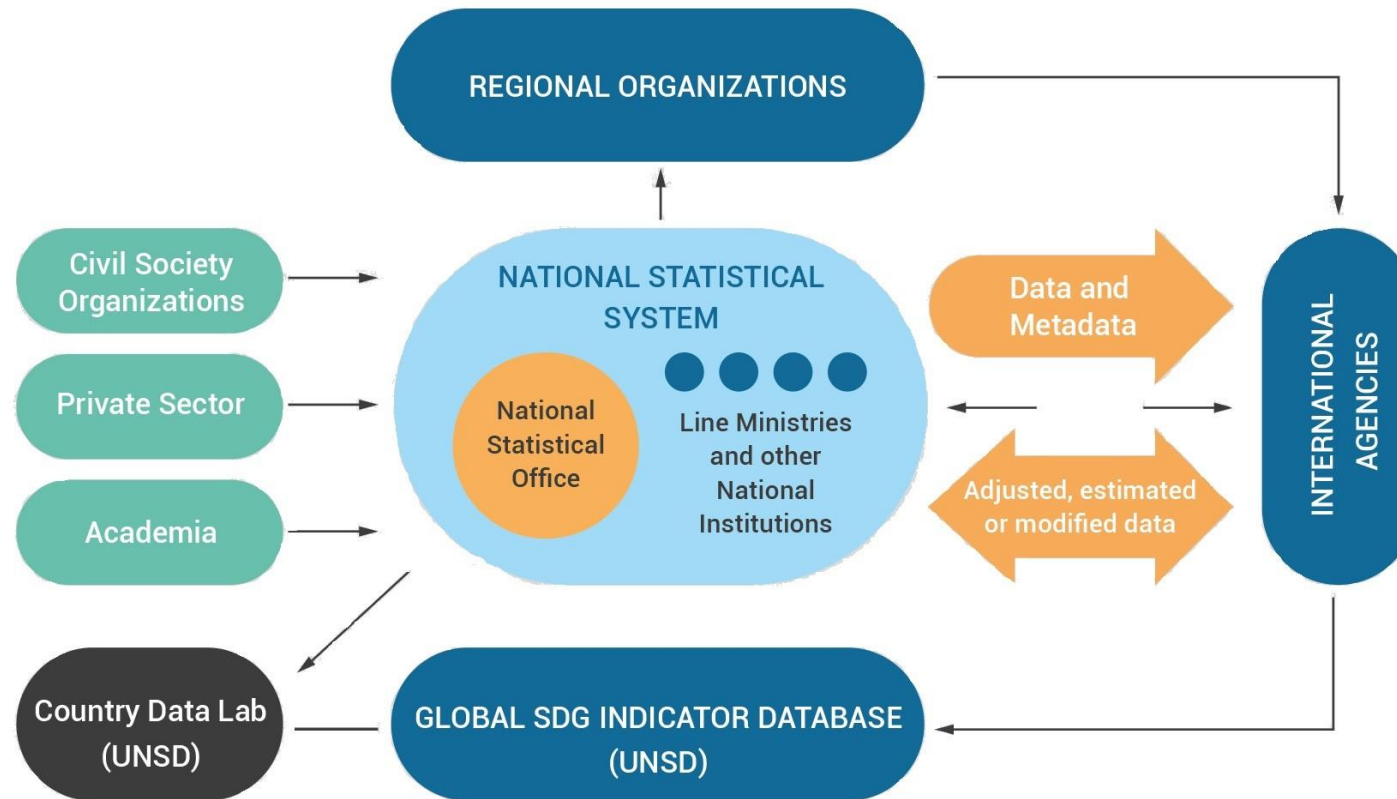


2021 Global progress
on SDG 9 in light of
COVID-19





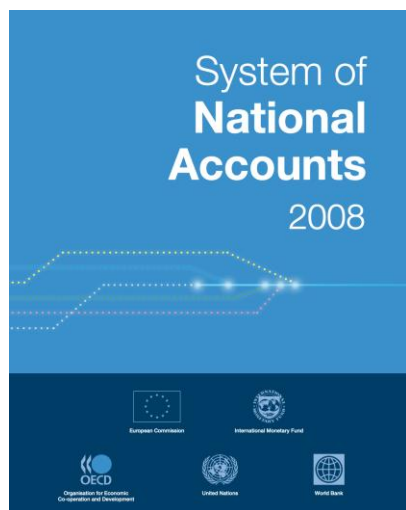
SDG reporting: data flow



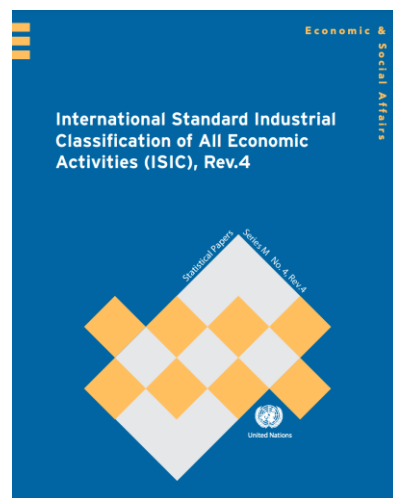


Important guidelines and classifications

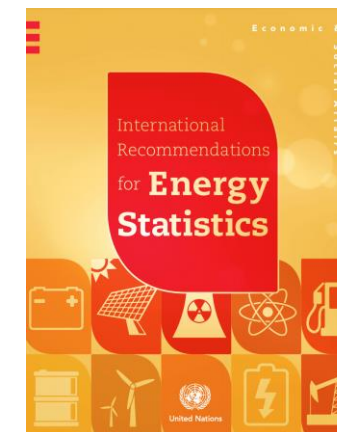
System of National Accounts (SNA) 2008



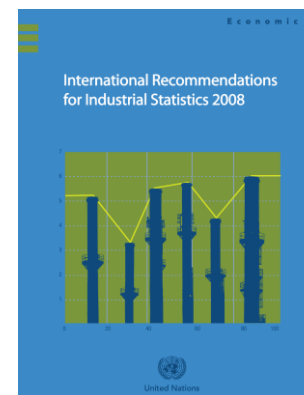
International Standard Industrial Classification of All Economic Activities (ISIC) - Revision 3 and Revision 4



International Recommendations for Energy Statistics (IRES)



International Recommendations for Industrial Statistics (IRIS) 2008



2006 IPCC Guidelines for National Greenhouse Gas Inventories



Monitoring SDG Target 9.2

SDG Target 9.2: Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries.

- **Custodian agencies: UNIDO (and ILO)**
- **Indicators assigned to Target 9.2 for global SDG reporting**
 - 9.2.1 Manufacturing value added (constant 2015 United States dollars) as a proportion of GDP (%)
 - 9.2.1 Manufacturing value added (current United States dollars) as a proportion of GDP (%)
 - 9.2.1 Manufacturing value added per capita (constant 2015 United States dollars)
 - 9.2.2 Manufacturing employment as a proportion of total employment (%)





9.2.1 Manufacturing value added (MVA) as a proportion of GDP and per capita

- **Data sources:** National Accounts
- **What does the indicator measure?** Absolute and relative volume of production, relative importance of manufacturing, inequality among the nations
- The **gross value added** measures the contribution to the economy of each individual producer, industry or sector in a country.
- The gross value added generated by any unit engaged in production activity can be calculated as the residual of the units' total output less intermediate consumption, goods and services used up in the process of producing the output, or as the sum of the factor incomes generated by the production process (SNA 2008).
- **Manufacturing** refers to industries belonging to the sector C defined by ISIC Revision 4, or D defined by ISIC Revision 3.
- **GDP** represents the sum of gross value added from all institutional units resident in the economy.

$$MVA \text{ as a proportion in GDP} = \frac{MVA}{GDP} * 100$$

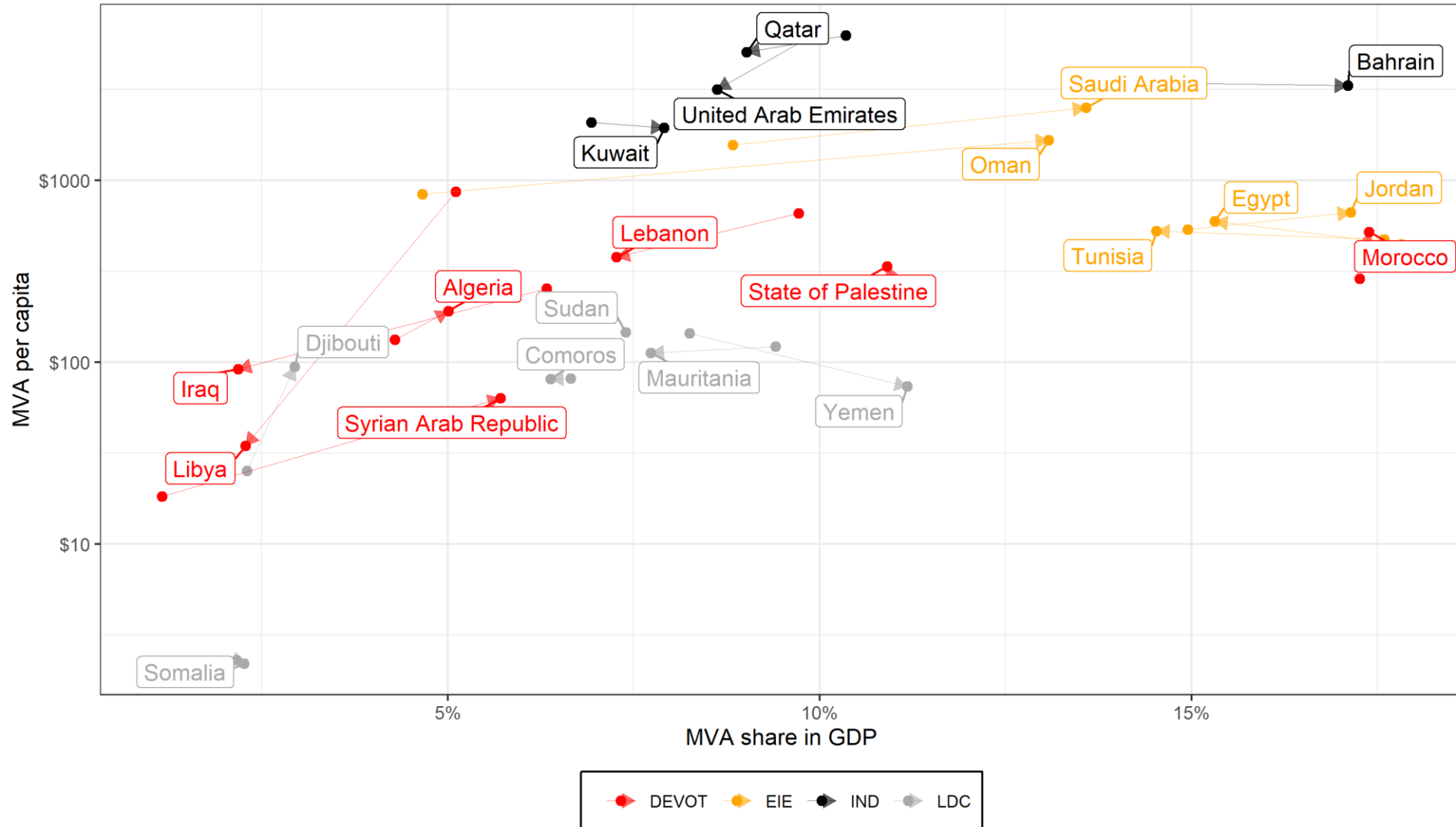
$$MVA \text{ per capita} = \frac{MVA}{\text{population}}$$



9.2.1 Manufacturing value added as a proportion of GDP and per capita

- **Adjusting country data for global SDG-9 monitoring**
 - **Units** – using exchange rates and GDP deflators to convert time series to US dollars (in both constant and current prices)
 - **Classification** – aligning time series with SNA and ISIC
 - **Imputation** – missing value are estimated
 - **Nowcasting** – the most recent time points are nowcasted by using the past value added data and the IMF GDP growth rates
- **All above presented methods could create deviations from the country data**

Manufacturing share in GDP and MVA per capita (2000 and 2020)





Sectoral shares of value added (1990-2019)





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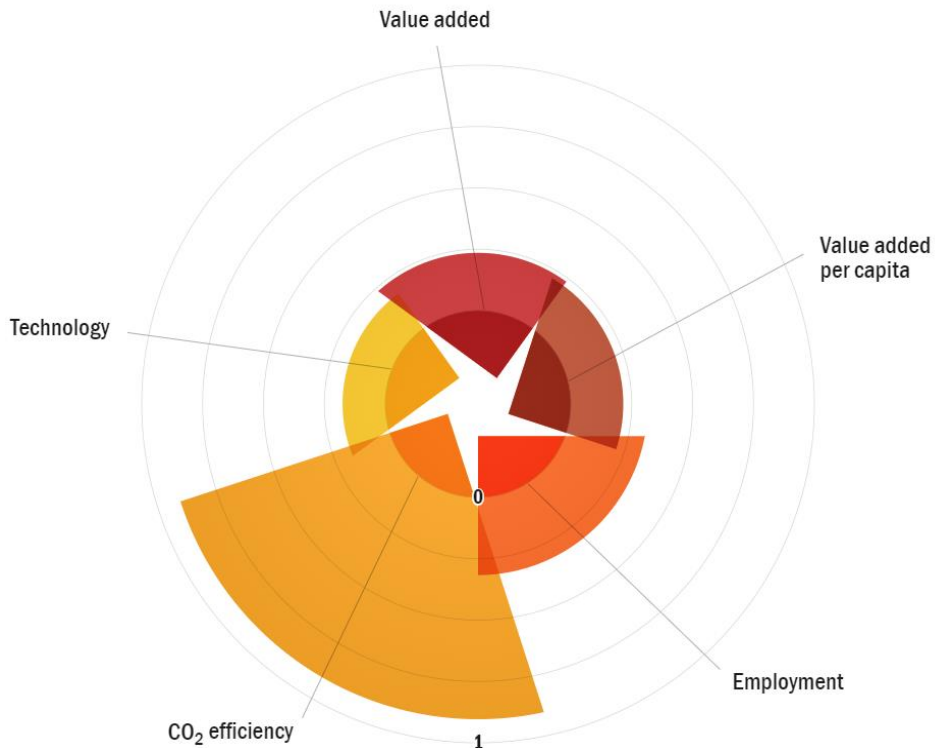
Industry, innovation and infrastructure

Tools for tracking progress along SDG 9 industry-related targets in the Arab region





UNIDO's SDG-9 Industry Index



Composite measure benchmarking countries' performance towards SDG 9 industry-related targets

- Captures five industry-related indicators of SDG 9 (9.2.1-*MVAsh* and *MVApc*, 9.2.2 - *EMP*, 9.4.1-*CO₂MVA*, 9.b.1-*MHTsh*)
- Single measure comprising various dimensions
- Tool for increasing awareness and gaining attention of broader audience

This composite measure is a great invitation for a closer investigation of their components



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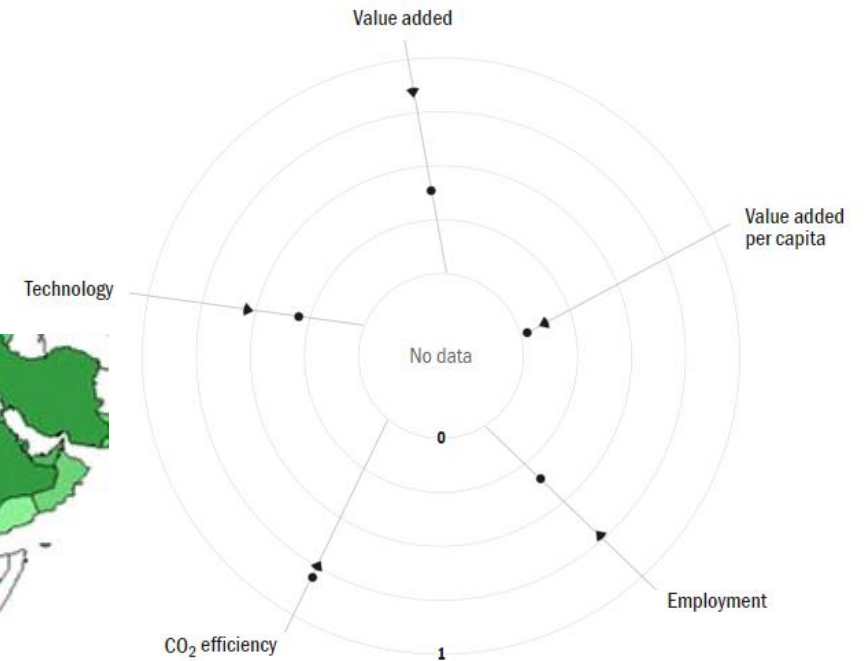


UNIDO's SDG-9 Industry Index

Data for all five indicators are needed to construct the index

Coverage

131 economies, 2000-2018

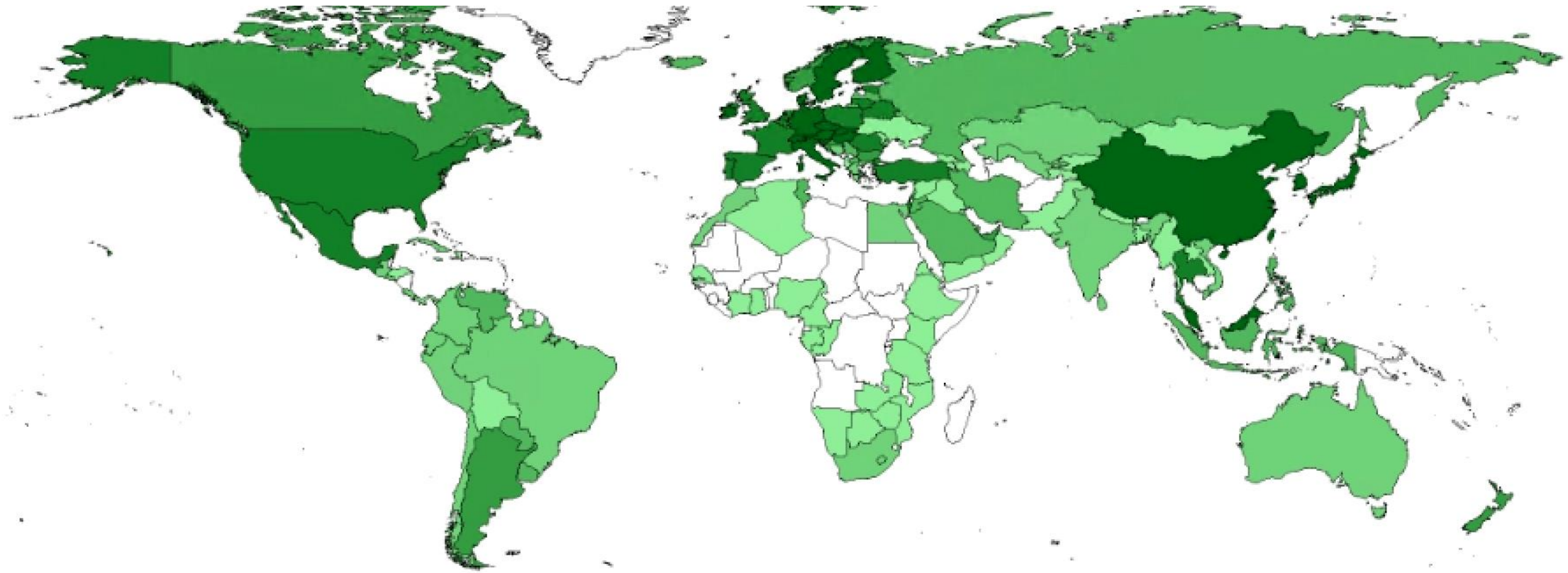




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UNIDO SDG 9 Industry Index 2018



SDG-9 Industry score 2018

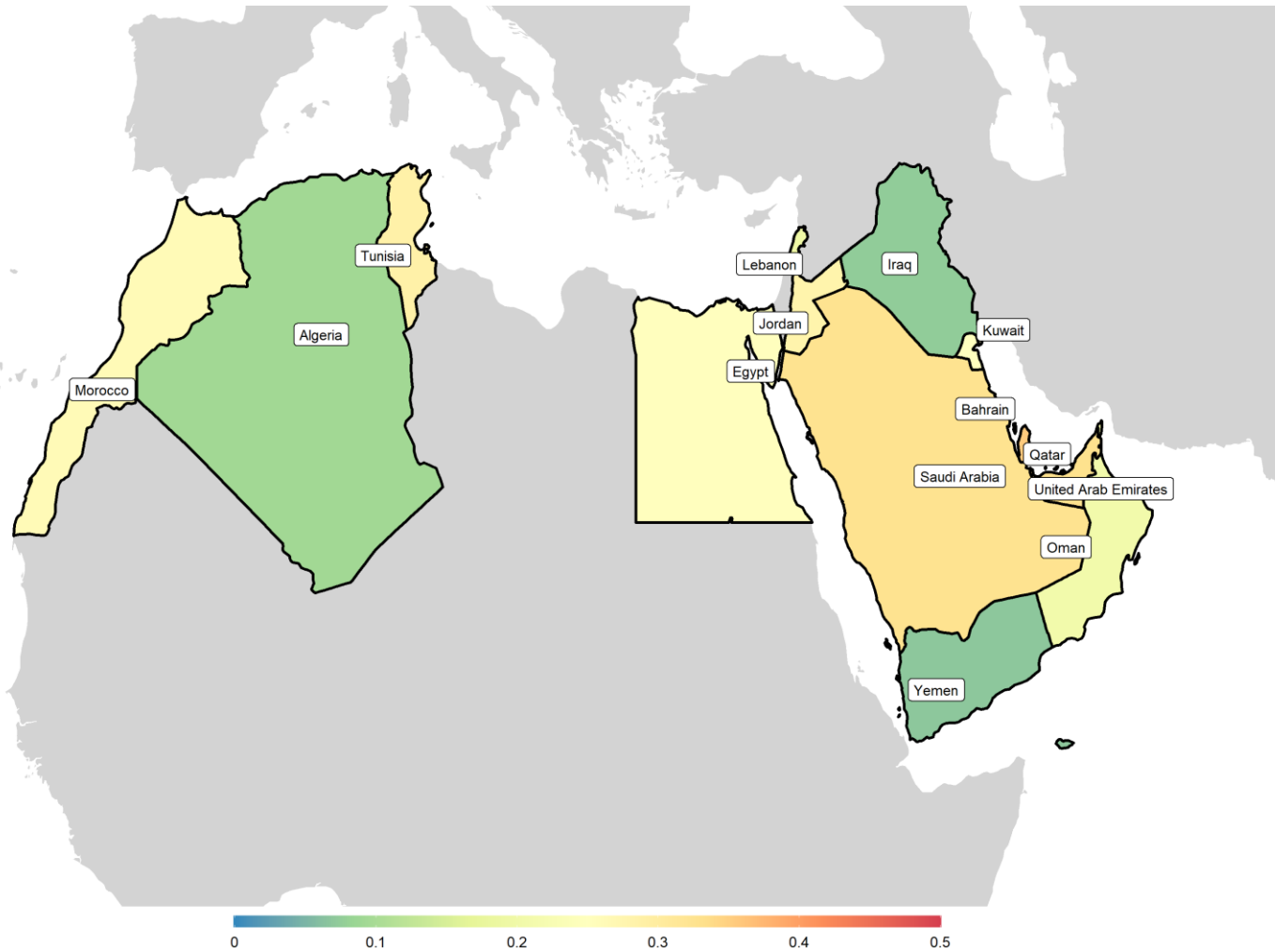




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UNIDO SDG 9 Industry Index 2018 in the Arab region





UNIDO SDG 9 Industry Progress and Outlook

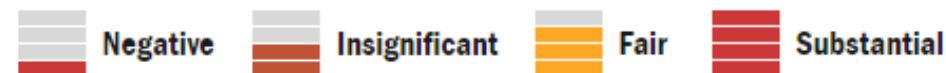
SDG Targets	Indicators
<p>9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry’s share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries</p>	<p>9.2.1 Manufacturing value added (share in GDP, per capita)</p>
	<p>9.2.2 Manufacturing employment, in percent to total employment</p>

Progress and Outlook

Tracking country progress towards achieving SDG 9 targets by 2030

Progress: How much progress has been made since 2000?

- Based on existing data from 2000 until now
 - Evaluate country progress with respect to the SDG region
 - LDCs: double their share as indicated in 9.2 target



Outlook: How likely will the targets be achieved by 2030?

- Forecasting country data series until 2030





UNIDO Industrial Analytics Platform (IAP)

The Industrial Analytics Platform (IAP) provides novel insights into industrial development around the world

- **DATA EXPLORER:** An innovative way to explore industrial indicators that aggregates trade and manufacturing data under a single domain
- **ARTICLES:** Data-driven, accessible to a non-technical audiences, addressing policy issues and setting the scene for communicating on technical topics of industrialization



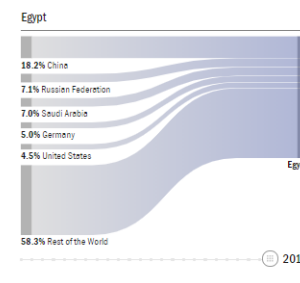
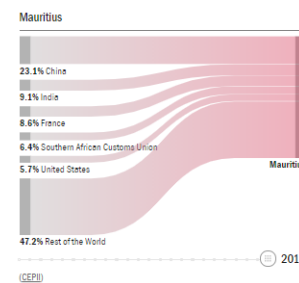
Risk, resilience and recalibration in global value chains



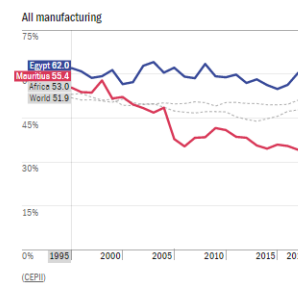
Capturing the 'digital dividend' in developing economies

How is production in Mauritius integrated into global value chains?

Sources of intermediate imports



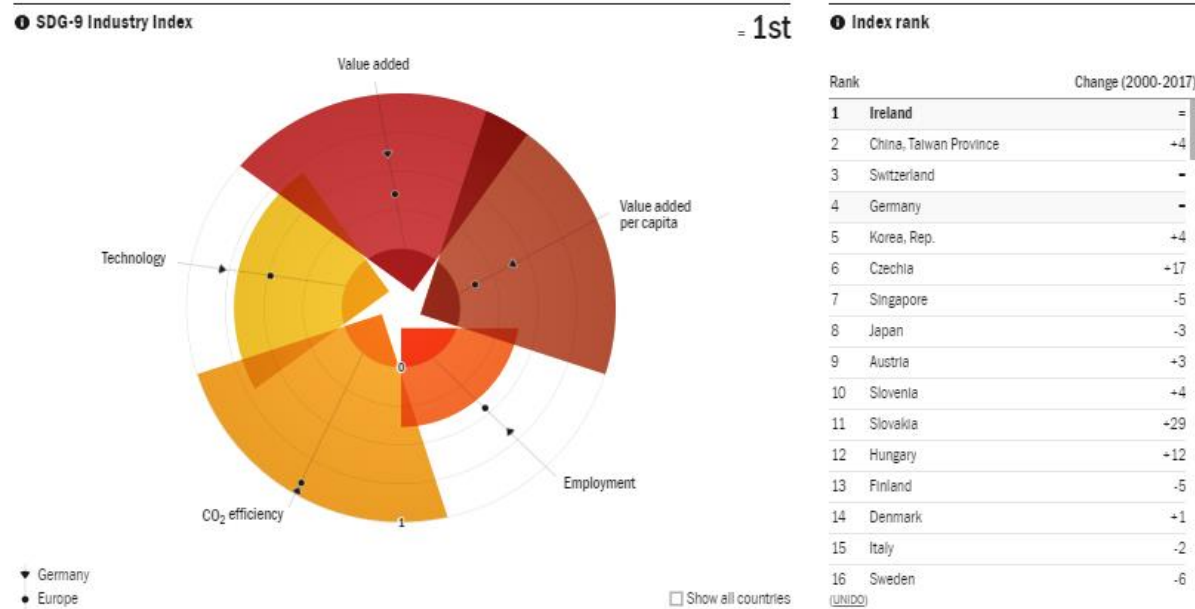
Share of intermediates in total imports (%)





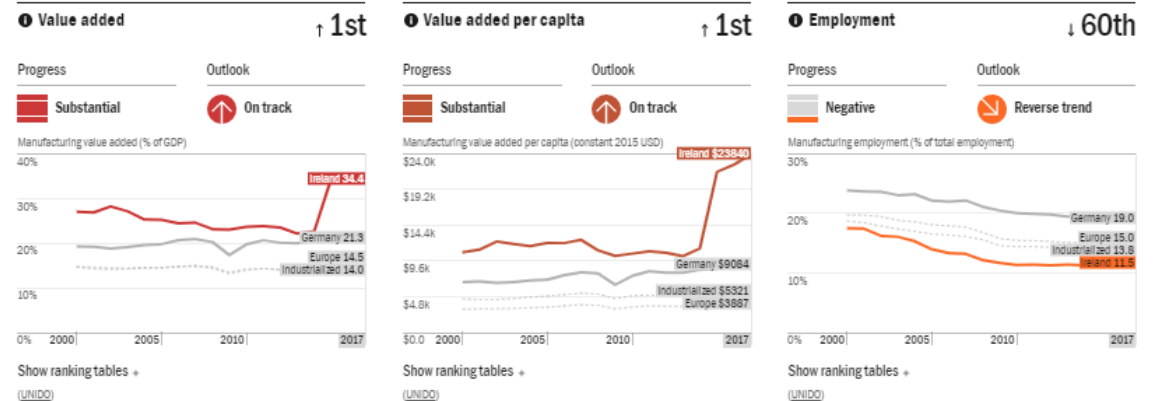
UNIDO SDG 9 Industry Tracker in the IAP

What drives SDG-9 Industry performance in Ireland?



Explore a country's progress towards achieving industrial development targets

How much progress has Ireland made towards the SDG-9 Industry targets?





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Thank you!

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