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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: CO<sub>2</sub> emissions per unit of value added













# 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"> <li>• UNIDO's report on inclusive and sustainable industrial development</li> <li>• UN Women's report on gender indicators</li> <li>• ILO's report on decent work</li> </ul>  	<p>SDG regional reports</p> <ul style="list-style-type: none"> <li>• UNECA</li> <li>• UNECE</li> <li>• UNECLAC</li> <li>• UNESCAP</li> <li>• UNESCWA</li> </ul> 	<p>SDG Global Report SG report SDG Progress Chart</p>  



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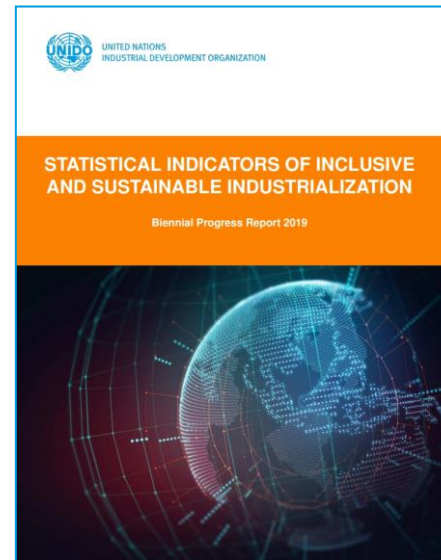
# UNIDO Biennial Progress Report

Statistical indicators of inclusive and sustainable industrialization

**2017** Setting the SDG 9  
baseline scenario



**2019** Analysis of global  
progress on SDG 9

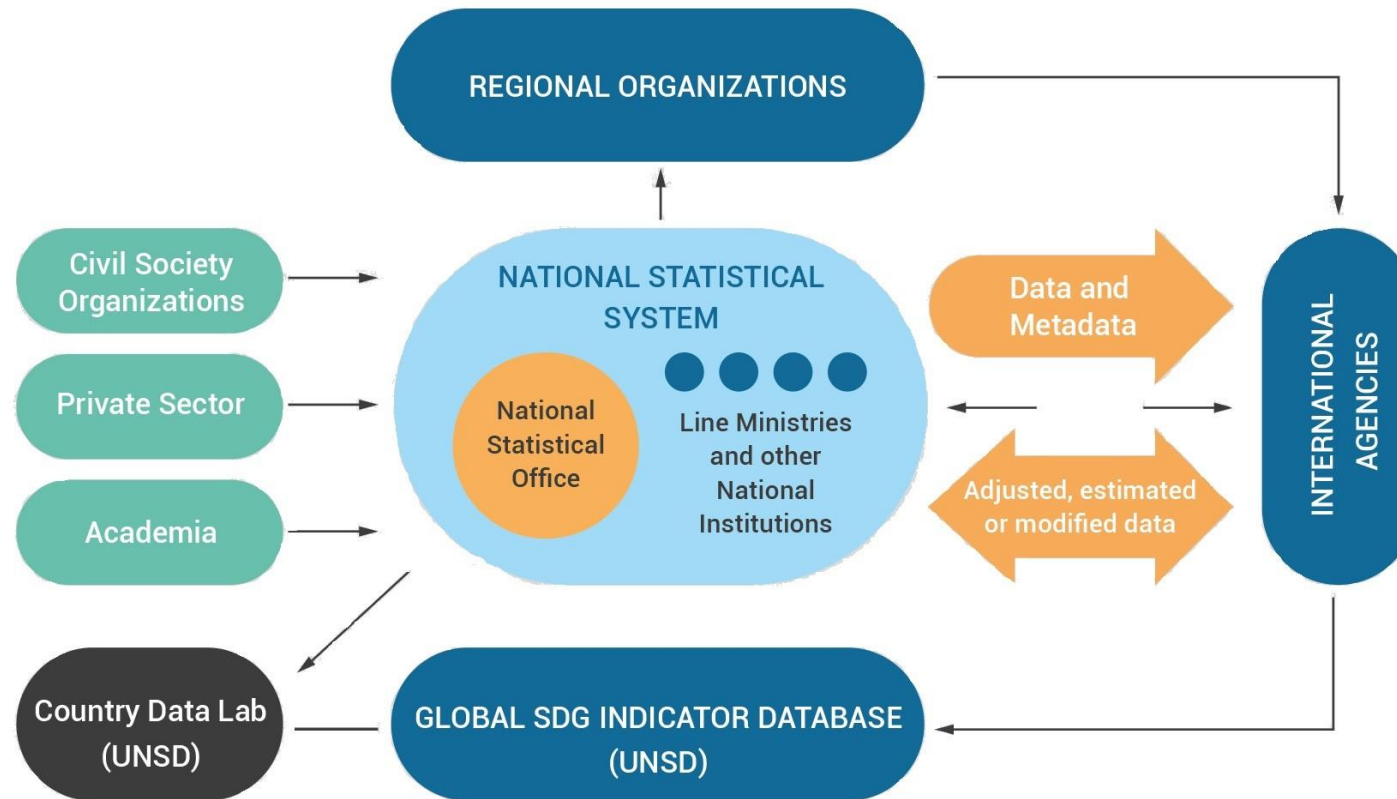


**2021** Global progress  
on SDG 9 in light of  
COVID-19





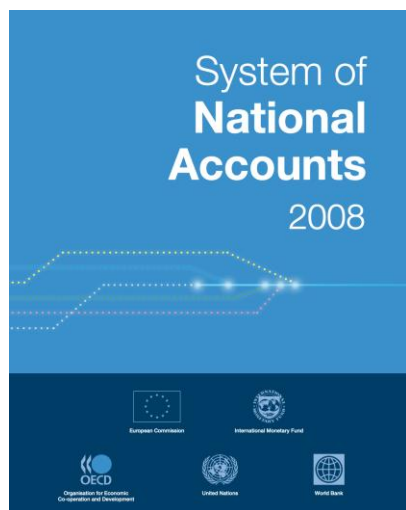
# SDG reporting: data flow





# Important guidelines and classifications

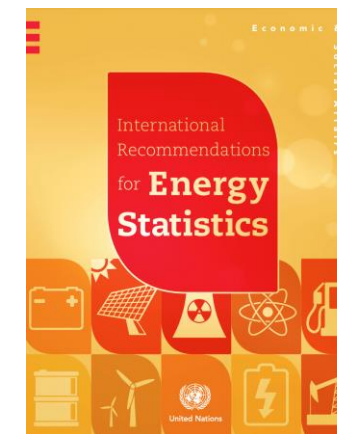
**System of National Accounts (SNA) 2008**



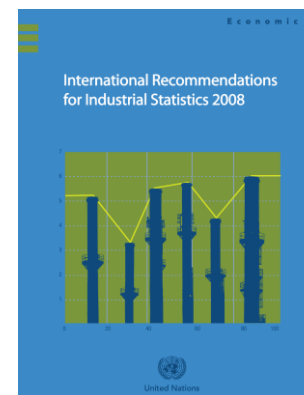
**International Standard Industrial Classification of All Economic Activities (ISIC) - Revision 3 and Revision 4**



**International Recommendations for Energy Statistics (IRES)**



**International Recommendations for Industrial Statistics (IRIS) 2008**



**2006 IPCC Guidelines for National Greenhouse Gas Inventories**



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# Monitoring SDG Target 9.b

**SDG Target 9.b:** Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.

- **Custodian agencies: UNIDO**
- **Indicators assigned to Target 9.b for global SDG reporting**
  - 9.b.1 Proportion of medium and high-tech manufacturing value added in total value added (%)





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

- **Data sources:** Annual industrial surveys or economic census, business registers, ICT and R&D surveys of the business sector
- **What does the indicator measure?** Technological development and innovation in manufacturing
- Technology classification is based on research and development (R&D) expenditure relative to value added  
=> R&D intensity

$$\frac{\text{Sum of value added in MHT economic activities}}{\text{MVA}} * 100$$



## What are medium and high-technology manufacturing sectors?

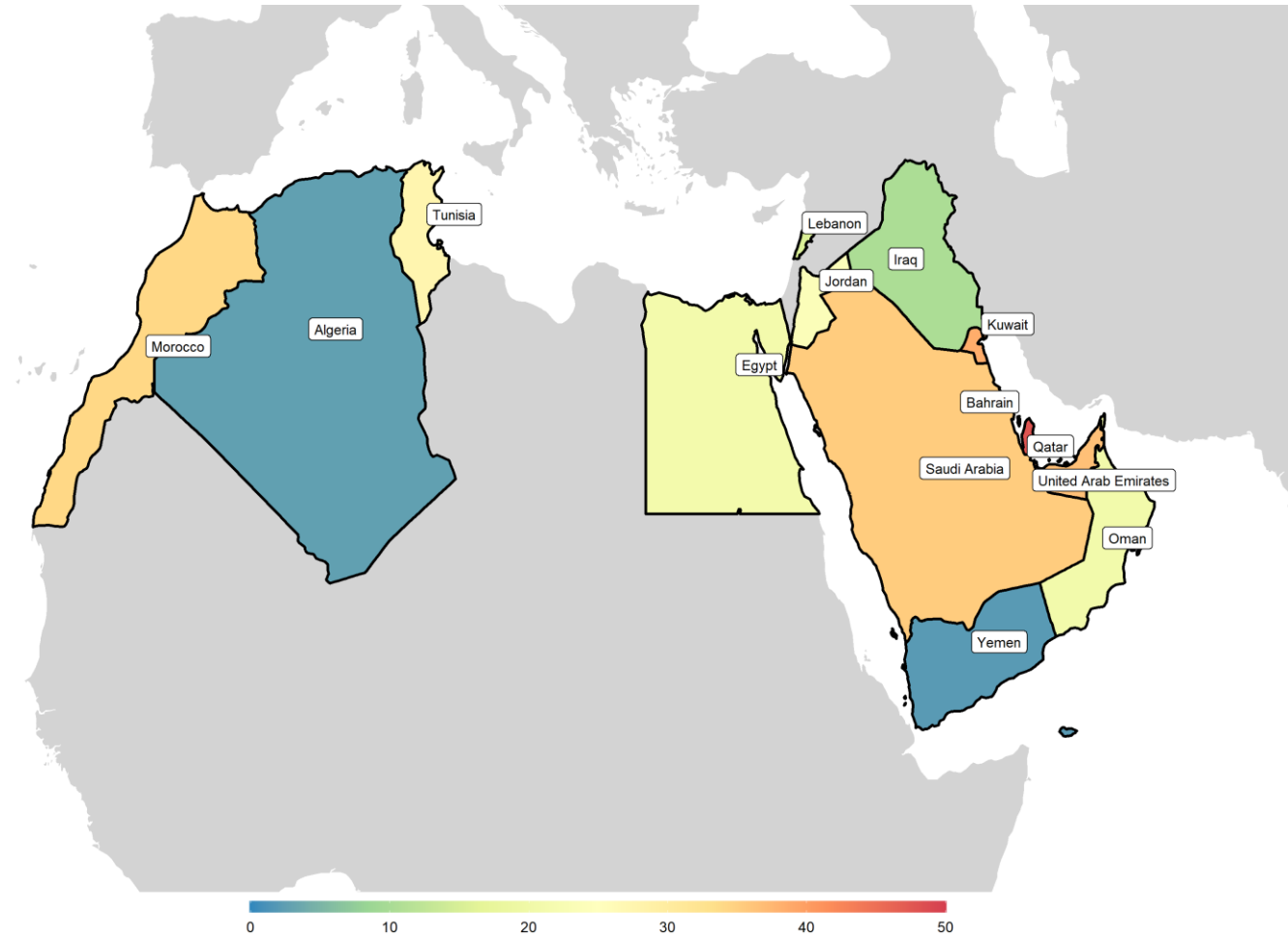
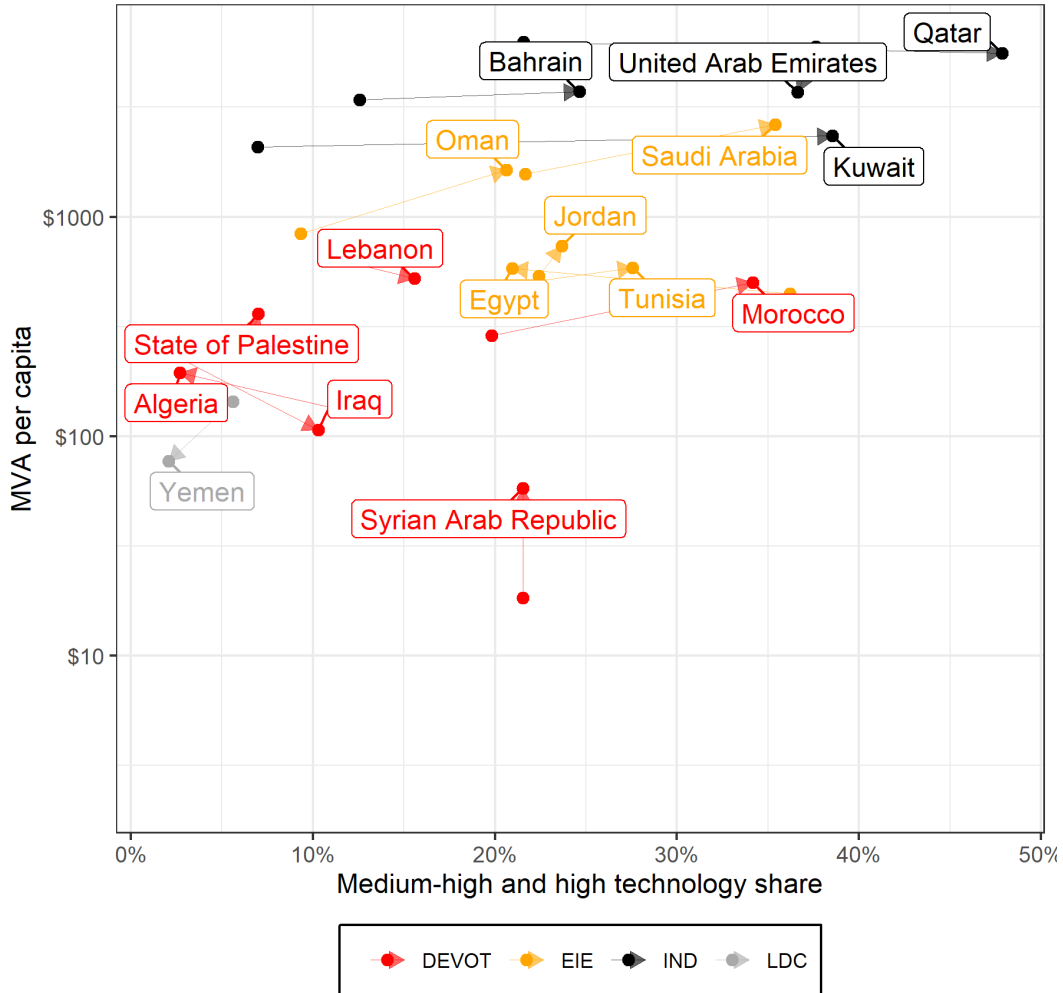
ISIC Rev. 3	Description
24	Manufacture of chemicals and chemical products
29	Manufacture of machinery and equipment n.e.c.
30	Manufacture of office, accounting and computing machinery
31	Manufacture of electrical machinery and apparatus n.e.c.
32	Manufacture of radio, television and communication equipment and apparatus
33	Manufacture of medical, precision and optical instruments, watches and clocks
34	Manufacture of motor vehicles, trailers and semi-trailers
35	Manufacture of other transport equipment
	Excluding 351 = Building and repairing of ships and boats

ISIC Rev. 4	Description
20	Manufacture of chemicals and chemical products
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations
252	Manufacture of weapons and ammunition
26	Manufacture of computer, electronic and optical products
27	Manufacture of electrical equipment
28	Manufacture of machinery and equipment n.e.c.
29	Manufacture of motor vehicles, trailers and semi-trailers
30	Manufacture of other transport equipment
	Excluding 301 = Building of ships and boats
325	Manufacture of medical and dental instruments and supplies





### Medium-high and high-technology value added share in total manufacturing value added (2018)





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# SDG 9

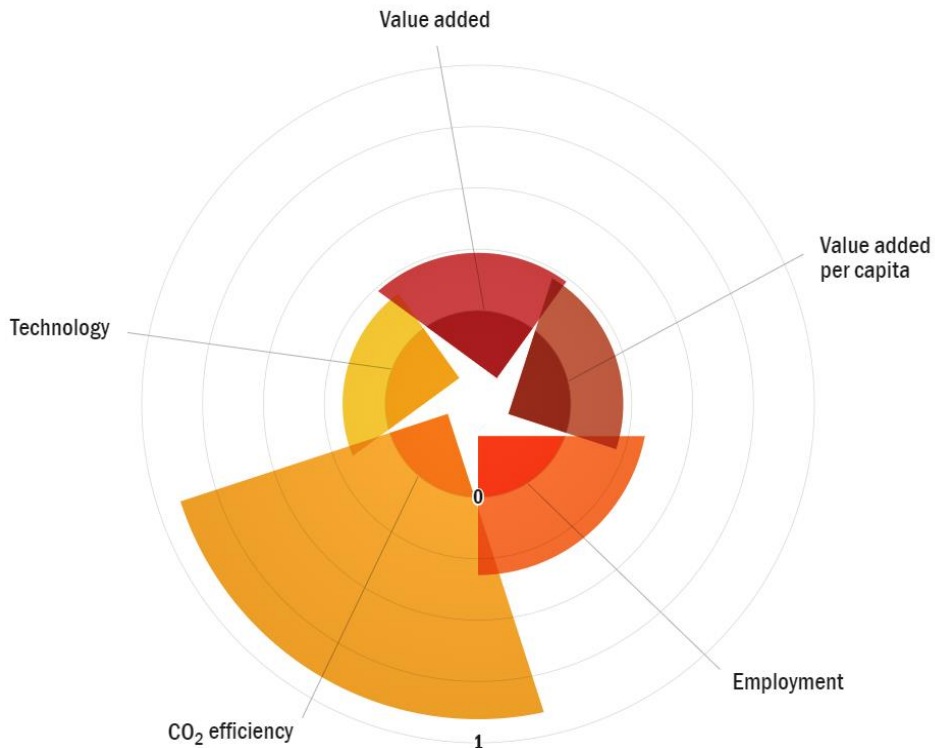
## Industry, innovation and infrastructure

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-*CO<sub>2</sub>MVA*, 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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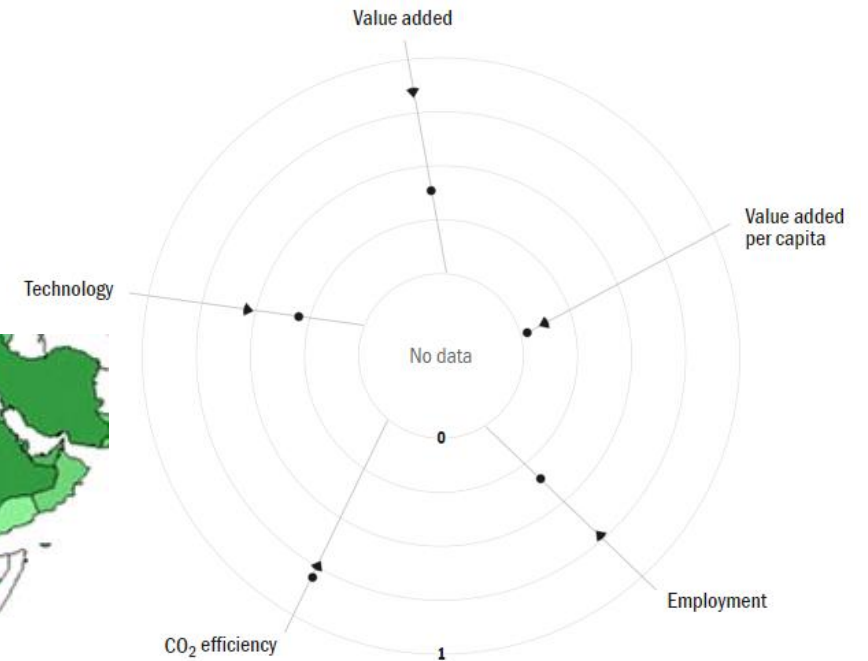


# UNIDO's SDG-9 Industry Index

Data for all five indicators are needed to construct the index

## Coverage

131 economies, 2000-2018

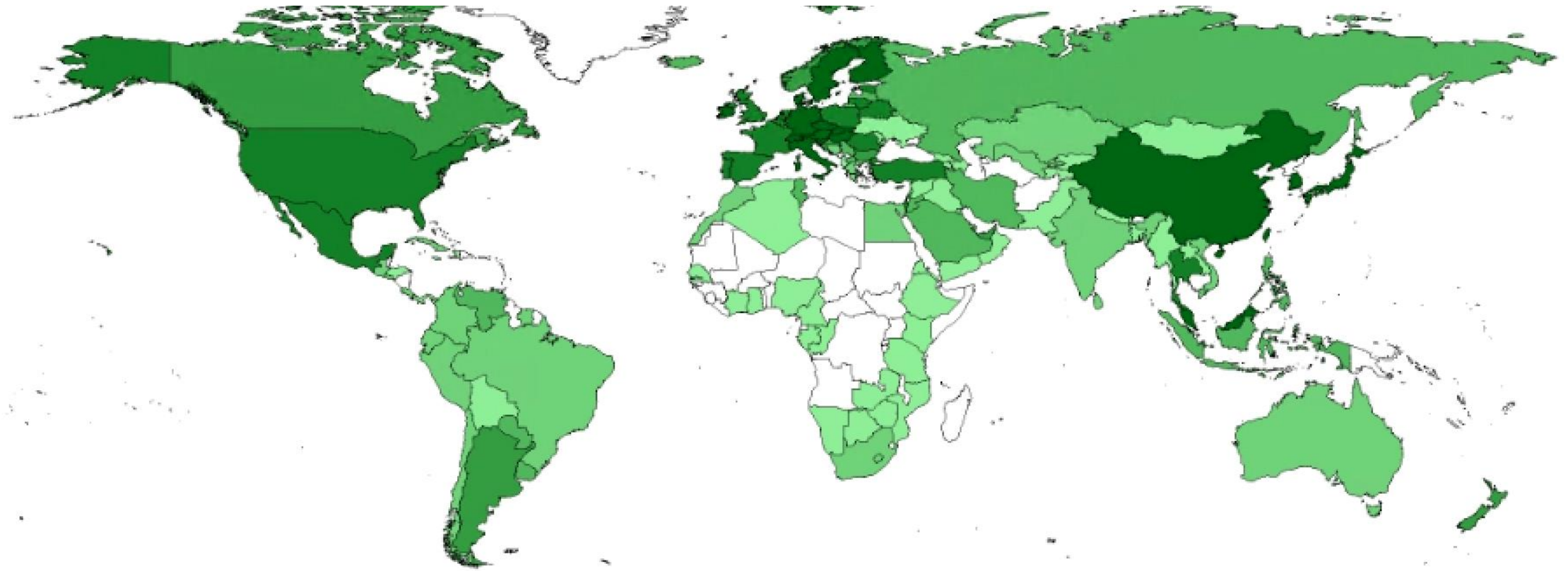




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# UNIDO SDG 9 Industry Index 2018

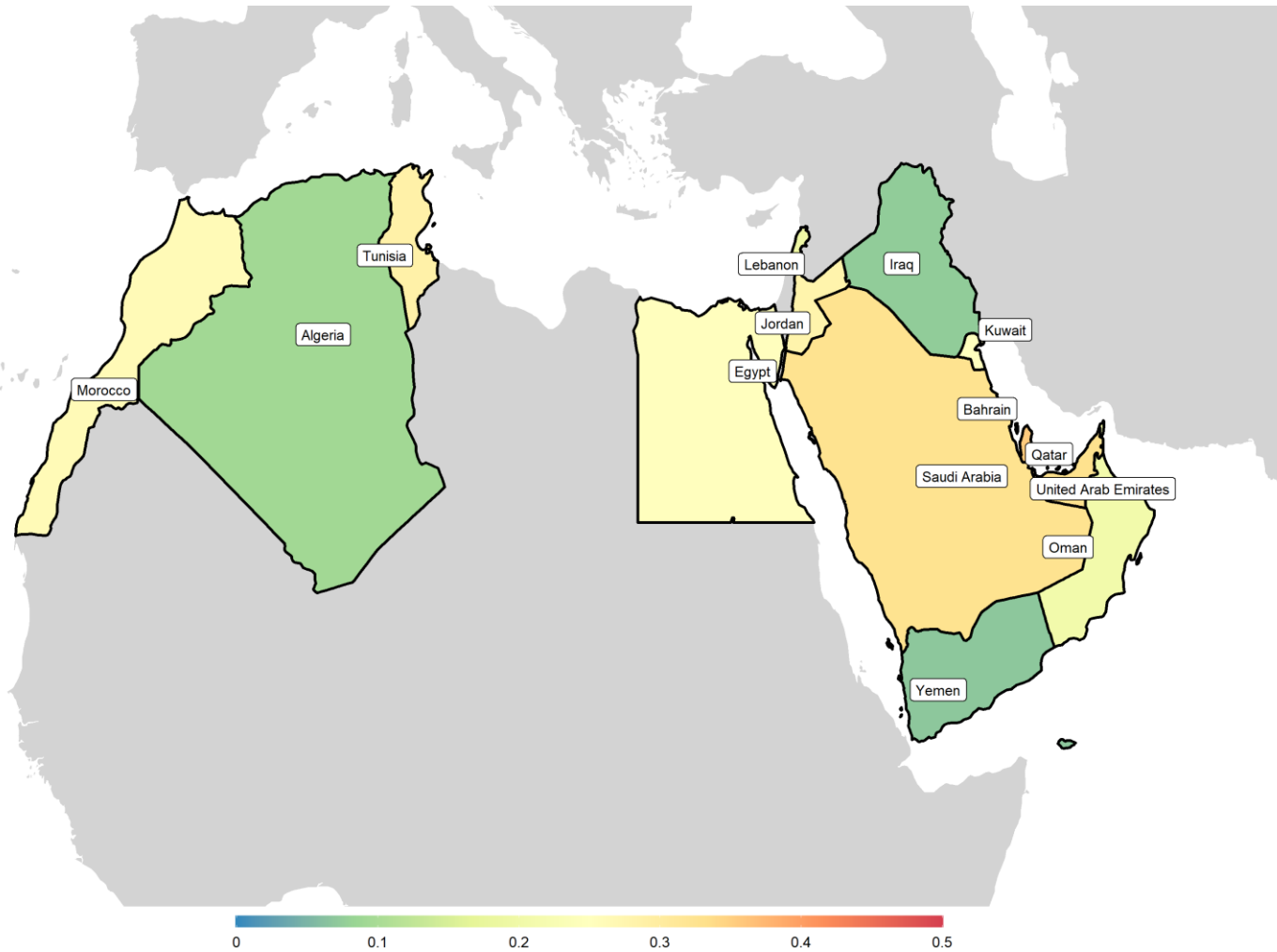


SDG-9 Industry score 2018





# UNIDO SDG 9 Industry Index 2018 in the Arab region





# UNIDO SDG 9 Industry Progress and Outlook

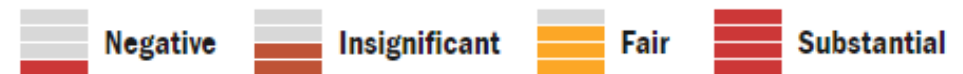
SDG Targets	Indicators
<p><b>9.2</b> Promote inclusive and sustainable industrialization and, by 2030, <b>significantly raise</b> industry’s share of employment and gross domestic product, in line with national circumstances, and <b>double its share in least developed countries</b></p>	<p><b>9.2.1</b>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



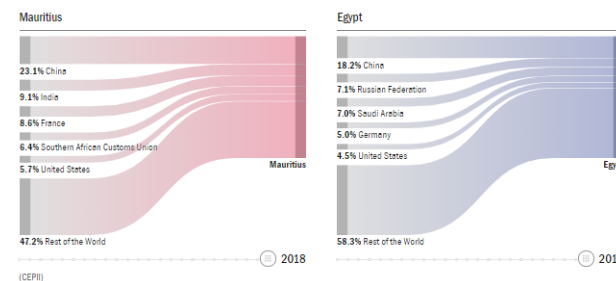
Risk, resilience and recalibration in global value chains



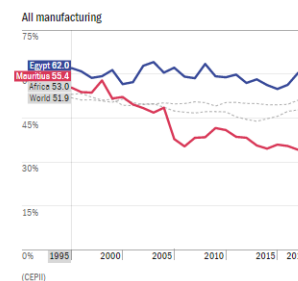
Capturing the 'digital dividend' in developing economies

How is production in Mauritius integrated into global value chains?

### Sources of intermediate imports



### Share of intermediates in total imports (%)

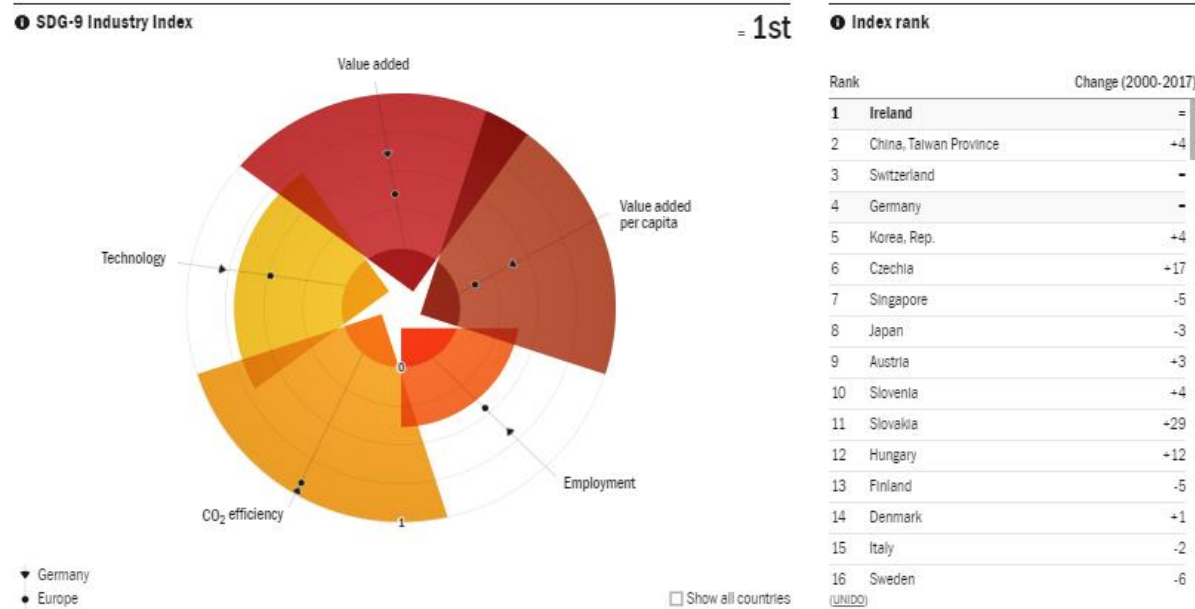






# UNIDO SDG 9 Industry Tracker in the IAP

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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