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
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
• 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

**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 |

**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
ISID and SDG 9 industry indicators

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

**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
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

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<thead>
<tr>
<th>National</th>
<th>Thematic</th>
<th>Regional</th>
<th>Global</th>
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<tr>
<td>SDG national reports</td>
<td>Thematic reports published by international agencies</td>
<td>SDG regional reports</td>
<td>SDG Global Report</td>
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<tr>
<td>Voluntary National Reviews (VNRs)</td>
<td>• UNIDO’s report on inclusive and sustainable industrial development</td>
<td>• UNECA</td>
<td>SG report</td>
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<td></td>
<td>• UN Women’s report on gender indicators</td>
<td>• UNECE</td>
<td>SDG Progress Chart</td>
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<td>• ILO’s report on decent work</td>
<td>• UNECLAC</td>
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<td>• UNESCAP</td>
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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.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

\[
\text{Sum of value added in MHT economic activities} \quad \frac{\text{MVA}}{\text{MVA}} \times 100
\]
## What are medium and high-technology manufacturing sectors?

<table>
<thead>
<tr>
<th>ISIC Rev. 3</th>
<th>Description</th>
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<tbody>
<tr>
<td>24</td>
<td>Manufacture of chemicals and chemical products</td>
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<tr>
<td>29</td>
<td>Manufacture of machinery and equipment n.e.c.</td>
</tr>
<tr>
<td>30</td>
<td>Manufacture of office, accounting and computing machinery</td>
</tr>
<tr>
<td>31</td>
<td>Manufacture of electrical machinery and apparatus n.e.c.</td>
</tr>
<tr>
<td>32</td>
<td>Manufacture of radio, television and communication equipment and apparatus</td>
</tr>
<tr>
<td>33</td>
<td>Manufacture of medical, precision and optical instruments, watches and clocks</td>
</tr>
<tr>
<td>34</td>
<td>Manufacture of motor vehicles, trailers and semi-trailers</td>
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<tr>
<td>35</td>
<td>Manufacture of other transport equipment</td>
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<td>Excluding 351 = Building and repairing of ships and boats</td>
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<th>Description</th>
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<tr>
<td>20</td>
<td>Manufacture of chemicals and chemical products</td>
</tr>
<tr>
<td>21</td>
<td>Manufacture of basic pharmaceutical products and pharmaceutical preparations</td>
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<tr>
<td>252</td>
<td>Manufacture of weapons and ammunition</td>
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<tr>
<td>26</td>
<td>Manufacture of computer, electronic and optical products</td>
</tr>
<tr>
<td>27</td>
<td>Manufacture of electrical equipment</td>
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<td>Excluding 301 = Building of ships and boats</td>
</tr>
<tr>
<td>325</td>
<td>Manufacture of medical and dental instruments and supplies</td>
</tr>
</tbody>
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Medium-high and high-technology value added share in total manufacturing value added (2018)
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 MVAp, 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
UNIDO’s SDG-9 Industry Index

Data for all five indicators are needed to construct the index

Coverage
131 economies, 2000-2018
UNIDO SDG 9 Industry Index 2018
UNIDO SDG 9 Industry Index 2018 in the Arab region
# UNIDO SDG 9 Industry Progress and Outlook

## 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

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<th>SDG Targets</th>
<th>Indicators</th>
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<tr>
<td>9.2 Promote inclusive and sustainable industrialization and, by 2030, <strong>significantly raise</strong> industry’s share of employment and gross domestic product, in line with national circumstances, and <strong>double its share in least developed countries</strong></td>
<td>9.2.1 Manufacturing value added (share in GDP, per capita)</td>
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<td>9.2.2 Manufacturing employment, in percent to total employment</td>
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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
UNIDO SDG 9 Industry Tracker in the IAP

What drives SDG-9 Industry performance in Ireland?

- SDG-9 Industry Index
- Shows industry performance metrics such as value added, employment, CO2 efficiency, etc.

- Index rank
- Ranks countries based on their industrial development progress.

Explore a country’s progress towards achieving industrial development targets.

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

- Value added
- Progress and outlook indicators for value added.

- Value added per capita
- Progress and outlook indicators for value added per capita.

- Employment
- Progress and outlook indicators for employment.
Thank you!

Fernando Cantu
f.cantu@unido.org

Petra Kynclova
p.kynclova@unido.org

UNIDO Statistics
https://stat.unido.org/

UNIDO Industrial Analytics Platform
https://iap.unido.org/