

WEBINAR

# Beyond Europe: global perspectives on open data excellence

The logo for Data Europa Academy is located in the bottom left corner. It features a large red circle with a smaller white circle inside it. The text "data.europa academy" is written in white lowercase letters within the white circle. The word "data" is on the top line, "europa" is on the middle line, and "academy" is on the bottom line. There are small yellow dots above the 'a' in "data" and above the 'o' in "europa".

data.  
europa  
academy

20 September 2024

14:00 – 15:00 CEST

# Rules of the game



The webinar will be recorded



For questions, please use the ClickMeeting chat.



Please reserve 3 min after the webinar to help us improve by filling in our feedback form



# Introduction



**Maddalena Moro**  
Data.europa.eu



**Silvana Fumega**  
Director,  
Global Data Barometer



**Ana Florina Pirlea**  
Statistician,  
The World Bank



# Agenda

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14.05 – 14.10

Opening and introduction – *Maddalena Moro*

14.10 – 14.30

'Analysing open government data from the Global Data Barometer' – *Silvana Fumega*

14.30 – 14.50

'Data for equity, value and trust from the World Bank' – *Ana Florina Pirlea*

14.50 – 15.00

Q&A session and closing remarks



# Open Government Data



**Global Data Barometer**



**Open, and they will come**



## New benchmark

A critical new benchmark on country-level data governance, data capability, data availability, and data use **for the public good**

Global Reference

## Support

We're creating a new resource to support research, practice, and national actions on data **for the public good**

Useful and applicable information

## Fill critical knowledge gaps

The Global Data Barometer fills critical knowledge gaps on how data policy and practice are unfolding in different sectors, regions, and countries around the world

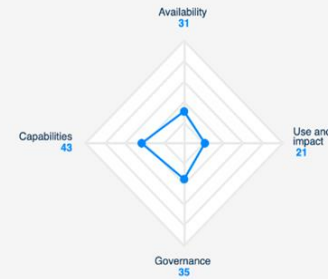
Creating knowledge

- ★ 109 countries
- ★ 60277 data points
- ★ +1100 datasets
- ★ +900 frameworks
- ★ +70 open data initiatives

109 countries covered and 60,277 data points

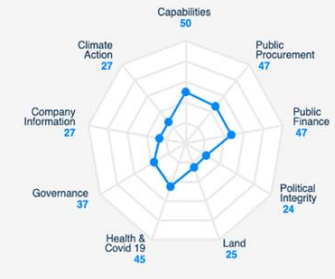
### Pillars

Global average by pillar



### Modules

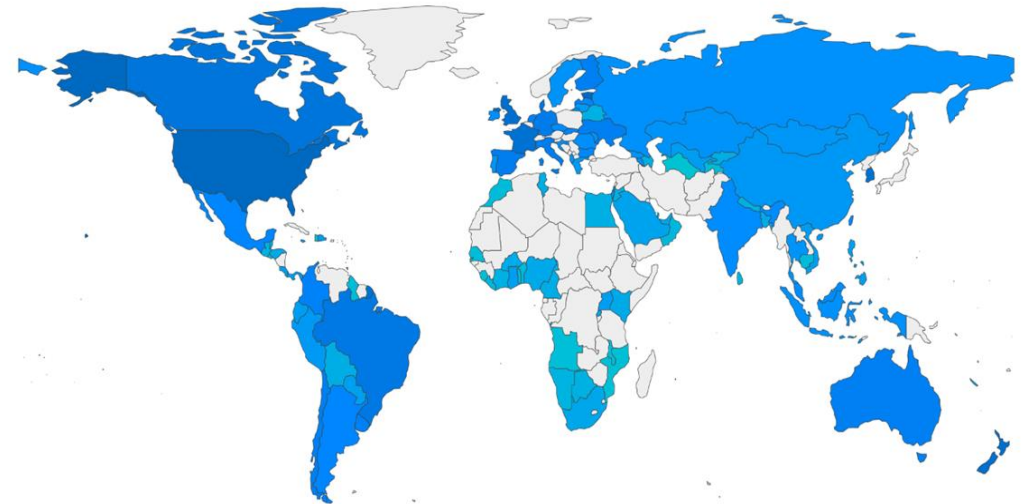
Global average by module



Score

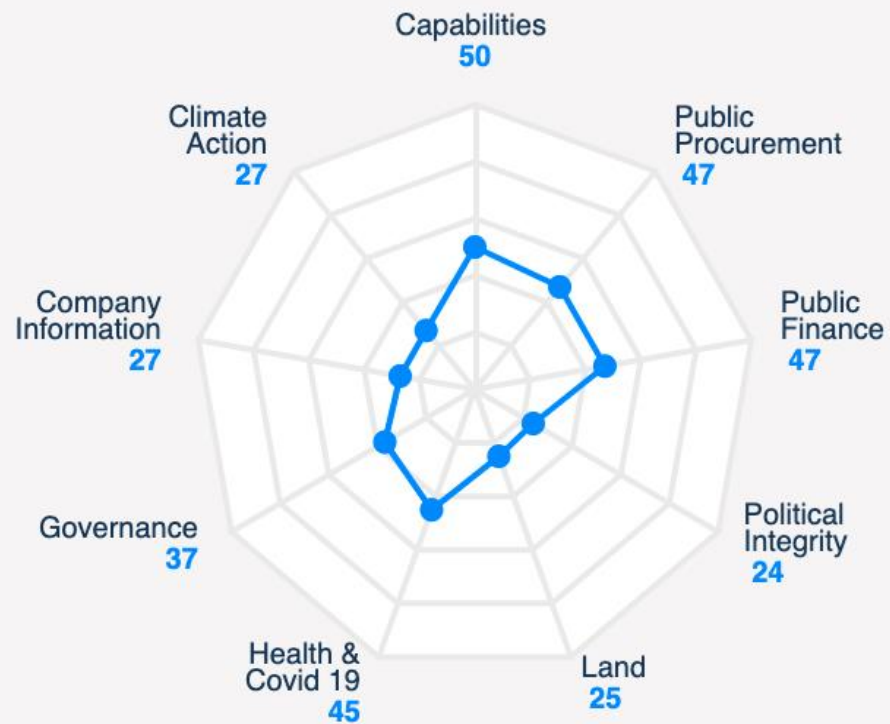
All modules

How are countries doing on **all modules**

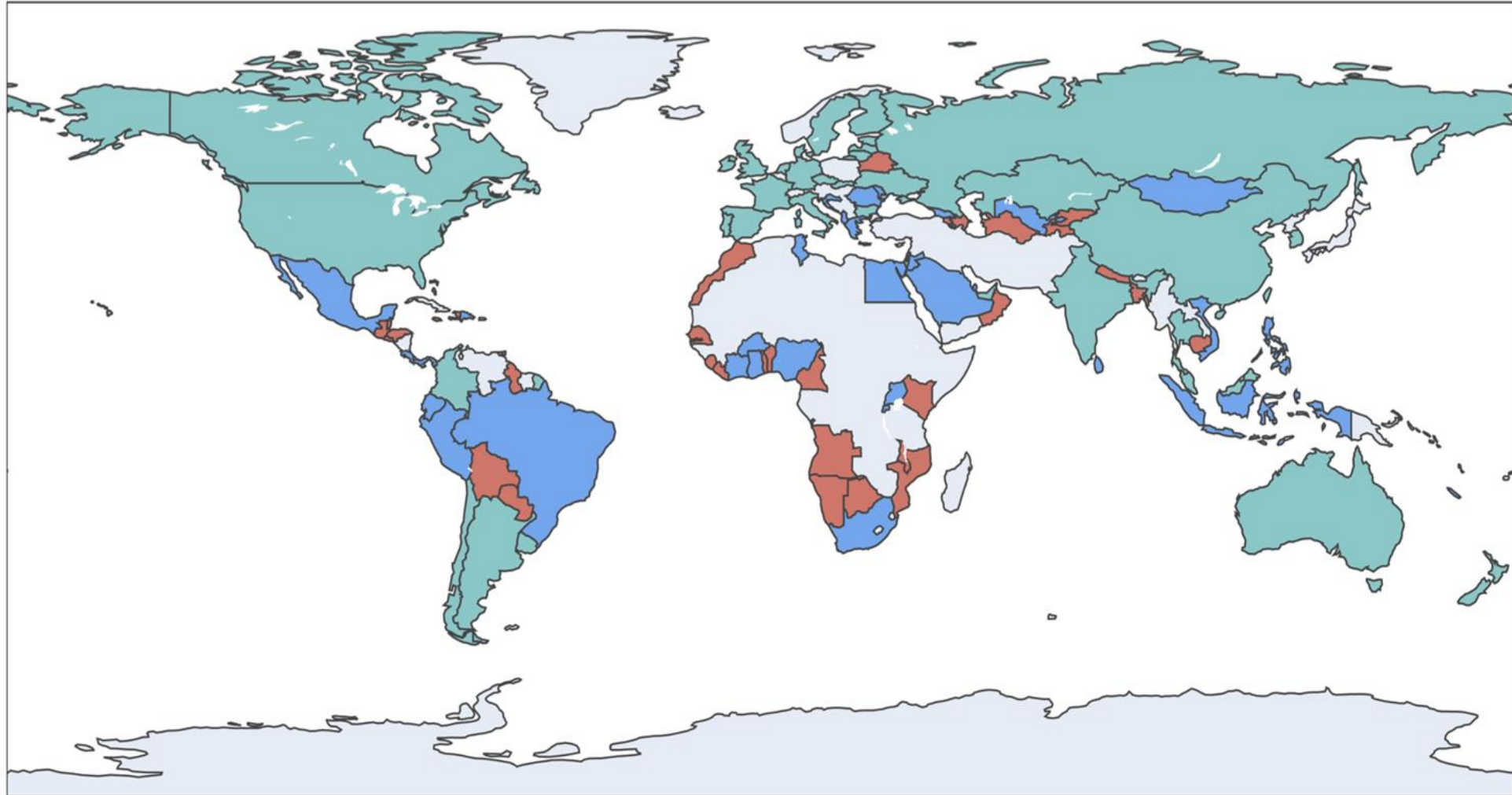




# Average modules scores



Capability cluster: Higher Mid Lower



**The Role of Government as  
a Provider of Data for  
Artificial Intelligence**

Interim Report

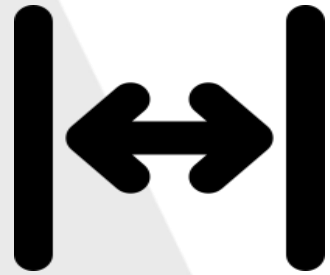
November 2023



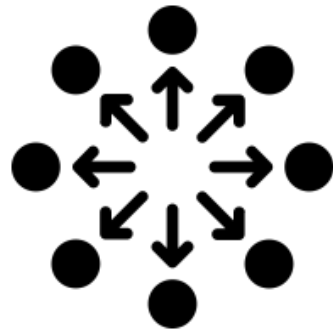
<https://gpai.ai/projects/data-governance/theroleofgovernmentasaproviderofdataforai/#d.en.669199>



# General Findings



Shaping data for the public good is possible. But, long way to go



Open data agendas are alive: but not spreading



Capacity gaps remain a drag on delivering value from data



Well-drafted frameworks deliver better data



Partnerships are powering data use



AClimate



ATUSERVICIO.UY



Municipal  
Money

**HAEZOOM** 해줌

# Platforms/ Resource center



**gpolitical**

# Community events



# Recommendations:

- Strengthen leadership
- Develop robust data sharing frameworks
- Deepen emphasis on equity and inclusion
- Increase the transparency of government data use



# Second edition

(new approaches, new indicators, more cross-cutting issues)

2025

**Visit our website for more  
results and to access our  
report:**

**<https://globaldatabarometer.org/>**



# Data for equity, value and trust

The World Bank  
Development Data Group

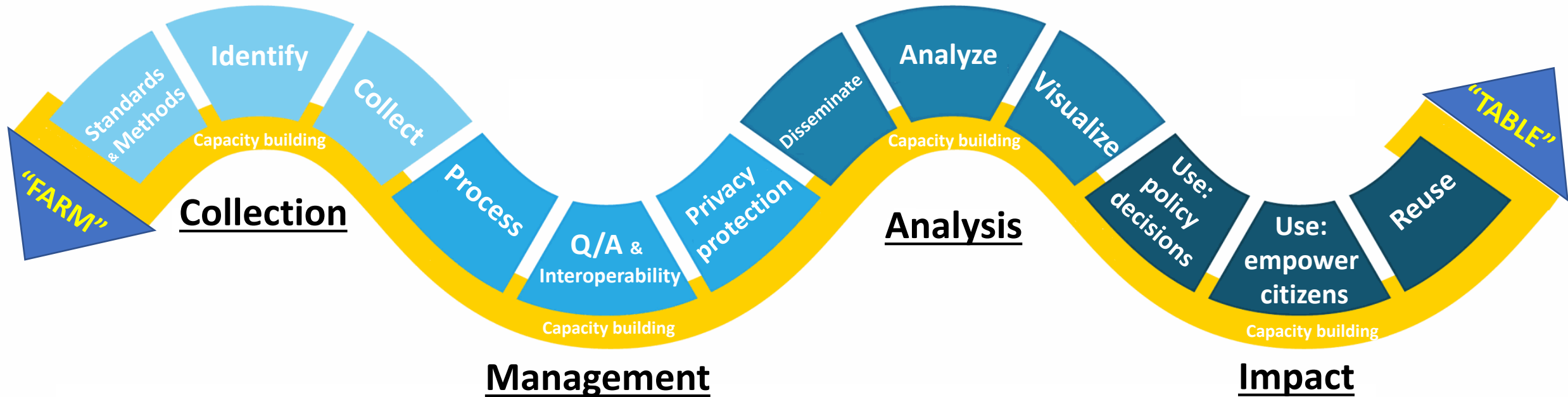


- **Equity**
- **Value**
- **Trust/  
Accountability**

## **Products**

- **World Bank Open Data / WDI**
- **Microdata Library**
- **Poverty and Inequality Platform (PIP)**
- **SDG Atlas**
- **Statistical Performance Indicators (SPI)**
- **Open Data Assessment Tool (ODAT)**

# Development Data Value Chain





# Equity

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- **Data Products free for all**
- **Accessible to all**
- **Level playing field for all**



# Open Data at the World Bank

Since the launch of the Open Data Initiative in 2010, the World Bank has seen:

- [data.worldbank.org](https://data.worldbank.org) has emerged as a top online destination of the World Bank
- Elimination of silos; streamlined data requests
- Improvements in data quality



# **World Bank Open data: 3 ways to find and use it**

## **1. Open Data website**

<http://data.worldbank.org>

## **2. Data Bank**

<http://databank.worldbank.org>

## **3. Data Catalog**

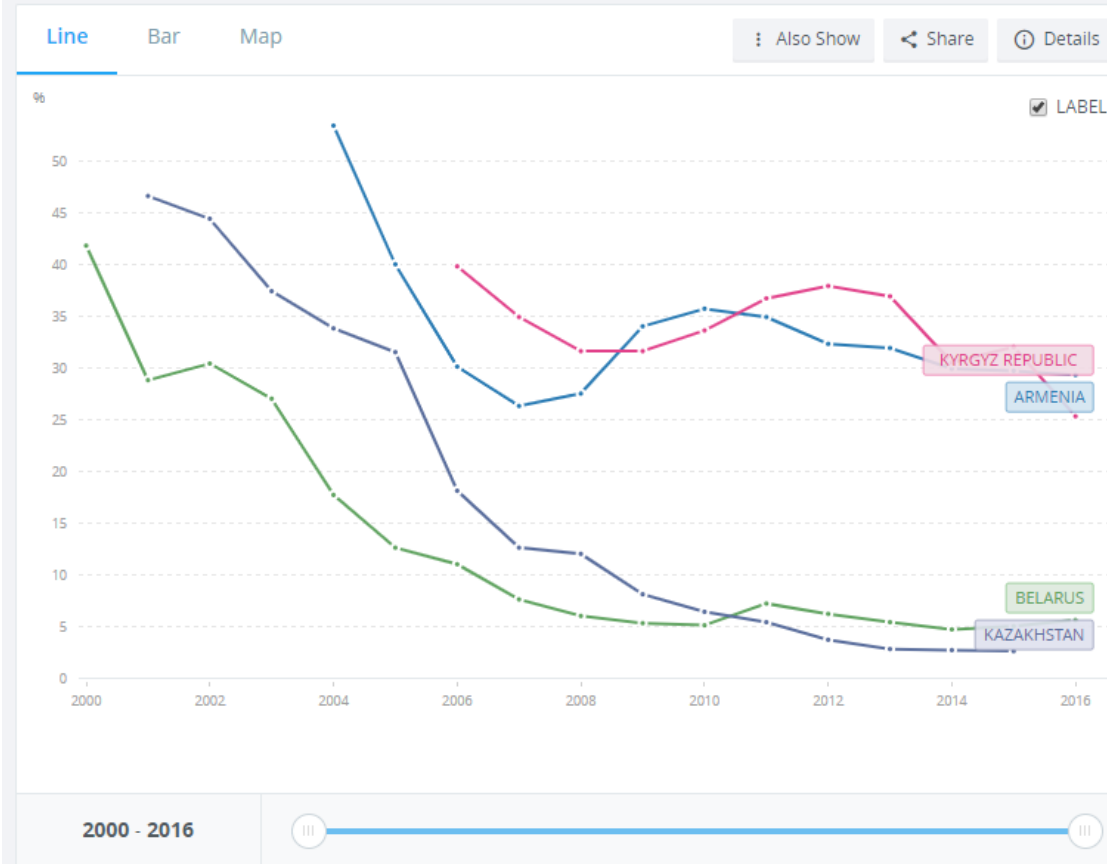
<http://datacatalog.worldbank.org>

<http://data.worldbank.org>

## Poverty headcount ratio at national poverty lines (% of population)

World Bank, Global Poverty Working Group. Data are compiled from official government sources or are computed by World Bank staff using national ( i.e. country-specific ) poverty lines.

License : CC BY-4.0



- Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)
- GINI index (World Bank estimate)
- Poverty gap at \$3.20 a day (2011 PPP) (% of population)
- Rural poverty gap at national poverty lines (%)
- Rural poverty headcount ratio at national poverty lines (% of rural population)
- Poverty headcount ratio at \$5.50 a day (2011 PPP) (% of population)
- Poverty gap at \$5.50 a day (2011 PPP) (% of population)
- Urban poverty gap at national poverty lines (%)

**Download**  
[CSV](#) [XML](#) [EXCEL](#)

**DataBank**  
Online tool for visualization and analysis

**WDI Tables**  
Thematic data tables from WDI

This page is in [English](#) [Español](#) [Français](#) [عربي](#) [中文](#)

# DataBank | World Development Indicators

 Table
  Chart
  Map
  Metadata
  Download options

[Variables](#)
[Layout](#)
[Styles](#)
[Save](#)
[Share](#)
[Embed](#)

**Database** Available  | Selected **1**


**Country** Available **264** | Selected **20**

All  Countries  Aggregates

Enter Keywords for

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

- Afghanistan
- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas, The
- Bahrain
- Bangladesh
- Barbados
- Belarus


Create Custom Group 

**Series** Available **1599** | Selected **55**

**Time** Available **59** | Selected **10**

## Preview

Clear Selection | Add Country (20) Add Series (55) Add Time (10)

Argentina 

	2016	2017	2018
Adolescent fertility rate (births per 1,000 women ages 15-19)	63.0	62.8	..
Agriculture, forestry, and fishing, value added (% of GDP)	6.4	5.6	..
Annual freshwater withdrawals, total (% of internal resources)	..	..	..
Births attended by skilled health staff (% of total)	..	..	..
CO2 emissions (metric tons per capita)	..	..	..
Contraceptive prevalence, any methods (% of women ages 15-49)	..	..	..
Domestic credit provided by financial sector (% of GDP)	38.1	39.3	..
Electric power consumption (kWh per capita)	..	..	..
Energy use (kg of oil equivalent per capita)	..	..	..
Exports of goods and services (% of GDP)	12.6	11.2	..
External debt stocks, total (DOD, current US\$)	..	..	..
Fertility rate, total (births per woman)	2.3	2.3	..

Source: World Development Indicators. Click on a metadata icon for original source information to be used for citation.

<http://databank.worldbank.org>

REFINED BY		RESET
LICENSE	?	+
DATA TYPE		-
<input type="checkbox"/>	Geospatial (31)	
<input type="checkbox"/>	Microdata (1463)	
<input type="checkbox"/>	Other (27)	
<input type="checkbox"/>	Time Series (71)	
COUNTRY		+
RESOURCE TYPE		+
LANGUAGES SUPPORTED		+
PERIODICITY		+
RATING		+
COLLECTIONS		+

Search Criteria:  All Words  Any Word

All [Datasets](#) Indicators Visualizations

Sort By: [Most Relevant](#) | Alphabetical | Last Updated

Showing 1 - 10 of 1592 results

### Quarterly External Debt Statistics SDDS

In October 2014, the World Bank launched the new Quarterly External Debt Statistics (QEDS) SDDS database. This database is consistent with the classifications and definitions of the 2013 External Debt Statistics: Guide for...

[See More](#)

Data Type: **Time Series** Year: **1998 - 2018** Periodicity: **Quarter** Last Updated: **Apr 30, 2019** Access Options: **Download, Query Tool**



↓ 8052 | 👁 13141 | 🔄

### Quarterly External Debt Statistics GDDS

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[See More](#)

Data Type: **Time Series** Year: **2002 - 2018** Periodicity: **Quarter** Last Updated: **Apr 30, 2019** Access Options: **Download, Query Tool**



↓ 2943 | 👁 6135 | 🔄

# What we publish: LOTS of data!

The screenshot shows the 'Development Data Hub' search results interface. The top navigation bar includes 'HOME', 'DATA', 'ADD DATA', 'MY DATASETS', and 'COLLECTIONS'. The main heading is 'Search Results'. On the left, there is a 'REFINE BY' sidebar with sections for 'Countries and Economies' (listing Afghanistan, Albania, Algeria, American Samoa, and Andorra), 'Source Catalog' (with 'Other (1960)' selected), and 'Topics', 'Collections', 'Resource Type', 'Classification', and 'License'. The main content area features a search bar with 'Enter Keywords...', a filter for 'Source: Other', and '1,960 results'. Below this, three dataset entries are visible: 'Harmonized COVID-19 Household Monitoring Surveys', 'WPS 9767-Sectoral Decomposition of Convergence in Labor Productivity : A Re-examination from a New Dataset', and 'Financial Risk Assessment Tool'. Each entry includes a brief description, 'Last Updated' date, 'Classification', and available file formats (PDF, EXCEL, STATA, REPORT) and a 'Preview' button.

- The Data Catalog is a one-stop shop for all World Bank development datasets
- International statistics
- Macroeconomic indicators
- Research datasets
- Geospatial datasets
- World Bank operations data

<https://datacatalog.worldbank.org>

# Need Data?

- Fully **searchable** data **catalog** (>6,400 public)
- Seamlessly explore multiple catalogs:

**Microdata** Library, **energydata.info**, **Open Finances**, **Open Data API**, **Library Network**

- **Filtering** of search results
- Easily **identify** relevant data

# Access

- Comprehensive, standards-based **metadata**
- Clarity around data **access** and **licensing**
- Support for **public, official use** and **confidential\*** data

# Sharing

- Cloud-based **repository** for data storage
- File and dataset **versioning**
- Simplified data **deposit** and **curation**
- **Restricted** data management
- **Automation** for adding and sharing data
- Impact **metrics** on data use and impact



# Data (Re)Use

- Enhanced data delivery through **APIs** and web **services**
- Built-in **API** data access for **tabular data** (CSV, Excel)
- Geospatial **vector** data available as **feature services**
- **Raster** data (imagery) available as cloud-optimized GeoTiffs (**COGs**)
- **Large** dataset support (volume or size)

# Value

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- **Make data easier to use**
- **Foster awareness and understanding**



# Data products that are easy to use

✓ Discoverable

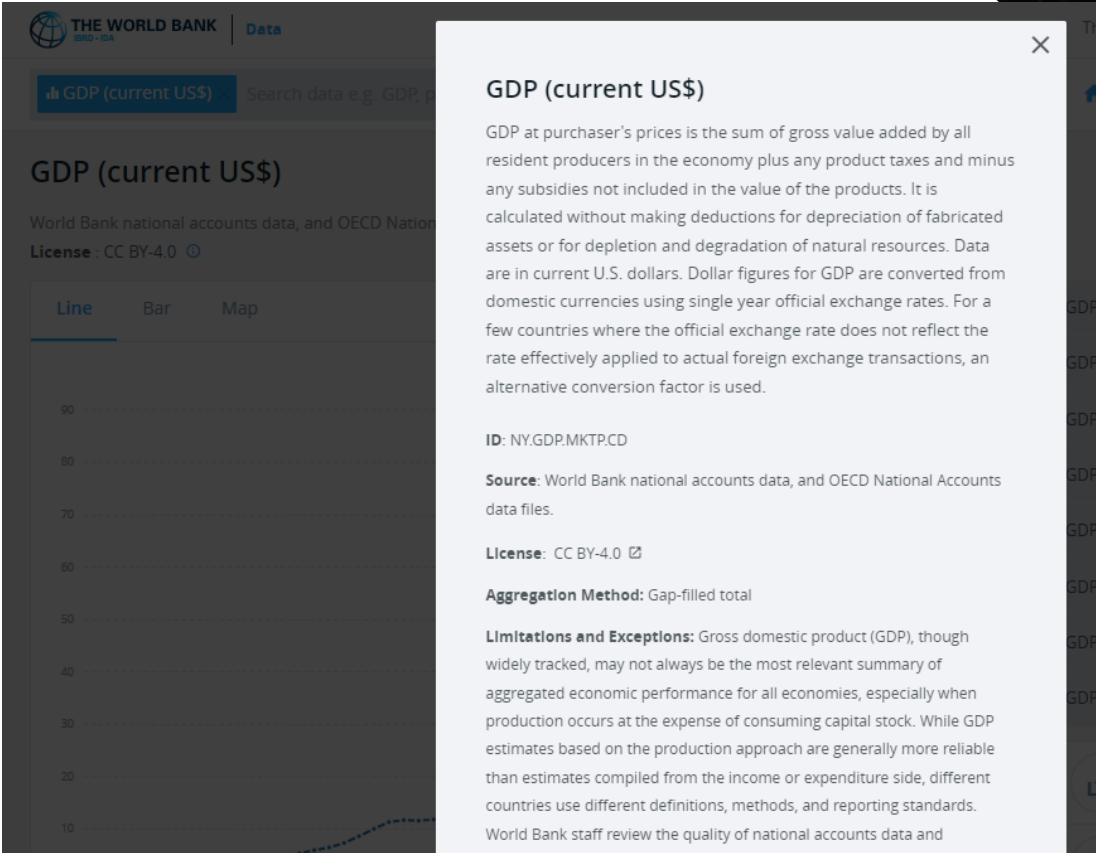




# Data products that are easy to use

- ✓ Discoverable
- ✓ Understandable

## Metadata



The screenshot shows the World Bank Data portal interface. A search bar at the top contains 'GDP (current US\$)'. Below the search bar, the title 'GDP (current US\$)' is displayed, followed by the text 'World Bank national accounts data, and OECD National Accounts data files.' and the license 'License: CC BY-4.0'. There are three tabs: 'Line', 'Bar', and 'Map'. A line chart is partially visible at the bottom. A white metadata popup window is overlaid on the right side of the screen, containing the following information:

**GDP (current US\$)**

GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used.

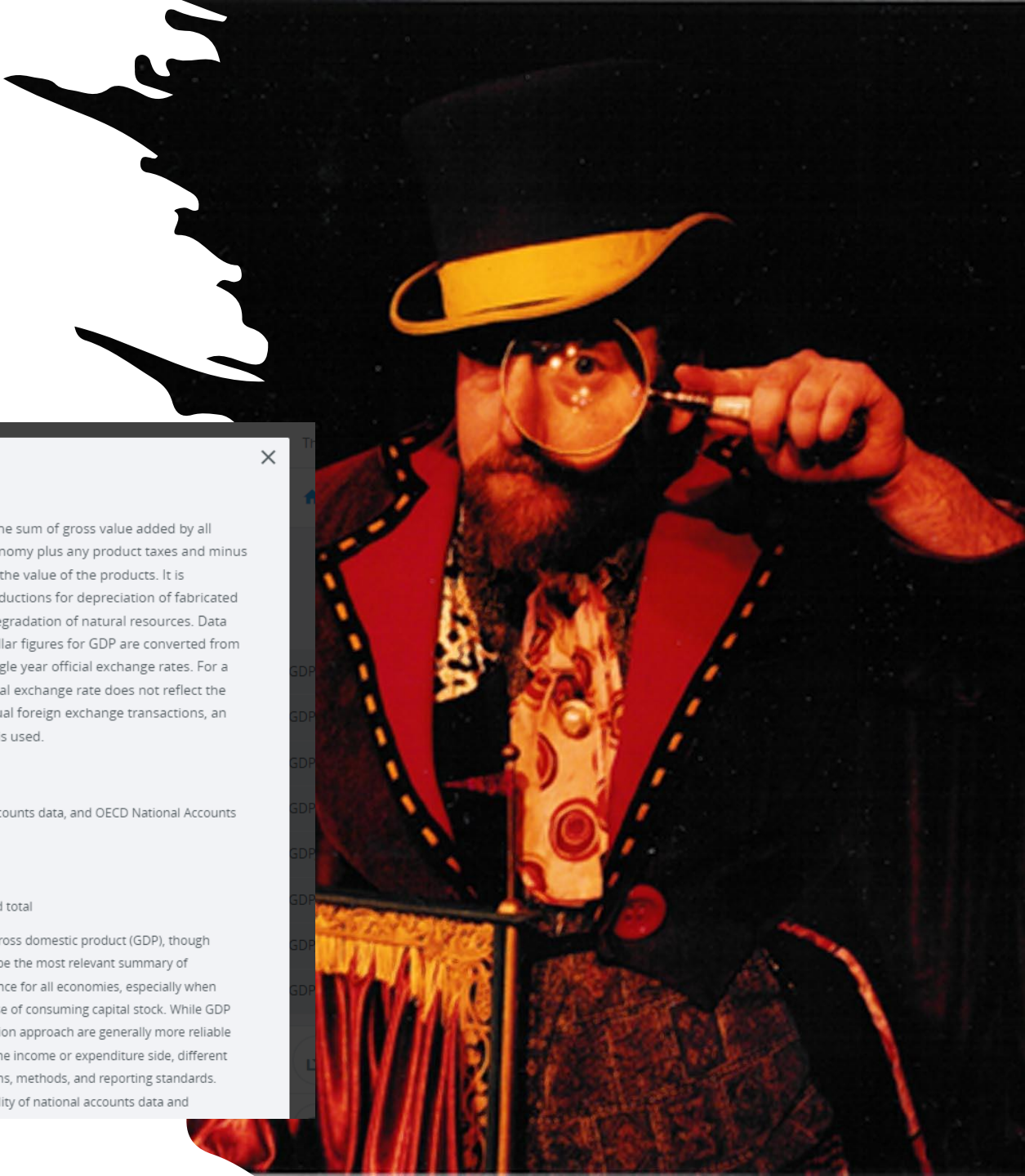
**ID:** NY.GDP.MKTP.CD

**Source:** World Bank national accounts data, and OECD National Accounts data files.

**License:** CC BY-4.0




**Aggregation Method:** Gap-filled total

**Limitations and Exceptions:** Gross domestic product (GDP), though widely tracked, may not always be the most relevant summary of aggregated economic performance for all economies, especially when production occurs at the expense of consuming capital stock. While GDP estimates based on the production approach are generally more reliable than estimates compiled from the income or expenditure side, different countries use different definitions, methods, and reporting standards. World Bank staff review the quality of national accounts data and



# Data products that are easy to use

- ✓ Discoverable
- ✓ Understandable
- ✓ Accessible

	<b>Download</b> <a href="#">CSV</a> <a href="#">XML</a> <a href="#">EXCEL</a>
	<b>DataBank</b> Online tool for visualization and analysis
	<b>WDI Tables</b> Thematic data tables from WDI





# Data products that are easy to use

<https://data.worldbank.org>

- ✓ Discoverable
- ✓ Understandable
- ✓ **Accessible**

## Accessing the World Bank Data APIs in Python, R, Ruby & Stata

TARIQ KHOKHAR | JULY 22, 2013

This page in: English



Developers, analysts and researchers often use our data through the APIs we provide. We've written



# Microdata Library (4000+ datasets)

The screenshot shows the Microdata Library website. At the top, it says "Microdata Library" and "Search in 4043 datasets". There is a search bar with the placeholder text "Keywords..." and a blue "Search" button. Below the search bar is a link to "Browse Catalog".

The "Featured collections" section includes a description: "The Microdata Library is a collection of datasets from the World Bank and other international, regional and national organizations". It features four collection cards:

- High-Frequency Phone Surveys (HFPS)**: Image of two people wearing masks.
- Global Financial Inclusion (Global Findex) Database**: Image of hands holding money.
- Living Standards Measurement Study (LSMS)**: Image of a person with a child.
- Integrated Public Use Microdata Series (IPUMS)**: IPUMS logo.

At the bottom, there are three icons with descriptions:

- API**: Search, browse and export metadata using our API.
- Knowledge base**: Find answers to common questions.
- Terms of use**: Find out how you can use microdata.

- **Data from World Bank Contributing Catalogs**
  - Global Financial Inclusion Database (FINDEX)
  - Living Standards Measurement Surveys (LSMS)
  - World Bank Group Country Opinion Surveys
  - Enterprise Surveys
- **Metadata and Data from External Contributing Catalogs**
  - Demographic and Health Surveys (DHS)
  - Afrobarometer
- **Openly Accessible Data and Documentation.** Copyrighted, free to access online, additional usage rights granted to any user through a Public License.
- Citation Repository – A repository of cited works that use the data in the catalog
- Metadata API

<https://microdata.worldbank.org>



# Building the Poverty and Inequality Platform (PIP)



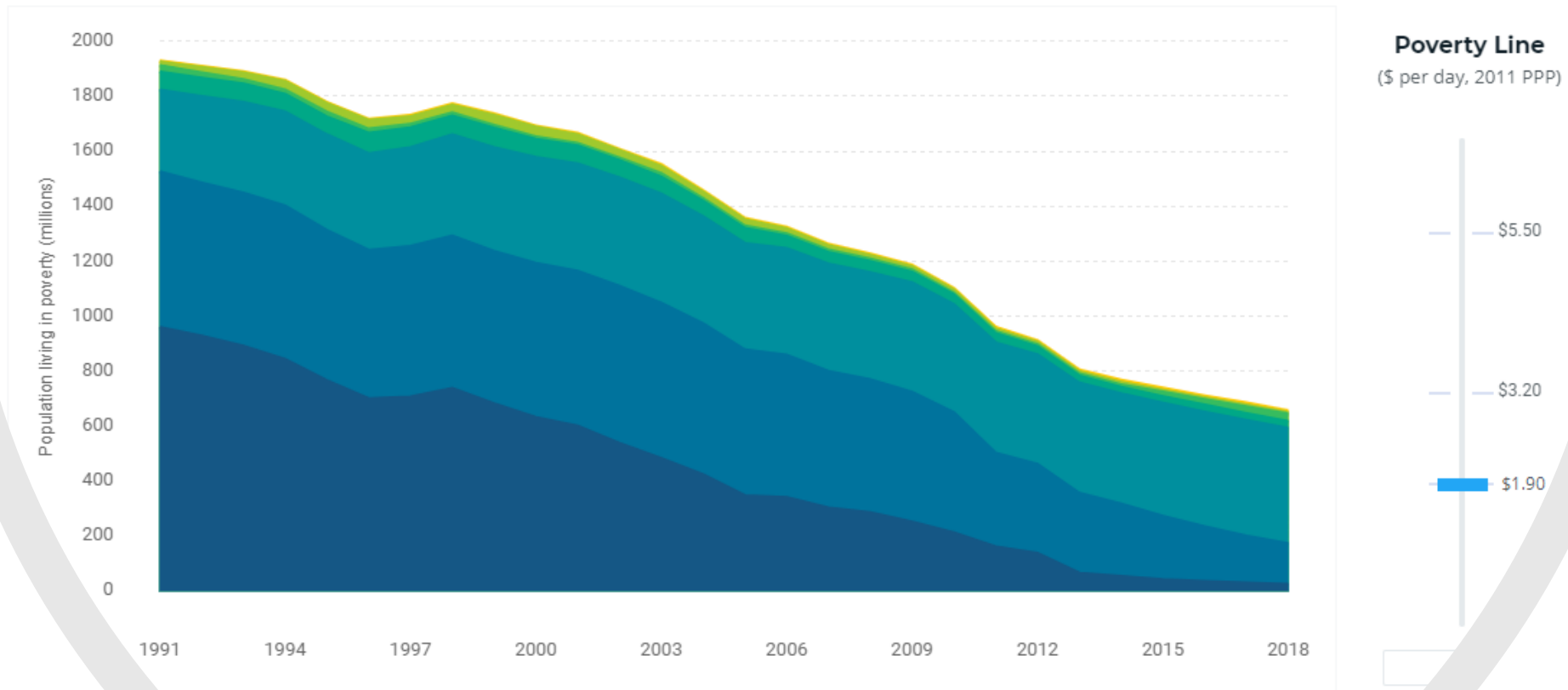


# DID YOU KNOW?

**656**  
million

Take a

people lived below the **\$1.90** per day poverty line in 2018





STATA®



**Metadata and  
documentation**

**PIP API**



**Open-Source**

- **Streamlining data ingestion**
- **Architecting to meet both research and production requirements**

## Key take-aways and trade-offs

- ✓ **On the pipeline**
  - ✓ Everything is done through code: Transparency, traceability
  - ✓ Code is packaged: maintenance, documentation, robustness
  - ✓ Leverage specialized tools: No need to re-invent the wheel, leverage existing ecosystem

## Key take-aways and trade-offs

- ✓ **On the pipeline**
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  - ✓ Code is packaged: maintenance, documentation, robustness
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- ✓ **On project management**
  - ✓ Use Github and its features (issue tracking, teams, etc.)
  - ✓ Need to set-up a full production pipeline early that enable the deployment of a minimal, light-weight end-to-end working product

## Key take-aways and trade-offs

- ✓ **On the pipeline**
  - ✓ Everything is done through code: Transparency, traceability
  - ✓ Code is packaged: maintenance, documentation, robustness
  - ✓ Leverage specialized tools: No need to re-invent the wheel, leverage existing ecosystem
- ✓ **On project management**
  - ✓ Use Github and its features (issue tracking, teams, etc.)
  - ✓ Push harder for setting-up a full production pipeline early that enable the deployment of a minimal, light-weight end-to-end working product
- ✓ **On architecture**
  - ✓ Use specialized framework to design APIs
  - ✓ Use Docker to ensure replicability

*Fundamental principles of statistics  
.... Putting the “mental” in it*





WPS8452

POLICY RESEARCH WORKING PAPER 8452

Technology, Taxation, and Corruption  
Evidence from the Introduction of Electronic Tax Filing

*Qiyah Othman  
Victor Dodgson*

WORLD BANK GROUP  
Development Economics  
Development Research Group  
May 2018

WPS8451

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Shared Prosperity  
Concepts, Data, and Some Policy Examples

*Francisco H.G. Ferreira  
Emmanuel Galor  
María López*

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Development Economics  
Development Research Group  
May 2018

WPS8450

POLICY RESEARCH WORKING PAPER 8450

Services Development and Comparative  
Advantage in Manufacturing

*Shang-Jin Wei  
Audrey Mann  
Zhi Wang  
Shang-Jin Wei*

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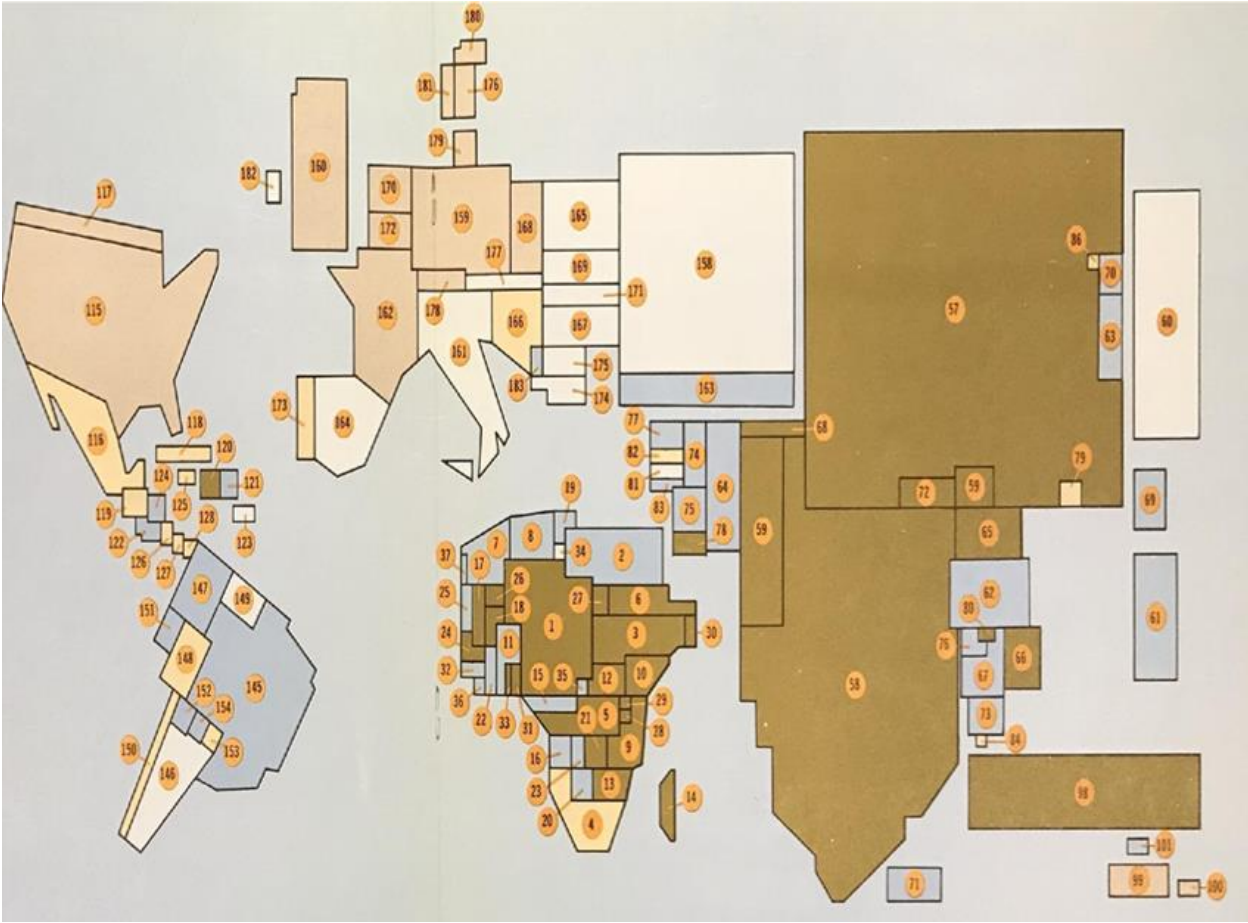
# Data visualization and storytelling

- Improving society's fact-based view of the world is vital for progress, and the World Bank's role as an international organization does not stop at publishing databases and research papers.
- The World Bank Data Group wants to **highlight and explain data through stories and engaging visualizations**. The goal is to help users and the public to better understand what the data and research are showing and how they can be used to gain insight.
- Examples of this work include the Atlas of Sustainable Development Goals, World Development Report, Data Stories, The Changing Wealth of Nations, Statistical Performance Index.



*Fundamental principles of statistics  
.... Putting the “fun” in it*

# Foster awareness and understanding



**World Bank Atlas  
1966**

## ATLAS of Sustainable Development Goals 2023

This complex figure is a collage of data visualizations related to the Sustainable Development Goals (SDGs) in 2023. It includes:

- World Map:** A world map at the top right showing different regions in various colors (blue, red, grey).
- Network Diagram:** A diagram on the left showing interconnected nodes and lines, possibly representing global trade or infrastructure.
- Area Chart:** A large area chart on the right showing trends over time for different categories.
- Tuberculosis Detection in 2018:** A horizontal bar chart showing detection rates by region:
 

Region	Detection Rate
EUROPE & CENTRAL ASIA	87%
MIDDLE EAST & NORTH AFRICA	70%
NORTH AMERICA	87%
LATIN AMERICA & CARIBBEAN	82%
SOUTH ASIA	83%
SUB-SAHARAN AFRICA	64%
EAST ASIA & PACIFIC	81%
- Bar Chart:** A small bar chart with values: -0.2%, 0.1%, -0.5%, -1.0%, +1.3%, -2.4%.
- Radar Chart:** A circular radar chart in the center showing multiple data series.
- Network Diagram (Circular):** A circular network diagram on the right showing connections between different regions.
- Green Jobs Pie Chart:** A pie chart at the bottom right showing that Green jobs are 2.8% of all jobs in 2023. The chart is divided into segments for 'Green jobs' (2.8%) and 'Other jobs' (97.2%).
- World Bank Group Logo:** The logo is located at the bottom right of the collage.



# 1966

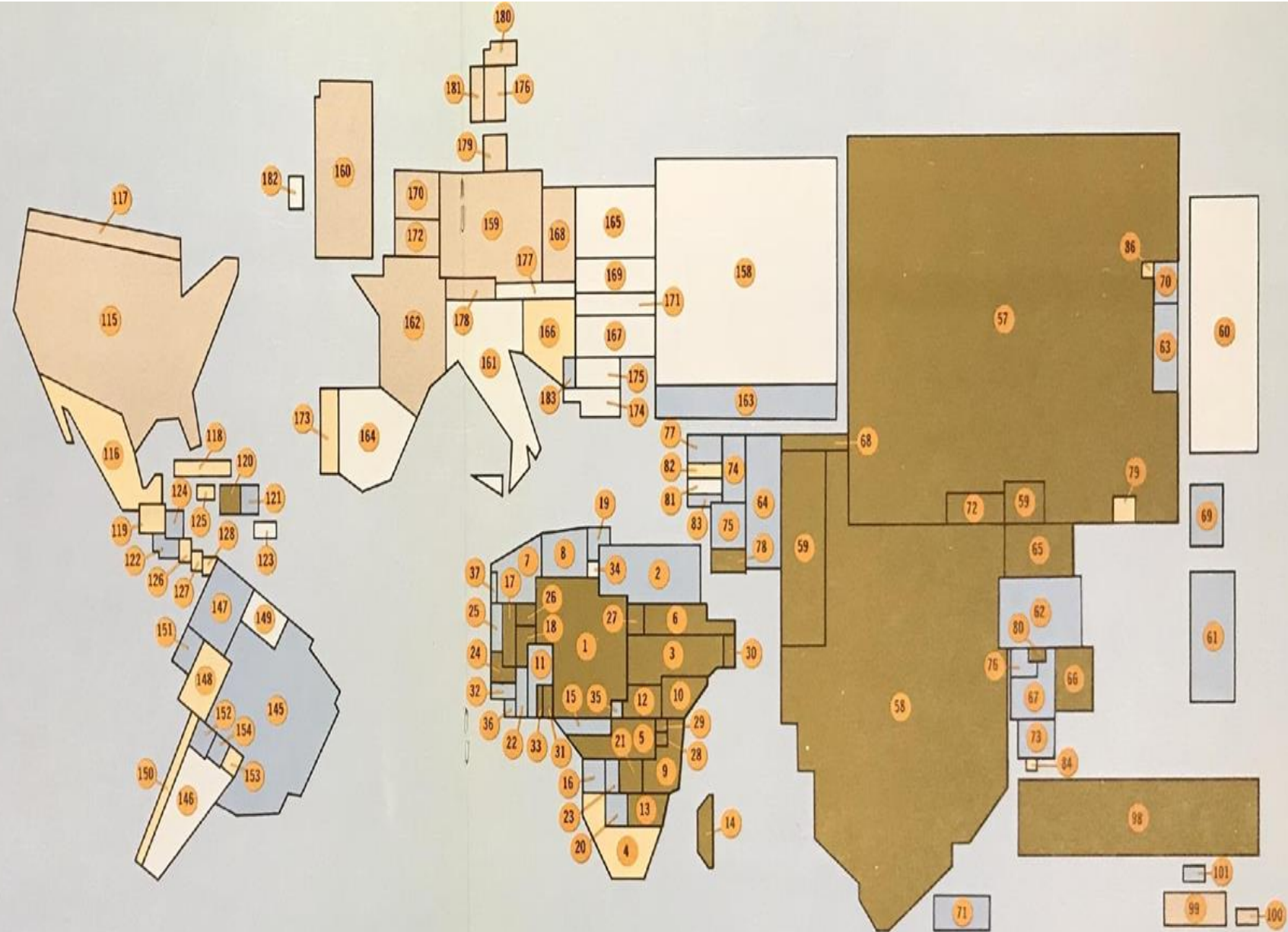
WORLD BANK

# atlas

POPULATION AND PER CAPITA PRODUCT



published by the International Bank for Reconstruction and Development 1968



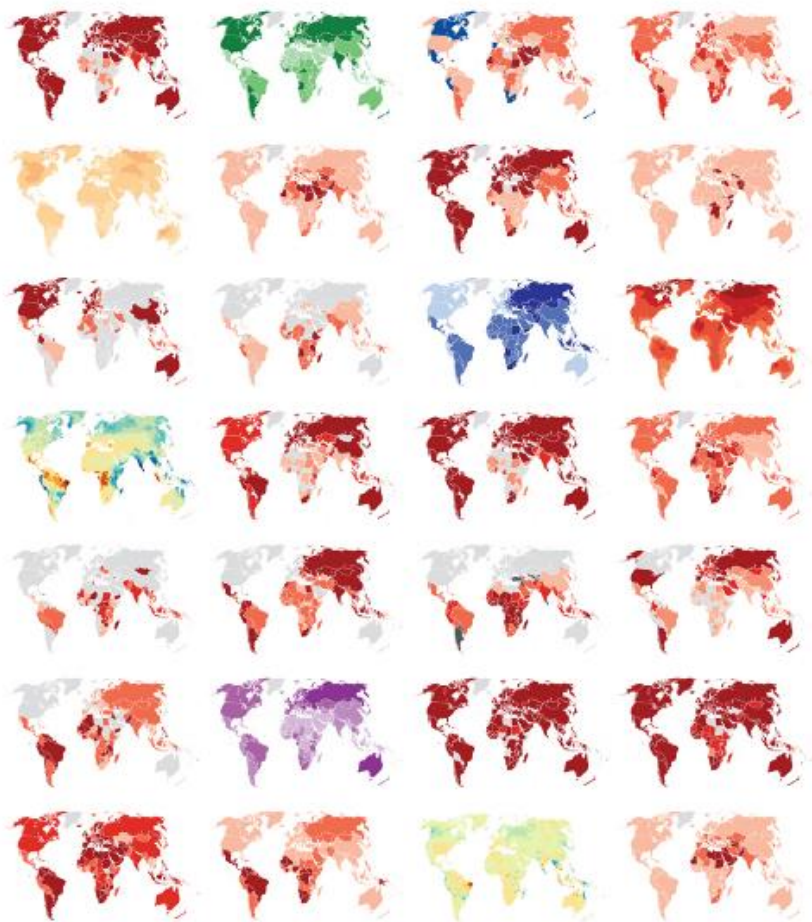




# Atlas of Sustainable Development Goals

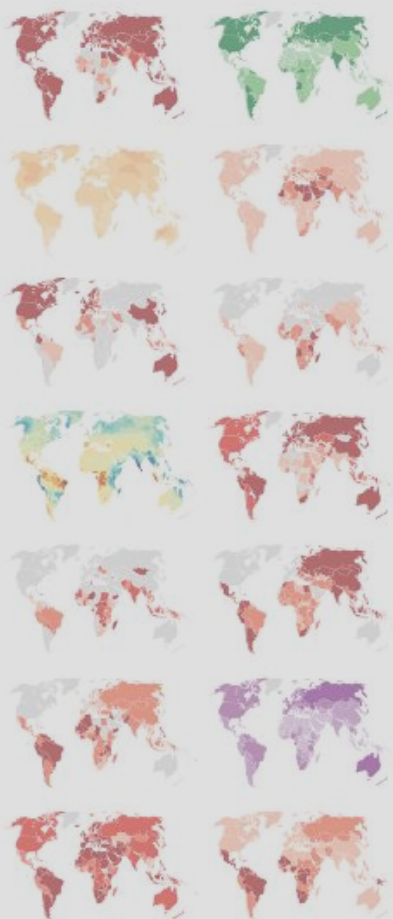
## 2017

From World Development Indicators

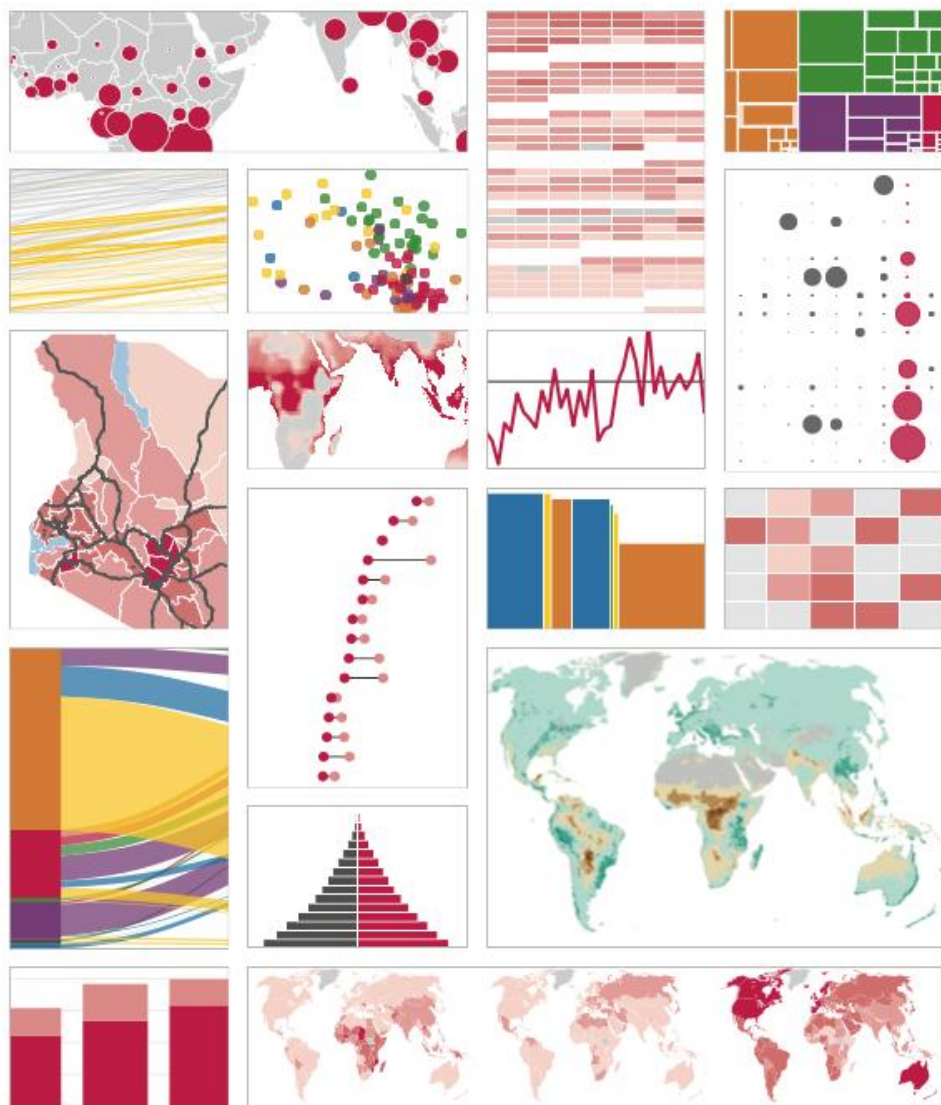




# Atlas of Sustainable 2017 From Wor



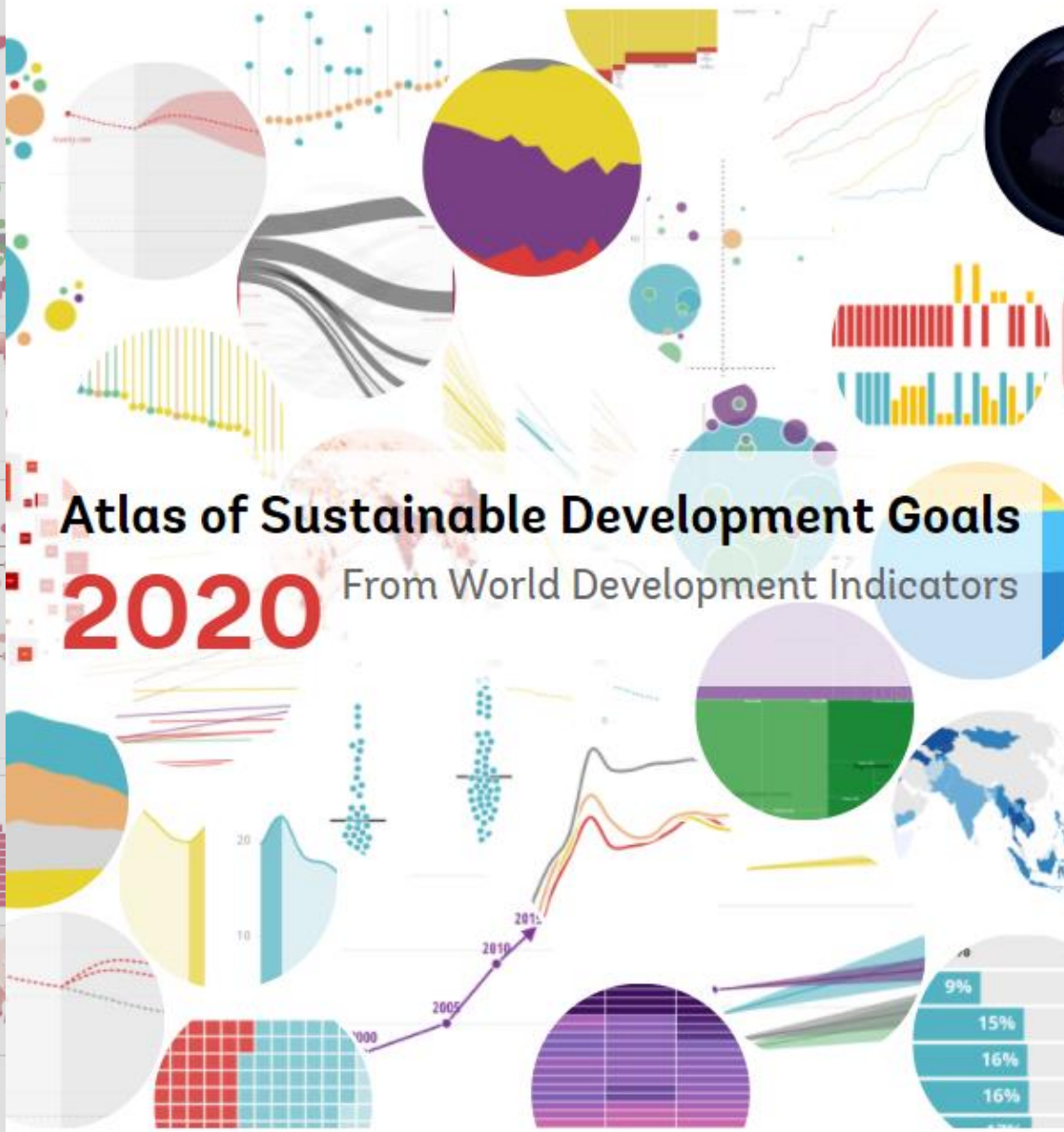
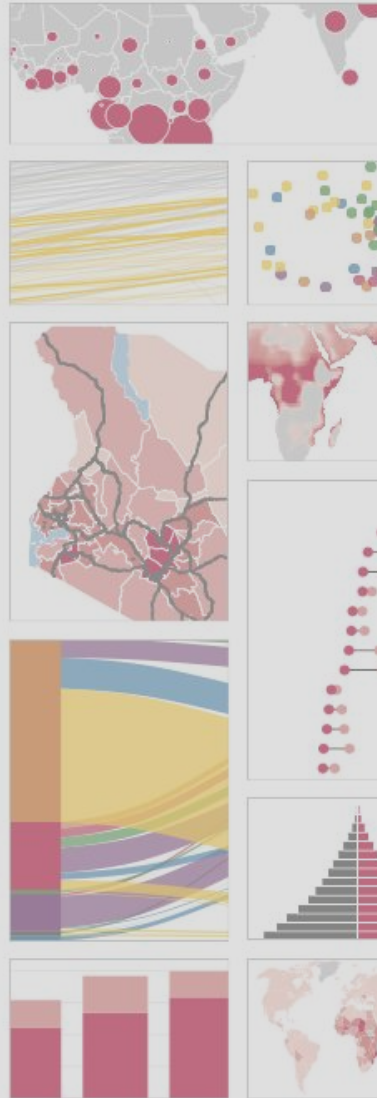
# 2018 Atlas of Sustainable Development Goals From World Development Indicators



# Atlas of Sustainable 2017 From Wor



# 2018 Atlas of Sustainable From Wor





# Atlas of Sustainable 2017 From Wor

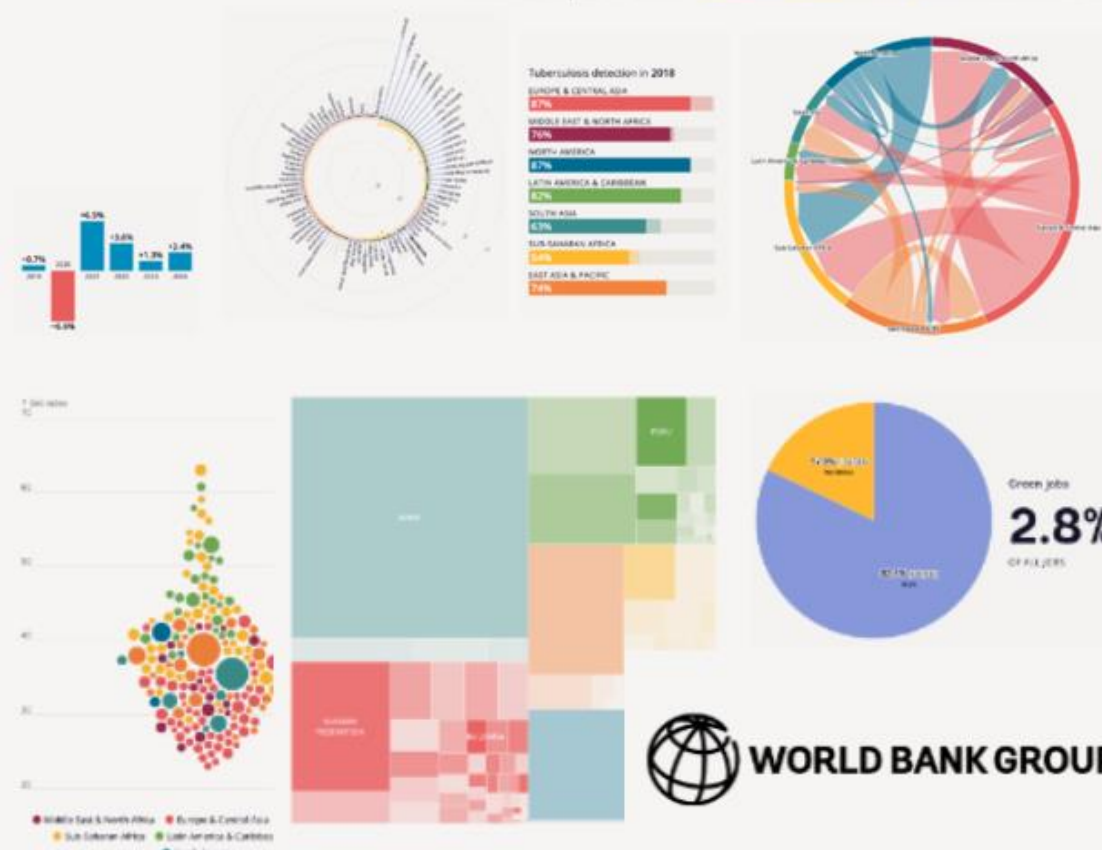


# 2018 Atlas of From Wor



# Atlas of Sustainable 2020 From

# ATLAS of Sustainable Development Goals 2023



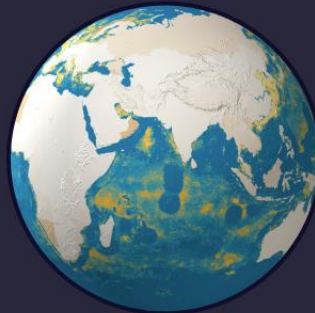




# ATLAS of Sustainable Development Goals



# 2023



# The Atlas of Sustainable Development Goals

- The Atlas **communicates complex information about sustainable development in an accessible and inclusive manner** by showcasing trends for selected targets within each goal and explaining how the SDGs are measured.
- It **brings together data** from the World Development Indicators database, as well as information from other sources, including national and international agencies, as well as data produced by academic institutions and other researchers.
- Each chapter of the online publication focuses on one SDG and uses a combination of **interactive storytelling and visualizations**.



# Trust / Accountability

- Public eye scrutiny
- Minimize risks
- Institutional knowledge



# Build trust through transparency and reproducibility

- ✓ **Reproducible publications**

SDG Atlas 2018:

<https://github.com/worldbank/sdgatlas2018>





# Build trust through transparency and reproducibility

- ✓ Reproducible publications
- ✓ **Transparent computations**

World Bank Poverty Estimates:

<https://pip.worldbank.org/>

<https://github.com/PIP-Technical-Team/pipapi>



# Build trust through transparency and reproducibility

- ✓ Reproducible publications
- ✓ Transparent computations
- ✓ **Trust**







# Open Data Toolkit helps countries make data openly available

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- ODAT can help countries assess why gaps in adopting open data practice exist and can help address them
- ODAT also focuses on providing technical tools for adopting open data practices

<https://opendatatoolkit.worldbank.org/en/data/opendatatoolkit/home>

# Supporting client countries on building open data infrastructure:



## The Business Case for Open Data

- Openness, Transparency & Accountability
- Improved Public Services
- Innovation & Citizen Engagement
- Public Sector Efficiency
- Economic Value/New Market Opportunities



# Thank you!

Questions? Please write to us at: [data@worldbank.org](mailto:data@worldbank.org)

# Q&A



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Stay up-to-date on our  
2024 activities!

The logo for Data Europa Academy is located in the bottom-left corner. It features a large red circle with a smaller white circle inside it. The text "data.europa academy" is written in white lowercase letters within the white circle. The word "data" is on the top line, "europa" is on the middle line, and "academy" is on the bottom line. The dots in "data" and "europa" are colored yellow and orange.

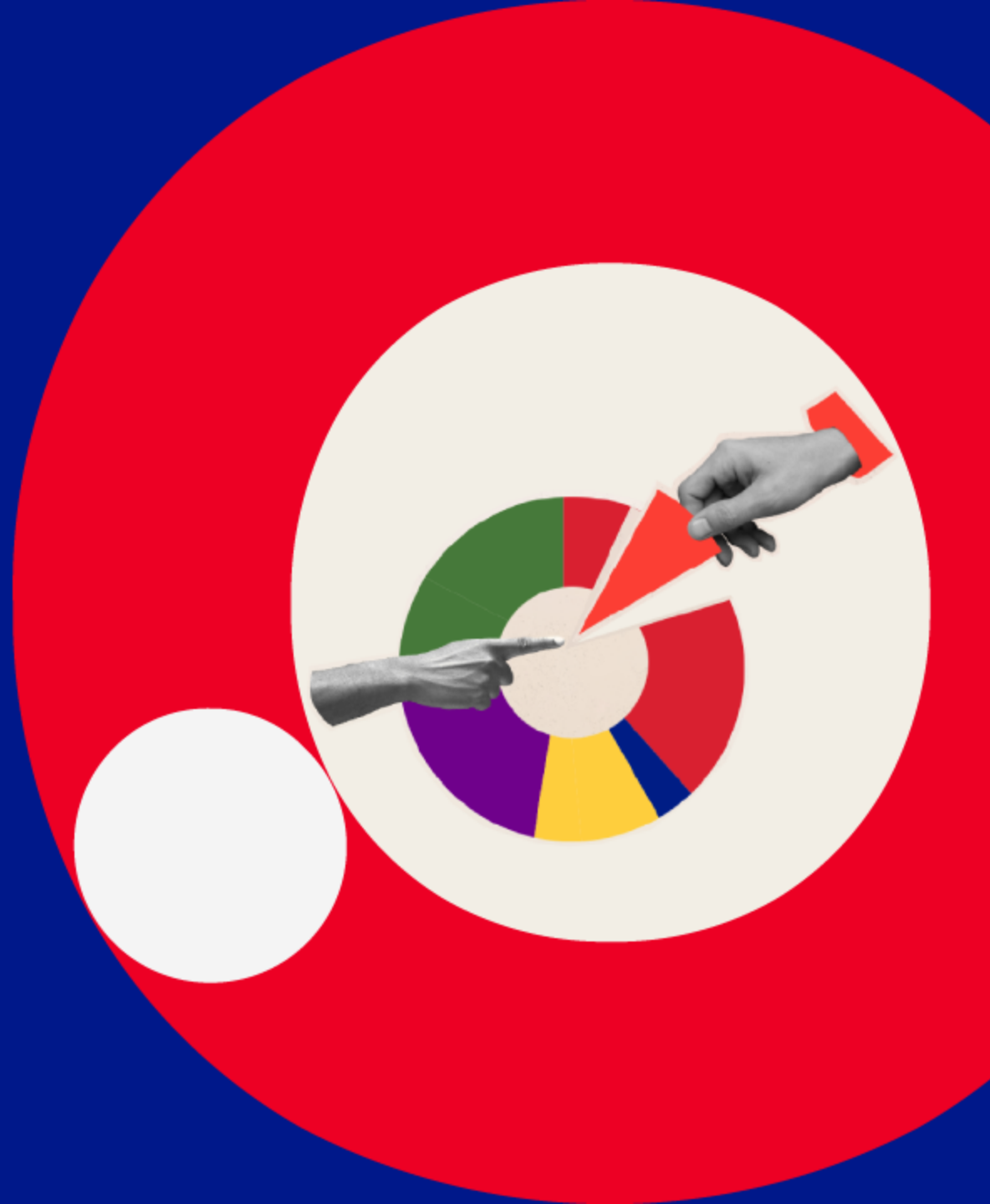
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**Take the floor at EU Open Data Days 2025, 19-20 March 2025! Share your inspiring initiatives and successful projects on how to empower EU society with data.**



Your opinion is  
important to us



# Thank you

