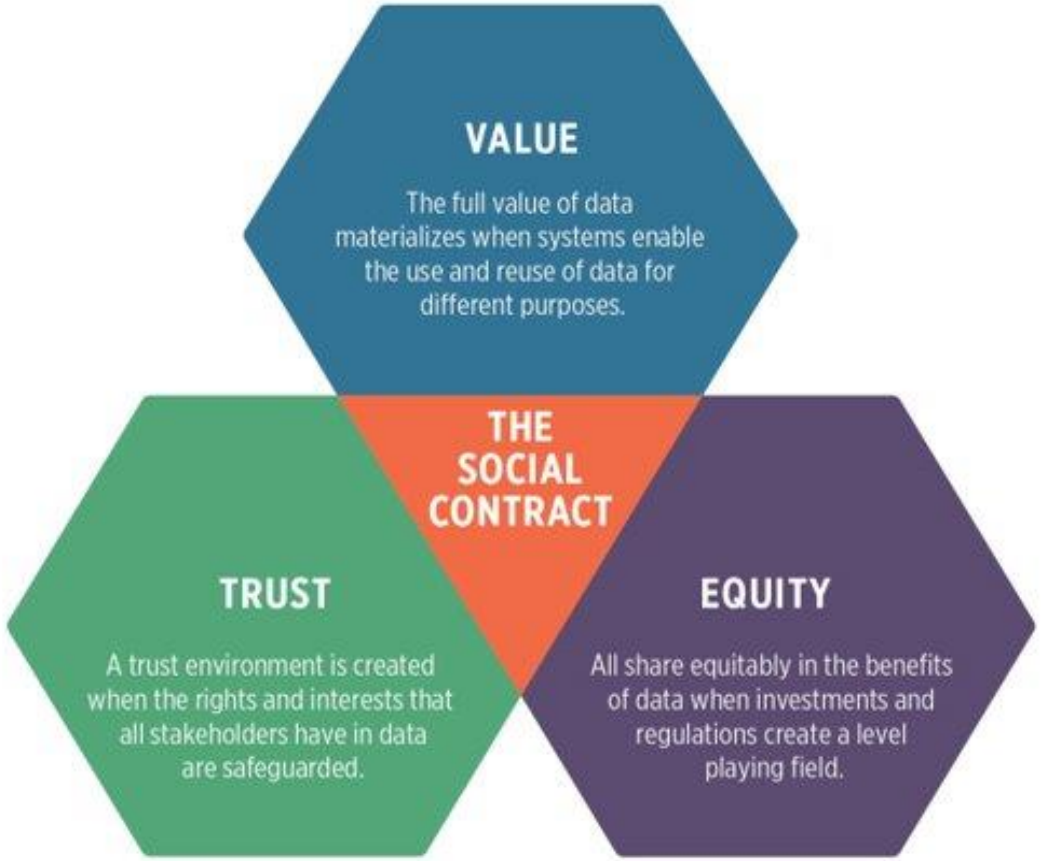
WORLD DEVELOPMENT REPORT 2021

Chapter 6: Data policies, laws, and regulations: Creating a trust environment

WORLD BANK GROUP

The social contract for data



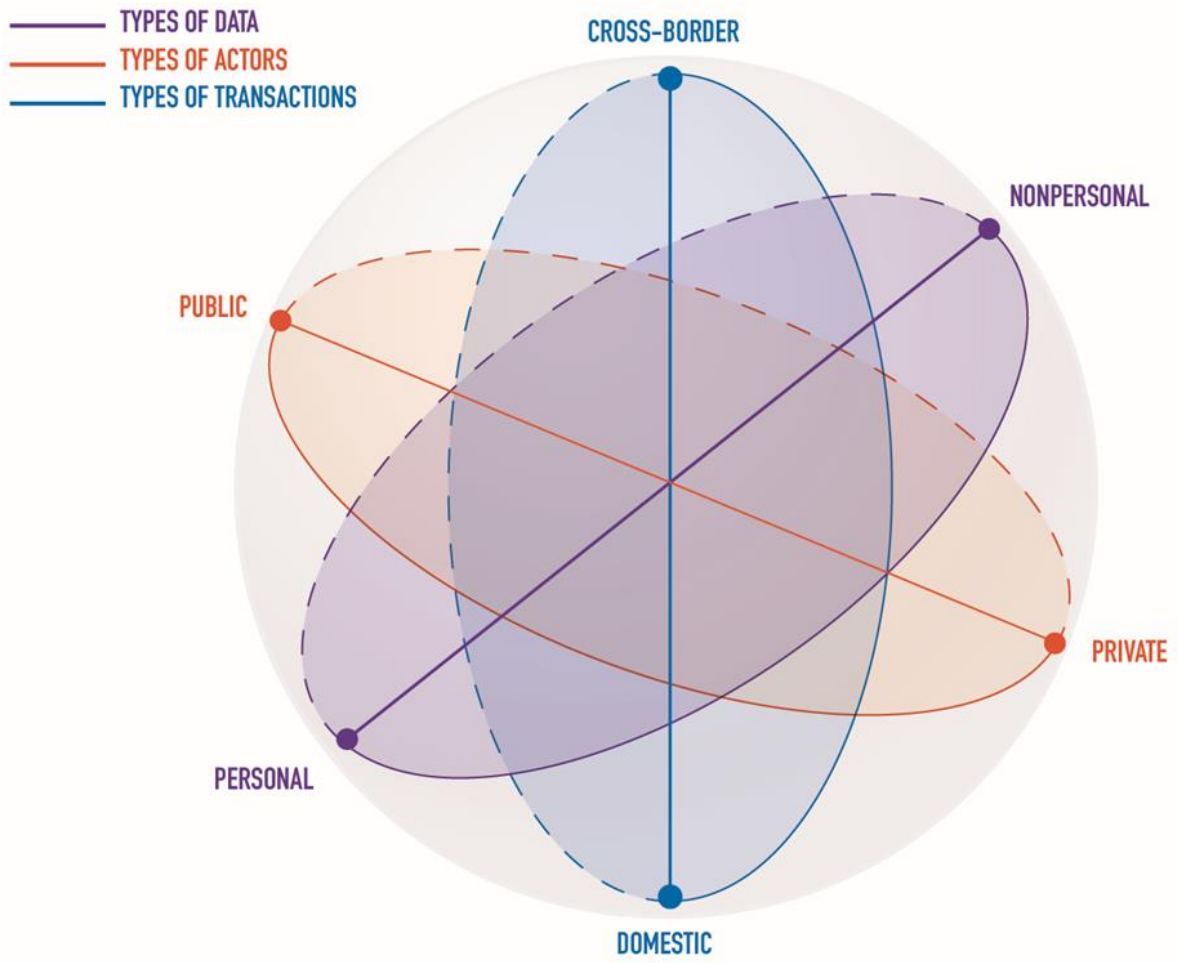
Data governance provides means to enforce the social contract

	Infrastructure policies	Laws and regulations	Economic policies	Institutions
National	Universal broadband coverage Domestic data infrastructure	Safeguards Enablers	Antitrust Trade Taxation	Government entities Other stakeholders
International	Global technical standards Regional collaboration	Cybersecurity conventions Interoperability standards	International tax treaties Global trade agreements	International organisation Cross-border cooperation

From Contact Tracing to Vaccine Certificates: Enablers & Safeguards in the time of COVID-19

Source: who.int

A multidimensional legal framework for trusted data transactions



Source: WDR 2021 team

A differentiated approach to enablers and safeguards is needed to build trust

A. PERSONAL DATA SAFEGUARDS: to protect against misuse and enable individual agency/control over data use

Limits on use

- Lawfulness
- Purpose limitation
- Data minimization
- Retention/storage limitations
- Adequacy mechanisms for cross-border data transfers

Individual and collective rights

- Consent
- Portability
- Notice of use/breach
- Accuracy and rectification
- Limitations on automated decision making
- Redress
- Effective enforcement

1. Rights-based approach

2. Balance of interests

B. ENABLERS: to mandate the use/sharing of public data and facilitate private sector data sharing for "public intent"

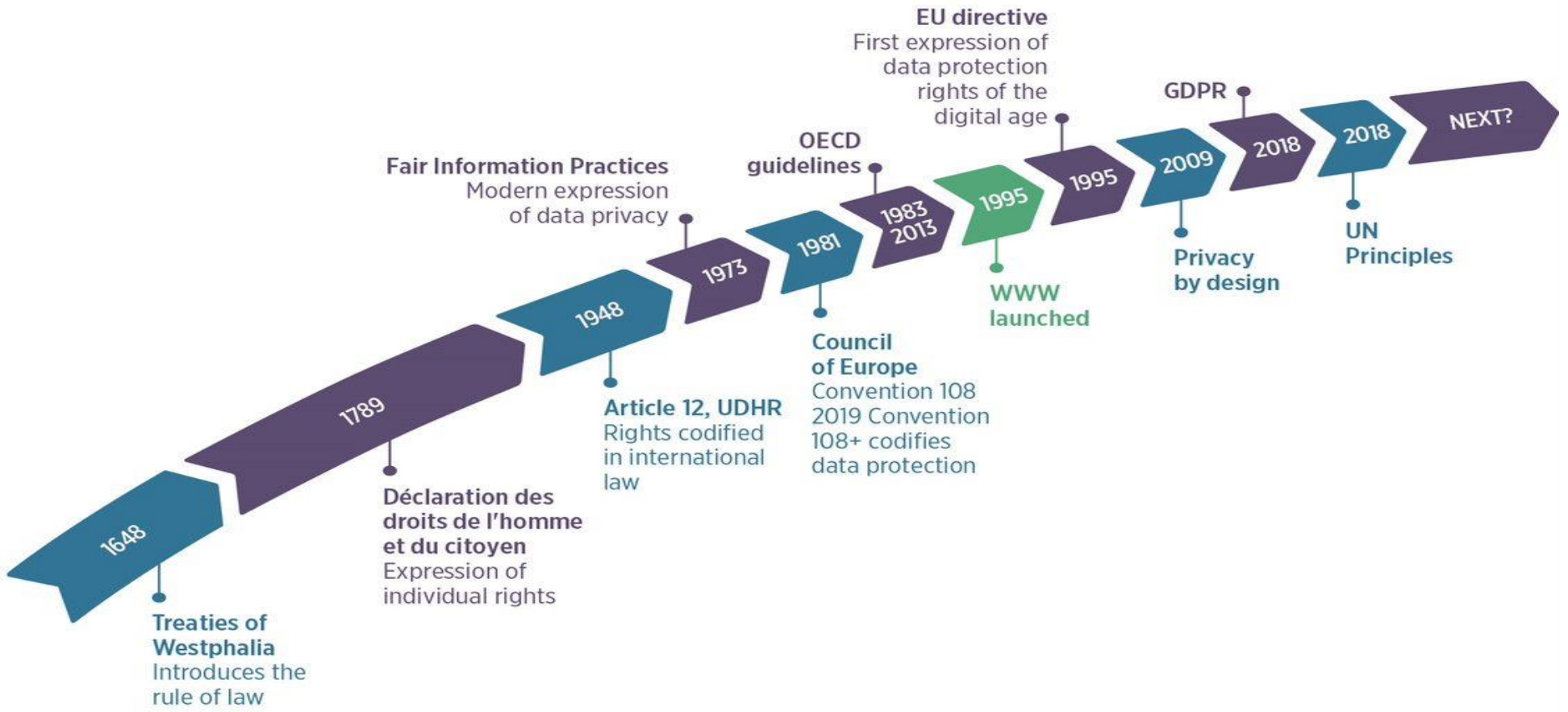
- Interoperability of data and systems
- Data portability mechanisms (common data formats, APIs)
- Open data
- Access to information
- E-transactions (e-signature; trust services, including digital ID)
- Carrier immunity/intermediary liability
- Intellectual property rights (IPRs)
- Sharing friendly licenses/voluntary licensing (e.g., FRAND terms)

C. NONPERSONAL DATA SAFEGUARDS: to promote certainty and predictability

- Contractual (private law)
  - Indemnities
  - Liabilities
  - Penalties
- Intellectual property rights (IPRs)
- Exceptions to intermediary liability
- Data localization/local processing
- Cybersecurity/cybercrime

An Evolving Social Contract: the Arc of Data Protection

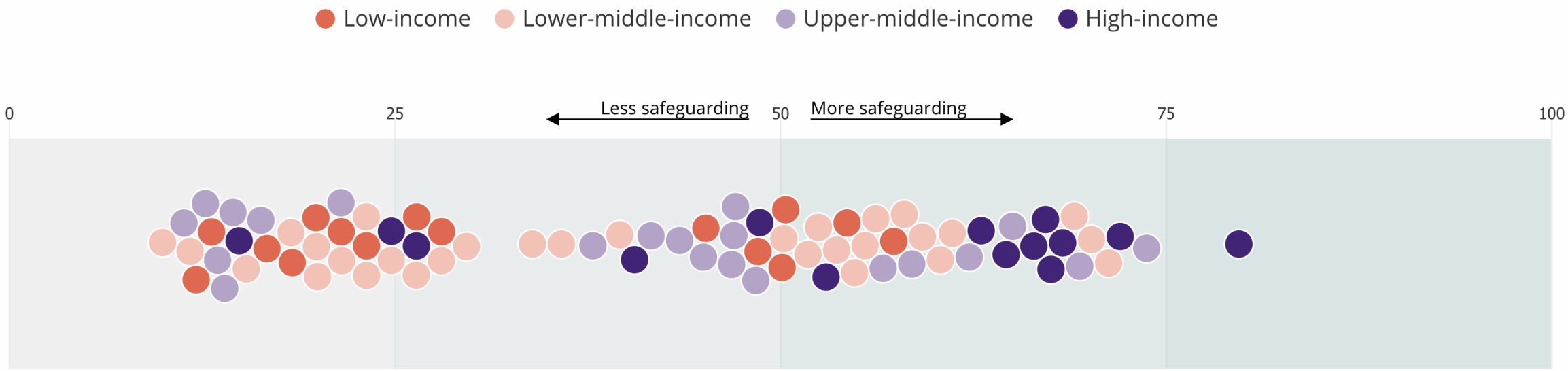
Figure 6.2 The evolution of data protection



Source: WDR 2021 team.

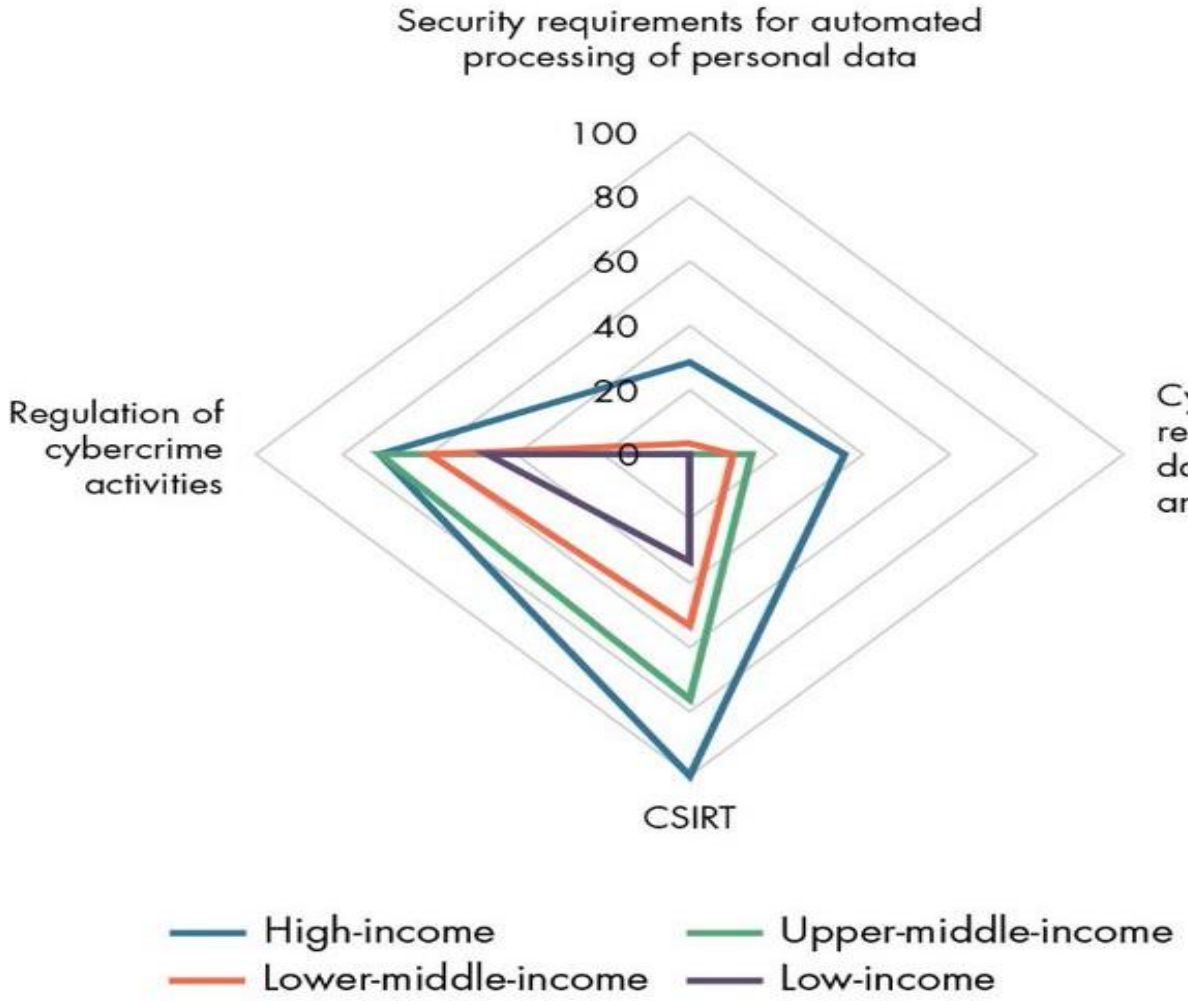
Safeguarding the Collection & Use of Data: the basis of the trust framework

Countries by safeguards score



Source: World Development Report 2021, Data for Better Lives, Global Data Regulation Survey.

Gaps in the regulatory framework for cybersecurity are glaring across country income groups



Example: Kenya

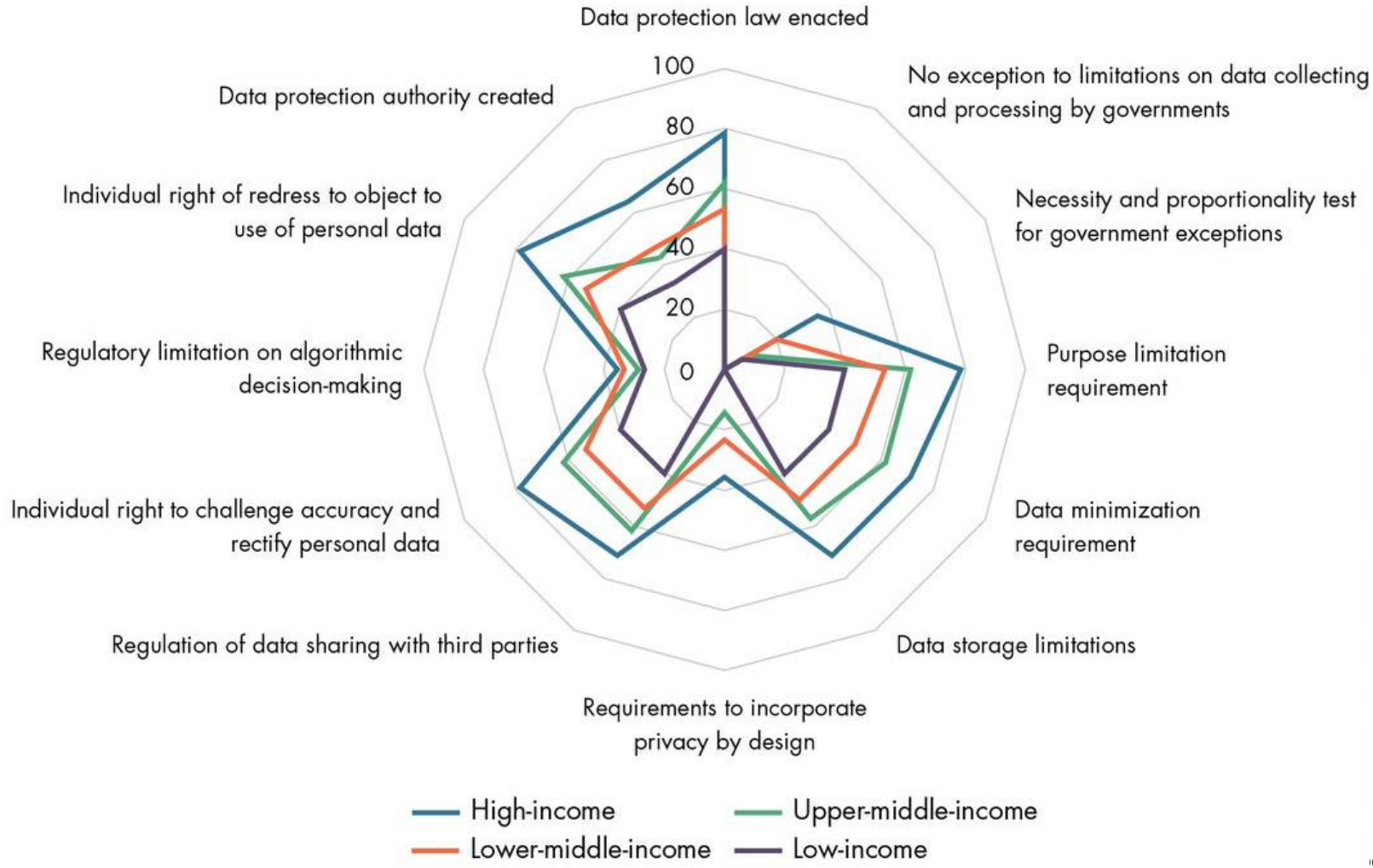
Safeguarding data

A leader in adopting data protection and security measures among LMICs

While overall adoption of cybersecurity measures is low across countries surveyed, Kenya's new Data Protection Act is an outlier among lower-middle-income countries. It requires good practice measures such as pseudonymization and data encryption, restoring data access after a breach, and managing risks.

Innovation & Research Symposium Cisco and Ecole Polytechnique 9-10 April 2018 Artificial Intelligence & Cybersecurity
Photo: © École polytechnique - J.Barande

Robustness of personal data protection legislation differs markedly across income groups



Example: Côte d’Ivoire

Limits on automated processing of data

Safeguards for trusted AI

The growing use of algorithms can add significant value but raises risks of bias, data misuse, and lack of transparency and redress. Despite these risks, only 30% of countries surveyed impose limits on their use. Of these Cote d’Ivoire has included provisions in its data protection act that prohibit the use of automated processing of personal data in judicial decision-making to prevent bias.

National Data Center Capacity Building training course
Photo: The Official CTBTO Photostream

Example: The Battle of Big Tech

When given the choice, users opt out of tracking & targeting

How Data Protection by Design fosters user trust

- WhatsApp announced change in Terms of Service in January:
  - **4,868% increase in downloads of Signal**
  - **downloads of WhatsApp fell by 16%**
  - **Delft City Council votes to drop Whatsapp in protest over ToS**

- Apple launched iOS 14.5 with enhanced data protection
  - **96% of US iPhone users opted out of allowing tracking**

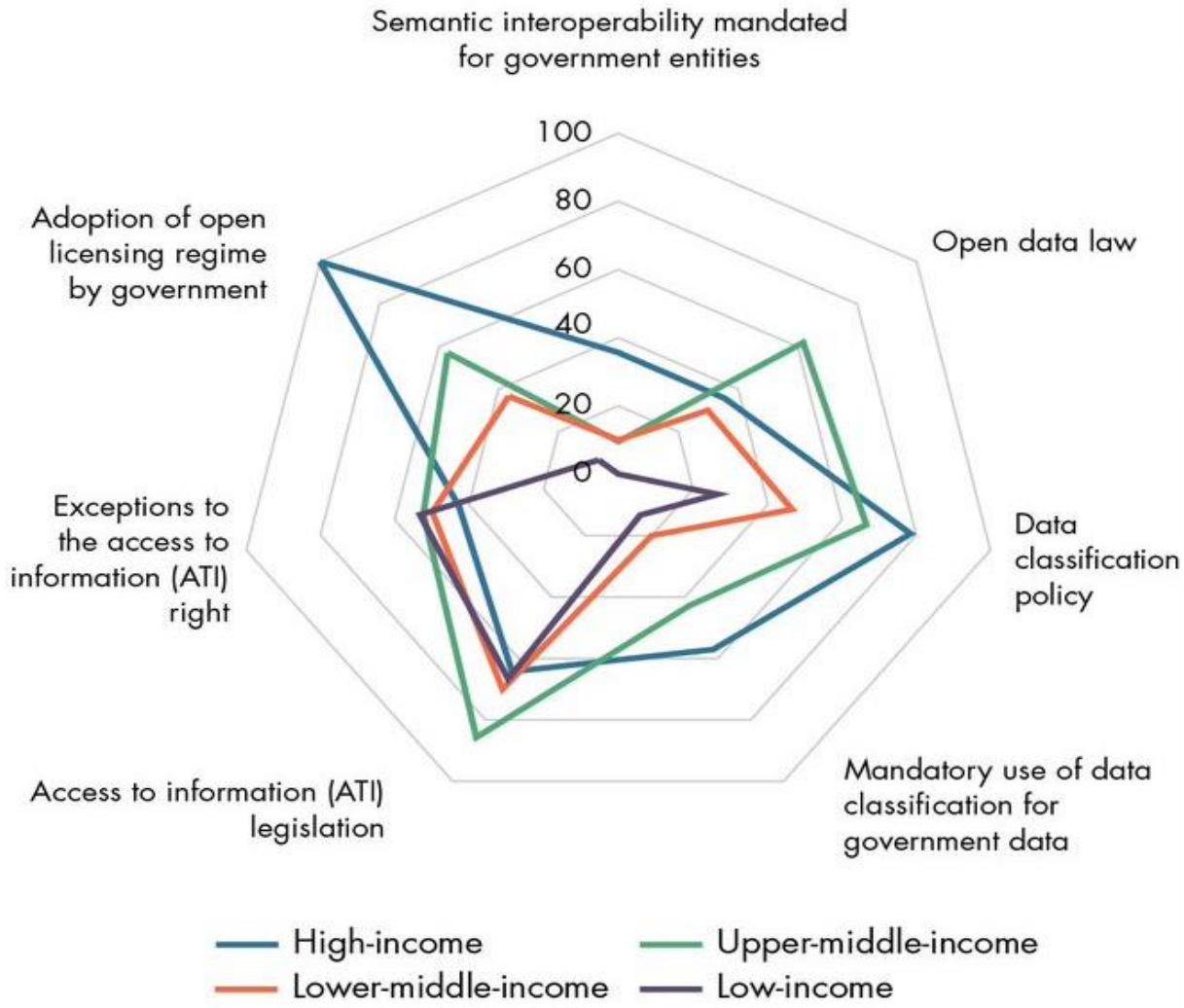
Competing messenger applications available on iPhone
Photo: South China Morning Post: https://images.app.goo.gl/ZaCqtDDmJk7JRpzS7

Enablers for better data use: enabling equitable value from data for development

Country scores for enablers for trusted use, reuse, and sharing of data for development

Source: World Development Report 2021, Data for Better Lives, Global Data Regulation Survey.

Regulations enabling access to and reuse of public intent data are unevenly adopted across country income groups

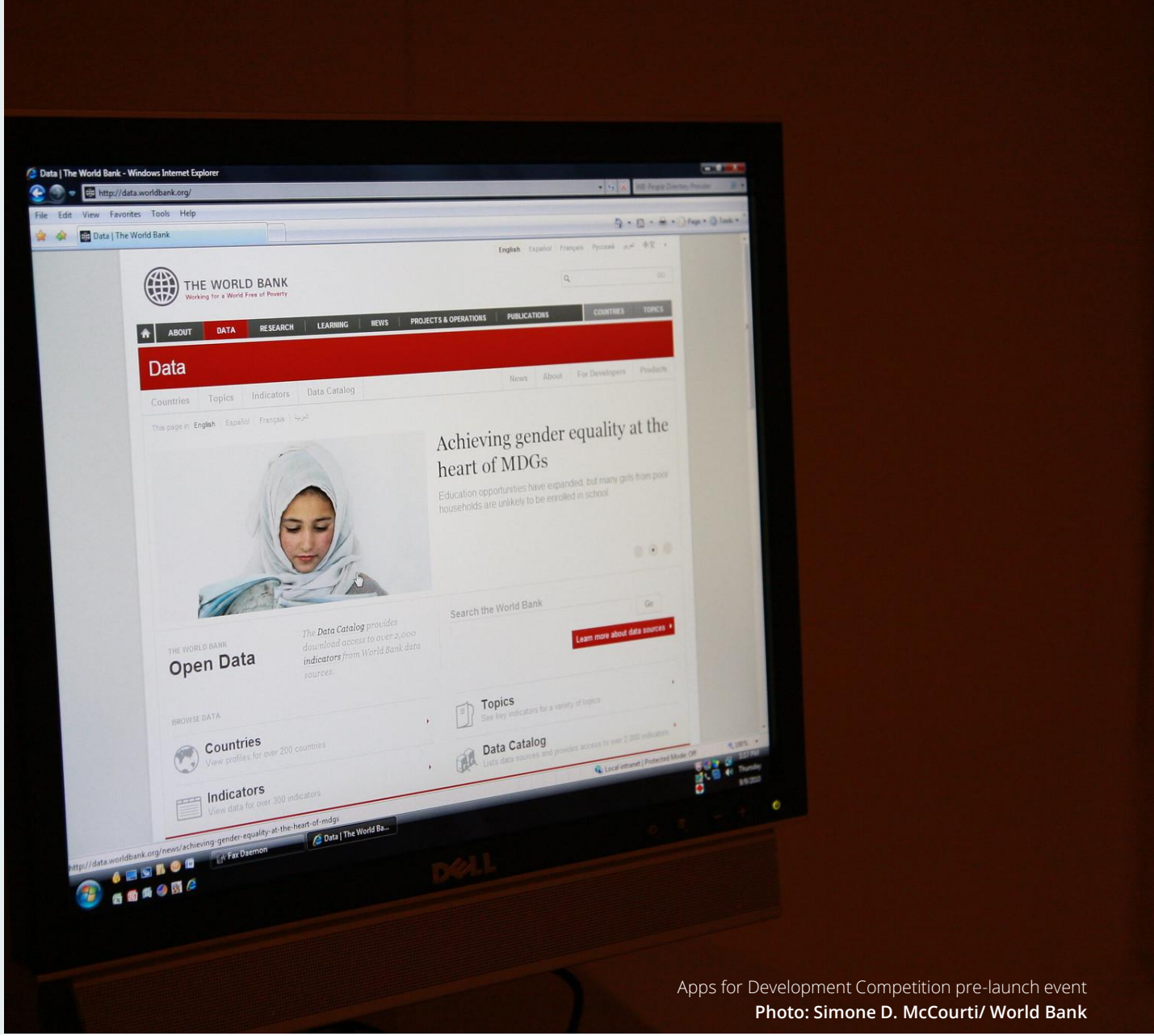


Example: Jordan and Mauritius

Enabling reuse of public intent data

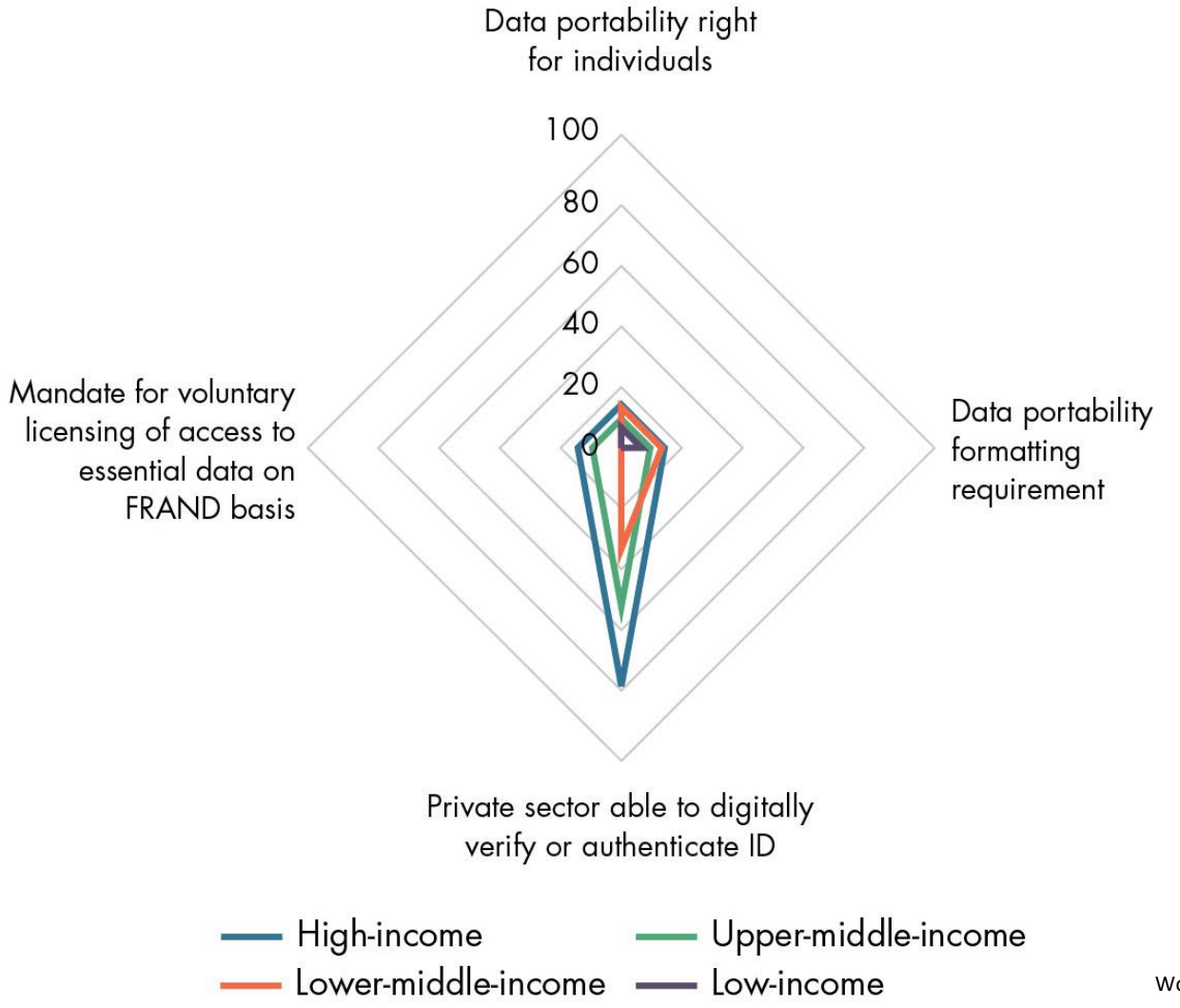
The role of Open Licensing regimes

While only 40% of middle-income countries have done so, Jordan and Mauritius are two that have adopted Creative Commons Attribution 4.0 International Licenses for government datasets released as open data. This can boost uptake by providing certainty to potential users of the terms under which they can use the data for innovation, monitoring, research, etc.



Apps for Development Competition pre-launch event
Photo: Simone D. McCourti/ World Bank

Adoption of enablers for sharing private intent data lags behind those for public intent data



Example: Top down vs. bottom-up approaches to data sharing

Enabling private intent data sharing through policies and partnerships

Sharing “High value” datasets

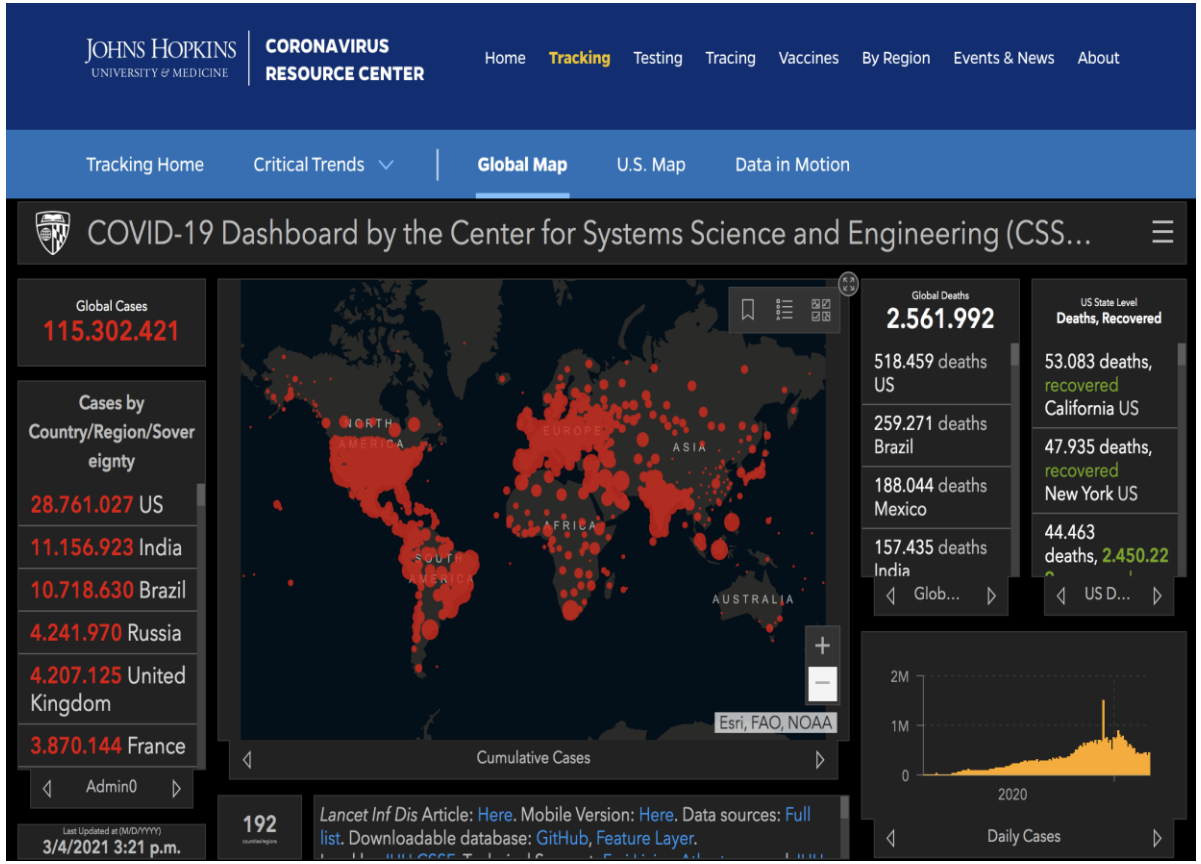
France and the EU require **“high value”** or **“public interest” datasets** to be made available according to open standards and in machine-readable formats.
Alternatively, companies such as **Waze** have forged **data partnerships** with governments: through its Connected Citizens Program, the traffic app **has partnered with over 1,000 cities and public sector entities** to exchange traffic data to inform mobility projects, support emergency response and share data with citizens.

paris street
Photo: zoetnet, flickr

Enabling better data use requires open, harmonized standards for data interoperability

Enabling data access & interoperability:

"It is imperative that a **standardized reporting system** for systematically collecting, visualizing and sharing high-quality [health] data: **granular** and made available at a spatial and temporal scale, in **machine readable formats**, based on **open standards**." – Dr. Lauren Gardner, creator of **JHU COVID-19 Dashboard**



Source: https://coronavirus.jhu.edu/map.html

Summary of main messages & recommendations

1. COVID-19 has exacerbated the importance of enablers and safeguards in fostering trust in data use and reuse to create equitable value.
2. Personal and non-personal data require a differentiated approach to the way in which enablers and safeguards are developed.
3. This distinction is becoming blurred making it harder to develop rules to govern data, particularly for cross-border data transactions.
4. Further efforts are needed to improve interoperability and proactive disclosure of data, sharing of private intent data, and cybersecurity and cybercrime.
5. Policymakers grapple with adapting evolving good practices to country-specific exigencies.
6. Take a holistic approach to the legal enabling framework for the data economy, along with corresponding technical, infrastructural and institutional approaches

Download the report and explore Data Stories at
https://wdr2021.worldbank.org/

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