# **DATASPHERE** INITIATIVE

## Responsibly unlocking the value of data for all



# ON NARRATIVES





Threats to democracy

> Hate speech

Artificial Intelligence

**Terrorism** 

Trade imbalance Intellectual **Property** 

Competition

Socio-economic inequalities

**Surveillance** 

Cyber Security

**Privacy** 

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## Data is cross-cutting and is on the top of national and international agenda

## **UNPACKING POLARIZING NARRATIVES**

#### WE NEED TO TALK ABOUT DATA

FRAMING THE DEBATE AROUND FREE FLOW OF DATA AND DATA SOVEREIGNTY



#### EXECUTIVE SUMMARY

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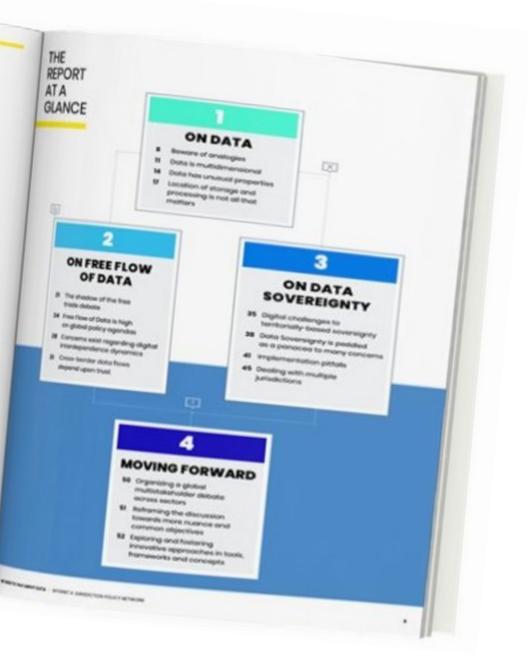
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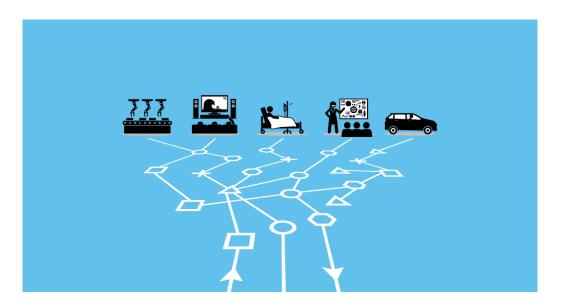


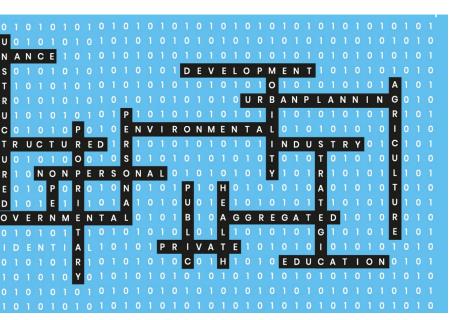


#### BEWARE OF **ANALOGIES**

# INFRASTRUCTURE CURRENCY

#### DATA HAS **UNUSUAL PROPERTIES**





DATA

**MULTIDIMENSIONAL** 





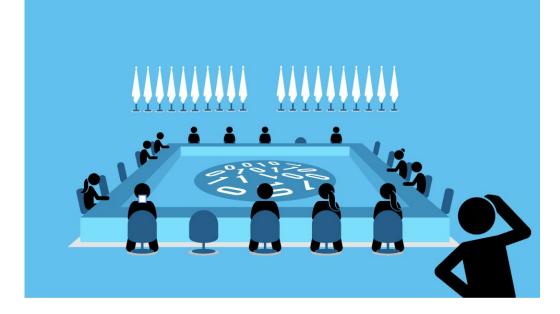


#### LOCATION OF STORAGE AND PROCESSING **IS NOT ALL THAT MATTERS**



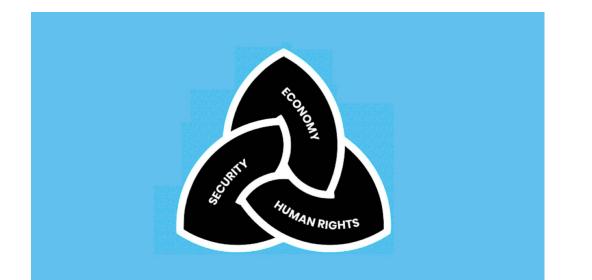
#### THE SHADOW OF **THE FREE TRADE** DEBATE

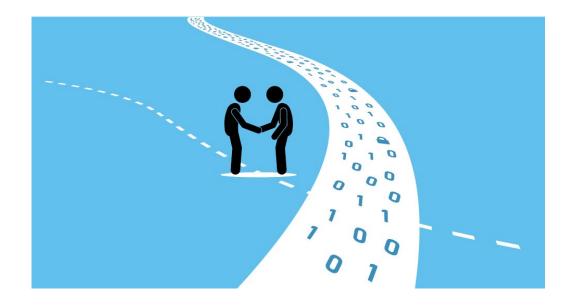




#### CONCERNS EXIST REGARDING DIGITAL **INTERDEPENDENCE DYNAMICS**

#### ENHANCING TRUST FOR CROSS-BORDER **DATA FLOWS IS CRITICAL**



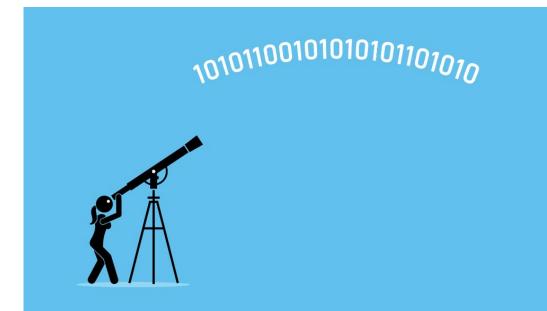








#### DIGITAL CHALLENGES TO TERRITORY-BASED SOVEREIGNTY



## DATA SOVEREIGNTY IS PADDLED AS A **PANACEA TO MANY CONCERNS**



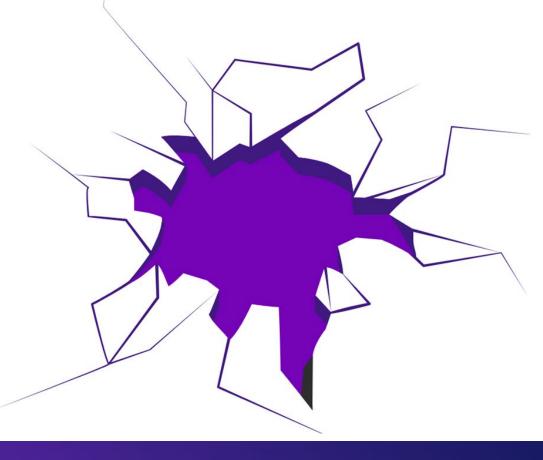
#### IMPLEMENTATION **PITFALLS**

#### DEALING WITH MULTIPLE JURISDICTIONS





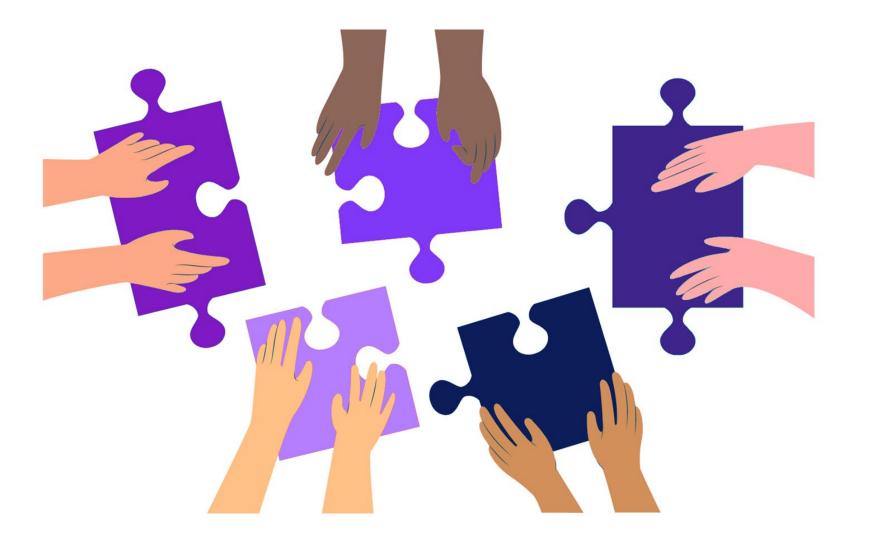
- The various issues related to data governance are addressed in separate silos and the patchwork of uncoordinated actions creates more problems than it solves.







We are missing the vocabulary, frameworks and instruments to deal with data through a holistic and innovative perspective.









Leveraging the concept of the Datasphere





## There is a need for a more systemic, innovative, and positive approach

## The complex system encompassing all types of data and their dynamic interactions with human groups and

norms.

DATASETS





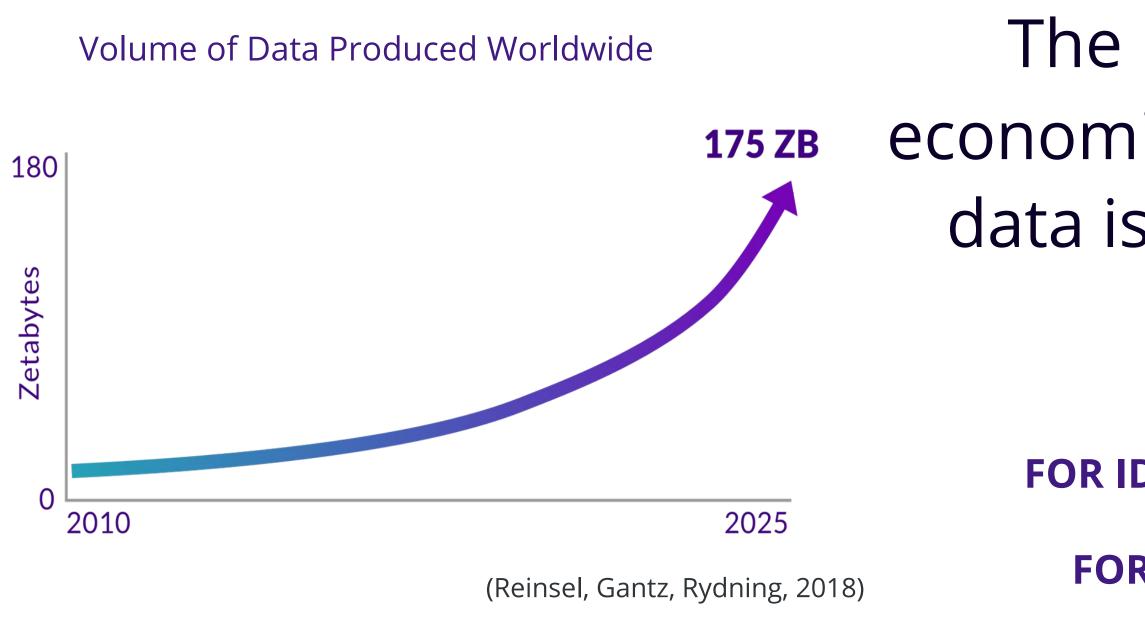


HUMAN GROUPS

# ON UNLOCKING VALUE











## The measurement of economic and social value of data is a major challenge



FOR IDENTIFYING INCENTIVES

FOR MEASURING IMPACT

FOR FOSTERING EQUITY

# ON RESPONSIBILITY





## **Our binary world**



## **Clarity, predictability**







### **Openness**

## **Clear Challenges**

## Protection



## Missed opportunities





### **Openness**



### Cambridge Analytica

## Opportunity for misuses

## **Goldilocks Zone**

## **Too many** restrictions

## Responsibly unlocking the value of data

## **Opportunities**, but disincentives



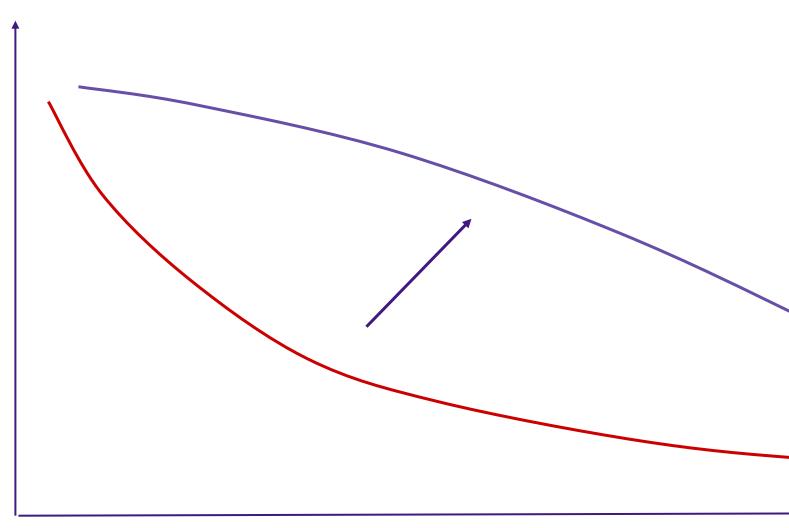


## **Too few** protections

## A classic (Pareto) dilemma

Privacy Self-interest

Economic







# MOONSHOTS





## **SANDBOXES FOR DATA**



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to data and promote inclusion and diversity in data sets, w But that integration will often come into contact with multiple levels of law, from local confidentiality requirements at the state laver, to national laws about research of this, to international regimes about data protection, integration also faces divergent interests and concerns about competition, compliance or undar exploitation. This can The WHYO DOOR INVESTMENT Assessed Among to increase for advectory building on a set of the set of t

There is a significant opportunity for integration across these data-starting regimes, especially, for example, in constructing long-term, observational studies connecting regular clinical care date to detailed research data\*\* Ability to track real world evidence of the performance of medicines (e.g. from larger and more diverse data sets)<sup>as</sup> could let data science stratify the sub-populations for artices medicines do and don't work. Data-sharing between nations could also address representational inequities in reterence

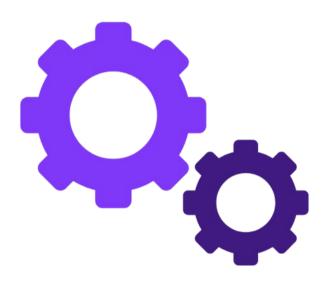
Health data is also not uniform. Viral parlome data is different to personal medical records or data about the social determinants of health such as income, race, gender, or locally. Thus, successful data-sharing regimes most easily form within scientific disciplines, with each kind of information requiring different systems, metadate and analytics, and others carrying different legal obligations.

more systematic sharing of health data, through processes survived by the WHO\*\* and the G2\*\* to respond to the pandemic, as well as initiatives such as European Health Data Space", broady speaking, neath data sharing is still made more complex by a patchwork of international agreements - multilateral\*\* and institutional - and national laws, both related to general privacy, confidentiality, specific health privacy laves, ethics and consent. There is also an even greater diversity of legal instruments and norms, including contracts and consent processes that implement

Health data is also not uniform. Viral genome data is different to personal medical records or data about the social determinants of health such as income, race, gender, or locality. Thus, successful data-sharing regimes most easily form within scientific disciplines, with each kind of information requiring different systems, metadata and analytics, and often carrying different legal obligations.

#### DATASPHERE INITIATIVE

## **SANDBOXES FOR DATA**



## **Operational sandboxes:** testing environments where hosted data can be accessed and used handle data



**Regulatory sandboxes:** collaborative processes where regulators, service providers and relevant stakeholders test innovative technology and data practices within a regulatory framework

how data is handled





- provide dialogue and guidance on

## **ADDRESSING CROSS-BORDER ISSUES**

**Paradigm shift(s)** 

#### **Between** "regulate-and-forget" and "wait-and-see"



"Adapt-and-learn"







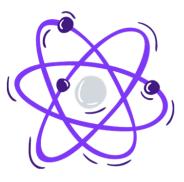




### Trade



### Health



### Mobility

### Science









Expert group

Learning & case studies

Pilot projects







## Global Forum on Sandboxes for Data

## **BOTTOM-UP APPROACHES**



#### **Technological innovations (PETs)**

(Homomorphic encryption, federated learning, zero knowledge validation, multi-party computation)



**From Data Flows to Access Rights** 





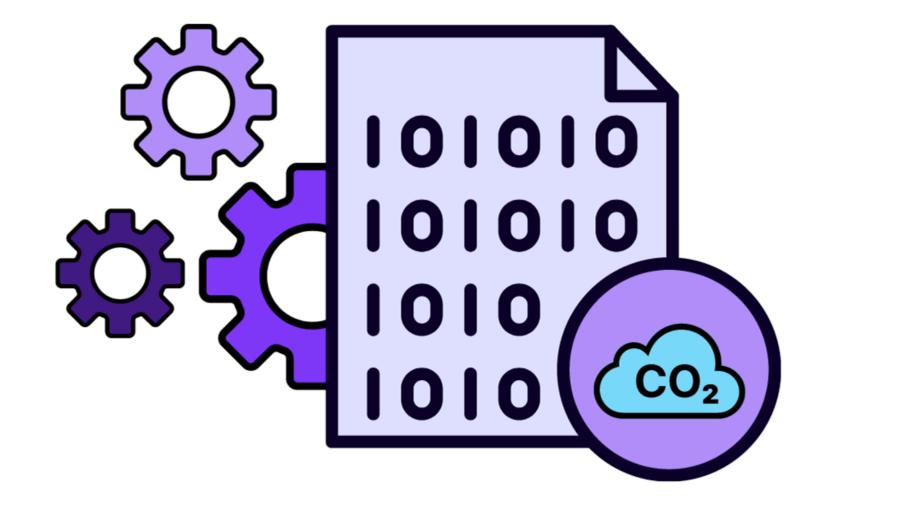
### **Concrete problems**

### Sharing data from supply chains (Scope 3 CO2 Emissions)



#### **Use of Homomorphic Encryption** (SINE)









## A bottom-up approach

### "Data-Sharing Communities"



#### **Modular Governance Charters**

## **A FRAMEWORK CONVENTION**

## Paradigm shift

#### **Data Centers in Space**



## A Framework Convention for the Datasphere









"Existing institutional frameworks at the international level are **not fit for purpose** to address the specific characteristics and needs of global data governance"

> **Digital Economy Report 2021** Cross-border data flows and development: For whom the data flow (UNCTAD, 2021)





# ANOVEMENT







## **DATASPHERE GOVERNANCE ATLAS**

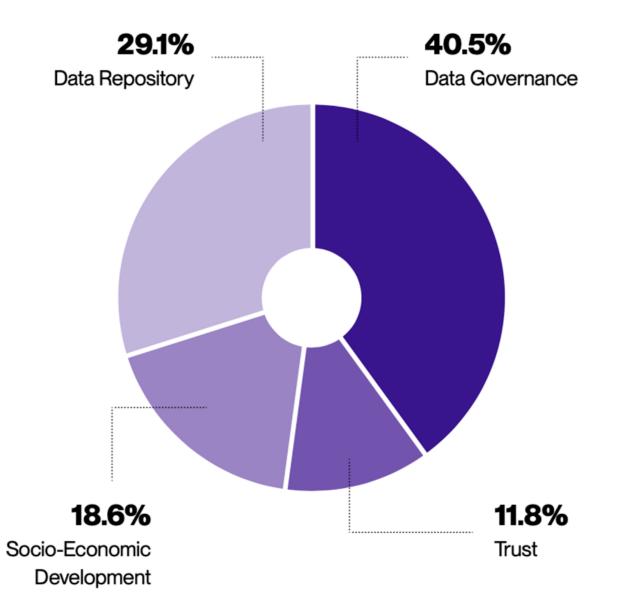








#### **Objectives of organizations**



Source: Datasphere Governance Atlas Database (March 2022)

## **OUR COMMUNITY**

🜔 aapti institute



Centre for International **Governance** Innovation CONNECTED **BY DATA** 





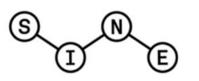












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FRAMING PAPER

#### **HELLO DATASPHERE**

Towards a systems approach to data governance

Bertrand de LA CHAPELLE Lorrayne PORCIUNCULA

www.thedatasphere.org

How we will govern the human-created global Datasphere will determine the future of human society in the 21st century



www.thedatasphere.org/hellodatasphere



### Let's be:

BOLD INNOVATIVE AMBITIOUS **AND ... PERSISTENT** 





DATASPHERE |N|T|AT|VE

## **THANK YOU!**

# DATASPHERE



#### Datasphere **Initiative News**



#### Community Highlights



**Events for** the diary

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Job opportunities

www.thedatasphere.org/newsletter