

# Cross-border data sharing in the Nordics

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Nordic Council of Ministers

NeIC: “development of advanced IT tools and services to increase research productivity”  
NeIC: “accelerate the development of cost-effective and valuable e-infrastructure services that will reach even beyond national borders”

# vision 2030

## A **competitive** Nordic region

Together, we will promote green growth in the Nordic region based on knowledge, innovation, mobility and digital integration.

## A **green** Nordic region

Together, we will promote a green transition of our societies and work towards carbon neutrality and a sustainable circular and bio-based economy.

**The Nordic region will become the most sustainable and integrated region in the world**

## A **socially sustainable** Nordic region

Together, we will promote an inclusive, equal and interconnected region with shared values and strengthened cultural exchange and welfare.

The Nordic Council of Ministers consists of the Ministers for Nordic Co-operation, **ten ministerial councils** covering different sectors and **one ad hoc** Council of Ministers for Digitalisation. They are supported by 16 committees of senior officials and a high-level group (digitalisation).



## Nordic Council of Ministers



## Secretary General Secretariat to the Nordic Council of Ministers



# NeIC

digital infrastructure for Nordic research excellence

200+  
experts

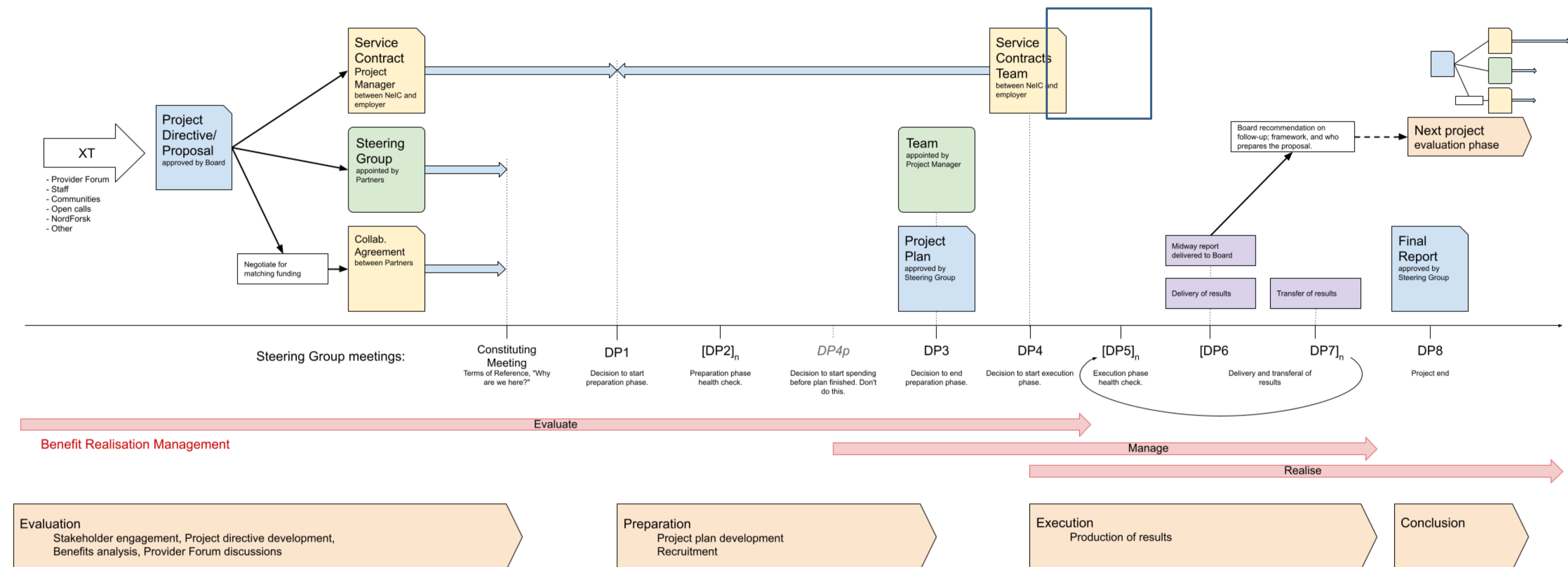
Since 2012

45 partners

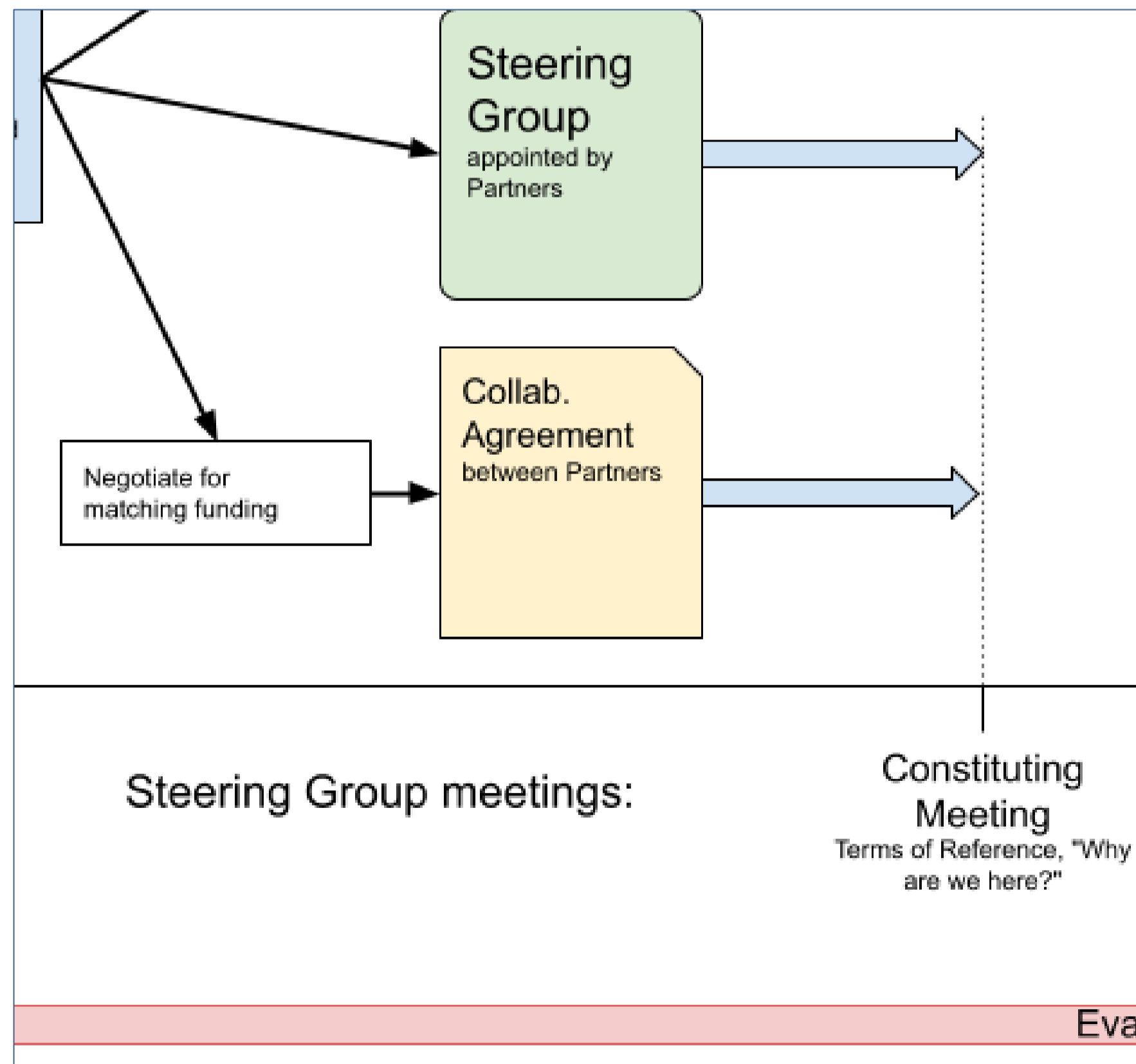
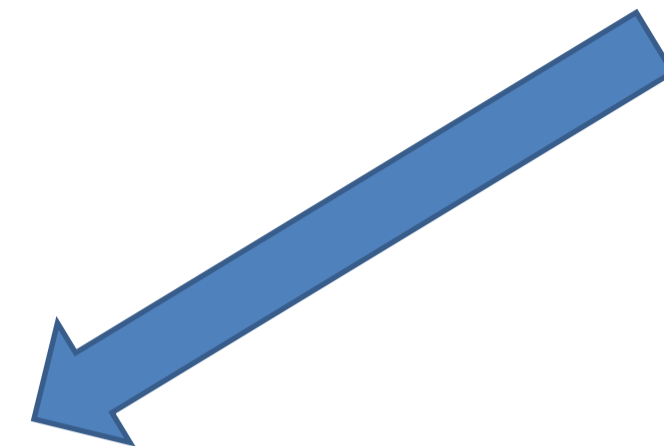
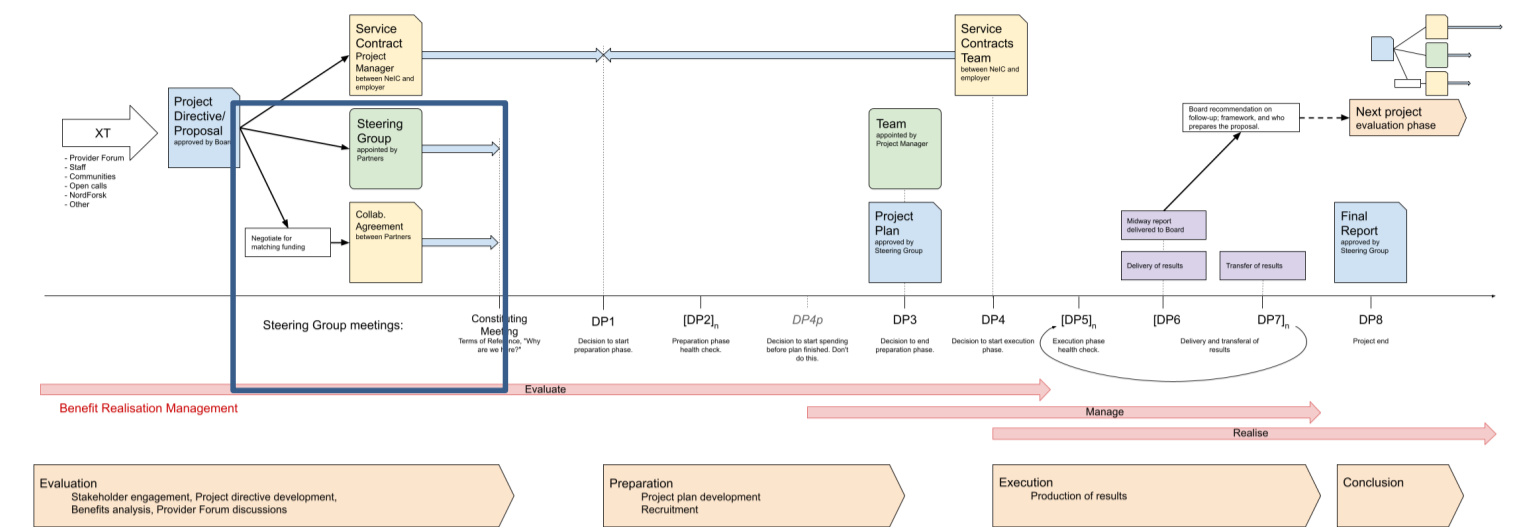
7 M€

Nordic readiness for big opportunities





NelC – a unique system for  
cross-border collaboration on digital infrastructures



NelC – a unique system for cross-border collaboration on digital infrastructures

# Federated data systems

Data never leaves the organisation that holds it

Data is “visited” and computed answers are brought back to the federated system

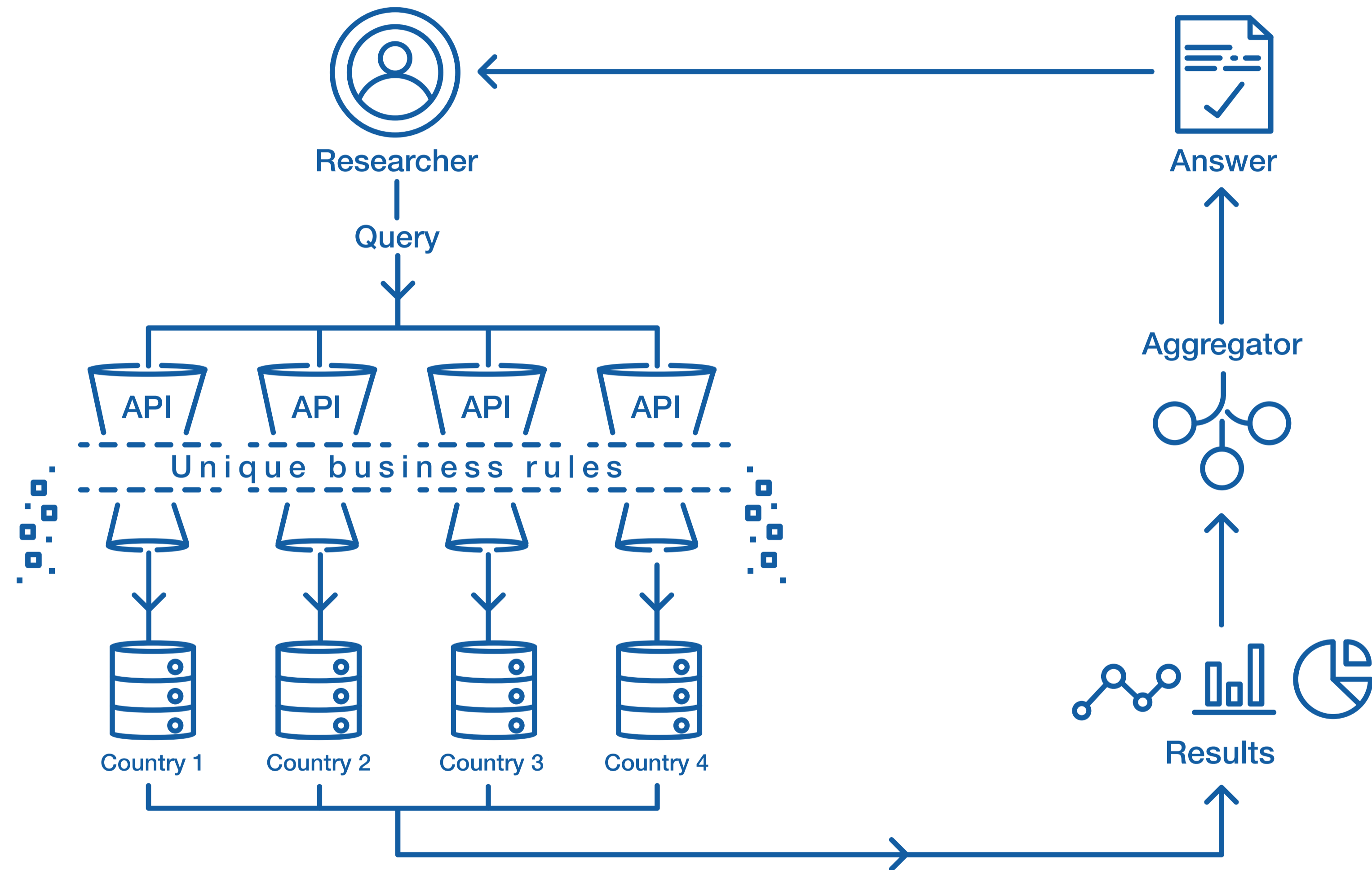
Each organisation enforces local policies (laws) through API

The federation agrees on shared vs local functions of the architecture

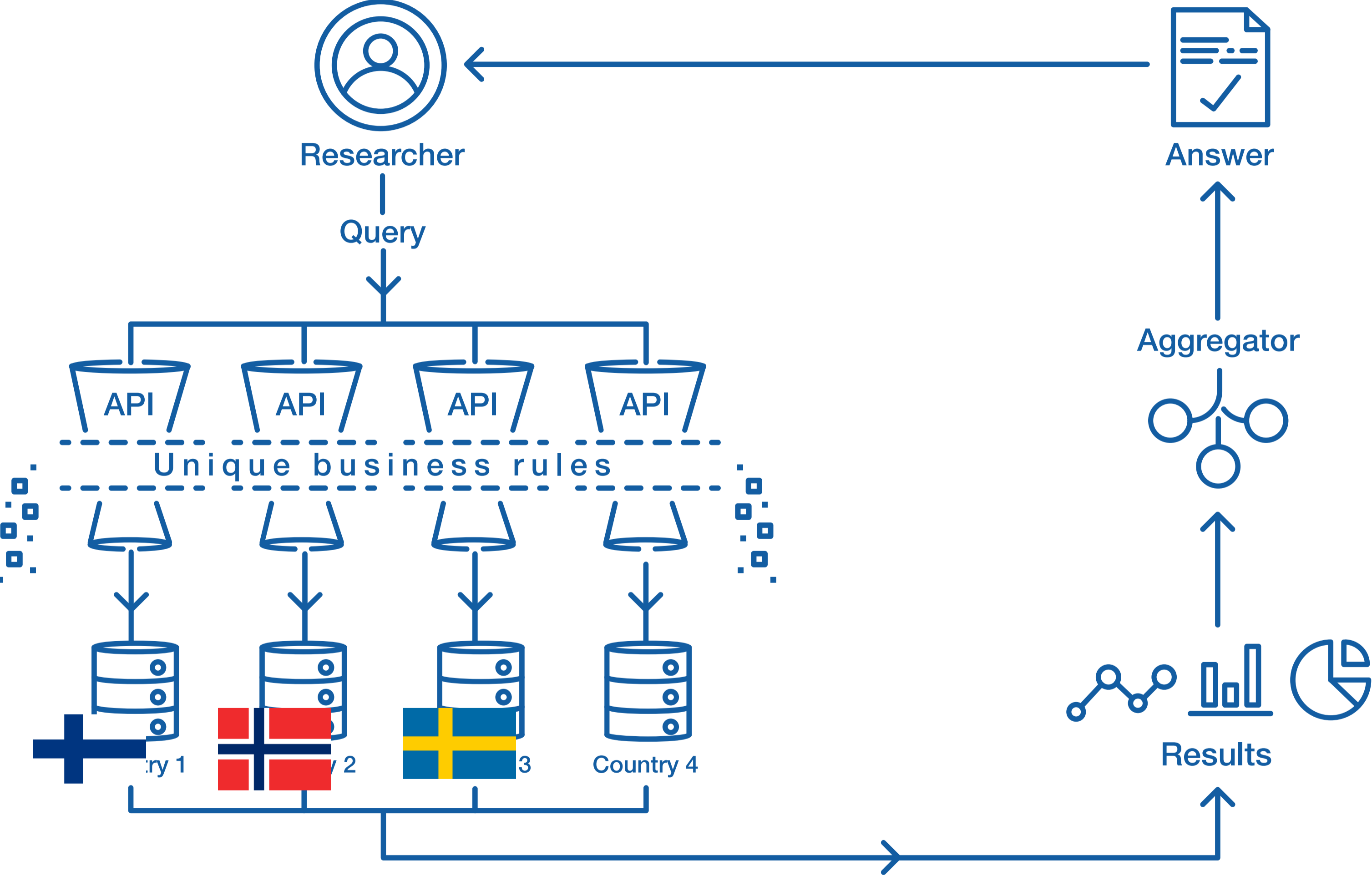
Trust is key!



## Federating data using APIs



Federating data using APIs



← Tweet

and Central EGA, an important step in the formation of a #FederatedEGA.



*elixir news*

Safe access to sensitive human data across borders: Federated EGA becomes a reality

# Federated genome data management

**NeIC projects:** Tryggve 2014–2017, Tryggve2 2017–2020, Heilsa Tryggvedottir 2021–2024

**Partners:** ELIXIR-DK, ELIXIR-FI, ELIXIR-NO, ELIXIR-SE, ETAIS\*

**Impacts:** Nordic Commons vision document  
1M genomes declaration  
SARS-Cov-2 data sharing and analysis

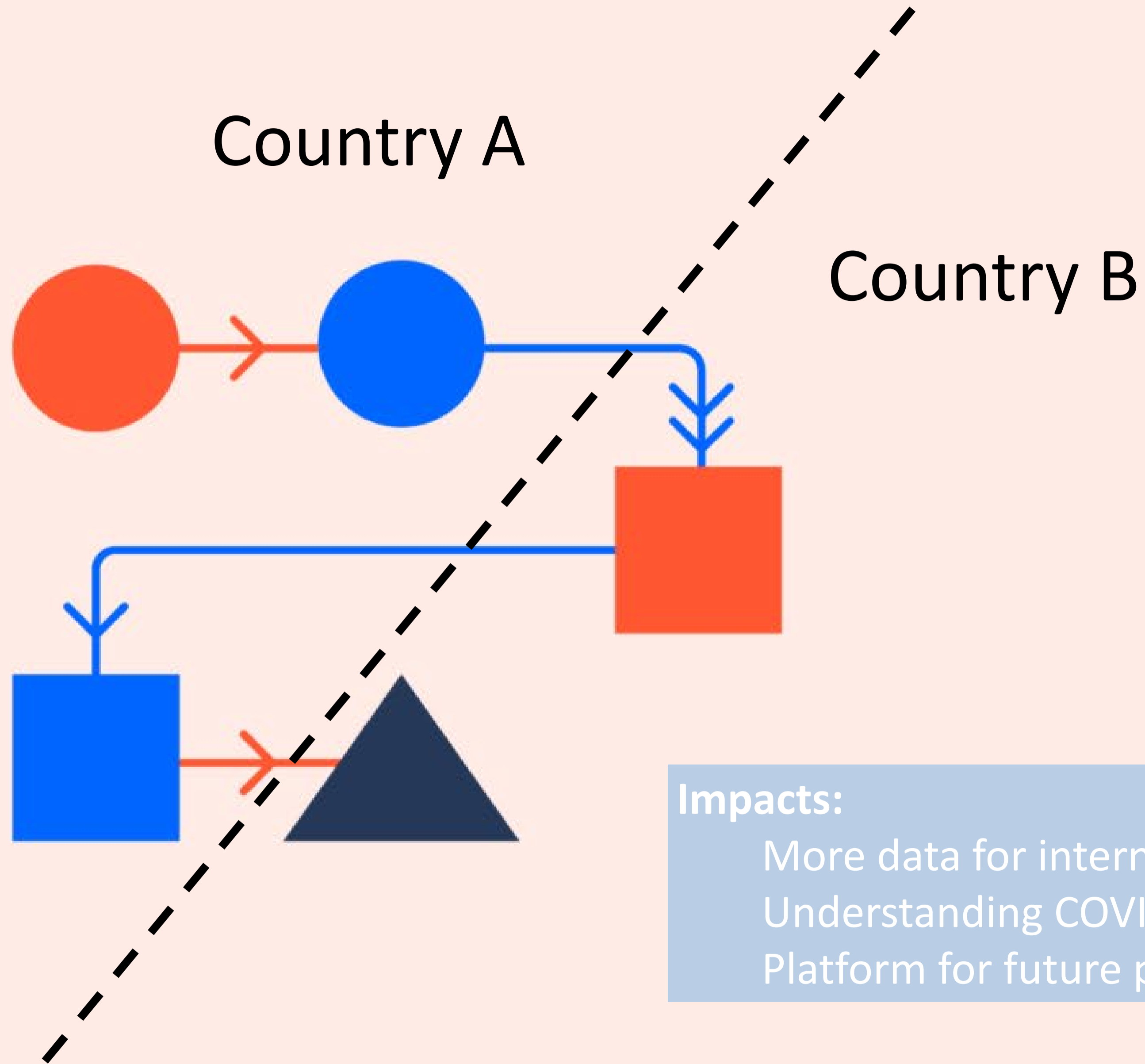


# Combating against worldwide pandemic

Science workflow crosses national borders

COVID-19 called for quick ramp-up





**Impacts:**

- More data for international research
- Understanding COVID-19 virus
- Platform for future pandemics research

# Combating against worldwide pandemic

**Project:** PaRI 2020–2021

**Partners:** ETAIS, University of Bergen, University of Oslo, Technical University of Denmark, de.NBI, NBIS

## **Impacts:**

Researchers and data producers can quick & easy upload data to European archive

More data available for virus research -> knowledge creation



# Government data: Nordic Microdata Initiative

*Nordic Council of Ministers (2018): "An integrated and effective Nordic ecosystem for innovation and green growth"*

*Research needed to improve policy-making in the field of risk capital and early-stage companies*

*Nordic countries have well-developed, high-quality national registry databases covering both company and household data, but there is a need to connect and standardize both data and access at a Nordic level.*

*Microdata can be sensitive*



# Nordic Microdata Initiative

## Aims:

*Establish a common Nordic database*

*Business registry data*

*Household data*

*Enabling cross-border research into innovation and green growth*

*Secondary use of database could include commercial use*



# Take-aways

**Nordic Network** of sensitive data experts  
exists – nurture and extend

**Nordic Trust** for powerful federated systems

**Nordic Sandboxes** can pave the way

Ref. European Parliament AI act “regulatory  
sandboxes”



