



PHIRI

Population Health Information
Research Infrastructure



Research Use Cases Measuring the Impact of COVID-19 on Population Health

Monitoring COVID-19 related changes in mental health in Europe

May 19th, 2022



ROBERT KOCH INSTITUT



www.phiri.eu



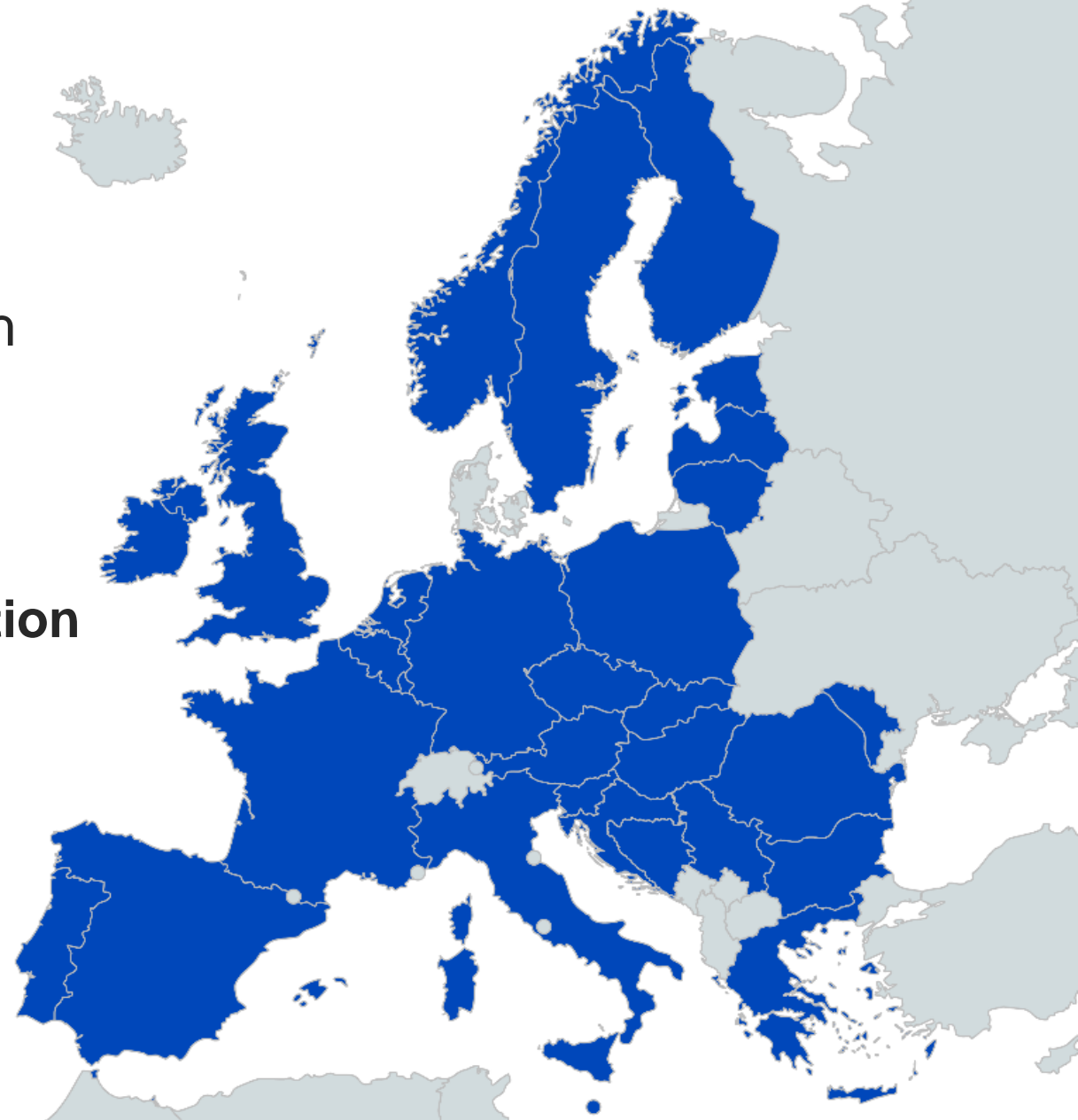
This project has received
funding from the European
Union's Horizon 2020
research and innovation
programme under grant
agreement No 101018317



What is PHIRI?

The Population Health Information Research Infrastructure (PHIRI) for COVID-19:

- is a **European mechanism**, that aims to
- facilitate and support **data-driven population health research** and **exchange of best practices**
- to support **decision making**



PHIRI Research Use Cases

4 research use cases measuring the impact of COVID-19 on population health



Direct and indirect determinants of COVID-19 infection and outcomes in vulnerable population groups with reference to inequalities



COVID-19 related delayed care in breast cancer patients



The impact of COVID-19 on perinatal health and perinatal health inequalities



COVID-19 related changes in population mental health

Demonstrate how a broad variety of secondary data (e.g. administrative and survey data) can be pooled and/or reused in a distributed way across Europe:

1. **Conduct research** through use cases of immediate relevance on the consequences of the COVID-19 pandemic on European population health
2. **Pilot activities** for the benefits and added value of a research infrastructure by bringing together data from different European countries and **feeding the results into the federated research infrastructure**

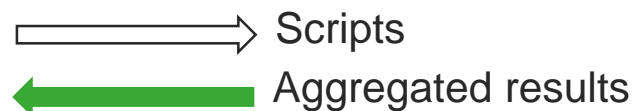
PHIRI Federated Research Architecture



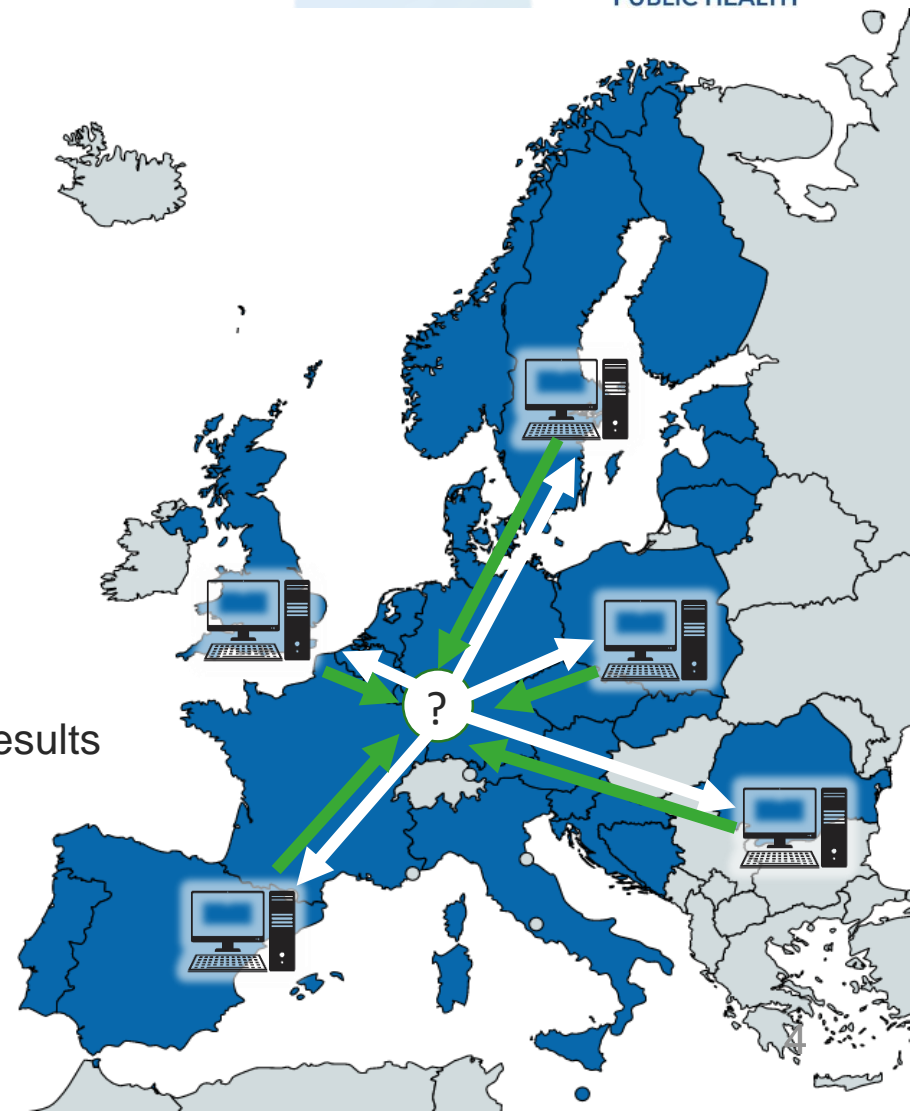
Two-step approach:

- (1) Showing the potential of the infrastructure for a rapid cycle analysis, demonstrated by the use cases
- (2) Develop an advanced version of the federated research infrastructure, implementing distributed analytical solutions

Use Case A - <https://doi.org/10.5281/zenodo.5148014>
Use Case B - <https://doi.org/10.5281/zenodo.5148022>
Use Case C - <https://doi.org/10.5281/zenodo.5148032>
Use Case D - <https://doi.org/10.5281/zenodo.5148040>

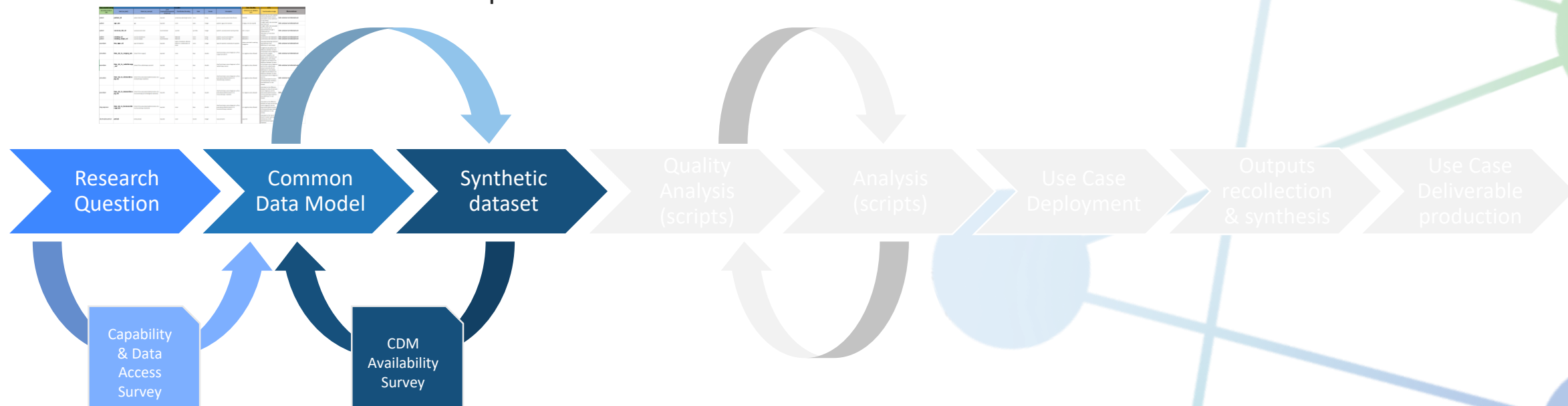


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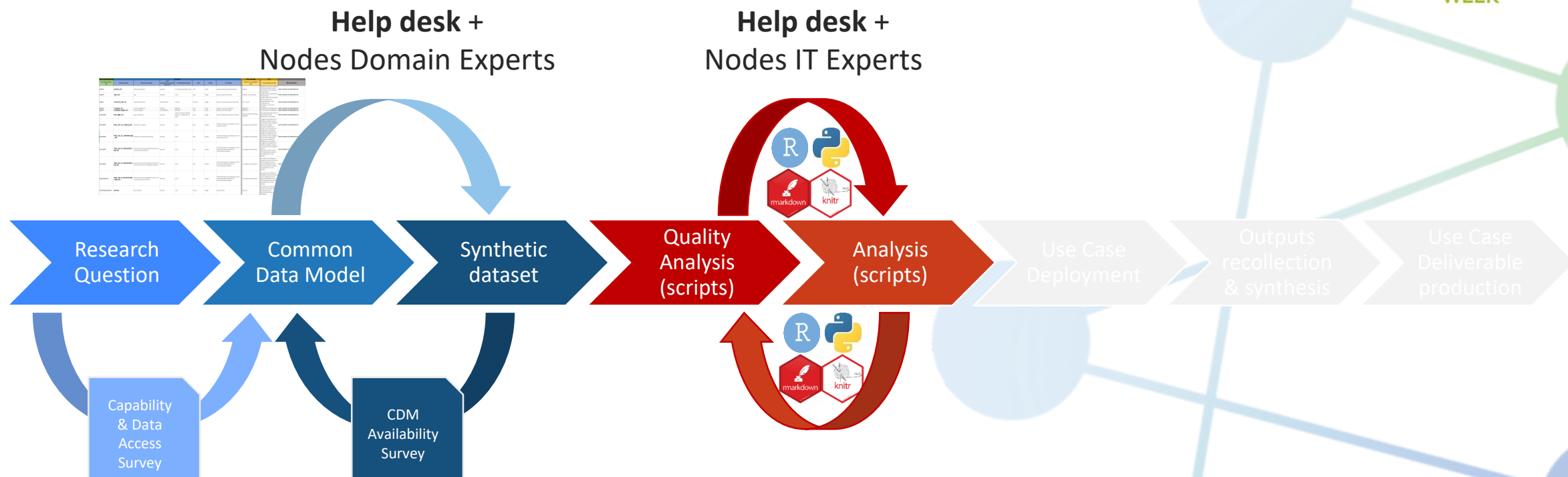


PHIRI Research Use Cases – Orchestration

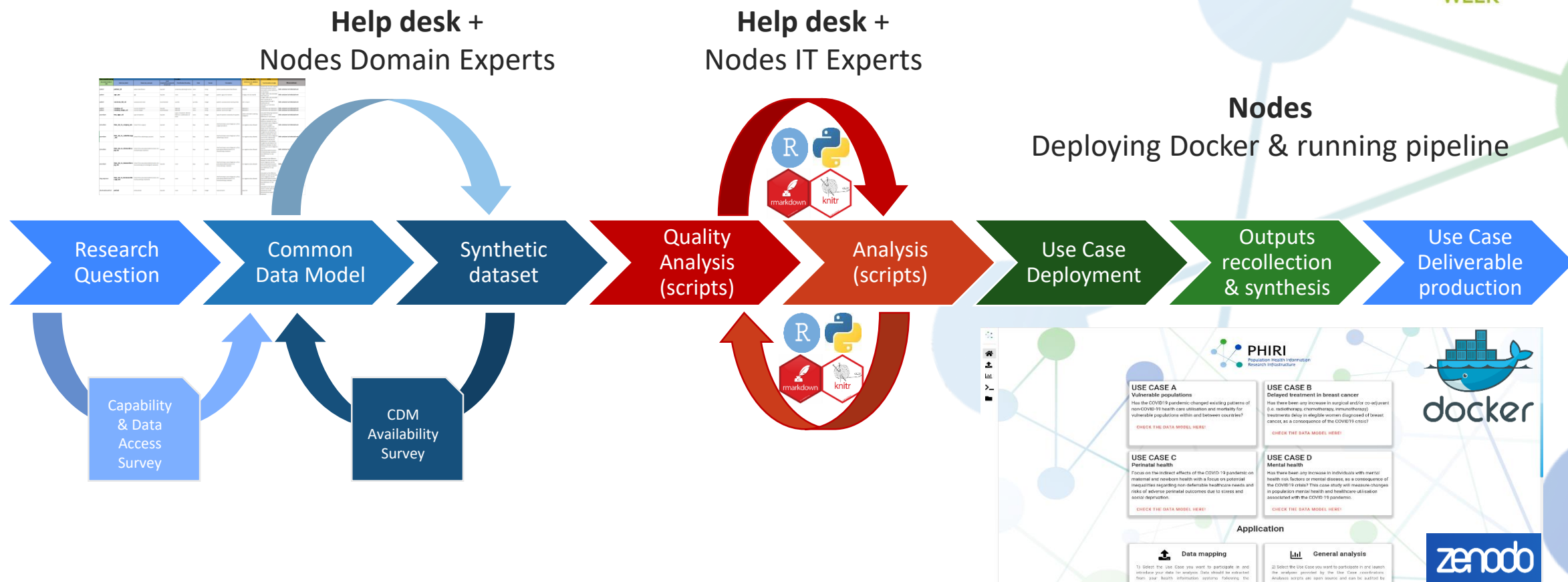
Help desk +
Nodes Domain Experts



PHIRI Research Use Cases – Orchestration

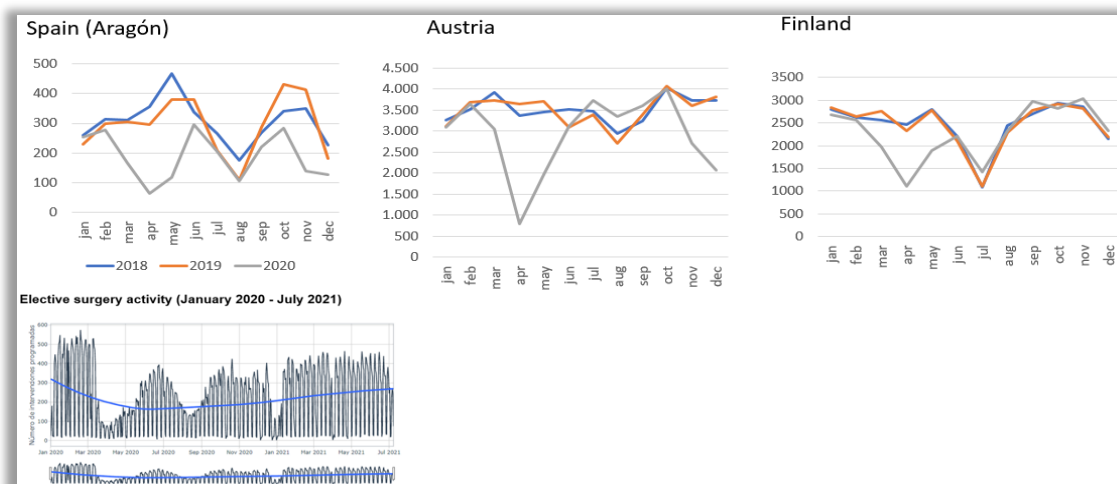
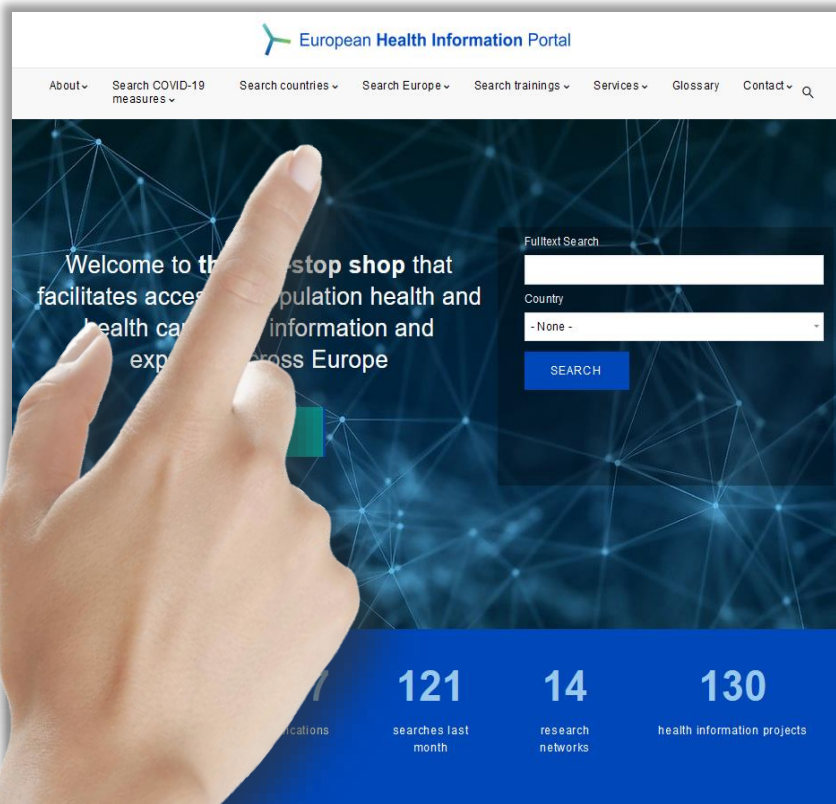


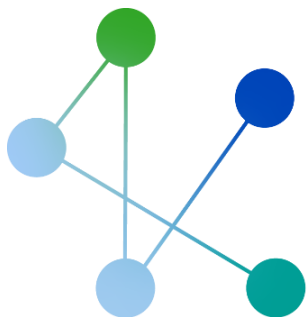
PHIRI Research Use Cases – Orchestration



PHIRI Research Use Cases – Achievements

- In **over 20 data hubs**, data is mobilized and ready to be analyzed in a distributed manner
- In **13 data hubs**, the PHIRI-app Docker is already deployed and tested
- First results are expected in **Q2 2022** and will be published on the **Health Information Portal**





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Thank you for your attention!

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