

### PETRAS-IoT Data Management and Sharing Infrastructure: An Evolution of IoT Observatory

**PEDASI** infrastructure demonstrator aims to support sharing of data and methodologies produced by various projects in the PETRAS hub. It will draw synergies with other similar key initiatives in the UK, such as MK:Datahub (BT) and CityVerve(Cisco) to address a number of socio-technical challenges for IoT data sharing. The project will provide data and usage evidences through a variety of software services and features on the IoT Observatory platform to address ethical, policy and privacy challenges for sharing IoT data.

#### OBJECTIVES

- Requirement analysis - Engagement with selected PETRAS projects to create a taxonomy of purposes for use of the PEDASI platform.
- Software development – Enable secure “open-ended” data sharing based on metadata and data sensitivity.
- Implement data and usage provenance to ensure security, transparency and accountability of data use and sharing.
- Outline and integrate policy and reliability frameworks developed within PETRAS applicable to the PEDASI platform.
- Enhance data literacy in terms of data trust and access through workshops for engagement with end-users targeting usability and value enrichment through the PEDASI enabled ecosystems.

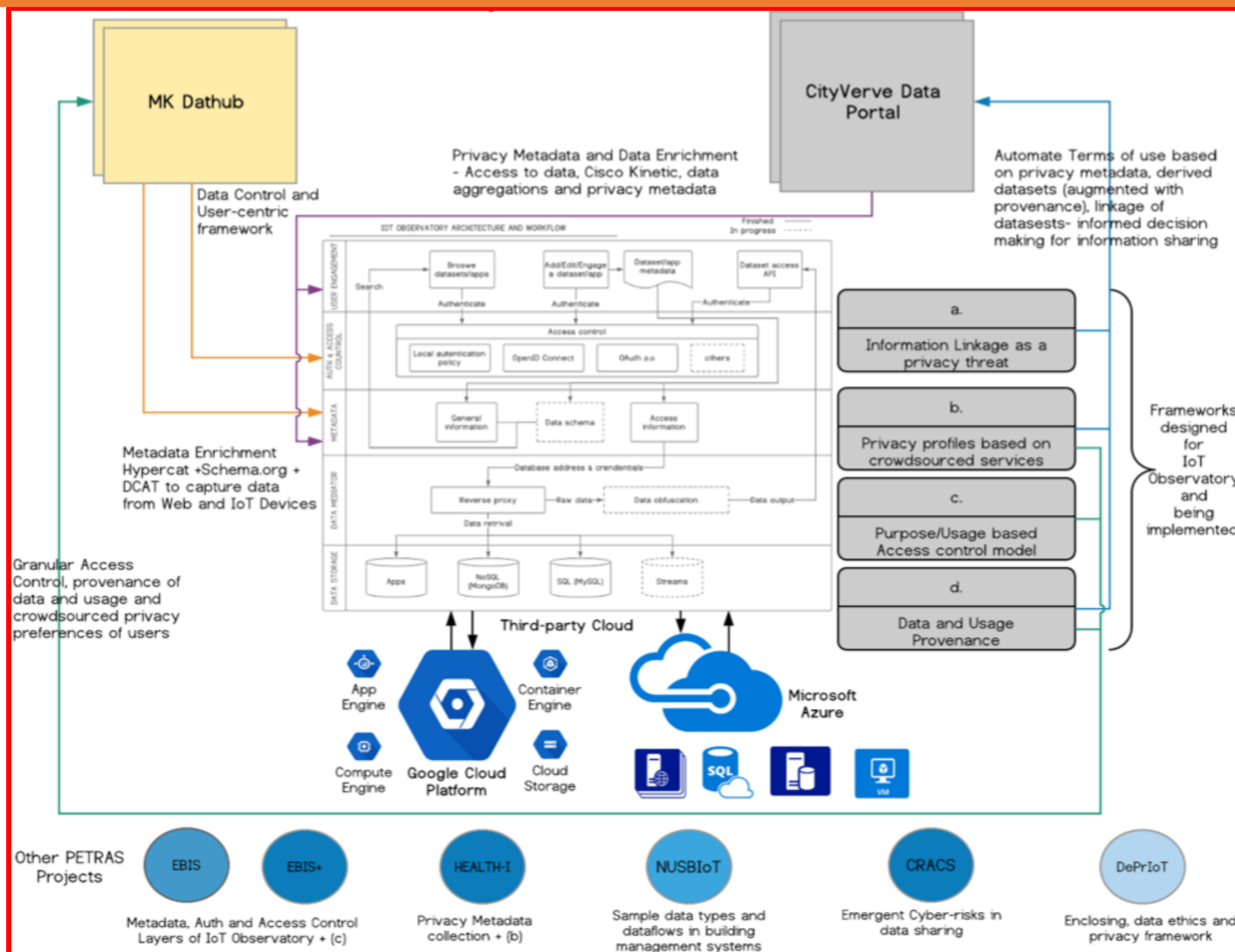
#### SOLUTION

**Alan Turing Institute**

- Computational Power - Microsoft Azure
- Resources - Research Software Engineers
- Pilot Project within the demonstrator timeframe
- Co-create definition of IoT Sharing Infrastructure



*Illustrative cohort of the PETRAS-IoT Demonstrator with user- and academic partners. It describes the participating PETRAS projects, their contributions, workflows between different partners and the IoT Observatory platform, expected integration of functionalities/features and other contributions between the partners.*



#### VALUE

- Support data-driven policy formation and decision-making while preserving the privacy and trust of various stakeholders
- Form a cohort of key UK research hubs in partnership with the Alan Turing Institute in the area of IoT and Cybersecurity for data sharing
- Example of best practice that will inform the Data Trust recommendation in the UK Government AI Review (co-chaired by Prof. Dame Wendy Hall)

#### STAKEHOLDERS

**Lead University** – University of Southampton

**Academic Partners** – University College London (UCL), University of Oxford

**User Partners** – The Alan Turing Institute, CISCO (CityVerve); British Telecom (BT); Google Cloud; Microsoft Azure Research; Privitar