

COMMON STRATEGIES TOWARDS MOBILITY DATA AS A SERVICE

Apruzzese Michela, University of Modena and Reggio Emilia, Italy

FORM Forum 2023

18 October 2023

Agenda

- Introduction
 - MobiDataLab
 - 5GMETA
- Results
 - Added Value to Stakeholders
 - Business Impacts
 - Risks for market uptake
- Conclusions

MOBIDATALAB

Labs for prototyping future mobility data sharing solutions in the cloud

Project Information

MobiDataLab

Grant agreement ID: 101006879

DOI

[10.3030/101006879](https://doi.org/10.3030/101006879) 

Start date

1 February 2021

End date

31 January 2024

Funded under

SOCIETAL CHALLENGES - Smart, Green And Integrated Transport



Open Knowledge Base

- Assess the mechanisms enhancing data sharing in the transport sector
- Know how to improve the findability, accessibility, interoperability and re-usability of mobility data



Transport cloud prototype

- Prototype a scalable cloud solution for sharing mobility data
- Showcase the most effective means to access and exchange mobility data



Living & Virtual Labs

- Gather representatives of mobility data providers and consumers
- Conduct innovation sessions to co-create, explore, experiment, using (open) data as a tool



MOBIDATALAB

Labs for prototyping future mobility data sharing solutions in the cloud

Main tool developed: A **cloud-based prototype platform for sharing transport data using a federated approach**. The MobiDataLab Transport Cloud also allows to technically connect different databases

Main goal: foster the development of a data sharing culture in Europe and beyond

Actors:

- Platform Administrator
- Developer
- Data/Service Providers
- Data Consumers

Tools supporting the Platform: MobiDataLab also creates a **Knowledge Base Repository** and a **Catalogue of Services** offered by the participants of the platform.

MOBIDATALAB

Labs for prototyping future mobility data sharing solutions in the cloud

A FEDERATION OF CLOUD SERVICES

The elicited architecture covers cloud federation, governance and use cases requirements by using established standards and components.

COMPRISING METADATA AND SERVICE CATALOGUES

A set of software catalogue systems reviewed on their capabilities are integrated into the Transport Cloud, easing data findability and accessibility.

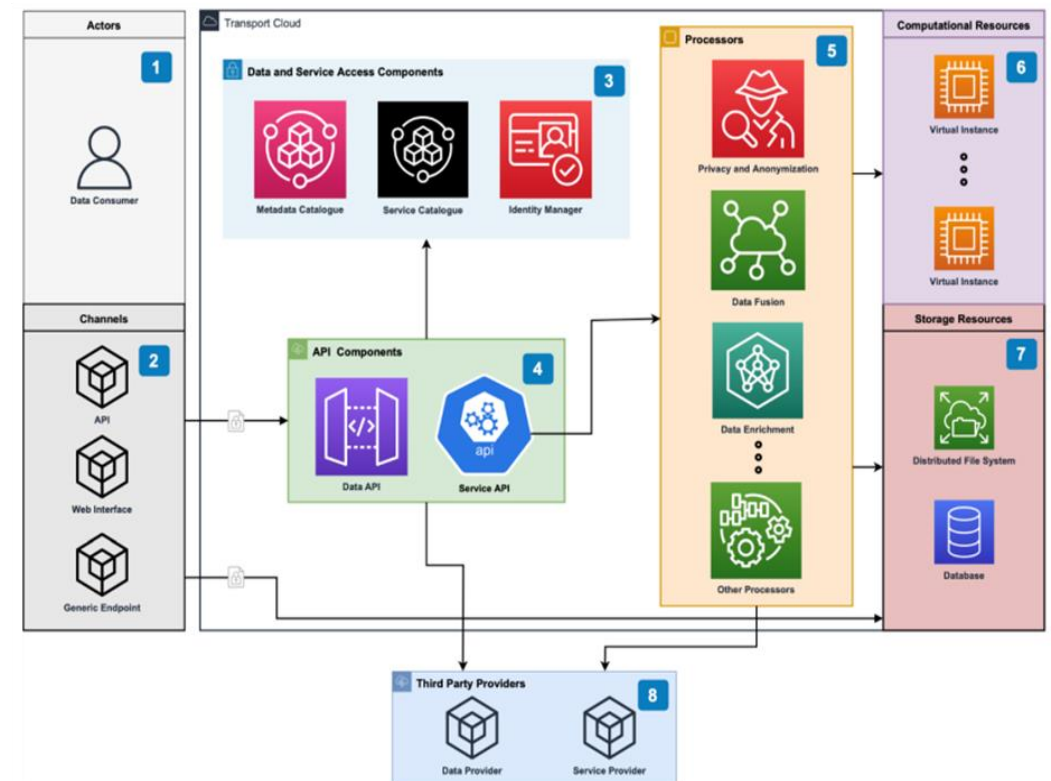
PRIVACY AND ANONYMISATION MECHANISMS

Anonymization mechanisms allow that personal mobility data can still be collected, analyzed and shared with privacy guarantees.

AND DATA ENRICHMENT PROCESSORS

The Transport Cloud includes a toolbox for data set enrichment, containing so-called processors which give the ability to create novel data and services.

Transport Cloud architecture





5G META

Project Information

5G META

Grant agreement ID: 957360



DOI

[10.3030/957360](https://doi.org/10.3030/957360)

Start date

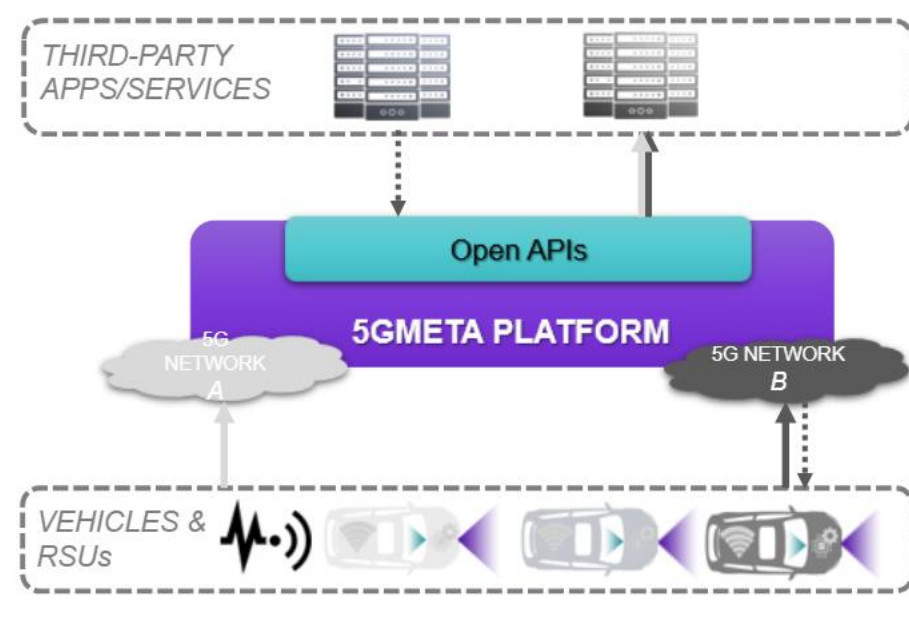
1 September 2020

End date

29 February 2024

Funded under

INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)





5GMETA

Main tool developed: A platform that functions **as a broker between data producers** (such as vehicles or road sensors) **and data consumers** (such as app providers). The 5GMETA Platform allows to connect to 5G networks to speed up the capturing of information.

Main goal: transform and monetise a vast volume of data

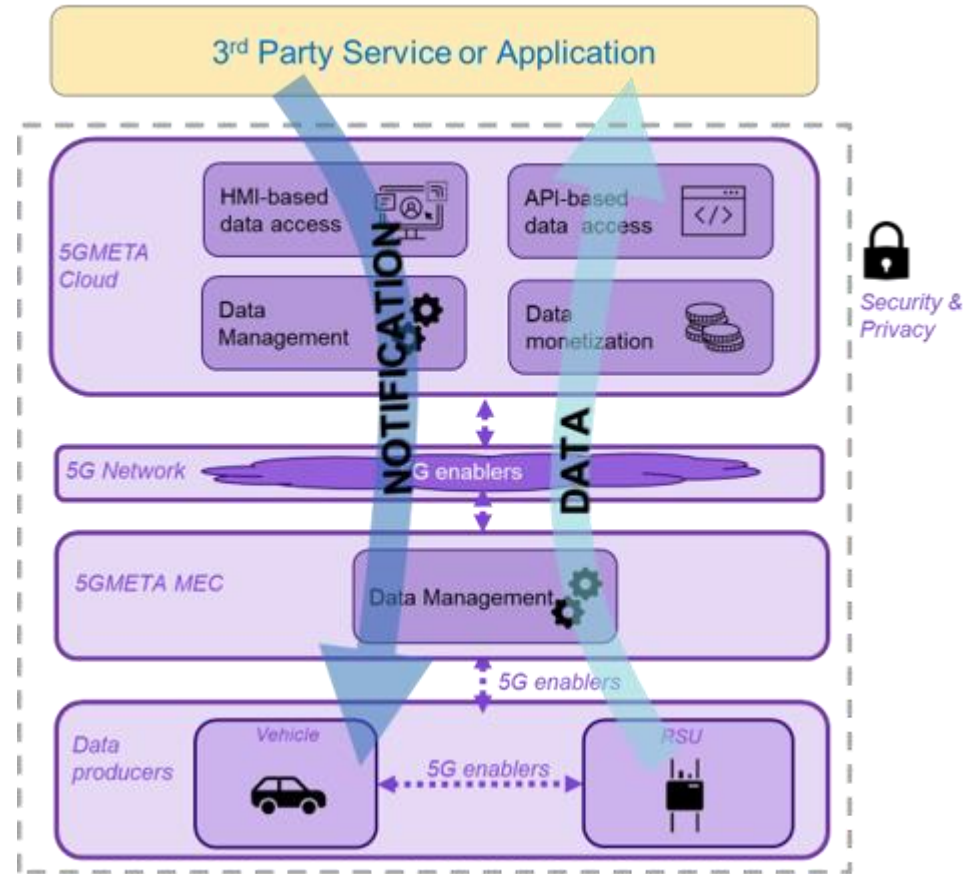
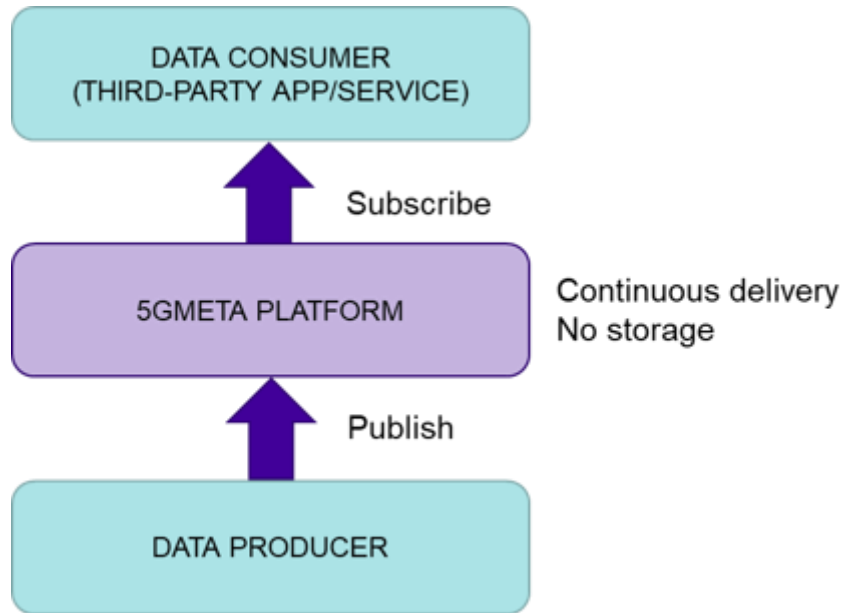
Actors:

- Platform Maintainer
- Platform Operator
- Data Providers
- Data Consumers

Tools supporting the Platform: 5GMETA offers a **Data Consumption Monitoring Dashboard** to make the platform more user friendly to non expert users and to provide them metrics linked to data consumed



5G META



Added Value to Stakeholders



It allow actors to **access shared data in a secure setting.**

- Data providers will gain from **increased visibility and distribution of their services**, such as Public Transportation Operators and Mobility Service Providers.
- Data consumers will have **access to reliable, traceable, real-time, and historical mobility data.**
- Innovators will be able to **improve their operations and expand their business..**

It aims to establish a vehicle **data monetisation environment**

- Data providers will easily make vehicles' **data available according to current technical standards.**
- Data Consumer can access to **real-time** data.
- Data Consumers will quickly and securely **access high-quality data** to design and develop new products and services.
- The platform's ability to increase Data Monetisation allows actors to develop **new business opportunities**

Business Impacts

MOBIDATALAB

Labs for prototyping future mobility data sharing solutions in the cloud



- Support **short-term and medium-term decisions**
- Digital services providers could **use the data to make their services more complete or relevant**

- Facilitated management and monitoring of **Service Level Agreements** between data providers and data consumers.
- It allows **accountability** of the consumed data through a “Data Consumption Monitoring Dashboard”

Risks for market uptake

MOBIDATALAB

Labs for prototyping future mobility data sharing solutions in the cloud



- **Uncertainty or unwillingness of data sharing**
- Potential shortage of technical expertise
- Risk of **data misuse** or misinterpretation. **Trust** issues and **cyber security** risks. **Privacy** issues and sharing issues linked to the re-use of personal data

- Data providers, especially OEMs, are **not easily convinced to share data**
- Potential perceived technological **complexity.**
- Regulation may not allow 5GMETA platform's data access approach, (e.g., **GDPR or privacy issues**), or unclear data ownership regulations.

Conclusions (I)

MOBIDATALAB

Labs for prototyping future mobility data sharing solutions in the cloud

- The “**human factor**” will be important to ensure the proper functioning of the overall system
- **Stakeholders’ engagement process** of potential data providers



5G META

- Advertise the **linkage** to the EU Horizon Europe program, the 5G PPP partnership, the CCAM Association.
- Highlight the **5G** exploitation opportunity
- A strong collaboration with relevant **regulatory bodies.**
- An initial customer base can be created

Conclusions (II)

MOBIDATALAB

Labs for prototyping future mobility data sharing solutions in the cloud

Final event information:

- Where: **Leuven**, Belgium (POLIS Conference)
- Date: **28 November 2023**
- More info coming soon on the MobiDataLab website: <https://mobidatalab.eu/>



Final event information:

- Where: **Modena**, Italy
- Date: **15 February 2024**
- More info coming soon on the 5GMETA website: <https://5gmeta-project.eu/>



My contact details

Michela.apruzzese@unimore.it



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

Michela.apruzzese@icoor.it



Linkedin

