



GRIMALDI STUDIO
LEGALE



TNO



KOMIS

WAVESTONE

4th Workshop

Pilot on **Fair and equal data sharing for cooperative, connected and automated mobility**

Progress update of the pilot on cooperative, connected, and automated mobility

Big Data and B2B platforms: the next big opportunity for Europe
EASME/COSME/2018/004

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Executive Agency for Small and
Medium-sized Enterprises



Online Workshop
8 Oct, 2020



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Items

Structure of the Work

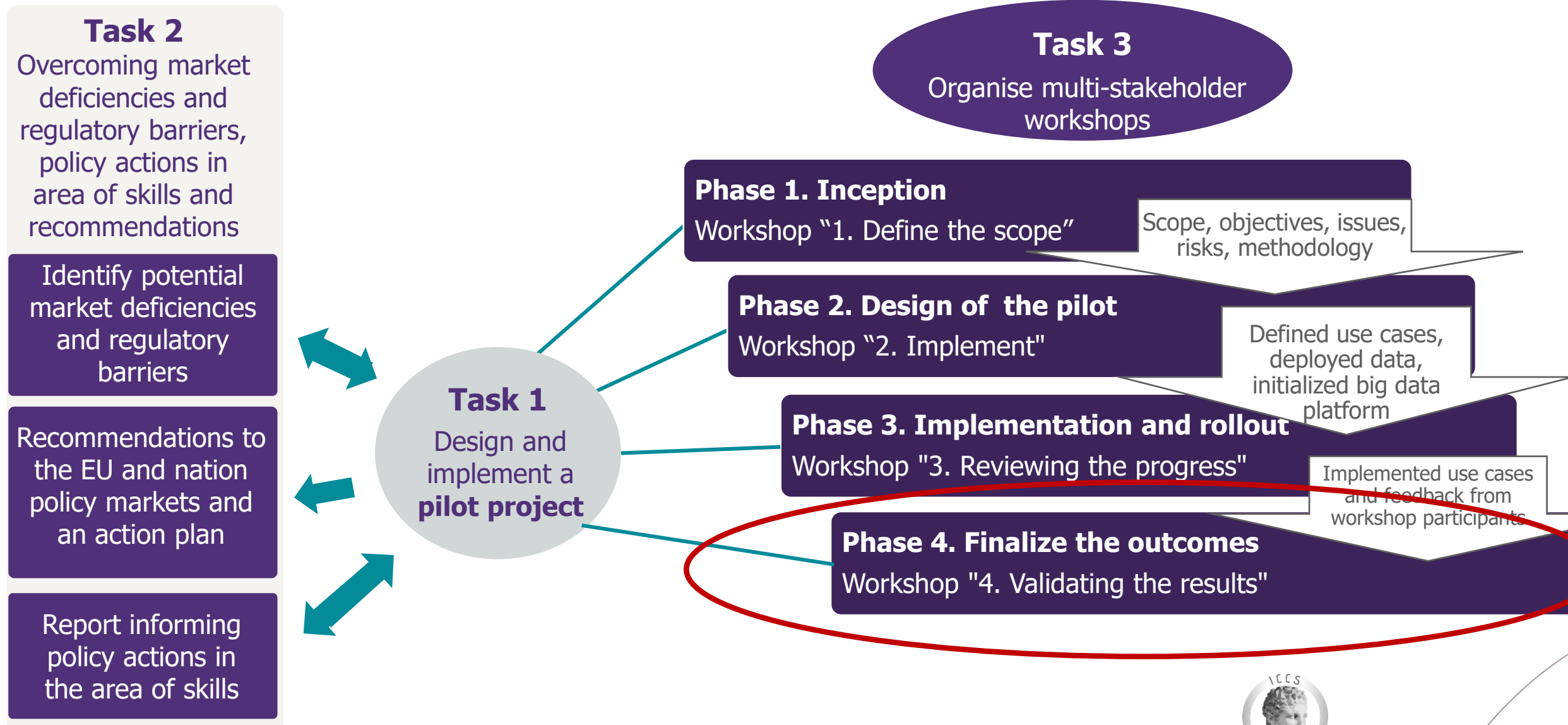
Shared Server pilot architectural elements

Linking with the outcomes of the 3rd Workshop

How do we address non-technical issues, a recap from previous workshops



Structure of the Work (1/4)



Structure of the Work (2/4)

Subtask 1. Inception

- **The requirements** were elaborated in groups: i) operator, ii) architecture, iii) user, iv) restrictions, v) competition, vi) development and approval of services, and vi) attribution of liability.
- **A number of services was proposed** about i) Safety and emergency ii) Insurance services iii) Maintenance iv) Parking
- **Open issues on liability** (Contractual and extra-contractual), **data ownership** and the current EU legal framework as well as **competition barriers** were also analysed.

Workshop 1: Define the scope

Subtask 2. Design

- **Possible solutions** investigated to tackle the complexity and variety of the in-vehicle data among the different manufacturers and types approval of the vehicles.
- **Considering** that **service providers** would ask **for streamed** data as well as for “**data at rest**” that are stored for later use, proposed an architecture that could sufficiently meet these needs.
- **Privacy issues** were examined and proposed a design that could feasibly address the needs of the **user’s consent management on streaming data**.
- The **components of the Microsoft Azure platform** and pilot data were **demonstrated**.

Workshop 2: “Implement”

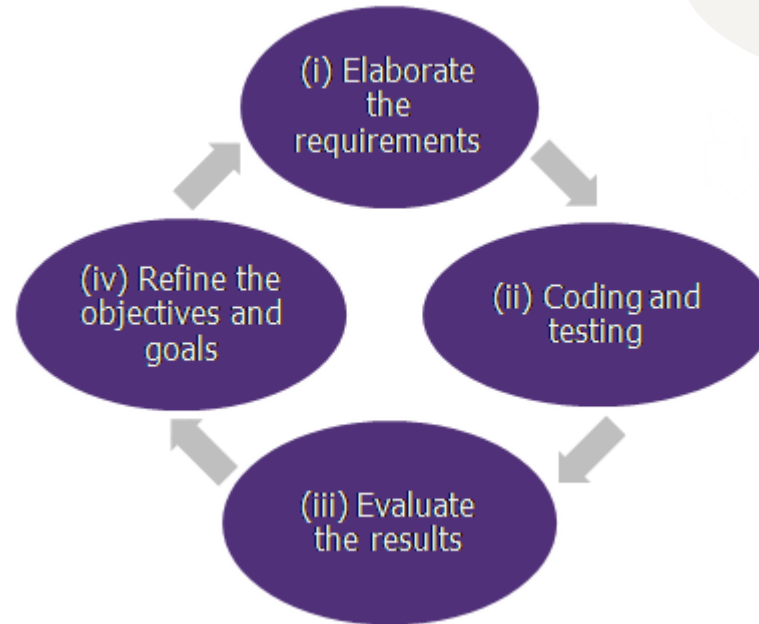


Structure of the Work (3/4)

Subtask 3. Implementation and rollout

Workshop 3: Reviewing the
progress
business

Agile methodology



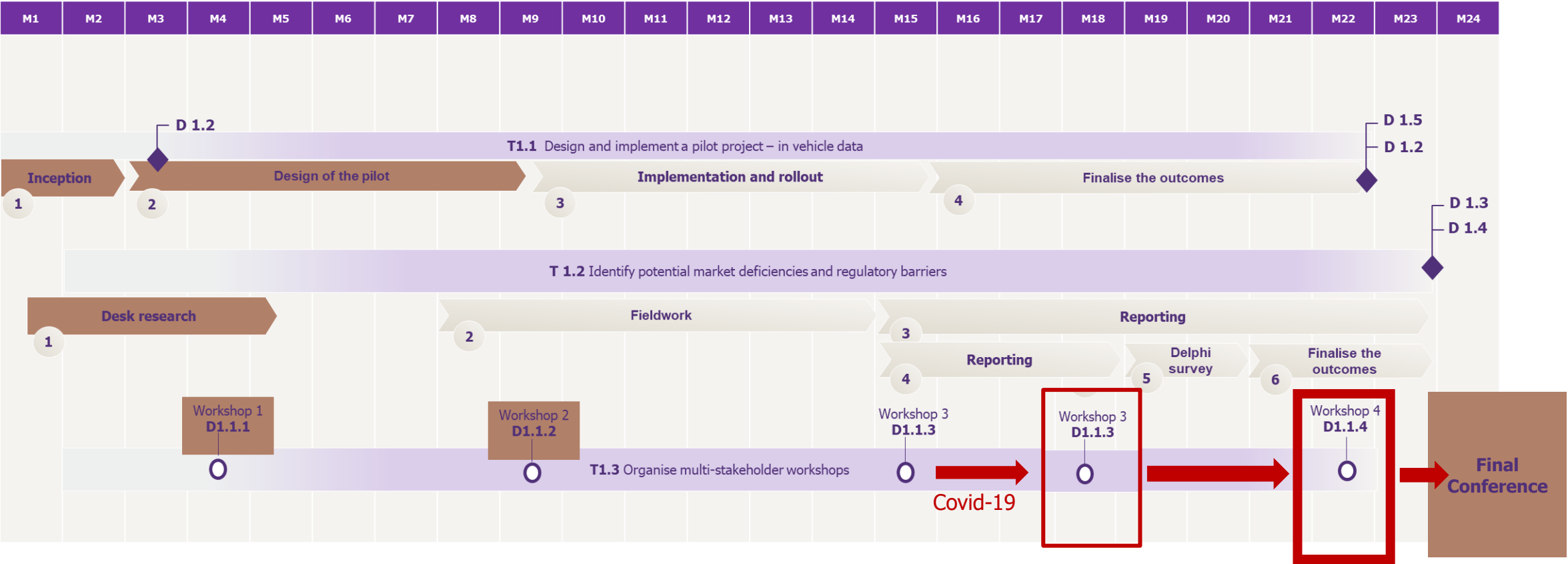
We completed three iterations of software development until the third workshop and one more reaching to the fourth workshop

Subtask 4. Finalise the outcomes

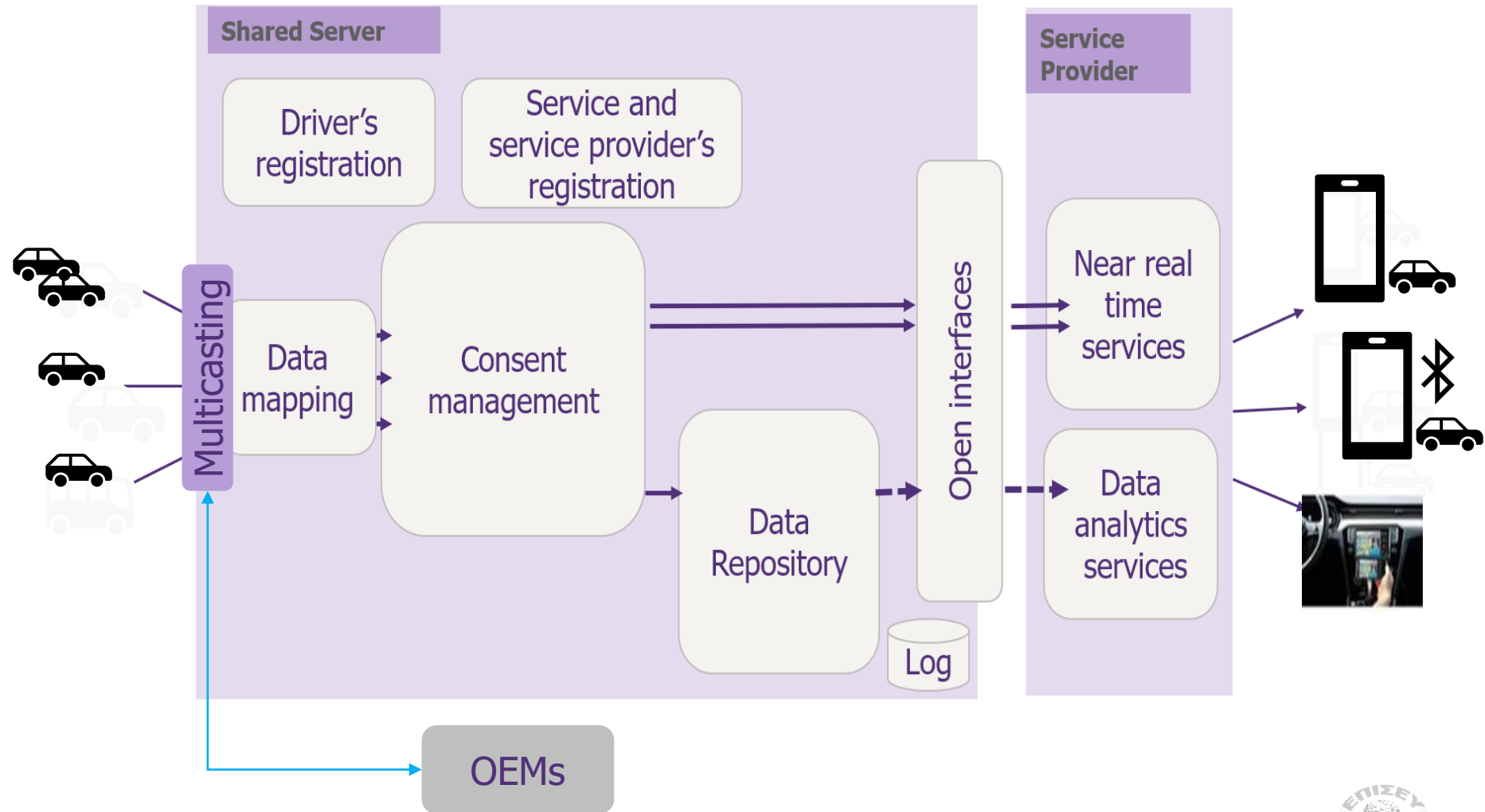
Workshop 4: Validating the
results
business



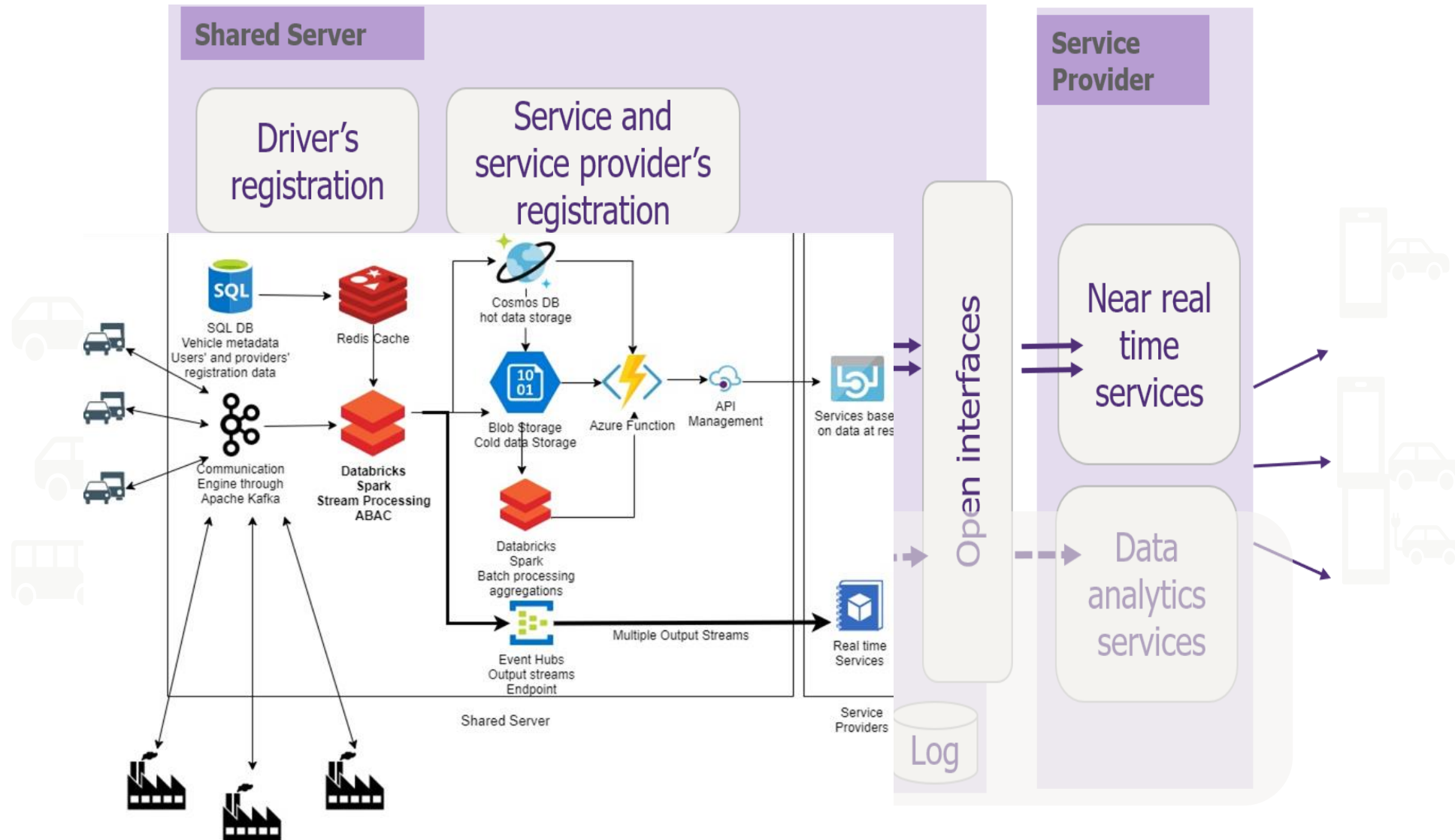
Structure of the Work (4/4) - Schedule



Shared Server Pilot facilitates secure, low latency and high-throughput, transmission to OEMs and Service Providers following **privacy by design** principles



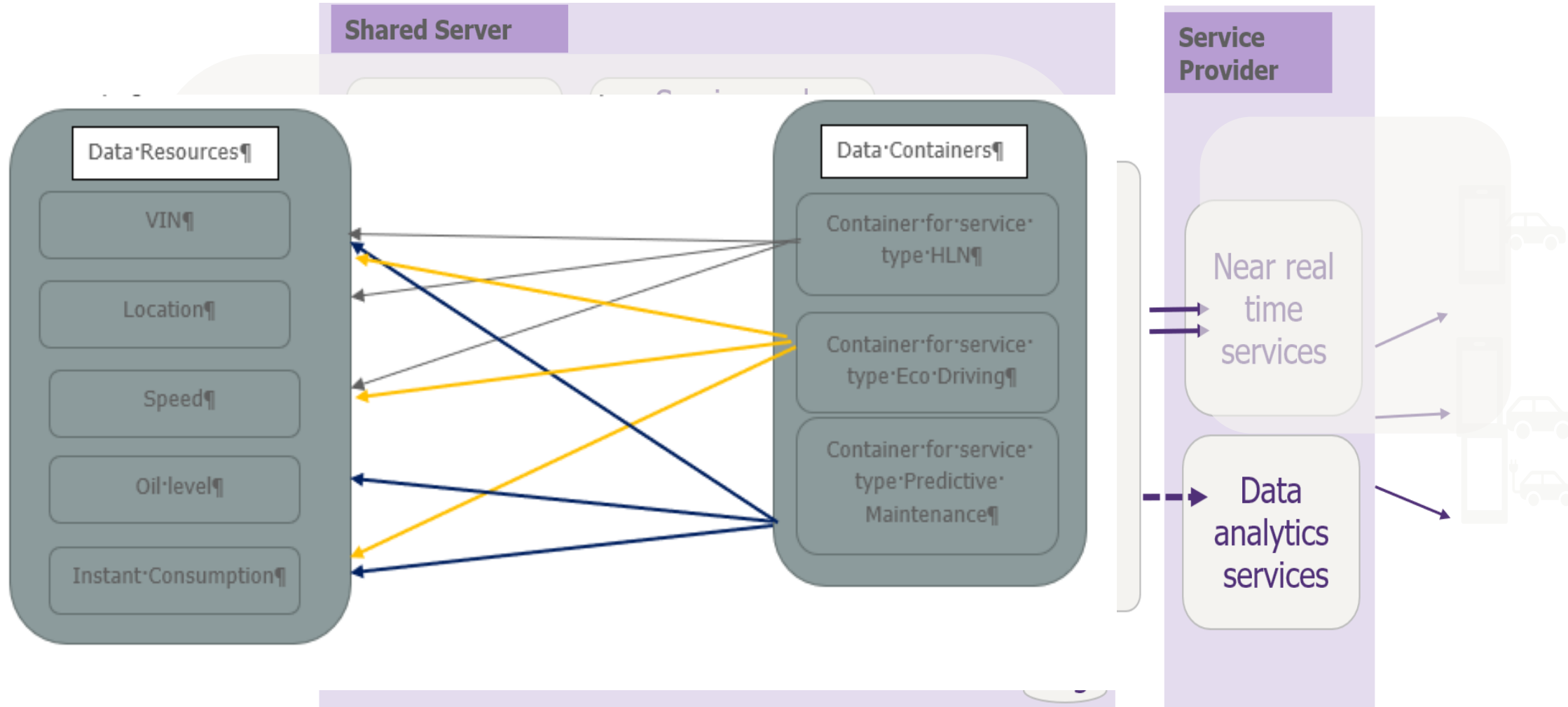
Streaming Data – **An Internet of Things (IoT) approach**



Streaming data are provided by the Shared Server **via Advanced Message Queuing Protocol (AMQP)** messages with **Transport Layer Security (TLS)** protocol.



Data at Rest – **Privacy by Design**



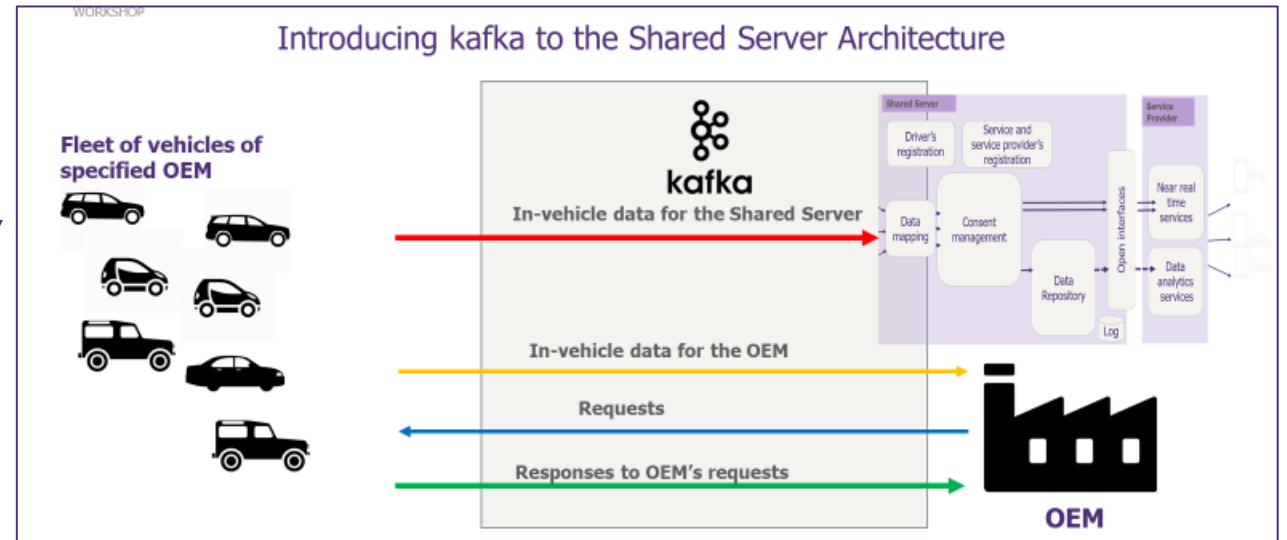
REST based web services are provided to the Service Providers, adopting the requirements of the **ISO/IEC ISO20078-2:2019 Road vehicles — Extended vehicle (ExVe)** using (HTTP) as transport protocol with Transport Layer Security **(TLS)**



Linking with the outcomes of the 3rd Workshop

Prioritising next steps

Participants verified that “Kafka”,
Gave to “**Kafka**” and “**Anonymisation**”
a higher priority

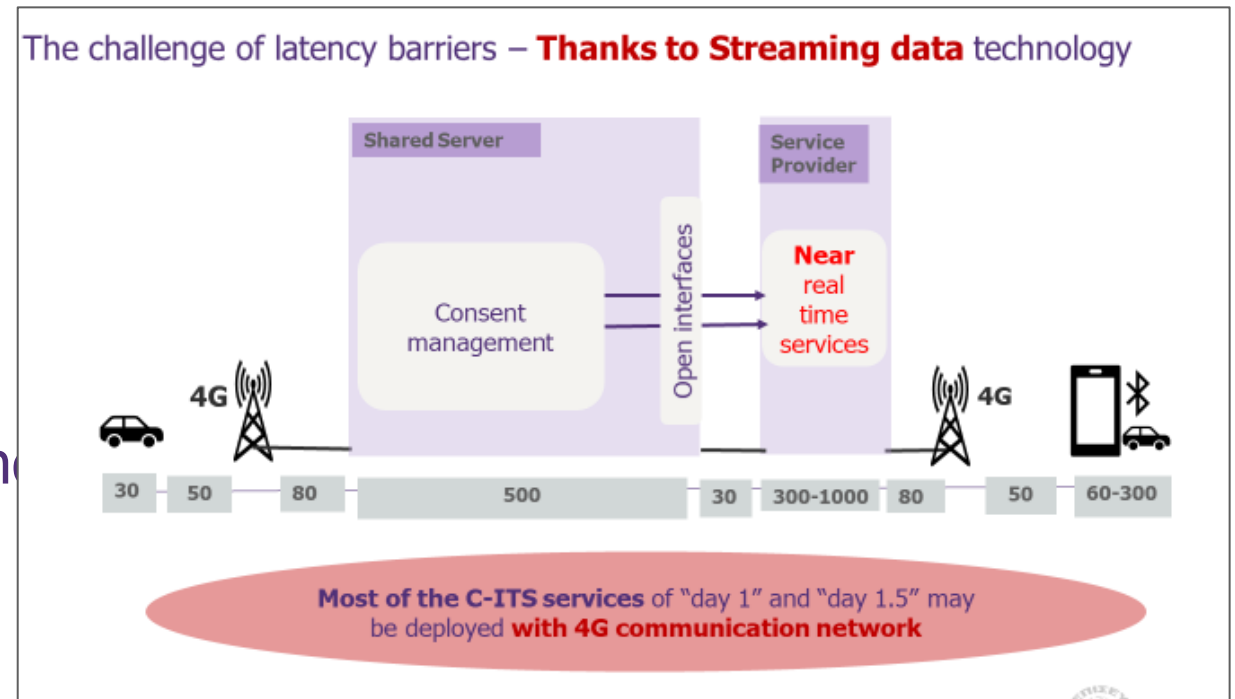


The problem of lack of **standardisation of in-vehicle** data among OEMs and type approvals could be solved **by regulation** by a prestigious organisation i.e. by the European Telecommunications Standards Institute (**ETSI**)

Linking with the outcomes of the 3rd Workshop

Concerning data streaming technologies

Most of the participants supported the idea that data streaming technologies, will enable the deployment of **near-real-time Services and road safety applications**, thus increasing the value and expanding the scope of in-vehicle data exploitation

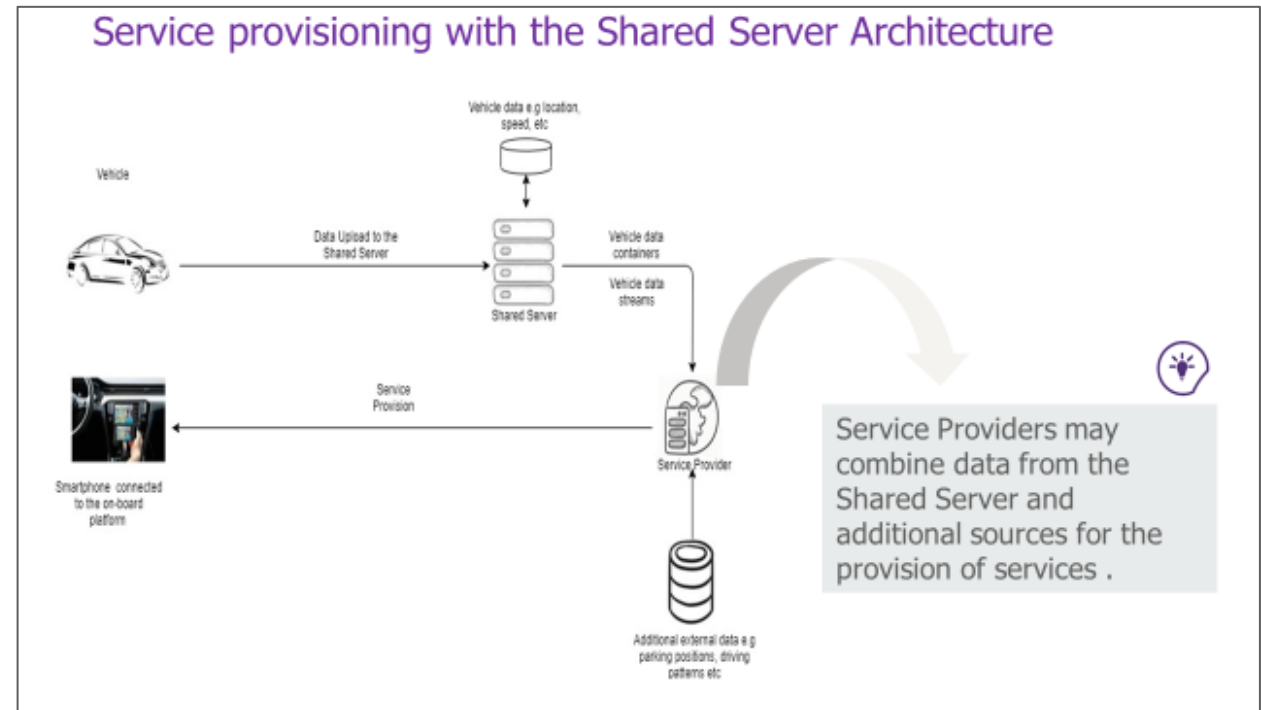


Linking with the outcomes of the 3rd Workshop

Concerning types of services that could be deployed on the proposed Shared Server architecture

Most participants were convinced that the proposed Shared Server architecture with streaming capabilities **will support a variety of services** such as:

- Suggest the speed to catch the **“Green Wave”**
- Warning for **Bumpy or Slippery Road ahead**
- Warning for **Stationary Vehicle ahead**
- Warning for **Traffic Congestion ahead**
- Warning for **a possible road collision ahead**
- **Toll fee** collection



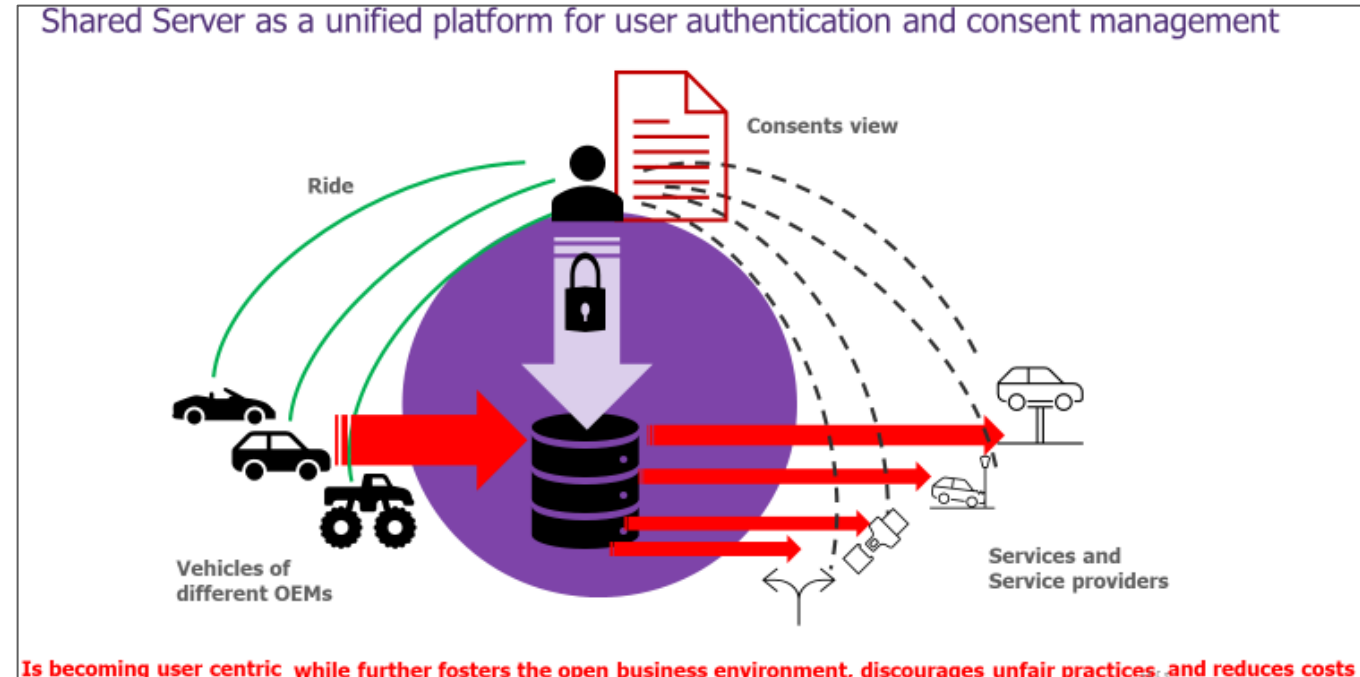
Most of the concerns focused on the following potential services:

- Warning for Opposite Lane Vehicle, Tyre wear warnings and recommendations, Maintenance book and predictive maintenance.

Linking with the outcomes of the 3rd Workshop

Concerning consent management

Most of the participants verified that a **unified** platform for centralised consent management for both users and service providers would **generate multiple benefits, and reduce costs.**



Moreover, compliance with the GDPR would be facilitated and transparency will be increased, **discouraging unfair practices and market distortion.**

Linking with the outcomes of the 3rd Workshop

Concerning pricing models

With regard to barriers to fair data sharing, the status of **pricing models provided** by existing business cases (e.g. Extended Vehicle, Neutral Server) was discussed during the workshop

Participants **were divided**, showing a slight preference for a pricing model that should be based both on the amount of data retrieved and on the distinction between personal/aggregated data, intimating that the situation about **fair pricing models remains unclear**

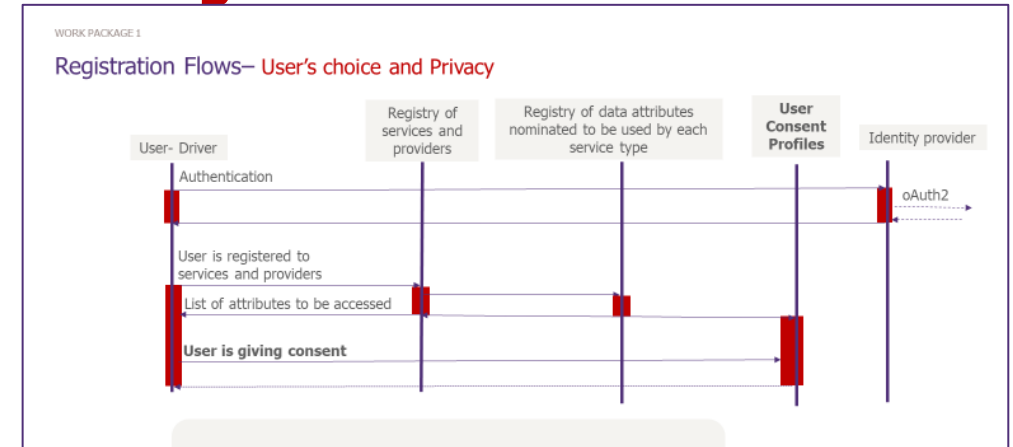


How do we address non-technical issues – the Shared Server response

GDPR- lawfulness and meaningfulness of processing

How do we support it?

By using a registration flow for the services and the service providers



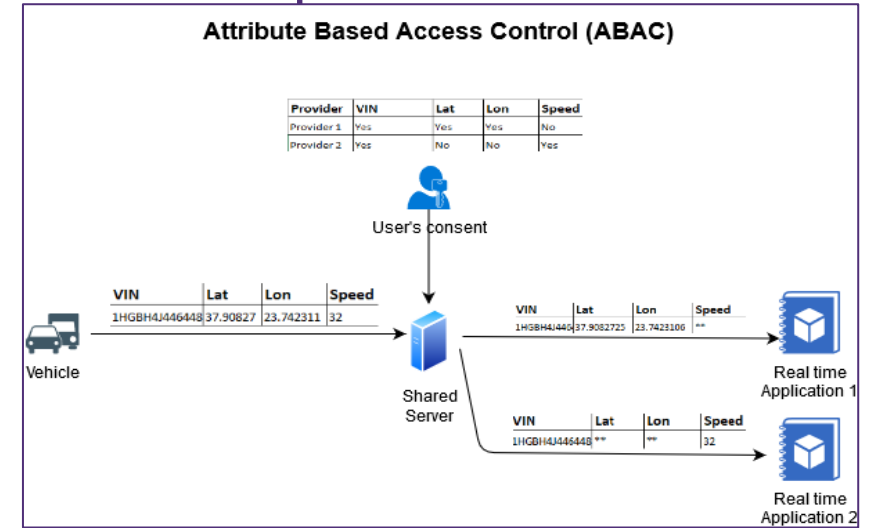
- During the service registration, the service provider **applies for data points, which are necessary** for providing the specified service
- The Shared Server operator **is validating the required data points** for lawful and meaningful processing concerning the submitted service

How do we address non-technical issues – the Shared Server response

GDPR- Efficient handling of user consent

How do we support it?

By using double consent mechanism



- During the registration flow, the user consents **for hosting her data by the Shared Server**
- Secondly, while she registers to a service, she gives her **consent to provide her data to the service provider**
- The user **can withdraw her consent any time**, for any service she has been registered to
- She can revoke her consent from the **Shared Server as a whole, asking to erase** her data as well

How do we address non-technical issues – the Shared Server response

GDPR- Data Portability

How do we support it?

- The user has **a centralised overview of her consents** to service providers and services and can exercise her rights on the data in a convenient way
- The user can easily **change** services and service providers **without “data locks”**
- By the registration of a user to a new service, the **old user’s data** needed for efficient service provisioning, **are becoming available to the new service**

How do we address non-technical issues – the Shared Server response

GDPR- Fragmentation of the legislation among member states

What is the problem?

Fragmentation may arise, as the provision of GDPR leaves room for different interpretations by Data Protection Authorities and national courts. For instance, the mechanism for sanction allows national Data Protection Authorities to adopt different types of **sanctions in case of infringement or data breaches**

How do we support it?

- Shared Server introduces a **unified approach** for service delivery, following **evidence-based procedures for registration** and service provisioning
- All the relevant data are available from a single point **for monitoring and investigation by the authorities across Europe**



How do we address non-technical issues – the Shared Server response

Data Ownership - What is the problem?

There is legal uncertainty regarding the data ownership of in-vehicle data and it has been noted that “neither national law nor European law provides for general ownership of data”, FIGIEFA (2016). However OEMs claim de facto ‘ownership’ of technical data created within the vehicle control unit, ACEA (2016)

What do we propose and how do we support?

- C-ITS Platform and Working Party 29 concluded that data derived from a vehicle should be qualified **as personal data**.
- In that sense, we examined the in-vehicle data concerning **who has the right to access the in-vehicle data, regardless of the ownership of them**.
- Therefore, we obtain to the shared server, about 25 in-vehicle data points of significant business value and **we process and manipulate them accordingly to GDPR provisions**.
- **Outcomes linked to the 1st and 2nd Workshop**



How do we address non-technical issues – the Shared Server response

Service liability - What is the problem?

Shared Server provides data to services that can affect decisions of the drivers, so liability issues may arise when either insufficient information or wrong suggestions of a service, trigger **a bad decision and cause an accident.**

The situation regarding service liability and shared **liability remains unclear** under the EU and MS law, and thus, is regulated by contractual agreements between data providers, service providers and users.

What do we propose?

We cannot exclude the possibility of providing bad or insufficient data by the Shared Server to the service providers. Irrespective whether there is a contractual agreement regarding liability between parties, **we minimise the risk and the impact of a failure caused by Shared Server data** with technical provisions and means.

- **Outcomes linked to the 1st and 2nd Workshop**



How do we address non-technical issues – the Shared Server response

Service liability

Aiming at minimizing the risk and the impact

Services based on Shared Server data **does not intervene in the systems of the car** and are limited to giving information and recommendations to the driver.

Shared Server should be hosted by cloud and network infrastructures according to specific **Service Level Agreements**, providing data at the highest quality and availability.

"If you touch it, you own it." In that sense, we limit the Shared Server processing to filter the incoming data according to the users' consents, making them immediately available to the service providers.

- **Outcomes linked to the 1st and 2nd Workshop**



How do we address non-technical issues – the Shared Server response

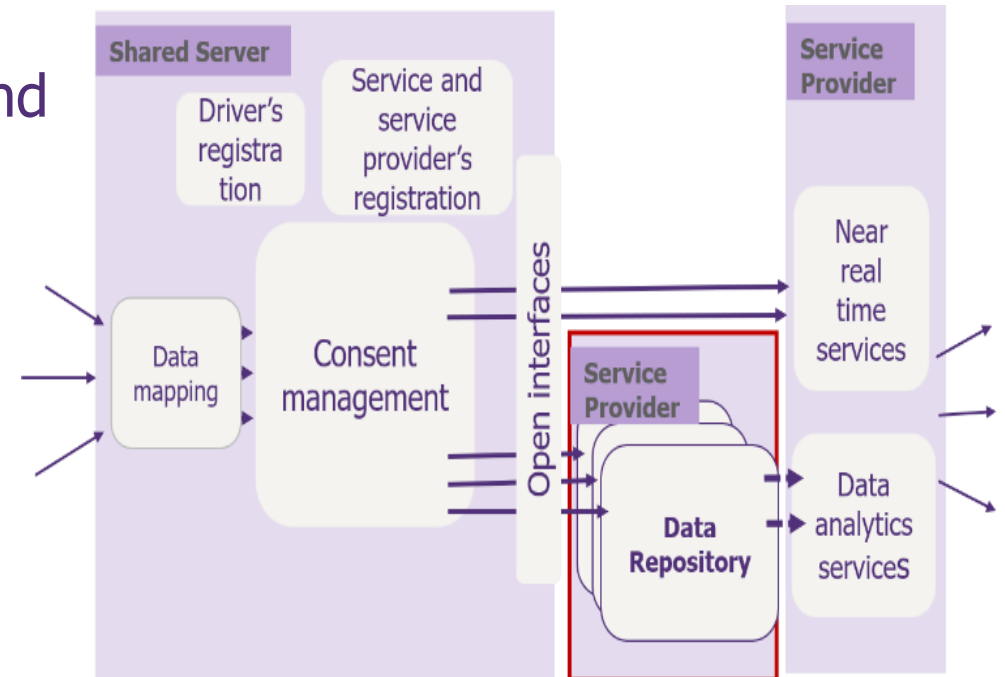
“The winner takes it all” effect. What is the problem?

Responding to the increased demand of Shared Server data, we propose setting clear boundaries

Old data and data for secondary use should be **moved to external repositories** for curation and further exploitation.

Data repository services and anonymisation services for in-vehicle data **might be available in open competition** for the service providers

- **Outcomes linked to the 2nd Workshop**





Questions Answers