

Digital Transport and Logistics Forum

Corridor Information Systems -
Data sharing through a Federated Network of Platforms

An overview

Background

- Identify operational obstacles to the smooth flow of cargo along logistics chains and corridors that could be addressed by better access and availability of information
- Identify the technical, legal and administrative barriers limiting such access and availability of information
- Propose measures to overcome the identified barriers. These should aim to increase interoperability and interconnectivity of digital systems and services
- Scope:
 - ✓ Conceptual interoperability
 - ✓ Business scenarios and platform services
 - ✓ Governance and business models

Digital Corridor Information System Concept

Creation of a **federated network of platforms for data sharing** with two main features:

- **one single entry point** for organisations (business and authorities)
- **platform interoperability**

Building Blocks

Commodity for data sharing in supply and logistics



Plug and Play

Register and connect with a solution/service provider of choice



Technology independent infrastructure services

Seamless, secure, safe and compliant trade flows



Trusted, safe and secure

Governance rules, certified participants and data governance



Federation: network of platforms and peer-to-peer solutions

Economies of scale and network effects with standardised protocols

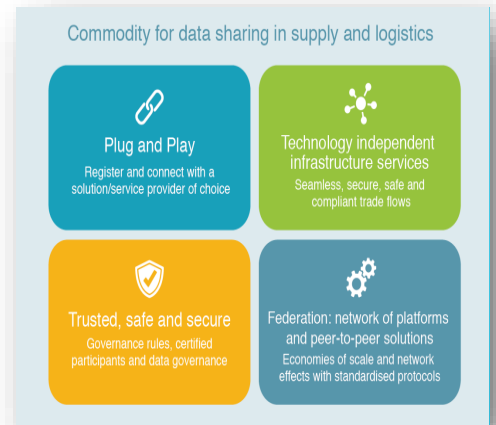
Design principles

- Register and connect once
- Interoperability by default
- Open infrastructure with a solution of choice
- Trust and security
- Scope: B2A and B2B
- Transparency and level playing field
- Re-use of existing standards
- Technology independent
- No centralised solution

DTLF SG2: Support for the implementation of the concept in the T&L sector

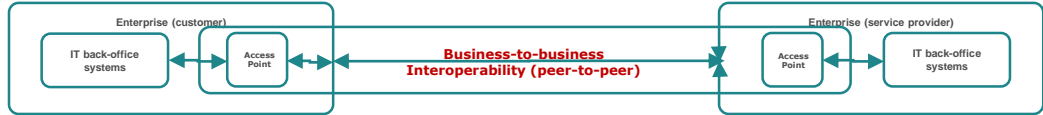
- **Implementation guidelines** for the individual organisations on how to plug and operate in the federated network of platforms
- **Technical specification** (e.g. registration, architecture, interoperability principles, common services, governance)
- **Testing and validation** of the concept in real world conditions: support from the CEF DTLF-related projects and other relevant initiatives
- Raising **awareness** and building **consensus** among the stakeholders
- Pursuing **collaboration** between the private and public sector
- Exploring **synergies** and transferring **knowledge** between the CEF projects and the DTLF

Time perspective: 2022



Federated network of platforms: Implementation options

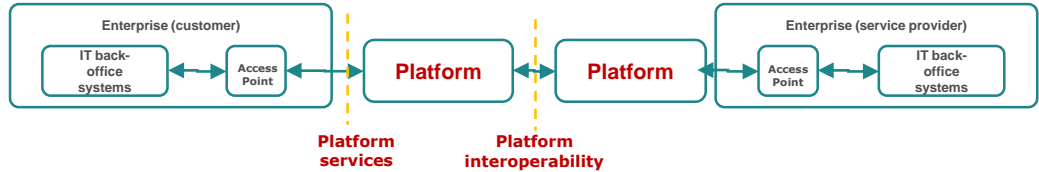
A – Peer-to-peer (P2P)



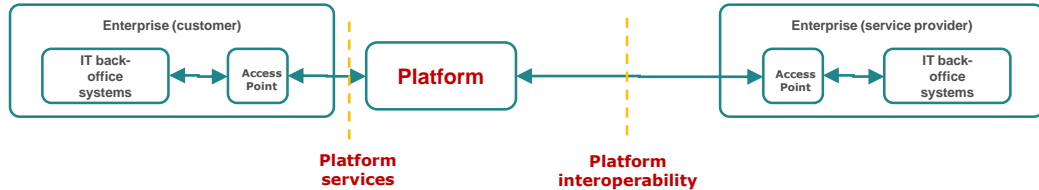
B – Single platform



C – Multiple platforms



D – P2P and platform



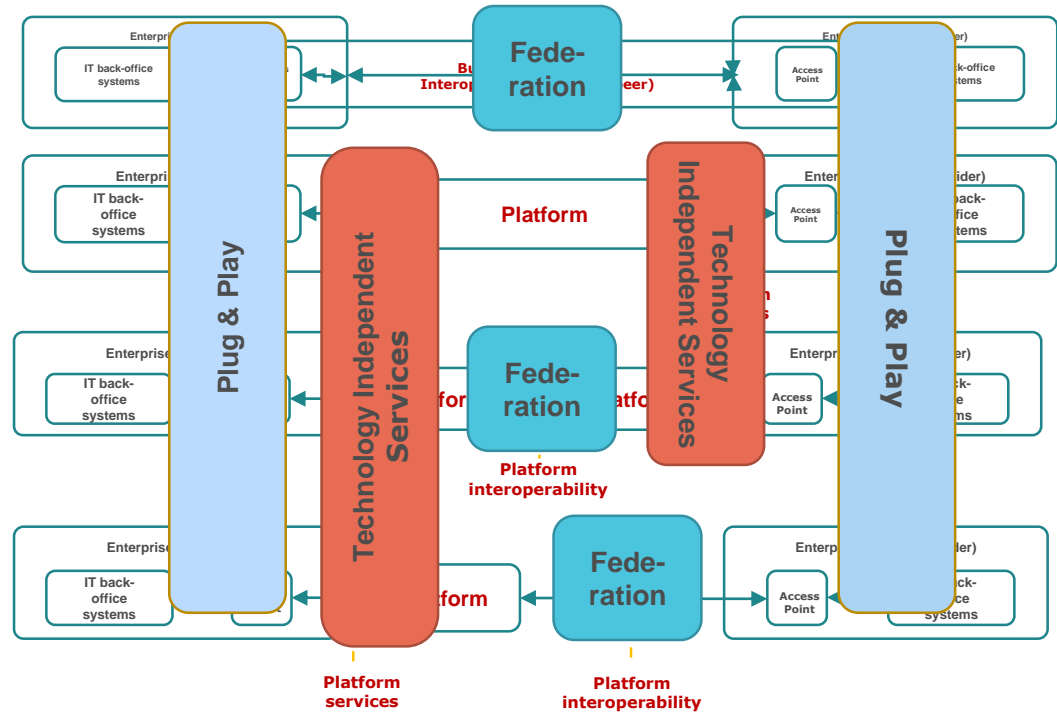
Federated network of platforms and the building blocks

A – Peer-to-peer (P2P)

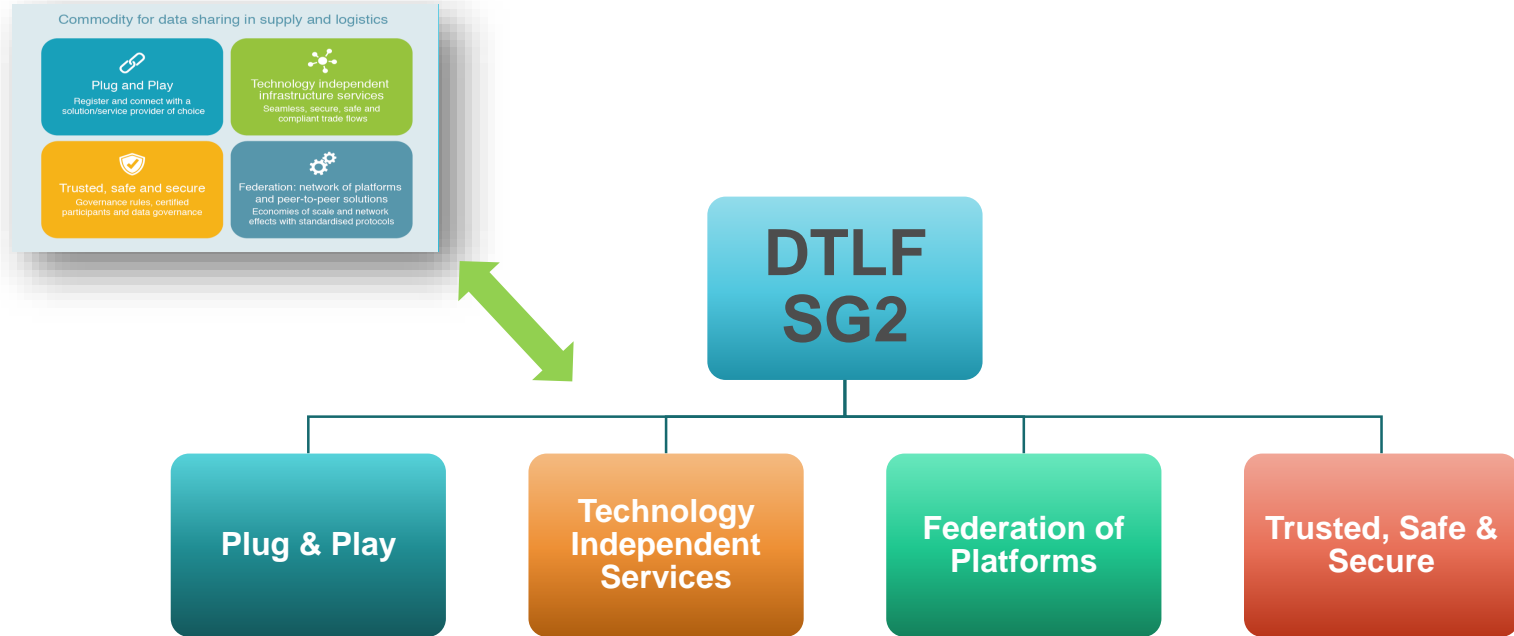
B – Single platform

C – Multiple platforms

D – P2P and platform



Organisation of DTLF SG2



Team 1 Plug and Play - Activities

To develop concepts and procedures that allow individual stakeholders to share data according common agreements.

Registration: procedures for individual organizations to expose business services (or value propositions) for all (or a subset of) available platform services.

Integrate their systems: to be able to integrate their (back office) systems with the (selected) platform services and be able to share data.

Team 2 Technology Independent Services- Activities

To produce the technology independent platform services to be offered by the federated platform for data sharing to support business interoperability (for a number of selected business services) and compliance of business with legislation.

Describe business scenarios and business transactions and translate into platform services.

Team 3 Federation of platforms - Activities

To create (technical, functional, and business model) interoperability between different platforms, even when each platform is realised with different technology.

Technical protocols – protocols that support platforms to actually share data amongst each other.

Functional protocols – support of the platform services by each of the interoperable platforms. Functional protocols are specified in two ways:

- Vertical interoperability – two platforms with identical platform services are interoperable.**
- Horizontal interoperability – two platforms with adjacent functionality are able to share data, for instance a logistics marketplace integrates with a booking site.**

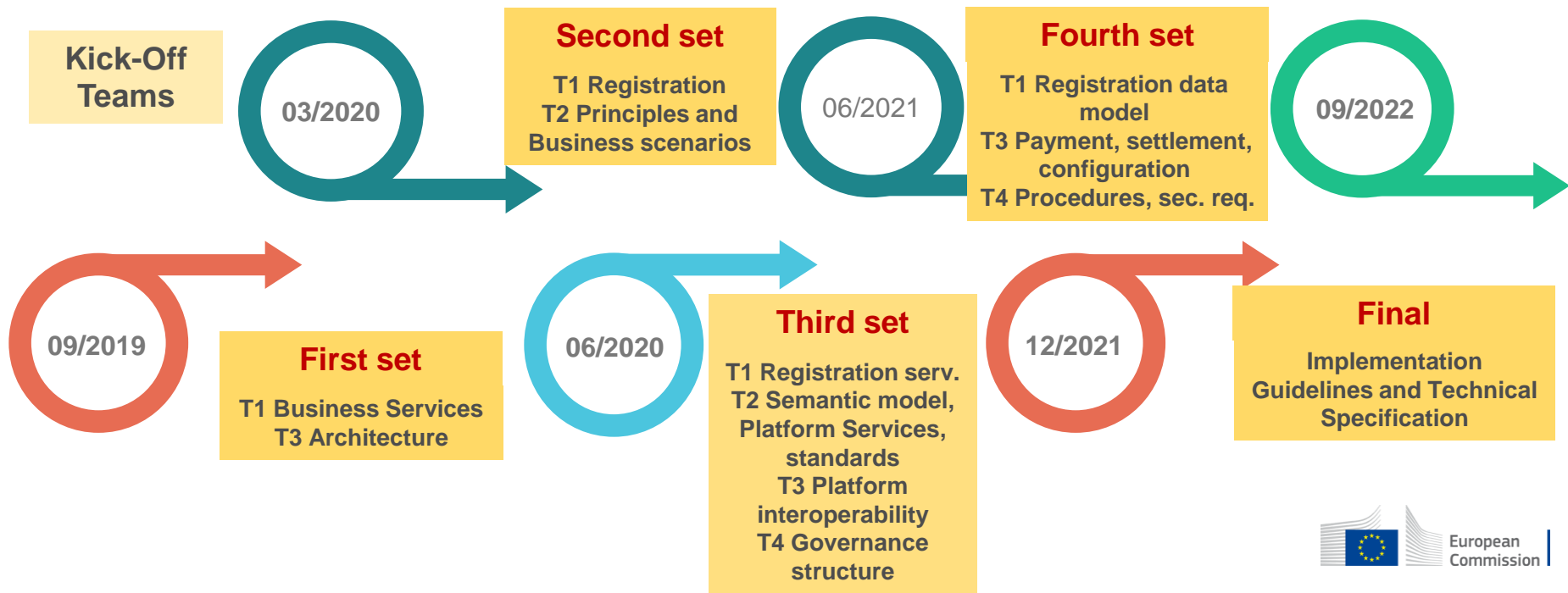
Team 4 Trusted, safe and secure - Activities

To establish a neutral governance structure ensuring trust, safety, and security for data sharing via multiple providers of platform services, including peer-to-peer solutions.

Describe governance structure in different aspects (business, legal, technical, etc.) and recommendations on the business model for the platform operations.

Recommendations on the business model for the operations.

Overall timeline, main deliverables and milestones



Synergies with CEF projects: FEDeERATED and FENIX

- Data models and semantic models
- Access rules and registration
- Federated network architecture
- Federated network design principles
-

European Data Strategy

Rich pool of data
(varying degree
of accessibility)

Free flow of data
across sectors
and countries

Full respect
of GDPR

Horizontal
framework for
data governance
and data access



Health



Manufacturing



Agriculture



Finance



Mobility



Environment



Energy

- ◆ Technical tools for data pooling and sharing
- ◆ Standards & interoperability (technical, semantic)
- ◆ Sectoral Data Governance (contracts, licenses, access rights, usage rights)
- ◆ IT capacity, including Cloud storage, processing and services

Keep in touch

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[Expert group register: DTLF](#)



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Thank you

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