Seamless data exchange as a key for efficient logistics

Concept of a federative platform

Support for digital logistics: Digital Transport and Logistics Forum (DTLF)

Digitalisation in transport and logistics is an important **driver for efficiency, simplification, lowering costs, and a better use of resources and existing infrastructures**. It creates new opportunities for all players in supply and logistics chains, thus fundamentally changing the way cargo and traffic flows are organized and managed. Currently, data are available at an unprecedented scale, and the challenge is to combine and re-use them across various sectors and modes in order to generate added value services.

To reap those benefits transport should become **digital by default** with an innovative attitude to interoperability, accessibility and information sharing. Electronic data should flow seamlessly through supply chains, including the exchanges with public authorities and between businesses. Information reporting once and its multiple use for different purposes should become the rule and not remain the exception.

To support this process, the Commission established the **Digital Transport and Logistics Forum** (DTLF). It is an expert group where relevant transport and logistics stakeholders and Member States can exchange technical knowledge, cooperate and coordinate with a view to support measures aimed at promoting efficient electronic exchange. The Forum identifies challenges and areas where common action in the EU is needed, provides recommendations and possible solutions, and supports their implementation in the multimodal transport corridors.

Data sharing by a digital infrastructure commodity

Over the past 25 years, Internet has become a commodity. We are so used to sharing data by mail or other services with the Internet that we do not consider the underlying technology and open standards of the Internet. A subscription to one of the several service providers allows us to **plug in our devices and share data** by using a number of available applications. Technology has enabled various services to develop, a connection to be established and interconnectivity between users to be created. Market regulations have allowed us to easily switch provider without any issue. The same is applicable to the mobile phone network. Distinct protocols which previously required us to use different mobile phones on different continents have been replaced by an integrated system providing full interoperability. These innovations were enabled through a flexible, open minded approach and entrepreneurial spirit.

DTLF strives to create a similar situation for **sharing data to optimize logistics and supply chains**. The approach is to agree on common rules of participation, as well as relevant functional specifications that would open up the possibility for all stakeholders and data platforms to share information supporting their processes and allowing innovative services. **A commodity for data sharing** is to be created that enables logistics enterprises, transport operators, regulators and law enforcement agencies to efficiently perform and optimize their processes and compete in the digital era. The keywords for such an approach are full inclusiveness of all logistics stakeholders and public administration, legal compliance, safety, security, and sustainable logistics operations. Its' benefits include:

- **Shippers and consignees** to exchange products across a reliable, sustainable multimodal logistics network according to goals they have agreed amongst themselves.
- **Logistics Service Providers** to have full visibility of alternative multimodal transport solutions based on (predicted) available capacity and quality of the underlying

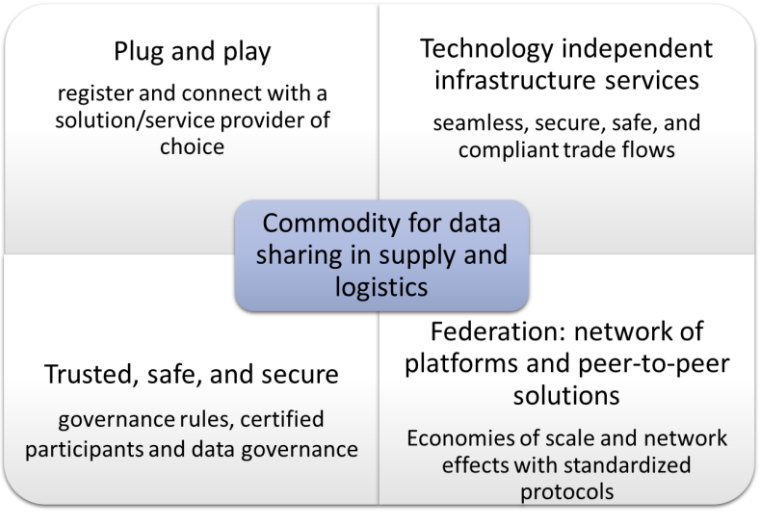
physical infrastructure, and to manage logistics chains in a single sourced system, sharing (access to) data electronically with carriers and other players along the entire supply chain.

- **Carriers** to gain visibility of demand patterns development and utilization of capacity, to align service design and capacity planning as well as dynamic chain scheduling, and to optimize positioning of their assets according predicted demands of shippers and consignees.
- **Law enforcement agencies** to have direct access to and be able to receive or retrieve relevant data for performing their task.
- **Infrastructure providers** to optimally predict and coordinate traffic flows, enabling them to make timely investments in upgrading the infrastructure.

Seamless data interconnectivity is the ultimate goal. This would foster the ability to bundle shipments and transport capacity, as well as, allow for optimal utilizing existing modes, synchronization of processes to eliminate waiting times, the capability to handle unforeseen situations caused by accidents or incidents (resilience), and cost reduction by prevention of consigned shipments.

This commodity is called a federative platform, and is foreseen to bridge and interconnect many commercial and community platforms, by integrating various technical solutions, different providers, and a number of individual systems of large public and private stakeholders. It acts like one system to each player by offering controlled access to data and standardized services supporting safe, secure, and compliant logistics operations. Consequently, everyone can select a provider of choice, just like in the Internet or in mobile telephone networks.

Thereto, the federative platform provides an overarching set of mutually agreed rules, allowing players in the supply chain to access and electronically share data. It also facilitates interaction between governments and businesses, enabling effective push and pull based reporting of information. The organization of such environment requires a proper governance model, in order to safeguard effective and non-discriminatory engagement of the partners involved.



The commodity hides to their users the complexity of different technologies, open standards, and the internal structures of the participating parties of the different platforms, such as data pipeline organizations, commercial companies and intergovernmental (peer2peer) data exchange bodies.