Multimodal data sharing

Federating data sharing platforms across different transport modes

The challenges of sharing data within the air cargo sector are felt in all transport modes. In different modes, whether maritime, road, rail, inland waterways or indeed air, there is a strong reliance on legacy processes and paper. Many bespoke platforms are operated across the modes and a lot of effort has been made by organizations such as UN/CEFACT and WCO to provide global standards, but frictionless multimodality remains elusive.

IATA has joined a substantial EU effort through the Digital Transport & Logistics Forum (DTLF) and is also a member of the FEDeRATED consortium co-financed by the EU Innovation and Networks Executive Agency (INEA). This consortium is putting significant resources into the development of best practices and guidelines towards multimodal data sharing and together with the DTLF will provide a basis for future EU directives.

Beyond ONE Record

In this series of ONE Record Insights we have exclusively focused on the standards for (semantic) web-based data sharing within the air transport mode. This in itself is a tremendous challenge and as the COVID19 crisis has made very clear: full digitalization of air cargo is an important component of the new air cargo industry that emerges from the crisis.

But cargo neither starts nor ends in the 'air'. In all cases, freight is transported by road, rail, maritime and inland waterways before it gets to the airport for loading into an aircraft. The need for continuity in the flow of data from the shipper to the consignee across these modes is naturally required.

Digital Transport & Logistics Forum (DTLF)

The DTLF is a forum that brings together expert stakeholders from different transport and logistics communities, from both the private and the public sector, with a view to build a common vision and road map for digital transport and logistics. The DTLF also contributes to identifying needs for measures at EU level and supporting their development and implementation where relevant.

Technically, the DTLF is a consultative body that ensures that all voices within the EU are heard. In practice it is a powerful platform where transport and logistics experts meet and share their concerns, challenges as well as solutions and vision.

IATA has been a member since 2017 and has pushed hard to ensure that air transport has its rightful place within these discussions.

The first term of the DTLF lead to two important proposals:

- Recommendations and preparatory work for the proposal for a regulation on electronic freight transport information (EFTI).

- A concept of digital corridor information systems ('federative platform'), aimed to facilitate data sharing between all types of supply chain stakeholders through connecting existing cross-border IT platforms and services.

The EFTI proposal has been approved by the Council of the EU and the specifications for EFTI are now being developed by the DTLF.

FEDeRATED consortium

To support the EU and the DTLF in developing specifications for EFTI and to elaborate the concept of the 'federative platform', the EU Innovation and Networks Executive Agency (INEA) has co-funded two consortia: FEDeRATED and FENIX. The first one focuses B2A (Business to Administration) data sharing whereas the second focuses on B2B.

The FEDeRATED consortium is composed of the Netherlands, Sweden, Finland, Spain, Italy, Luxemburg and IATA.

IATA is an active member of the FEDeRATED project and uses this platform to share its experience with the ONE Record data sharing standard and to work with the other modes in developing common approaches to semantics, architecture, security, business processes, etc. that should all follow the same patterns across the modes.
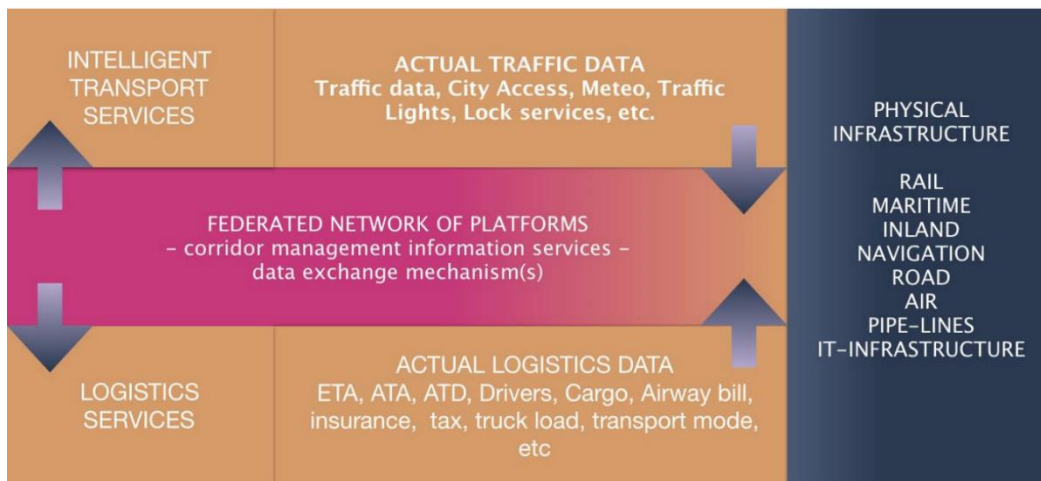
Federated Network of Platforms

Multimodal transport raises questions that are different from those we may find in air transport. The diagram above, we see that in other modes, the transport infrastructure data is at least as important as the freight data whereas in air cargo things like operational flight routing and weather conditions are a separate matter that doesn't directly concern the logistics stakeholders. They just need to know when the freight arrives.
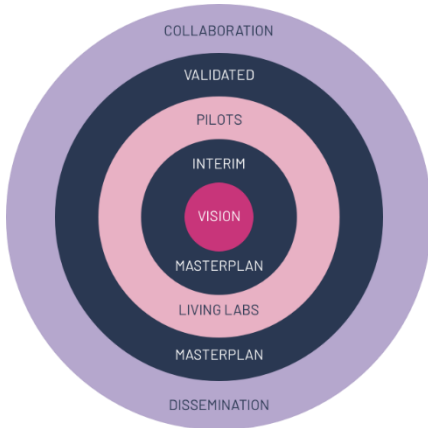
Fortunately, air cargo and its sibling modes have far more in common than not. A high level look at the key concepts on the right, shows that cargo logistics and transport is fundamentally the same across the modes.
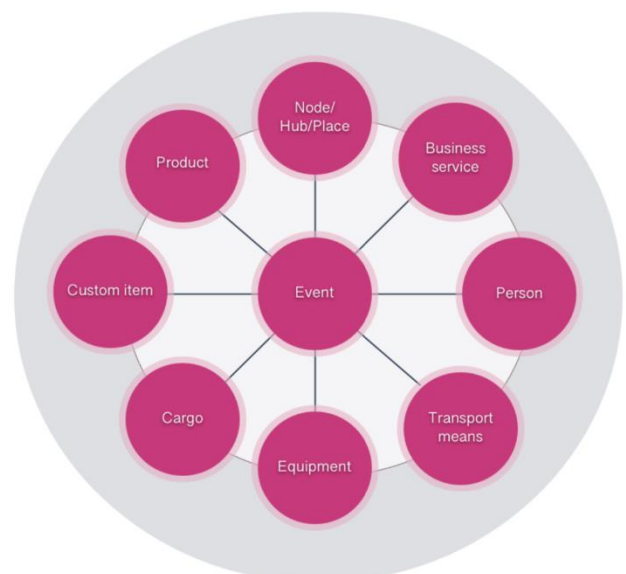
Main cargo concepts across all modes

Living Labs

The FEDeRATED project is broken into 5 project components, as shown below:

The first two elements have been delivered:

- Vision

- Interim Masterplan

It is worth clicking on these links: the work is substantial and important for multimodal digitalization.

The focus is now on the Living Labs. These are a dozen or more projects involving many stakeholders in logistics & transport. In addition to the ONE Record pilots, there is work centered on maritime ports in Sweden, multi-modal salmon transport from the North Atlantic via Norway and Finland to the fish markets in Japan, rail projects in Spain, cross-Benelux road-air transport, substantial trucking operations in Italy and more.

The purpose of these Living Labs is to test, validate and evolve the Masterplan for Federated Platforms.

A vibrant community of willing partners

Perhaps the most important part of both the DTLF and the FEDeRATED project are the men and women that want to evolve digital transport and logistics. We have a shared vision that goes beyond specifications and projects.

This vision for truly digitalized logistics and transport extends beyond Europe, of course. The components in the laptop or phone that you are reading this on, come from every corner of the world and the need to track and manage the global supply chain is a hard requirement for all.

That is the vision of the Europeans in these projects and this is echoed by all stakeholders around the world, from China to America and everywhere in between. Digitalization of logistics and transport will happen. It has to, because the world wants it to.

More info at:

https://www.iata.org/one-record/

http://www.federatedplatforms.eu/

https://www.dtlf.eu/