

LL #17 EU-Gate eCMR/eFTI OneAPP Access

FACTSHEET

10 MARCH 2022

A. GENERAL (Business case)

1. Objectives

- Transport tracking
- The development of an eCMR/eFTI common access point compliant with the EU eFTI regulation enabling data sharing and in sync with global (UNCEFACT, IATA) and EU semantics and data formats
- Demonstrate how transport and logistics operators can share with a single connection the data in their ERP and Transport Management Systems with trusted business partners and authorities.
- Configure real-world multi-modal use cases as a basis for a “OneAPP for Authorities” and API Gateway demonstrator as an input to the Benelux and national e-CMR/eFTI pilot projects.
- Compliance monitoring
- Reduced administrative burden for commercial, transport and compliance reporting to control authorities as well as to transport and logistics service providers

2. Main emphasis

The main emphasis of the EU-Gate pilot project is on the digital integration of road transport within global, often multimodal, supply chains whereby API have become widely accepted to by any party to share the transport and logistics information. In combination with robust security architectures, these API allow transport and logistics service providers to share their data at source. Two impacts are aimed at:

- Logistics operators do no longer forward EDI messages with the goods. Ideally, they now share events as these occur in a publish/subscribe interaction pattern, but in practice sharing messages can also continue using existing asynchronous methods including AS4 and often secure e-mail.

Before: a CMR = transport agreement + two physical hands over of the goods requiring 3 signatures and 4 physical copies.

Today: an e-CMR = basic master data representing the transport agreement + 2 events, each validated by notary (sometimes blockchain) type of function

- As the data is available at the source, logistics operators can start using linked data. For example, in multi-modal air-cargo, the road transport operator can use an e-CMR for road transport can include with multiple digital links to air and house waybills, customs declarations and electronic documents that are part of the shipment documentation.

The EU-Gate access point is being designed as a gateway for global supply chains into a European federated data sharing architecture. It aims to be compliant with the upcoming EU eFTI regulation whereby mandated authorities “pull” datasets of transport information that are maintained by economic operators and certified eFTI service providers. Annual releases of the e-CMR/eFTI access point and OneAPP for Authorities mobile application and the execution of a number of multimodal use cases are foreseen. The current release (February 2022) of the e-CMR/eFTI OneAPP living lab includes a number of real-world anonymized air-cargo + road transport use cases including 63 “digital twin” datasets for shipments, transports and consignments, sharing 880 milestone events.

3. Challenges

- Market complexity for SME.
SME transport and logistics service providers participating in global multi-modal supply chains want to share in near to real-time the data in their internal ERP and transport management systems with business partners and authorities for commercial, transport and compliance purposes. As easy as DropBox. As secure as e-Banking.
- Fragmented market and legislation:
 - Logistics and IT service providers can obtain significant efficiency improvements using electronic consignment notes. Early adopters aim to start implementing end-to-end digital processes that will be compliant to the upcoming EU 2020/1056 eFTI regulation that becomes applicable in August 2025 eventually through the Benelux e-CMR/eFTI pilot project. Various market initiatives struggle to find the appropriate approach
 - National, regional, and European government authorities need to understand how they can implement the EU eFTI regulation whereby

EU Member States (MS) must be able to accept transport freight information in an electronic format that is harmonized across the EU.

4. Transport mode

Road, within multimodal air-cargo supply chain

5. EU Map Focus

[Rhine-Alpine Corridor](#) (Netherlands/Belgium–Germany–Switzerland–Italy)
[North Sea-Mediterranean Corridor](#) (Ireland–Belgium-Netherlands and Ireland–France)

6. Geographical coverage

Benelux, Germany, France

7. Actors

- E-CMR Providers that participate in the Benelux e-CMR/eFTI Pilot project
 - DashDoc
 - Pionira
 - Collect & Go
- Public administrations participating in e-CMR/eFTI related projects
 - Benelux e-CMR/eFTI Pilot Project
 - Luxemburg Ministry of Mobility and Public Transport
 - Other Luxembourg Administrations within the context of the Luxembourg eFTI implementation
 - Dutch Ministry of Infrastructure and Water management
 - Belgium Federal Ministry for Transport
- DIGI-Transit e-CMR Consortium
- EUROMOVERS removal and forwarding consortium, Luxembourg based members
- Luxembourg Cluster for Logistics
- UN/CEFACT - projects (RDM2API and IGL) with a focus on a UNECE JSON-LD vocabulary and SSI (Self Sovereign Identities)
- GS1 - projects with a focus on the business-to-business integration of e-CMR platforms and GS1 verifiable credentials

- I4Trust e-CMR Hub Initiative – EU Horizon 2020 project. The OneAPP for Authorities will be configured as a service within the iShare and FIWARE marketplaces.
- Hegelmann Group – IT division ABONA-ERP
- UNECE, EURASIA e-CMR Expert Group
- Providers of Self Sovereign Identity services and expertise. (Walt.ID, Transmute)

8. Forecast scaling outside LL

A first implementation of an e-CMR/eFTI common access point can be instrumental for many EU Member States implementing the eFTI Regulation. This will also set the scene for the appropriate comitology procedures. In addition, many stakeholders seek an opportunity to share data derived from electronic documents into federated data sharing practices.

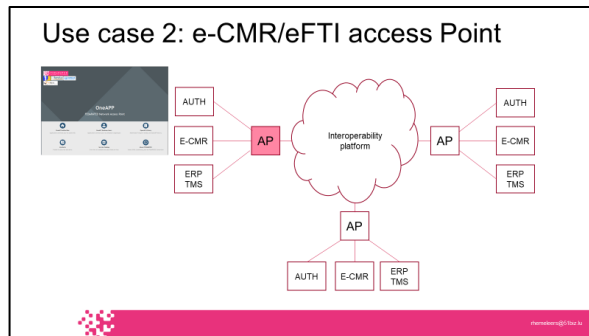
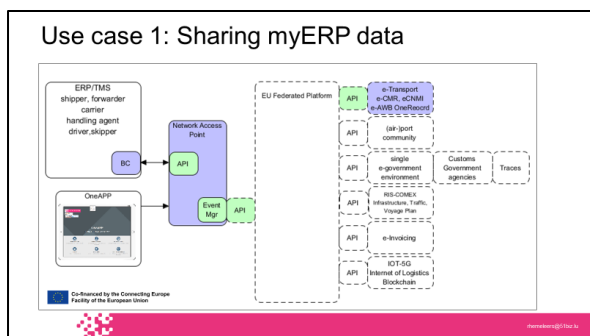
The roadmap and stakeholder group of the FEDeRATED Living Lab #17 is designed for a significant scaling outside the living lab:.

1. The living lab has a core focus of the integration of a European eFTI data space within global supply chains using global standards such as UN/CEFACT MMT (used by the e-CMR and eFTI) and GS1.
The deliverables of the living lab, especially how to “share data at source”, have been closely monitored by different stakeholder groups including UNECE, UN/CEFACT, EURASIA and GS1.
2. The e-CMR/eFTI access point has been designed to become part of the EU eFTI interoperability solution that will be implemented as from 21 August 2025.
3. The e-CMR/eFTI data model will become a significant input to a revision of the UN/CEFACT e-CMR Consignment Note specification that will be planned when the EU eFTI common dataset specification will be released by the European Commission (2023Q1)

B. TECHNICAL SETTING

9. ICT vs physic

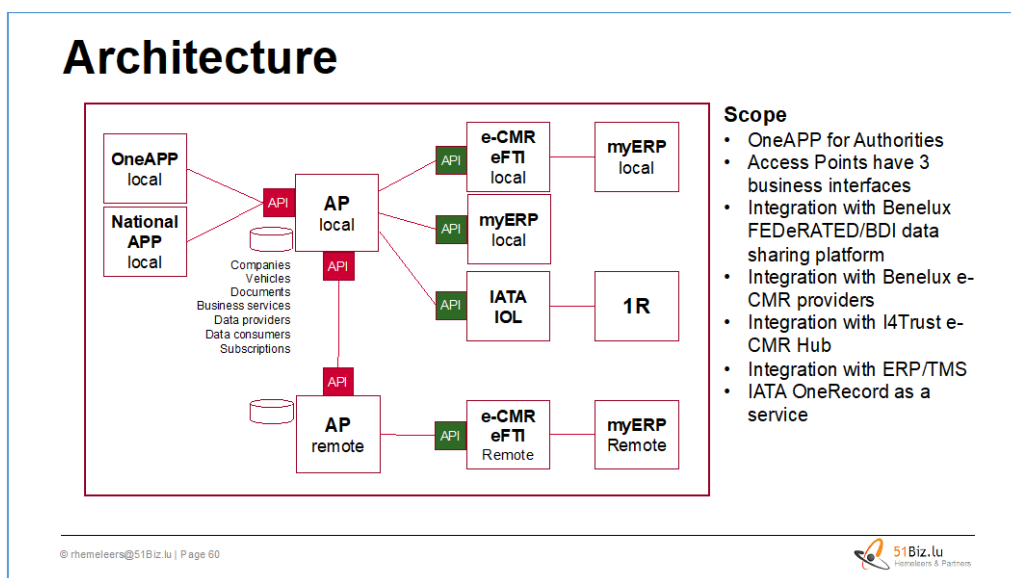
The e-CMR/eFTI access point starts from two complementary use cases that explore the data sharing architecture from the perspective of the logistics operator (use case 1) and from the perspective of the EU road control authorities designing the EU interoperability platform that is necessary to be in place by August 2025 when the eFTI regulation becomes fully applicable.



The architecture, and the “OneAPP for Authorities” will be finetuned during the course of the pilot project taking into account the FEDeRATED architectural building blocks and the emerging EU eFTI reference architecture that will be part of the secondary eFTI regulation that should be presented by the European Commission in 2023.

The key components and interfaces of the access point are:

- An API that allows authorities to connect and access data from private service e-CMR and eFTI service providers
- Multiple types of data interfaces (API, AS/4, Secure email)
- A service register storing the meta data provided by economic operators.
- Index – the set of events shared between a data holder and data users.



This Living Lab deals with the following FEDeRATED global features:

- Language
- Identity
- Findability
- Access

10. DTLF implementation option

D. Peer2Peer and platforms

The e-CMR/eFTI access point living lab is configured as a gateway for various implementation options

C. Organisational issues

11. Success factors

- Ability to configure real-world multimodal use cases to create a common insight how the EU eFTI regulation can be implemented.
- Shared insight by participating stakeholders
- Ability to demonstrate the interoperability of global and European semantics
- New service or additional capabilities for various data users
- Ability to present the data within internal ERP and TMS systems in formats that are compliant with the FEDeRATED ontology, EU eFTI, IATA OneRecord and UNCEFACT standards.

12. Risks

- A delay of the availability of the Benelux e-CMR/eFTI common access point definition that is necessary to configure a privately operated access point as an eFTI platform.
- Lack of common insight in the data, processes, procedures, and technology reference architecture that is necessary for the implementation of the eFTI regulation.
- Lack of digital competence of the stakeholders, concerning the (FEDeRATED) ontology.
- The interoperability of the FEDeRATED ontology with global UN/CEFACT and WCO standards.
- Some stakeholders preferring to use propriety data space, in particular when key priority is sharing data with customs authorities.

13. Timing

| LL#17 | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | | 2023 | | | |
|-------------------------------|----------------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Preparations | [Timeline bar] | | | | | | | | | | | | | | | | | | | |
| Planning and scoping | [Timeline bar] | | | | | | | | | | | | | | | | | | | |
| Stakeholder engagement | [Timeline bar] | | | | | | | | | | | | | | | | | | | |
| LL infrastructure development | [Timeline bar] | | | | | | | | | | | | | | | | | | | |
| Testing & piloting | [Timeline bar] | | | | | | | | | | | | | | | | | | | |
| Iteration & process analysis | [Timeline bar] | | | | | | | | | | | | | | | | | | | |
| Operational trials | [Timeline bar] | | | | | | | | | | | | | | | | | | | |
| Feedback & scaling | [Timeline bar] | | | | | | | | | | | | | | | | | | | |

14. Contact

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