Organisation intergouvernementale pour les transports internationaux ferroviaires
Zwischenstaatliche Organisation für den internationalen Eisenbahnverkehr
Intergovernmental Organisation for International Carriage by Rail

INF. 8

07/09/2021

Original: English

Joint Coordinating Group of Experts
(Video conference, 7 and 8 September 2021)

Agenda item 3: Review of and report on the list of priority items agreed at the previous meeting

4 c – Operation and maintenance: telematics and the TAF TSI

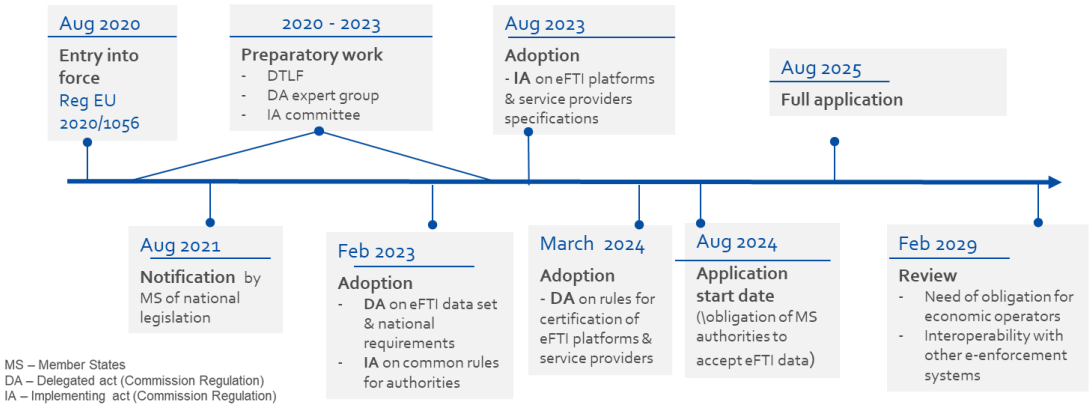
ITEM 6: Possible interaction between TAF TSI and RID 1.4.2.2.5, 1.4.3.6 (b) and 5.4.0 to be analysed

Transmitted by France


FENIX
NETWORK
4th meeting of the Joint Coordinating Group of Experts
Jean-Philippe Méchin
Aix-en-Provence, 7 September 2021
RÉPUBLIQUE FRANÇAISE
Cerema


Regulations status

General state of play – Planning of eFTI Directive

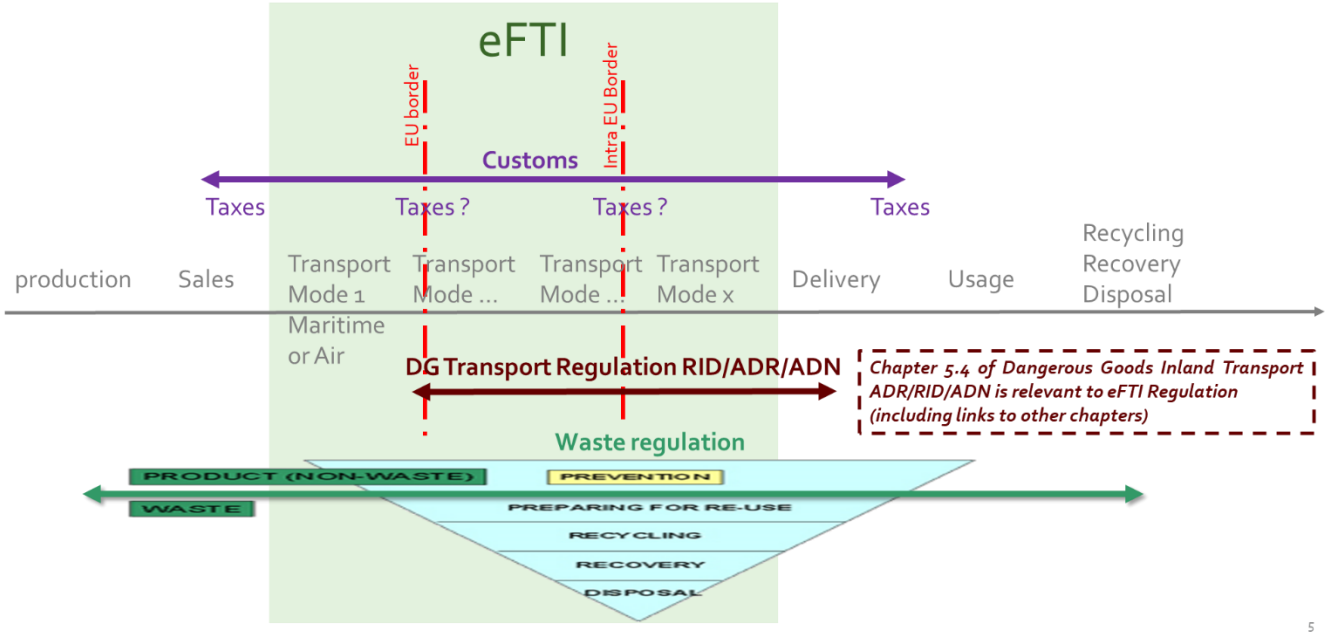


3

eFTI linked with ADR, ADN & RID

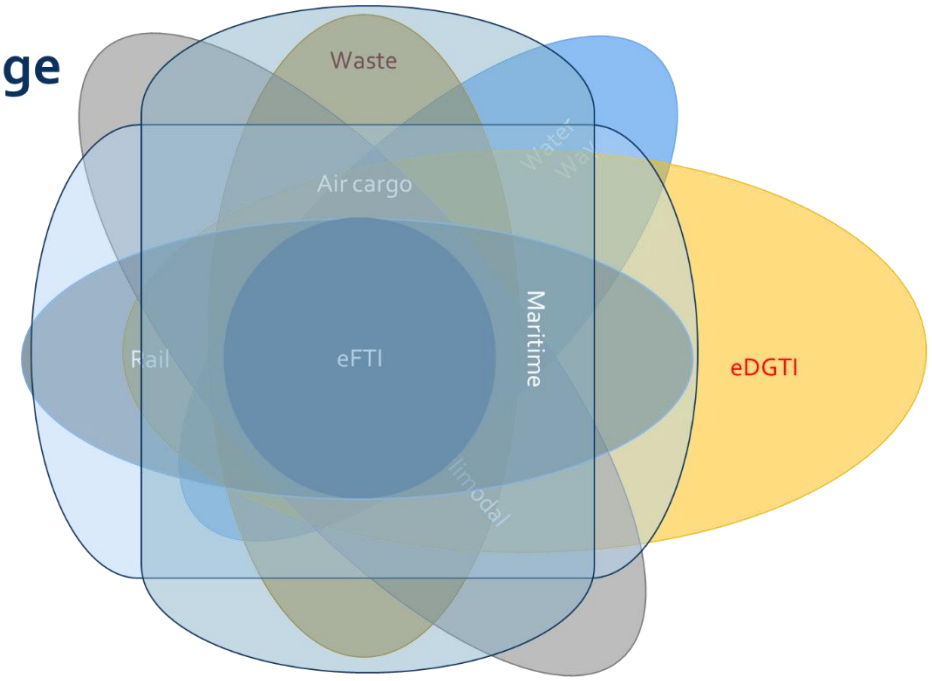
- Chapter 5.4 of Part 5 of Annex A to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), concluded at Geneva on 30 September 1957, as referred to in Section I.1 of Annex I to Directive 2008/68/EC of the European Parliament and of the Council (14);
- Chapter 5.4 of Part 5 of the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID), appearing as Appendix C to COTIF concluded at Vilnius on 3 June 1999, as referred to in Section II.1 of Annex II to that Directive;
- and Chapter 5.4 of Part 5 of the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN), concluded at Geneva on 26 May 2000, as referred to in Section III.1 of Annex III to that Directive;

Coverage of the regulations



5

Data coverage



Approved guidelines and Data model

For electronic document in DG Transport, UNECE Joint Meeting Experts (WP15/AC1) has elaborated/defined/approved:

- Guidelines for functional and technical aspects, including the architecture and data exchange principles (http://www.unece.org/fileadmin/DAM/trans/doc/2019/dgwp15ac1/ECE-TRANS-WP15-AC1-2019-44e.pdf)
- A data model (eDG Transport Information) including UML – XML

- In line with ADR/RID/ADN regulation
- Interoperable with rail TAF-TSI and with eCMR

This work is already contributing to DTLF SG1 team 1 on data modelling, and it can contribute to DTLF SG1 teams on functional and technical aspects.

High level requirements issued from TP1/TP2 architecture

- An architecture which is concentrated on B2A exchange with:
  - Security (Encrypted exchange based on double authentication and certificates),
  - Data sovereignty (Data are at Content manager level TP2) to guaranty that data are not spread everywhere.
  - Nonrepudiation behaviour (Signature and archives of exchange according to the regulation, 3 months)
  - Trustiness (Authority must indicate in the request who, where, for which purposes request is done and Carrier must guaranty that the electronic data are describing fairly the goods)
- The guidelines are technology independent (Platform Independent Model)
- The electronic data format fulfils the DG regulation.
  The name is eDGT Information.
- This format is link with standards XML and WSDL which are Technical choice (Platform Specific Model).

Approved guidelines and Data model (2)

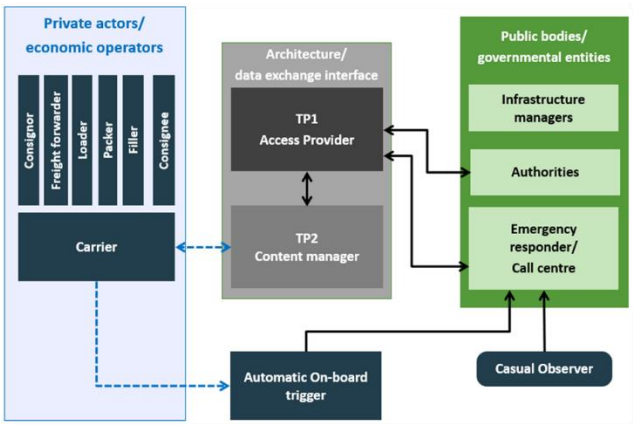
What needs to be documented for DGT (source INRS ED134 – according to ADR EU Agreement on Dangerous Goods Transport):

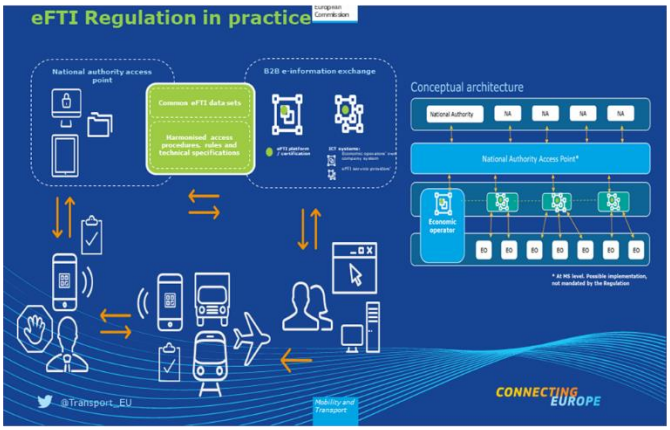
A) Transport Document:
- ONU number preceded with « UN »;
- Official transport designation;
- Sticker Model Numbers;
- Packaging group;
- Quantity and packaging description;
- Shipper's name and address;
- Consignee's name and address;
- Mention of any particular agreement;
- Tunnel Restriction Code;
- Any additional necessary mention (e.g. waste, environmental danger, ...)

B) Written instructions to vehicle staff:
- Instructions on how to handle the dangerous goods (see ADR);

C) Training Certificate of Carrier Driver (document available on request by employee and competent Authority

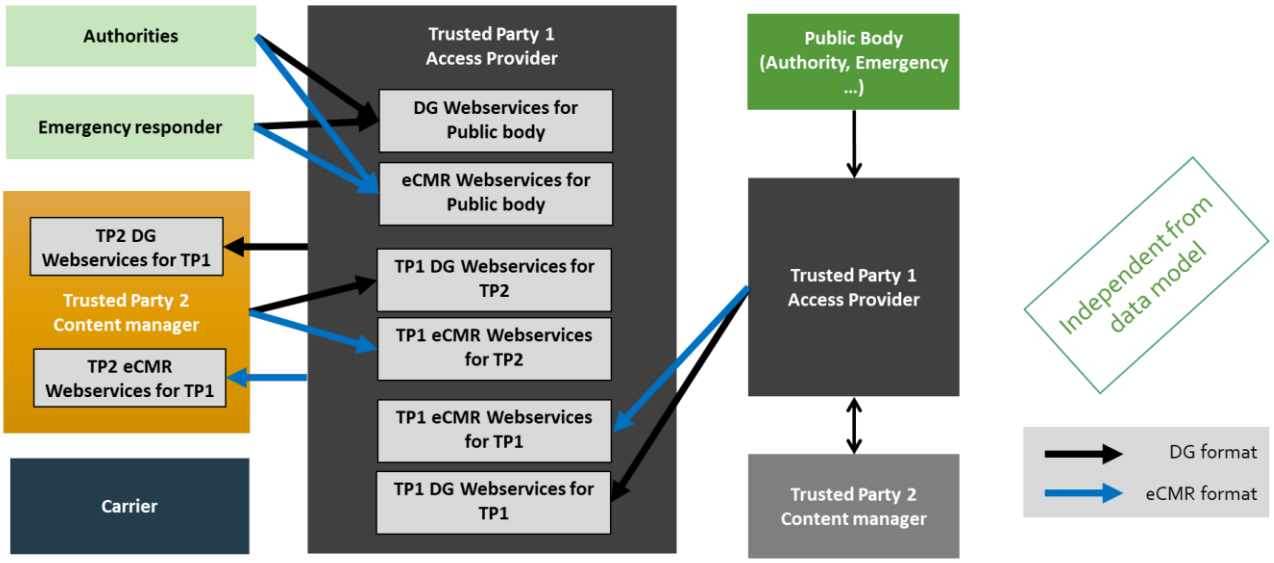
Contribution of RID/ADR Guidelines to DTLF / eFTI



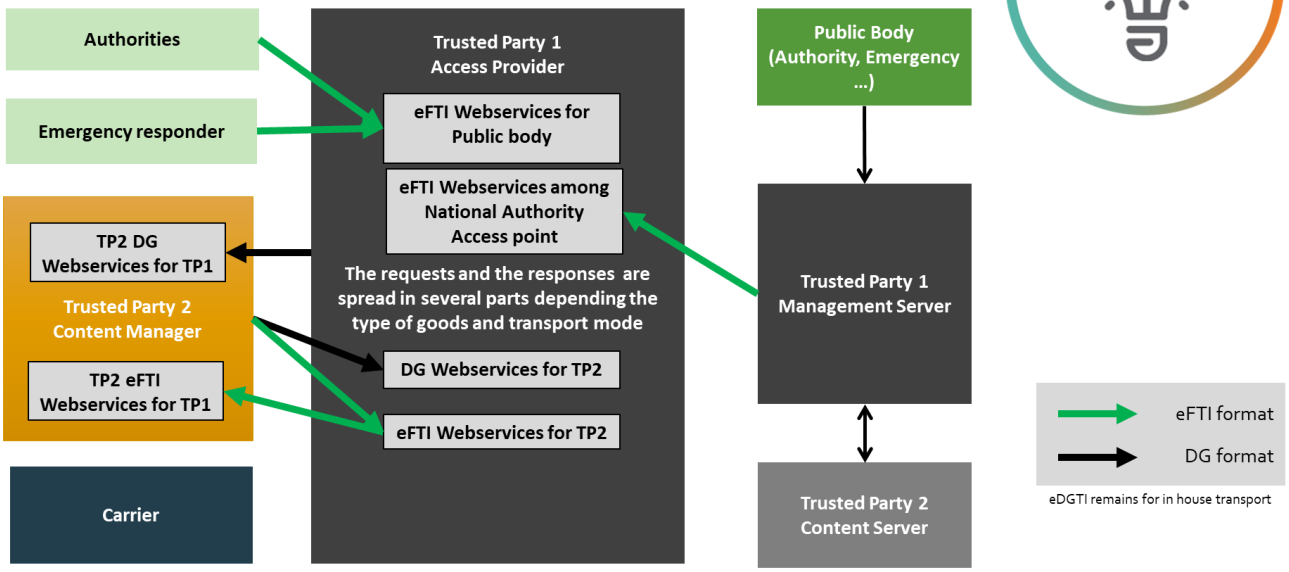


- *Access Provider (TP1) could be seen as a National Authority access point*
- *Content Manager (TP2) could be seen as a B2A e-information exchange*

Architecture for transition period before eFTI: security principles for data exchange

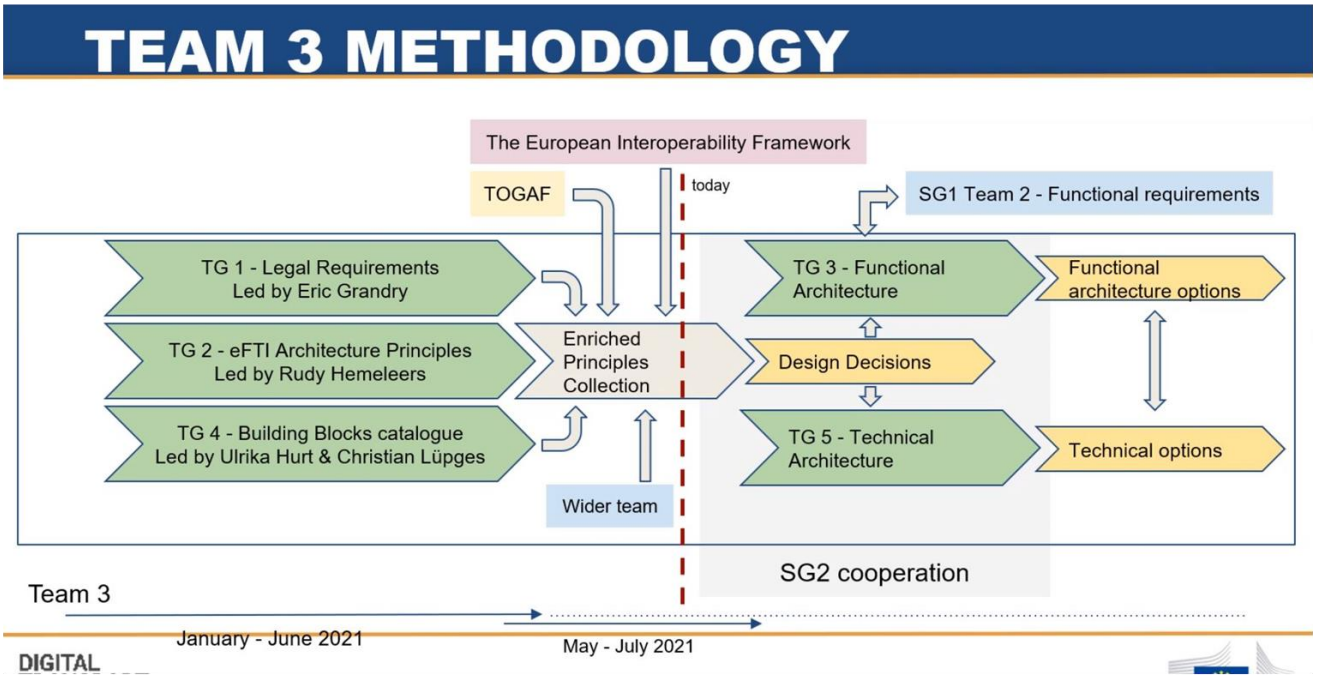


Flexible adaptation including eFTI: security principles for data exchange



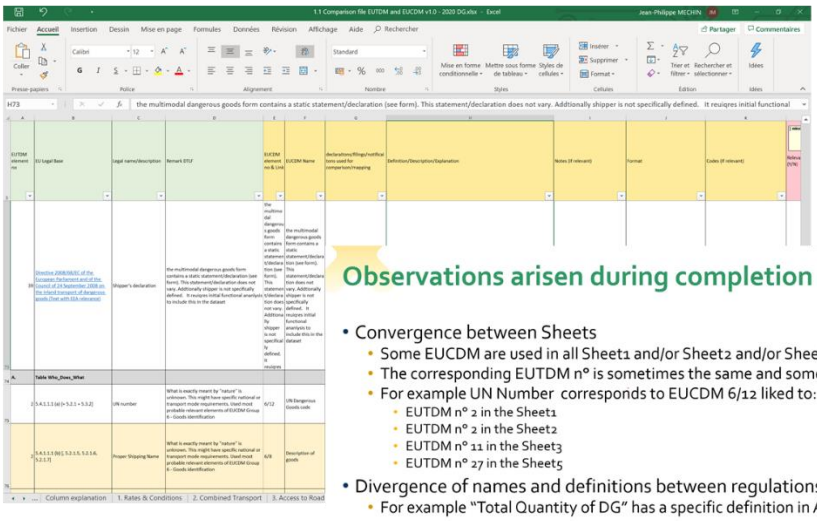
On going work

Status of work within DTLF



Analysis done with several data model

- EU-CDM
- e-CMR
- MMT-RDM
- UN-CEFACT



Observations arisen during completion

- Convergence between Sheets
  - Some EUCDM are used in all Sheet1 and/or Sheet2 and/or Sheet3 and in Sheet5
  - The corresponding EUTDM n° is sometimes the same and sometimes not.
  - For example UN Number corresponds to EUCDM 6/12 liked to:
    - EUTDM n° 2 in the Sheet1
    - EUTDM n° 2 in the Sheet2
    - EUTDM n° 11 in the Sheet3
    - EUTDM n° 27 in the Sheet5
- Divergence of names and definitions between regulations
  - For example "Total Quantity of DG" has a specific definition in ADR/RID/ADN
- Procedure to add required new data elements in Sheet5 unclear

To define the EU-TDM for eFTI

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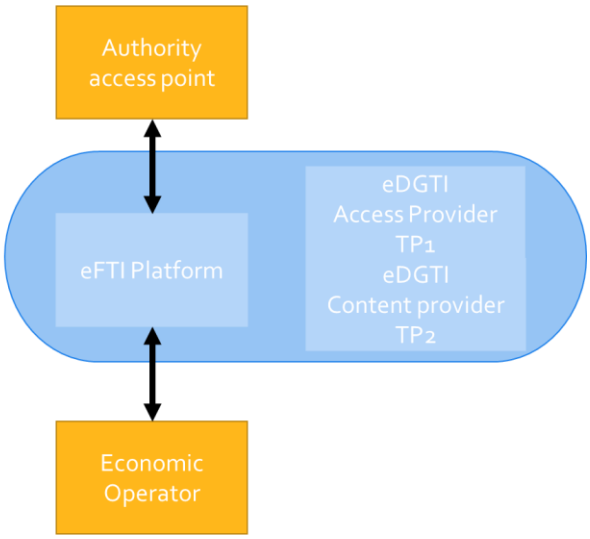
Analysis of 3 options

- **Full integration**
- Referencing via
- Partial integration

- The analysis shows that:
  - Referencing seems the best solution
  - Full integration needs a strong coordination to merge eDGTI and EU-TDM (Regulation based data model into a trade based data model)
  - Partial integration is the most complex to deploy and maintain



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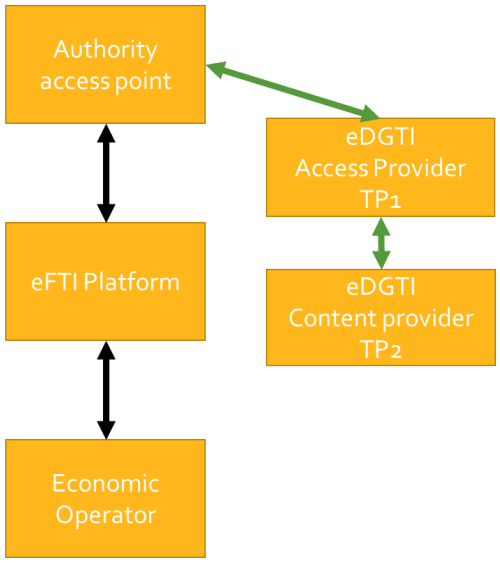

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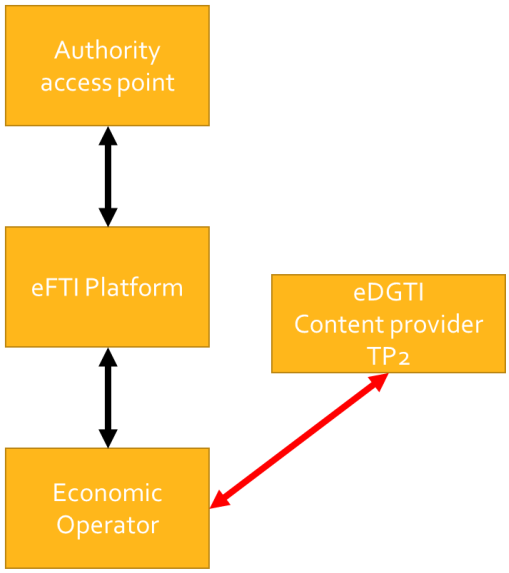

Architecture principles (DTLF SG1/Team3/Task2)

P1	Data sovereignty
P3	Trust among participants, authentication, and non-repudiation
P5	Roles and responsibilities
P7	Data at source, decentralized approach
P9	Architecture implementation as platform specific model
P11	Generic principle of providing the data
P13	Level playing field
P15	Support of concurrent paper and digital processes
P17	Modularity
P19	Holistic Thinking
P21	Federation of exchange networks
P23	Distributed development and maintenance

P2	Data at source, Pull/Push
P4	Security, appropriate authentication
P6	Once-Only Principle
P8	Interoperability and integration with existing solutions and standards
P10	Technology independence, platform specific model
P12	Open specifications and standards
P14	Benefits outweigh investments for all types of participants
P16	Scalability
P18	KISS (keep it small and simple)
P20	eFTI Discovery
P22	Open Innovation
P24	Sustainability

First outcome to ease telematic implementation and to help convergence among data models

Offering an unique ID for each single UN number and single definition ?

The table A contains:

- 2932 lines from 0004 to 3549
- Some UN number are differentiated by :
  - Packing group
  - Danger label
  - Proper shipping name

Analysis done

UN with x different definitions	
1	1868
2	229
3	148
4	24
5	7
6	21
8	2
9	2
11	1
12	2

FENIX NETWORK

www.fenix-network.eu

Thank you for your attention

Presentation done with the contribution of:

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