

Data sharing with freight rail : the TAF-TSI

Connecting EU Insights - Rail Last Mile
28.04.2021



TAF TSI

Railway Undertaking -
Infrastructure Manager
communication*

Railway
Undertaking
function**

Wagon
keeper
function

Railway Undertaking:

- Path Request
- Train Preparation
- Train Running Forecast
- Service Disruption Information
- Train Location
- Interchange Reporting
- Data Exchange for Quality Improvement

Infrastr. Manager:

- Path Request
- Train Preparation
- Train Running Forecast
- Service Disruption Information
- Train Location
- Interchange Reporting
- Data Exchange for Quality Improvement

Same as "Railway
Undertaking -
Infrastructure
Manager
communication"

+

- Consignment Note data
- Shipment Estimated Time of Interchange / Arrival
- Wagon Movement

Rolling Stock
Reference
Databases

Common
Compo-
nents
for
TAF TSI

Imple-
men-
tation

Moni-
toring

TAF TSI as process and functions

Planning...

Operation...

After...

Consign-
ment Note*

Path
Request

Train
Preparation

Train
Running
Forecast

Wagon
Movement

Post-Trip

- Wagon
loads

- Open
Access

- Train
Composition

- Train Running
and forecast

- Estimated Time
of Arrival (ETA)

- To improve
the quality
and
productivity

- Wagon
release

- One Stop
Shop

- Train ready

- Service
Disruption

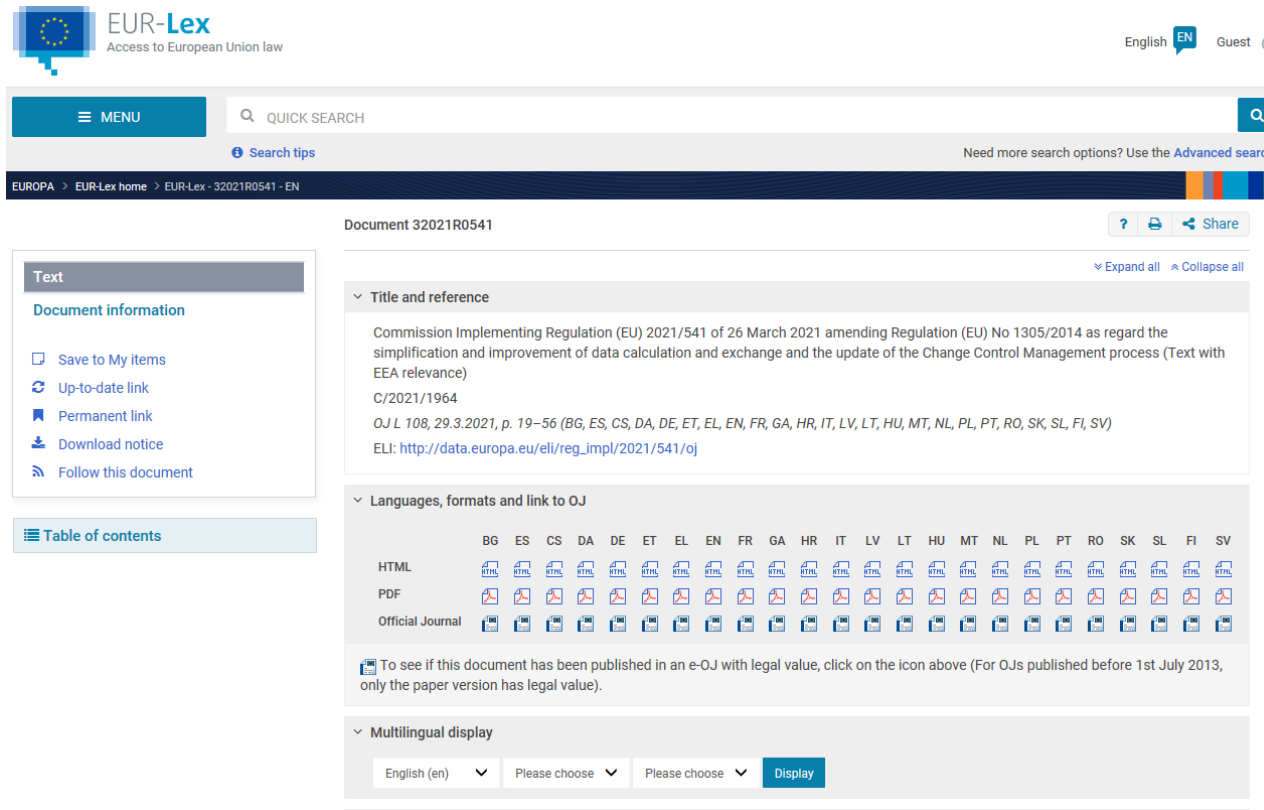
- Wagon events

- Rolling Stock
Reference
Databases

* Based on CIM/SMGS Consignment Note

- The TAF TSI regulation (EU) 2021/541 was published on 26.03.2021 in the EU Official Journal:

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2021.108.01.0019.01.ENG&toc=OJ:L:2021:108:TOC



The screenshot shows the EUR-Lex website interface. At the top, there is the EUR-Lex logo and the text "Access to European Union law". The language is set to English (EN) and the user is logged in as a Guest. A search bar is visible with the text "QUICK SEARCH" and a search icon. Below the search bar, there is a navigation menu and a search tips link. The main content area displays the document "Document 32021R0541". The document title is "Commission Implementing Regulation (EU) 2021/541 of 26 March 2021 amending Regulation (EU) No 1305/2014 as regard the simplification and improvement of data calculation and exchange and the update of the Change Control Management process (Text with EEA relevance)". The document is published in the Official Journal of the European Union (OJ L 108, 29.3.2021, p. 19–56). The document is available in multiple languages (BG, ES, CS, DA, DE, ET, EL, EN, FR, GA, HR, IT, LV, LT, HU, MT, NL, PL, PT, RO, SK, SL, FI, SV) and in multiple formats (HTML, PDF, Official Journal). The document is also available in a multilingual display format.

Document 32021R0541

English EN Guest

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Title and reference

Commission Implementing Regulation (EU) 2021/541 of 26 March 2021 amending Regulation (EU) No 1305/2014 as regard the simplification and improvement of data calculation and exchange and the update of the Change Control Management process (Text with EEA relevance)

C/2021/1964

OJ L 108, 29.3.2021, p. 19–56 (BG, ES, CS, DA, DE, ET, EL, EN, FR, GA, HR, IT, LV, LT, HU, MT, NL, PL, PT, RO, SK, SL, FI, SV)

ELI: http://data.europa.eu/eli/reg_impl/2021/541/oj

Languages, formats and link to OJ

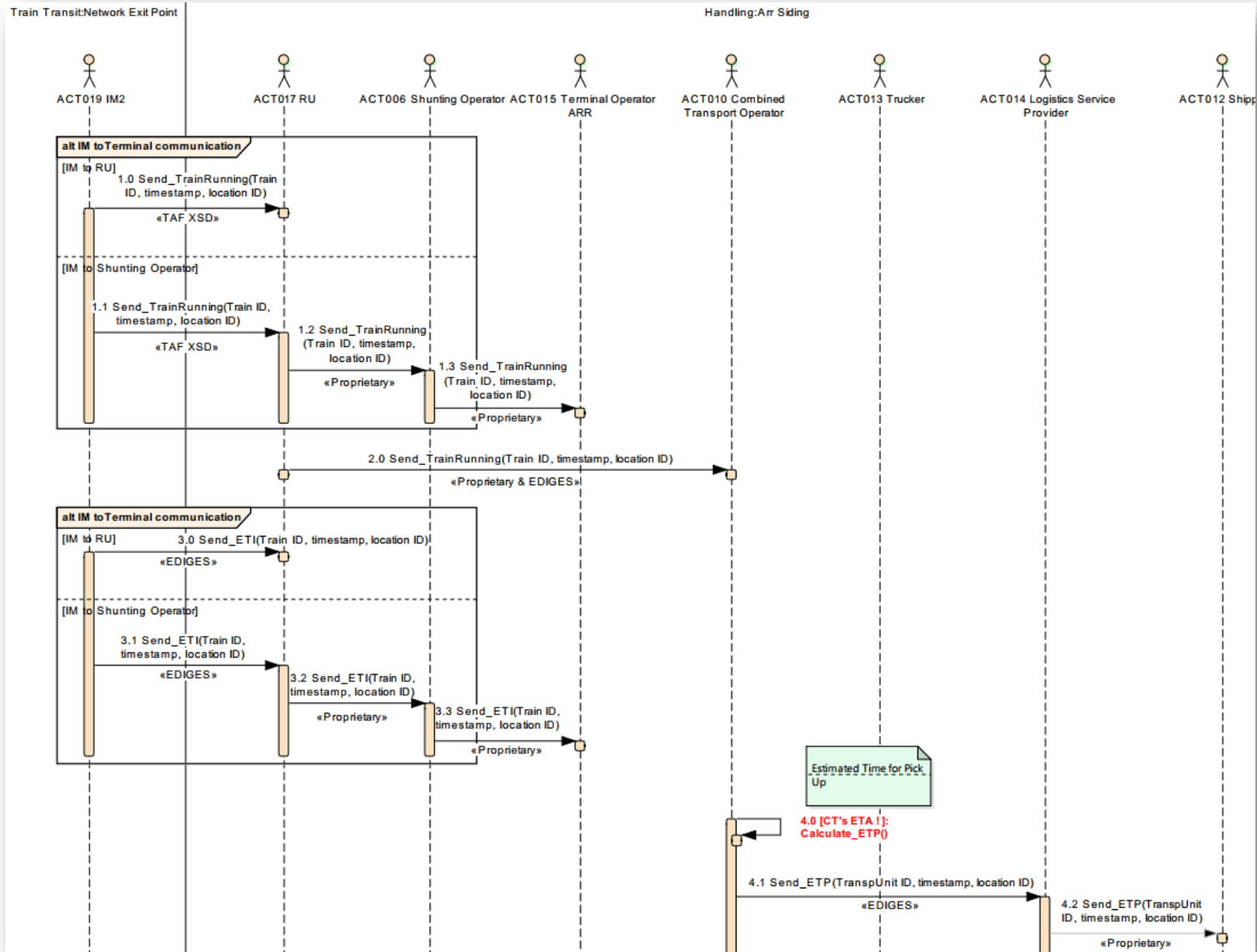
	BG	ES	CS	DA	DE	ET	EL	EN	FR	GA	HR	IT	LV	LT	HU	MT	NL	PL	PT	RO	SK	SL	FI	SV
HTML																								
PDF																								
Official Journal																								

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Multilingual display

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Example: How to exchange information in TAF TSI ?



Example of information exchange: TAF ETA Alert Message

```
<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSpy v2017 sp2 (x64) (http://www.altova.com)-->
<ns1:AlertMessage xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:ns1="
http://www.era.europa.eu/schemes/TAFTSI/2.1" xsi:schemaLocation="http://www.era.europa.eu/schemes/TAFTSI/2.1
taf_cat_complete_baseline_2.1.xmd.xsd">
  <ns1:MessageHeader>
    <ns1:MessageReference>
      <ns1:MessageType>5007</ns1:MessageType>
      <ns1:MessageTypeVersion>2.1</ns1:MessageTypeVersion>
      <ns1:MessageIdentifier>12345</ns1:MessageIdentifier>
      <ns1:MessageDateTime>2017-12-17T09:30:47Z</ns1:MessageDateTime>
    </ns1:MessageReference>
    <ns1:MessageRoutingID>01</ns1:MessageRoutingID>
    <ns1:SenderReference>ftp://eleta.com/upload/</ns1:SenderReference>
    <ns1:Sender ns1:CI_InstanceNumber="1">1088</ns1:Sender>
    <ns1:Recipient ns1:CI_InstanceNumber="1">1084</ns1:Recipient>
  </ns1:MessageHeader>
  <ns1:CommitmentETA>2017-12-17T11:35:00Z</ns1:CommitmentETA>
  <ns1:ActualETA>2017-12-17T12:45:00Z</ns1:ActualETA>
  <ns1:WagonNumberFreight>841234567890</ns1:WagonNumberFreight>
</ns1:AlertMessage>
```

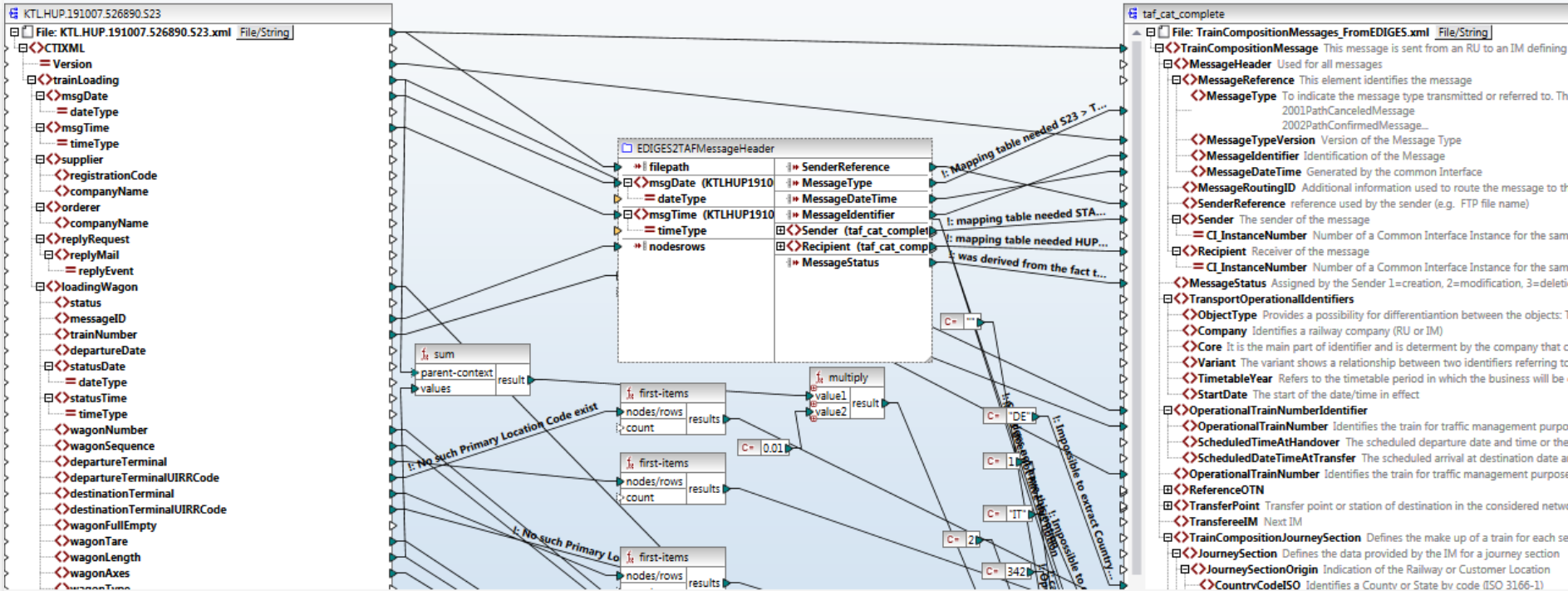
Compliance with other message types

- In the new TAF TSI it is possible to be (soft) compliant to the TAF TSI XSD catalogue
 - If you have different message content or format (TXT, EDIFACT etc)

BUT

- Your message carries the mandatory elements of the TAF XSD.
- Combined Transport: include CT operators in data exchange for Consignment orders, Train Preparation, new CT actors in TAF Glossary, Running and ETA, easier access to data for CT (Rotterdam declaration).

Example 2: EDIGES S23 - Wagon in train composition - mapping



EDIGES S23

Train Composition TAF TSI

Example 2: S23 - Wagon in train composition – input EDIGES

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Created with Liquid Studio 2019 (https://www.liquid-technologies.com) -->
<CTIXML Version="3.3">
  <trainLoading>
    <msgDate dateType="yyyyMMdd">2019-07-03T</msgDate>
    <msgTime timeType="HH:mm:ss">11:38:09</msgTime>
    <supplier>
      <registrationCode>ACompany</registrationCode>
      <companyName>ACOMP</companyName>
    </supplier>
    <orderer>
      <companyName>BCOMP</companyName>
    </orderer>
    <replyRequest>
      <replyMail replyEvent="rejected">noreply@inform-software.com</replyMail>
    </replyRequest>
    <loadingWagon>
      <status>23</status>
      <messageID>fb987654-fc72</messageID>
      <trainNumber>12345</trainNumber>
      <departureDate>20190702</departureDate>
      <statusDate dateType="yyyyMMdd">20190703</statusDate>
      <statusTime timeType="HH:mm:ss">14:38:09</statusTime>
      <wagonNumber>612045755419</wagonNumber>
      <wagonSequence>1</wagonSequence>
      <departureTerminal>A Terminal</departureTerminal>
      <departureTerminalUIRRCode>635</departureTerminalUIRRCode>
      <destinationTerminal>B Port</destinationTerminal>
      <destinationTerminalUIRRCode>477</destinationTerminalUIRRCode>
      <wagonFullEmpty>9</wagonFullEmpty>
      <wagonTare>19000</wagonTare>
      <wagonLength>18425.0</wagonLength>
      <wagonAxes>4</wagonAxes>
      <wagonType>Sgnss</wagonType>
    </loadingWagon>
    <loadingWagon>
      <status>23</status>
      <messageID>fb987654-fc72</messageID>
      <trainNumber>12345</trainNumber>
```

Example 2: S23 - Wagon in train composition – output TAF Train Composition Msg

```
<?xml version="1.0" encoding="UTF-8"?>
<TrainCompositionMessage xmlns:tap="http://www.era.europa.eu/schemes/TAPTSI/1.3" xsi:schemaLocatic
  <MessageHeader>
    <MessageReference>
      <MessageType>3003</MessageType>
      <MessageTypeVersion>3.3</MessageTypeVersion>
      <MessageIdentifier>fb987654-fc72</MessageIdentifier>
      <MessageDateTime>2019-07-03T11:38:09</MessageDateTime>
    </MessageReference>
    <SenderReference>XXX.YYY.123456.987654.S23</SenderReference>
    <Sender>9999</Sender>
    <Recipient>5555</Recipient>
  </MessageHeader>
  <MessageStatus>1</MessageStatus>
  <OperationalTrainNumberIdentifier>
    <OperationalTrainNumber>12345</OperationalTrainNumber>
  </OperationalTrainNumberIdentifier>
  <OperationalTrainNumber>12345</OperationalTrainNumber>
  <TrainCompositionJourneySection>
    <JourneySection>
      <JourneySectionOrigin>
        <CountryCodeISO>AL</CountryCodeISO>
        <LocationPrimaryCode>635</LocationPrimaryCode>
        <PrimaryLocationName>A Terminal</PrimaryLocationName>
      </JourneySectionOrigin>
      <JourneySectionDestination>
        <CountryCodeISO>GG</CountryCodeISO>
        <LocationPrimaryCode>477</LocationPrimaryCode>
        <PrimaryLocationName>B Port</PrimaryLocationName>
      </JourneySectionDestination>
      <ResponsibilityActualSection/>
      <ResponsibilityNextSection/>
    </JourneySection>
  <TrainRunningData>
    <TrainRunningTechData>
      <TrainType>2</TrainType>
      <TrainWeight>342</TrainWeight>
      <TrainLength>4923</TrainLength>
    </TrainRunningTechData>
  </TrainRunningData>
</TrainCompositionMessage>
```

Still to be done in the future for TAF TSI

- Finishing of proper definition and development of use cases for ETA, ETP and Q-ETA (by the European Rail Sector)
- Inclusion of above ETA elements into a new revised version of the TAF TSI (by ERA).



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