



Moving Europe towards a sustainable and safe railway system without frontiers.

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Valenciennes, 27/1/2025

TAF TSI Compliance Test Results – i) Activity 4, Milestone 19 - CEF Grant Agreement TEN-T 2018-EU-TM-0063-S – Path Details and ii) CEF II Transport Call 21-EU-TG-DCM IMP 22-24, Deliverable 6.11.2-2 – Train Composition Messages

Dear Bruno Deliège,

I confirm and certify herewith that the following TAF TSI functionality implemented by the company Infrabel I-ICT (Belgium), within the project *“i) Activity 4, Milestone 19 - CEF Grant Agreement TEN-T 2018-EU-TM-0063-S – Path Details and ii) CEF II Transport Call 21-EU-TG-DCM IMP 22-24, Deliverable 6.11.2-2 – Train Composition Messages”*, is compliant with the appropriate provisions of chapter “4.2.2.3. Path Details message” and “4.2.3.2. Train Composition message” of the [TAF-TSI Regulation \(EU\) 2021/541](#) and its [Technical Documents](#) (XSD version 2.5.0).

In this milestone the company Infrabel I-ICT had to implement the TAF/TAP Path Details and Train Composition Message function. To enable the ERA verification, Infrabel I-ICT has sent on 06/01/2025 to ERA TAF compliant Path Details and Train Composition Messages implemented and used in operation in the EU GATEWAY and in Infrabel I-ICT’s “Fill IN” application and database.

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Project Officer
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Annex – Example of Train Composition Message used by Infrabel I-ICT

```

<?xml version="1.0" encoding="UTF-8"?>
<TrainCompositionMessage xmlns="http://www.era.europa.eu/schemes/TAFTSI/2.5"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.era.europa.eu/schemes/TAFTSI/2.5
TAF%20XSD/XSD%202.5.0/taf_cat_complete.xsd">
  <MessageHeader>
    <MessageReference>
      <MessageType>3003</MessageType>
      <MessageTypeVersion>2.5.0</MessageTypeVersion>
      <MessageIdentifier>bc9182ad-ae3f-11ef-9935-
0050568aea0e</MessageIdentifier>
      <MessageDateTime>2024-11-29T11:50:24.177+01:00</MessageDateTime>
    </MessageReference>
    <Sender>2187</Sender>
    <MessageDateTimeCreated>2024-11-29T10:23:18+01:00</MessageDateTimeCreated>
    <Recipient>9876</Recipient>
  </MessageHeader>
  <MessageStatus>1</MessageStatus>
  <TransportOperationalIdentifiers>
    <ObjectType>TR</ObjectType>
    <Company>6543</Company>
    <Core>-----12345</Core>
    <Variant>00</Variant>
    <TimetableYear>2024</TimetableYear>
    <StartDate>2024-11-28</StartDate>
  </TransportOperationalIdentifiers>
  <TransportOperationalIdentifiers>
    <ObjectType>PA</ObjectType>
    <Company>6543</Company>
    <Core>-----12345</Core>
    <Variant>00</Variant>
    <TimetableYear>2024</TimetableYear>
    <StartDate>2024-11-28</StartDate>
  </TransportOperationalIdentifiers>
  <OperationalTrainNumberIdentifier>
    <OperationalTrainNumber>1111</OperationalTrainNumber>
    <ScheduledTimeAtHandover>2024-11-28T11:44:00</ScheduledTimeAtHandover>
    <ScheduledDateTimeAtTransfer>2024-11-
28T13:44:00+01:00</ScheduledDateTimeAtTransfer>
  </OperationalTrainNumberIdentifier>
  <TrainCompositionJourneySection>
    <JourneySection>
      <JourneySectionDestination>
        <CountryCodeISO>MT</CountryCodeISO>
        <LocationPrimaryCode>12345</LocationPrimaryCode>
        <BookedLocationDateTime>2024-11-
28T13:44:00+01:00</BookedLocationDateTime>
      </JourneySectionDestination>
      <JourneySectionOrigin>
        <CountryCodeISO>MT</CountryCodeISO>
        <LocationPrimaryCode>12345</LocationPrimaryCode>
        <BookedLocationDateTime>2024-11-
28T11:44:00</BookedLocationDateTime>
      </JourneySectionOrigin>
      <ResponsibilityActualSection>
        <ResponsibleRU>9876</ResponsibleRU>

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        <ResponsibleIM>1234</ResponsibleIM>
    </ResponsibilityActualSection>
    <ResponsibilityNextSection>
        <ResponsibleRU>9876</ResponsibleRU>
        <ResponsibleIM>1234</ResponsibleIM>
    </ResponsibilityNextSection>
</JourneySection>
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    <TrainRunningTechData>
        <TrainType>2</TrainType>
        <TrainWeight>1111</TrainWeight>
        <TrainLength>0343</TrainLength>
        <TrainMaxSpeed>100</TrainMaxSpeed>
        <BrakeType>G</BrakeType>
        <BrakeWeight>1111</BrakeWeight>
        <NumberOfVehicles>022</NumberOfVehicles>
        <NumberOfAxles>0088</NumberOfAxles>
    </TrainRunningTechData>
    <ExceptionalGaugingInd>0</ExceptionalGaugingInd>
    <DangerousGoodsIndicator>1</DangerousGoodsIndicator>
</TrainRunningData>
<LocoIdent>
    <TractionType>11</TractionType>
    <LocoNumber>111111111111</LocoNumber>
</LocoIdent>
<LivestockOrPeopleIndicator>0</LivestockOrPeopleIndicator>
<WagonData>
    <WagonNumberFreight>111111111111</WagonNumberFreight>
    <WagonTrainPosition>1</WagonTrainPosition>
    <WagonOperationalData>
        <BrakeType>G</BrakeType>
        <BrakeWeight>1111</BrakeWeight>
        <WagonMaxSpeed>100</WagonMaxSpeed>
        <DangerousGoodsDetails>
            <DangerousGoodsIndication>
<HazardIdentificationNumber>60</HazardIdentificationNumber>
                <UN_Number>2205</UN_Number>
                <DangerLabel>6.1</DangerLabel>
                <RID_Class>6.1</RID_Class>
                <PackingGroup>III</PackingGroup>
                <DangerousGoodsWeight>1111</DangerousGoodsWeight>
            </DangerousGoodsIndication>
        </DangerousGoodsDetails>
    </WagonOperationalData>
    <RestrictionsDueToLoadOrDamage>70</RestrictionsDueToLoadOrDamage>
        <TotalLoadWeight>1111</TotalLoadWeight>
    </WagonOperationalData>

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<WagonData>
    <WagonNumberFreight>111111111111</WagonNumberFreight>
    <WagonTrainPosition>20</WagonTrainPosition>
    <WagonOperationalData>
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        <BrakeWeight>1111</BrakeWeight>
        <WagonMaxSpeed>100</WagonMaxSpeed>
        <TotalLoadWeight>1111</TotalLoadWeight>
    </WagonOperationalData>

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    <WagonTechData>
      <LengthOverBuffers>1620</LengthOverBuffers>
      <WagonNumberOfAxles>4</WagonNumberOfAxles>
      <AirBrakeType>3</AirBrakeType>
      <BrakingPowerVariationDevice>8</BrakingPowerVariationDevice>

    <AirBrakeSpecialCharacteristic>2</AirBrakeSpecialCharacteristic>
      <HandBrakeType>2</HandBrakeType>
      <HandBrakeBrakedWeight>1111</HandBrakeBrakedWeight>
      <WagonWeightEmpty>99999</WagonWeightEmpty>
    </WagonTechData>
  </WagonData>
  <WagonData>
    <WagonNumberFreight>11111111111</WagonNumberFreight>
    <WagonTrainPosition>21</WagonTrainPosition>
    <WagonOperationalData>
      <BrakeType>G</BrakeType>
      <BrakeWeight>1111</BrakeWeight>
      <WagonMaxSpeed>100</WagonMaxSpeed>
      <TotalLoadWeight>1111</TotalLoadWeight>
    </WagonOperationalData>
    <WagonTechData>
      <LengthOverBuffers>1620</LengthOverBuffers>
      <WagonNumberOfAxles>4</WagonNumberOfAxles>
      <AirBrakeType>3</AirBrakeType>
      <BrakingPowerVariationDevice>8</BrakingPowerVariationDevice>

    <AirBrakeSpecialCharacteristic>2</AirBrakeSpecialCharacteristic>
      <WagonWeightEmpty>99999</WagonWeightEmpty>
    </WagonTechData>
  </WagonData>
</TrainCompositionJourneySection>
</TrainCompositionMessage>

```

Annex – Example of Path Details Message used by Infrabel I-ICT

```

<?xml version="1.0" encoding="UTF-8"?>
<PathDetailsMessage xmlns:p="http://www.era.europa.eu/schemes/TAFTSI/2.5"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.era.europa.eu/schemes/TAFTSI/2.5
TAF%20XSD/XSD%202.5.0/taf_cat_complete.xsd">
  <MessageHeader>
    <MessageReference>
      <MessageType>2003<MessageType>
      <MessageTypeVersion>2.5.0.0<MessageTypeVersion>
      <MessageIdentifier>
        xmlns="http://www.era.europa.eu/schemes/TAFTSI/2.5">349824b0-c703-11ef-9902-
        0050569d0343</MessageIdentifier>
      <MessageDateTime>
        xmlns="http://www.era.europa.eu/schemes/TAFTSI/2.5">2024-12-
        31T00:10:05.346+01:00</MessageDateTime>
      <MessageReference>
        <SenderReference>train 99990 departing on 31/12/2024<SenderReference>
        <Sender>0088<Sender>
        <MessageDateTimeCreated>2024-12-
        31T00:10:05.1955972+01:00<MessageDateTimeCreated>
        <Recipient>98765<Recipient>
      <MessageHeader>
      <AdministrativeContactInformation>
        <Name>Infrabel<Name>
      <AdministrativeContactInformation>
      <Identifiers>
        <PlannedTransportIdentifiers>
          <ObjectType>TR<ObjectType>
          <Company>0088<Company>
          <Core>00000009876<Core>
          <Variant>00<Variant>
          <TimetableYear>2099<TimetableYear>
          <StartDate>2024-12-31<StartDate>
        <PlannedTransportIdentifiers>
      <Identifiers>
      <MessageStatus>1<MessageStatus>
      <TypeOfRequest>2<TypeOfRequest>
      <TypeOfInformation>41<TypeOfInformation>
      <PathInformation>
        <PlannedJourneyLocation p:JourneyLocationTypeCode="01">
          <CountryCodeISO>BE<CountryCodeISO>
          <LocationPrimaryCode>12345<LocationPrimaryCode>
          <PrimaryLocationName>A City<PrimaryLocationName>
          <TimingAtLocation>
            <Timing p:TimingQualifierCode="ALD">
              <Time>00:16:00<Time>
              <Offset>0<Offset>
              <BookedLocationDateTime>2024-12-
        31T00:00:00+01:00<BookedLocationDateTime>
          <Timing>
            <TimingAtLocation>
            <ResponsibleRU>0088<ResponsibleRU>
            <ResponsibleIM>0088<ResponsibleIM>
            <OperationalTrainNumber>000999990<OperationalTrainNumber>

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    <PlannedJourneyLocation>
    <PlannedJourneyLocation p:JourneyLocationTypeCode="02">
        <CountryCodeISO>BE<CountryCodeISO>
        <LocationPrimaryCode>12345<LocationPrimaryCode>
        <PrimaryLocationName>A City<PrimaryLocationName>
        <TimingAtLocation>
            <Timing p:TimingQualifierCode="ALA">
                <Time>00:16:00<Time>
                <Offset>0<Offset>
                <BookedLocationDateTime>2024-12-
31T00:03:00+01:00<BookedLocationDateTime>
                <Timing>
                <Timing p:TimingQualifierCode="ALD">
                    <Time>00:16:00<Time>
                    <Offset>0<Offset>
                    <BookedLocationDateTime>2024-12-
31T00:03:00+01:00<BookedLocationDateTime>
                <Timing>
                <TimingAtLocation>
                <ResponsibleRU>0088<ResponsibleRU>
                <ResponsibleIM>0088<ResponsibleIM>
                <OperationalTrainNumber>00098765<OperationalTrainNumber>
    <PlannedJourneyLocation>

...

    <PlannedJourneyLocation p:JourneyLocationTypeCode="03">
        <CountryCodeISO>BE<CountryCodeISO>
        <LocationPrimaryCode>12345<LocationPrimaryCode>
        <PrimaryLocationName>A City<PrimaryLocationName>
        <TimingAtLocation>
            <Timing p:TimingQualifierCode="ALA">
                <Time>00:16:00<Time>
                <Offset>0<Offset>
                <BookedLocationDateTime>2024-12-
31T01:53:00+01:00<BookedLocationDateTime>
                <Timing>
                <TimingAtLocation>
                <ResponsibleRU>0088<ResponsibleRU>
                <ResponsibleIM>0088<ResponsibleIM>
                <OperationalTrainNumber>00098765<OperationalTrainNumber>
    <PlannedJourneyLocation>
    <PlannedCalendar>
        <ValidityPeriod>
            <StartDateTime>2024-12-31T00:00:00+01:00<StartDateTime>
            <ValidityPeriod>
        <PlannedCalendar>
    <PathInformation>
    <NetworkSpecificParameter>
        <Name>ReferenceOperationalTrainNumber<Name>
        <Value>00098765<Value>
    <NetworkSpecificParameter>
    <NetworkSpecificParameter>
        <Name>TrainType<Name>
        <Value>3<Value>
    <NetworkSpecificParameter>
<PathDetailsMessage>

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