



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

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 Italy

Valenciennes, 4/7/2024

**IRAIL Project Compliance Test – CEF Grant Agreement INEA/CEF/TRAN/M2018/ 1777054 – Activity 2**

Dear Silvia De Rocchi,

I confirm and certify herewith that the following TAF TSI functionalities implemented by the company Captrain Italia SRL (Italy), within the project “CEF Grant Agreement INEA/CEF/TRAN/M2018/ 1777054 – Activity 2”, are compliant with the appropriate provisions of the [TAF-TSI Regulation \(EU\) 2021/541](#) and its [Technical Documents](#) (XSD version 3.4.0) as follows:

TAF function / milestone tested	TAF TSI chapter	Type Compliance	Activity Number
M19 - Train composition	4.2.3.2. Train Composition message	Soft	Activity 2
M19 - Train running	4.2.4.2. Train running forecast message	Hard	Activity 2

Above *soft* compliance is based on the fact that above message carries all mandatory elements from the TAF TSI XSD (see chapter 6.2.1 of the TAF TSI).

To enable the ERA verification, Captrain Italia SRL has sent on 30.04.2024 to ERA TAF TSI compliant

- Train Composition
- Train running forecast

messages / datasets implemented and used in operation in its own IT system (see Annexes).

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## Annex – Message / Datasets

Train Composition message before transformation in H30 Format:

```
<HE30XML_2.0_2016 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="file:///.../H30XML_2.0_2016_12_15.xsd">
  <G1>
    <H1>2287</H1>
    <H2>1234</H2>
    <H3>2024-01-03T15:01:09+00:00</H3>
    <H4>1</H4>
  </G1>
  <GT1>
    <T1_1_1>46633</T1_1_1>
    <T1_1_2>2023-12-22T00:00:00+01:00</T1_1_2>
    <T1_1_3>2023-12-22T00:00:00+01:00</T1_1_3>
    <T1_1_4>2023-12-22T17:13:00+01:00</T1_1_4>
    <T1_2_1>46633</T1_2_1>
    <T1_2_2>2023-12-22</T1_2_2>
    <T1_3_1>83</T1_3_1>
    <T1_3_2>04501</T1_3_2>
    <T1_3_3>ACity</T1_3_3>
    <GT1_3_4>
      <T1_3_4_1>83</T1_3_4_1>
      <T1_3_4_2>04511</T1_3_4_2>
    </GT1_3_4>
    <T1_4_1>83</T1_4_1>
    <T1_4_2>05267</T1_4_2>
    <T1_4_3>BVille</T1_4_3>
    <GT1_4_4>
      <T1_4_4_1>83</T1_4_4_1>
      <T1_4_4_2>11167</T1_4_4_2>
    </GT1_4_4>
    <GT1_5_4>
      <T1_5_4_1>83</T1_5_4_1>
      <T1_5_4_2>02201</T1_5_4_2>
    </GT1_5_4>
    <T1_6_1>100</T1_6_1>
    <T1_6_2>P</T1_6_2>
  </GT1>
  <GT2>
    <T2_1>1</T2_1>
    <T2_2>2287</T2_2>
```

```

<T2_3>9998</T2_3>
<GT2_2>
  <T2_2_1>83</T2_2_1>
  <T2_2_2>05268</T2_2_2>
</GT2_2>
</GT2>
<GW>
  <GW1>
    <I1_0>379905648634</I1_0>
    <I1_1>4</I1_1>
    <I1_2>100</I1_2>
    <I1_3>1304</I1_3>
    <I1_4>21990</I1_4>
    <G1_7>
      <I1_7_1>0</I1_7_1>
    </G1_7>
    <G1_8>
      <I1_8_1>3</I1_8_1>
      <I1_8_2>8</I1_8_2>
      <I1_8_3>2</I1_8_3>
      <I1_8_4>61</I1_8_4>
      <I1_8_5>1</I1_8_5>
    </G1_8>
    <I1_14>2</I1_14>
    <G1_22>
      <G1_22_1>
        <G1_22_1_1>
          <I1_22_1_1_1>0</I1_22_1_1_1>
        </G1_22_1_1>
        <G1_22_1_2>
          <I1_22_1_2_1>2</I1_22_1_2_1>
          <G1_22_1_2_2>
            <I1_22_1_2_2_1>100</I1_22_1_2_2_1>
            <I1_22_1_2_2_2>0</I1_22_1_2_2_2>
          </G1_22_1_2_2>
          <G1_22_1_2_2>
            <I1_22_1_2_2_1>120</I1_22_1_2_2_1>
            <I1_22_1_2_2_2>0</I1_22_1_2_2_2>
          </G1_22_1_2_2>
        </G1_22_1_2>
        <I1_22_1_3>A</I1_22_1_3>
        <I1_22_1_3>B</I1_22_1_3>
        <I1_22_1_3>C</I1_22_1_3>
        <I1_22_1_3>D</I1_22_1_3>
        <I1_22_1_4>420</I1_22_1_4>
        <I1_22_1_4>0</I1_22_1_4>
        <I1_22_1_4>500</I1_22_1_4>
        <I1_22_1_4>0</I1_22_1_4>
        <I1_22_1_4>600</I1_22_1_4>
        <I1_22_1_4>0</I1_22_1_4>
        <I1_22_1_4>680</I1_22_1_4>
        <I1_22_1_4>0</I1_22_1_4>
      </G1_22_1>
    </G1_22>
  <G1_25>

```

```

    <I1_25_1>2018-12-14</I1_25_1>
    <I1_25_2>8</I1_25_2>
    <I1_25_3>0</I1_25_3>
    <I1_25_4>2030-12-14</I1_25_4>
  </G1_25>
</GW1>
<GWC>
  <GWC1>
    <WC1_1>83</WC1_1>
    <WC1_2>04501</WC1_2>
    <WC1_3>VENTIMIGLIA</WC1_3>
    <WC1_4>2287</WC1_4>
  </GWC1>
  <GWC4>
    <WC4_1>83</WC4_1>
    <WC4_2>05267</WC4_2>
    <WC4_3>CTown</WC4_3>
  </GWC4>
  <GWC7>
    <WC7_1>1</WC7_1>
    <WC7_2>2287</WC7_2>
    <WC7_3>1234</WC7_3>
    <WC7_7>83</WC7_7>
    <WC7_8>05268</WC7_8>
  </GWC7>
</GWC>
<GWL>
  <WL0>1</WL0>
  <WL1>64000</WL1>
  <GWL3>
    <WL3>250800</WL3>
    <WL3_1>64000</WL3_1>
  </GWL3>
</GWL>
<GWLS />
<GWA>
  <WA_1>61</WA_1>
  <WA_2>G</WA_2>
  <WA_2_1>X</WA_2_1>
  <WA_3>100</WA_3>
  <WA_4>85990</WA_4>
  <WA_5>D Firma GmbH</WA_5>
</GWA>
</GW>

```

...

Train Composition message after transformation in TAF TSI format:

```

<?xml version="1.0" encoding="UTF-8"?>
<TrainCompositionMessage
  xmlns:tap="http://www.era.europa.eu/schemes/TAPTS.../TAFTSI/2.1"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <MessageHeader>

```

```

    <MessageReference>
      <MessageType>3003</MessageType>
      <MessageTypeVersion>2.0</MessageTypeVersion>
      <MessageIdentifier>Transform H30 to TAF
XSD.mfd</MessageIdentifier>
      <MessageDateTime>2023-11-16T00:00:00+01:00</MessageDateTime>
    </MessageReference>
    <Sender>3513</Sender>
    <Recipient>9876</Recipient>
  </MessageHeader>
  <MessageStatus>1</MessageStatus>
  <OperationalTrainNumberIdentifier>
    <OperationalTrainNumber>01734</OperationalTrainNumber>
    <ScheduledTimeAtHandover>2023-11-
16T11:18:00+01:00</ScheduledTimeAtHandover>
    <ScheduledDateTimeAtTransfer>2023-11-
16T11:18:00+01:00</ScheduledDateTimeAtTransfer>
  </OperationalTrainNumberIdentifier>
  <OperationalTrainNumber>01734</OperationalTrainNumber>
  <TrainCompositionJourneySection>
    <JourneySection>
      <JourneySectionOrigin>
        <CountryCodeISO>MT</CountryCodeISO>
        <LocationPrimaryCode>12345</LocationPrimaryCode>
      </JourneySectionOrigin>
      <JourneySectionDestination>
        <CountryCodeISO>MT</CountryCodeISO>
        <LocationPrimaryCode>12345</LocationPrimaryCode>
      </JourneySectionDestination>
      <ResponsibilityActualSection>
        <ResponsibleRU>9876</ResponsibleRU>
        <ResponsibleIM>1234</ResponsibleIM>
      </ResponsibilityActualSection>
      <ResponsibilityNextSection>
        <ResponsibleRU>9876</ResponsibleRU>
        <ResponsibleIM>1234</ResponsibleIM>
      </ResponsibilityNextSection>
    </JourneySection>
  </TrainRunningData>
    <TrainRunningTechData>
      <TrainType>2</TrainType>
      <TrainWeight>1111</TrainWeight>
      <TrainLength>1695</TrainLength>
    </TrainRunningTechData>
  </TrainRunningData>
  <LivestockOrPeopleIndicator>0</LivestockOrPeopleIndicator>
  <WagonData>
    <WagonNumberFreight>111111111111</WagonNumberFreight>
    <WagonTrainPosition>99</WagonTrainPosition>
    <WagonOperationalData>
      <BrakeType>G</BrakeType>
      <BrakeWeight>1111</BrakeWeight>
      <WagonMaxSpeed>100</WagonMaxSpeed>
      <TotalLoadWeight>1111</TotalLoadWeight>
    </WagonOperationalData>
  </WagonData>

```

```

    <WagonTechData>
      <WagonLength>1304</WagonLength>
      <WagonNumberOfAxles>4</WagonNumberOfAxles>
      <WagonWeightEmpty>99999</WagonWeightEmpty>
    </WagonTechData>
  </WagonData>
  <WagonData>
    <WagonNumberFreight>11111111111</WagonNumberFreight>
    <WagonTrainPosition>99</WagonTrainPosition>
    <WagonOperationalData>
      <BrakeType>G</BrakeType>
      <BrakeWeight>1111</BrakeWeight>
      <WagonMaxSpeed>100</WagonMaxSpeed>
      <TotalLoadWeight>1111</TotalLoadWeight>
    </WagonOperationalData>
    <WagonTechData>
      <WagonLength>1304</WagonLength>
      <WagonNumberOfAxles>4</WagonNumberOfAxles>
      <WagonWeightEmpty>99999</WagonWeightEmpty>
    </WagonTechData>
  </WagonData>

```

### Train Running Forecast message

```

<?xml version="1.0" encoding="UTF-8"?>
<TrainRunningInformationMessage xmlns="http://www.era.europa.eu/schemes/TAFTSI/2.5"
xmlns:ns="http://www.era.europa.eu/schemes/TAFTSI/2.5"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
.../XSD%202.5.0/taf_cat_complete.xsd">
  <MessageHeader>
    <MessageReference>
      <MessageType>4005</MessageType>
      <MessageTypeVersion>2.5.0.0</MessageTypeVersion>
      <MessageIdentifier>d1owlq2q-d5pw-83lw-b720-
930571f2pw93</MessageIdentifier>
      <MessageDateTime>2023-12-21T13:01:28.399Z</MessageDateTime>
    </MessageReference>
    <SenderReference>d1owlq2q-d5pw-83lw-b720-930571f2pw93</SenderReference>
    <Sender ns:CI_InstanceNumber="01">2287</Sender>
    <Recipient ns:CI_InstanceNumber="21">9998</Recipient>
  </MessageHeader>
  <MessageStatus>1</MessageStatus>
  <TrainOperationalIdentification>
    <TransportOperationalIdentifiers>
      <ObjectType>TR</ObjectType>
      <Company>6543</Company>
      <Core>-----12345</Core>
      <Variant>00</Variant>
      <TimetableYear>2023</TimetableYear>
      <StartDate>2023-12-21</StartDate>
    </TransportOperationalIdentifiers>
    <RelatedTransportOperationalIdentifiers>
      <ObjectType>TR</ObjectType>

```

```

        <Company>6543</Company>
        <Core>-----12345</Core>
        <Variant>00</Variant>
        <TimetableYear>2023</TimetableYear>
        <StartDate>2023-12-21</StartDate>
    </RelatedTransportOperationalIdentifiers>
</TrainOperationalIdentification>
<OperationalTrainNumberIdentifier>
    <OperationalTrainNumber>048371</OperationalTrainNumber>
    <ScheduledTimeAtHandover>2023-12-
21T13:15:00+00:00</ScheduledTimeAtHandover>
    <ScheduledDateTimeAtTransfer>2023-12-
21T13:01:00+00:00</ScheduledDateTimeAtTransfer>
</OperationalTrainNumberIdentifier>
<ReferenceOTN>
    <OperationalTrainNumberIdentifier>
        <OperationalTrainNumber>048371</OperationalTrainNumber>
        <ScheduledTimeAtHandover>2023-12-
21T13:15:00+00:00</ScheduledTimeAtHandover>
        <ScheduledDateTimeAtTransfer>2023-12-
21T13:01:00+00:00</ScheduledDateTimeAtTransfer>
    </OperationalTrainNumberIdentifier>
</ReferenceOTN>
<ResponsibleRU>2287</ResponsibleRU>
<TrainLocationReport>
    <Location>
        <CountryCodeISO>MT</CountryCodeISO>
        <LocationPrimaryCode>05267</LocationPrimaryCode>
        <PrimaryLocationName>City A</PrimaryLocationName>
    </Location>
    <LocationDateTime>2023-12-21T13:01:00+00:00</LocationDateTime>
    <TrainLocationStatus>01</TrainLocationStatus>
    <BookedLocationDateTime>2023-12-
21T11:22:00+00:00</BookedLocationDateTime>
    <TrainDelay>
        <AgainstBooked>+0099</AgainstBooked>
    </TrainDelay>
</TrainLocationReport>
<TransfereeIM>9876</TransfereeIM>
</TrainRunningInformationMessage>

```