

Full Service Model Initiative

Vittorio Carta
November 2018

FSM
Full Service Model Initiative

DB **SNCF**

TRENITALIA
GRUPPO FERROVIE DELLO STATO

ICIC
PKP INTERCITY

Rail Delivery Group

National Rail **BeNe**
Rail International NV

SJ **ČD** České dráhy
national carrier

renfe

Travelpart **DSB** **OBB**

SBB CFF FFS

trainline **Sabre**

amADEUS **SILVERRAIL**

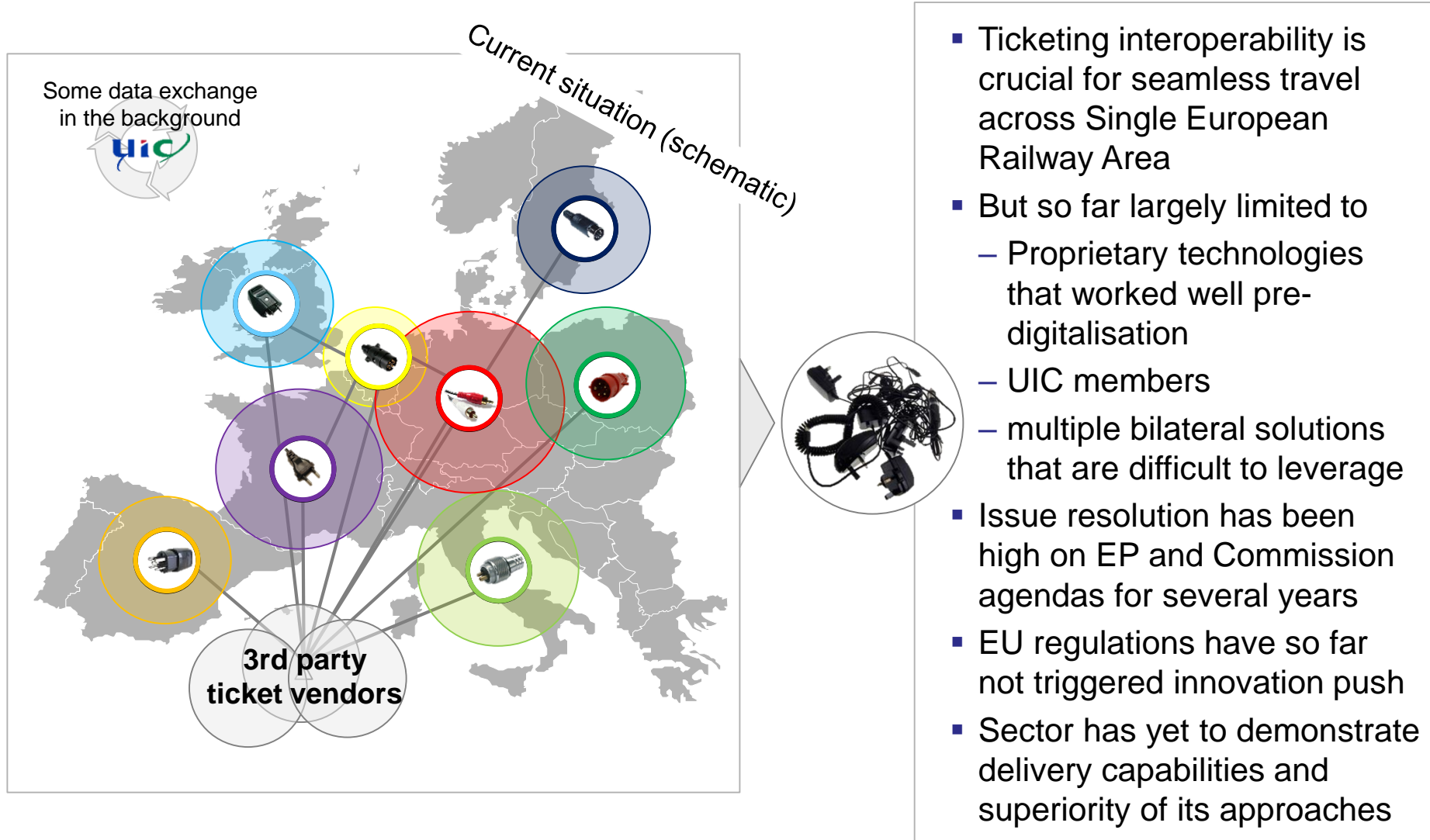
Advisors

CER **CIT**

ECTAA
THE EUROPEAN TRAVEL AGENTS' AND TOUR OPERATOR ASSOCIATIONS

ETTSA
EUROPEAN TRAVEL AGENTS' AND TOUR OPERATOR ASSOCIATIONS

The market demands improved connectivity in rail distribution - But there are no modern standards yet



Besides significant legislative pressure the business context is changing dramatically - opportunities and threats for rail distribution

Regulatory framework

Passenger rights

TAP TSI

ITS
Delegated Act

CIRSRT
Access to
transport data

4th Railway
Package

- High EU expectations
- TAP as baseline to get access to various data
- But no dynamic pricing, no best price, no seamless sales process support etc.

Business context



Distribution
business
models

- Distribution = Cost factor vs. “owning the customer”
- Open data vs. exploiting your own goldmine
- Rail only vs. door-to-door
- No plug’n’play technologies – which connectivity standard will prevail?
- Third parties prying on ticket sales

Sector approach:

- Be cheerful and constructive, but only do the minimum → *Sector’s TAP TSI governance*
- Specify a market-driven, cost-effective open IT framework for cross-carrier distribution and true interoperability → *FSM*
- Embrace all relevant ticket vendors under sector terms → *TAP TSI & FSM*
- Seems to have worked reasonably well since 2010. But the ice is becoming thinner.

Market need for one-stop-shop distribution services: Customers expect easy and seamless travel solutions



- Customers expect simple solutions for traveling
 - Rise of digital services increases expectations towards travel and distribution service providers
 - Ultimate goal: seamless travel solutions
- ⇒ Cooperation between travel and distribution service providers is necessary

Agenda

1. What FSM is about
2. How FSM works in detail

To overcome heterogeneous proprietary connectivity solutions the HLPM and distribution service providers initiated the Full Service Model



Full Service Model (FSM)

... is an **Industry Initiative** founded in 2013 aiming at developing an **Open IT Specification**

... enables **B2B data exchange** along the **online distribution value chain**

... relies on and goes upon European regulation regarding distribution and ticketing (e.g. TAP-TSI)

... **complements costly individual bilateral IT-solutions** between distributors and rail service provider

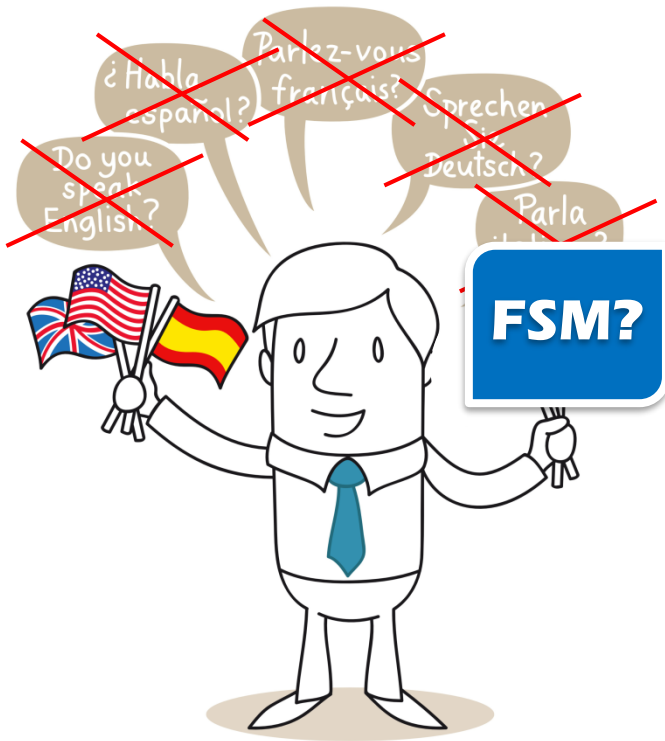
... follows a **step-wise approach**, i.e. it **focuses on rail products** in the beginning so as to manage complexity

... considers at the same time **the context of multi-modality** and allows, future enhancements in the direction of other modes of transport

<https://tsga.eu/fsm>

FSM simplifies distribution as it complements diverse individual and bilateral distribution solutions between business partners

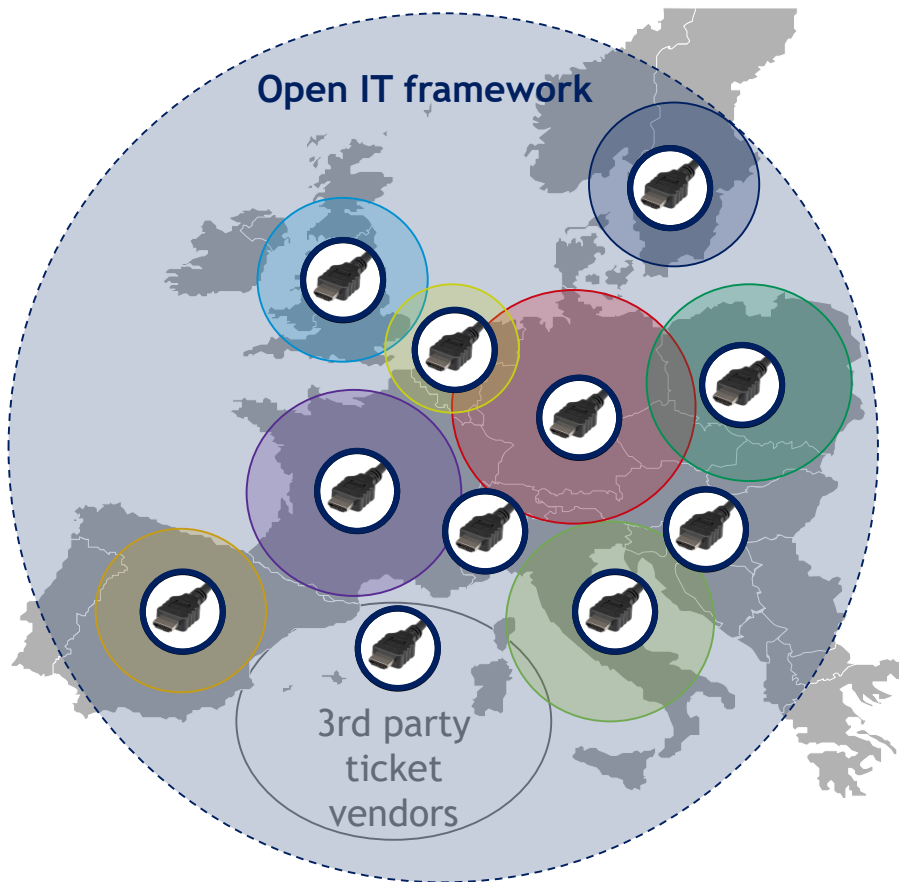
What FSM is about



- ... the goal of FSM is to offer an **alternative to the tangle** of individual and bilateral IT-solutions
 - ... FSM provides specifications that can be **implemented in every IT distribution system**
 - ... FSM **co-exists** with other IT-solutions, companies can choose if they want to apply FSM specifications or any other IT-solutions
 - ... FSM can be used for any **distribution business model**, that is, the content /the offer remains unchanged
- ➔ **FSM functions like a common language** - companies can learn it, they can offer or order translation services, and they can continue speaking diverse other languages too

FSM approach: provide improved interoperability by specifying standardised B2B IT interfaces

FSM interface specifications



FSM specifications



- Innovative basis to interconnect rail distribution systems
- As a result, this will reduce the boundaries of the current ecosystem
- Framework enables maximum choice of business models
- Thus, railways retain control of their own distribution strategies, while customers benefit from improved service and choice
- Business relationship based on commercial agreements

FSM is based on six key principles

Collaborative

18 Partners



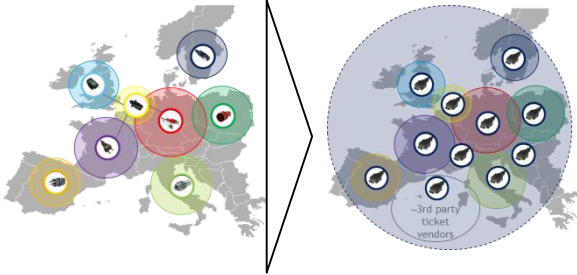
Customer-focused

One-Stop-Shops: access to best value for money offering



Interoperable

Web connectivity of existing distribution processes



Exhaustive

Complete distribution value chain and ultimately multi-modal



Business-neutral

Agnostic to diversity of business models across Europe



Open

„Plug-and-play“ IT standards

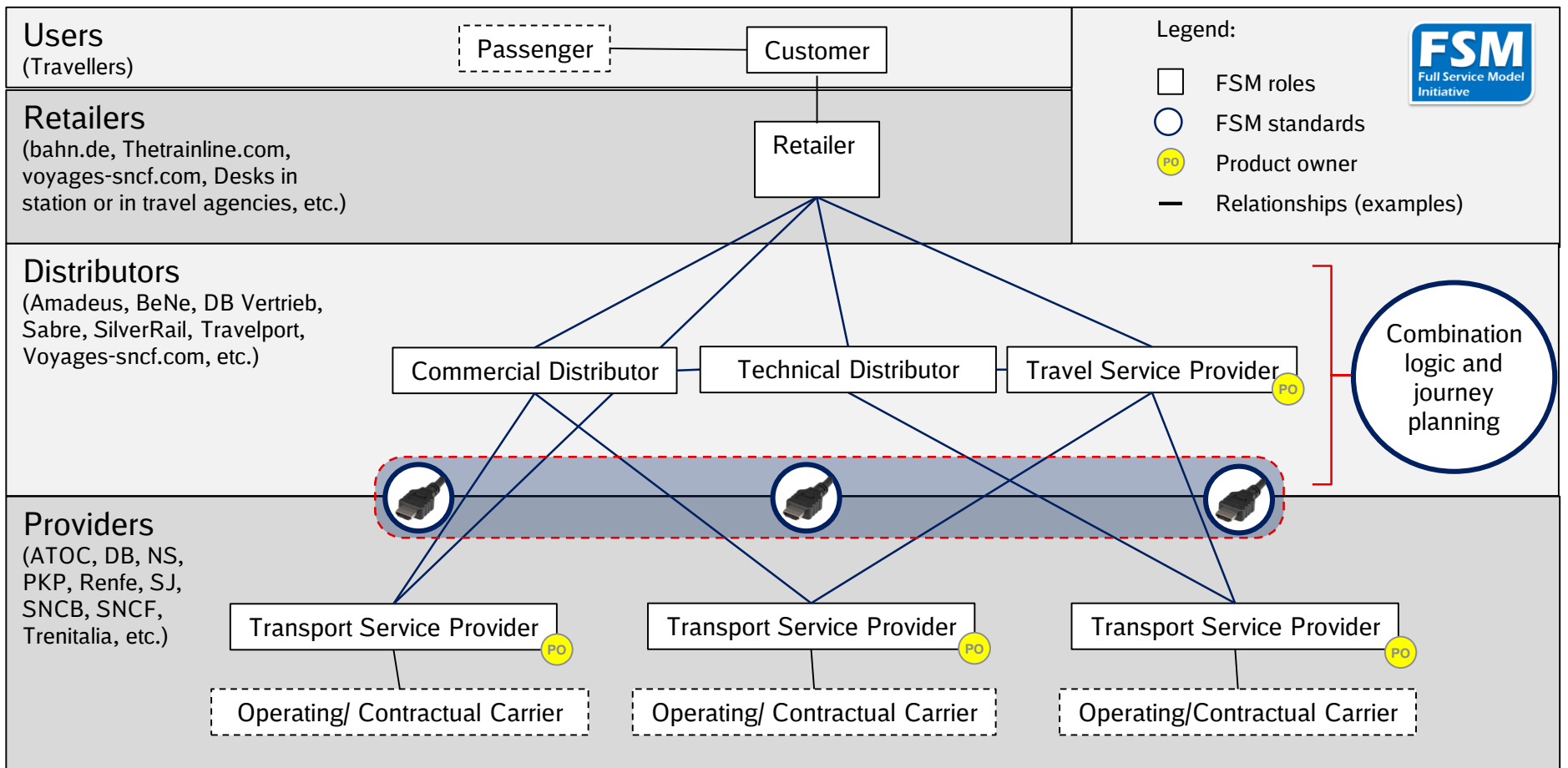


Agenda

1. What FSM is about

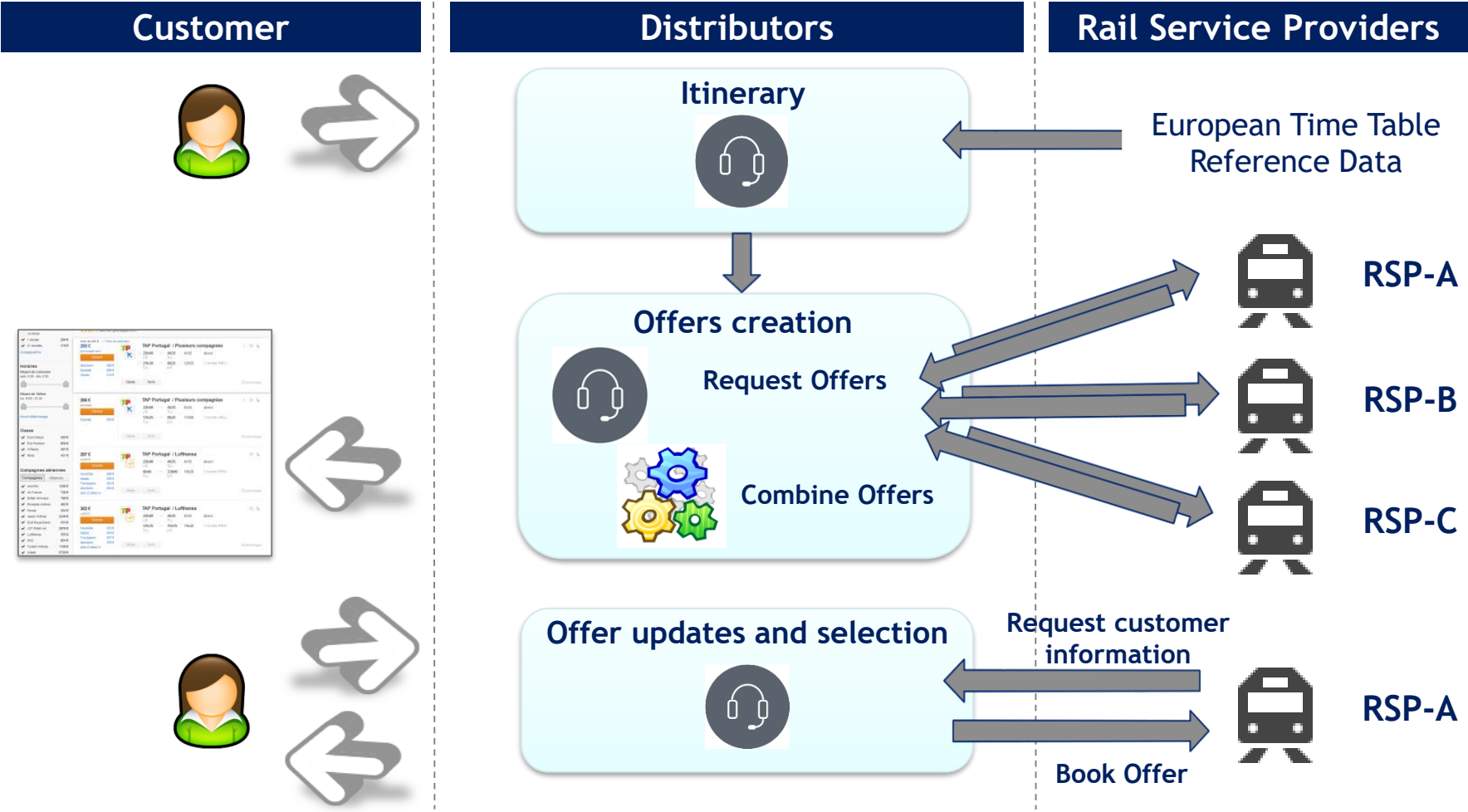
2. How FSM works in detail

FSM specifies an online interface between rail distribution players to improve customer access to rail tickets

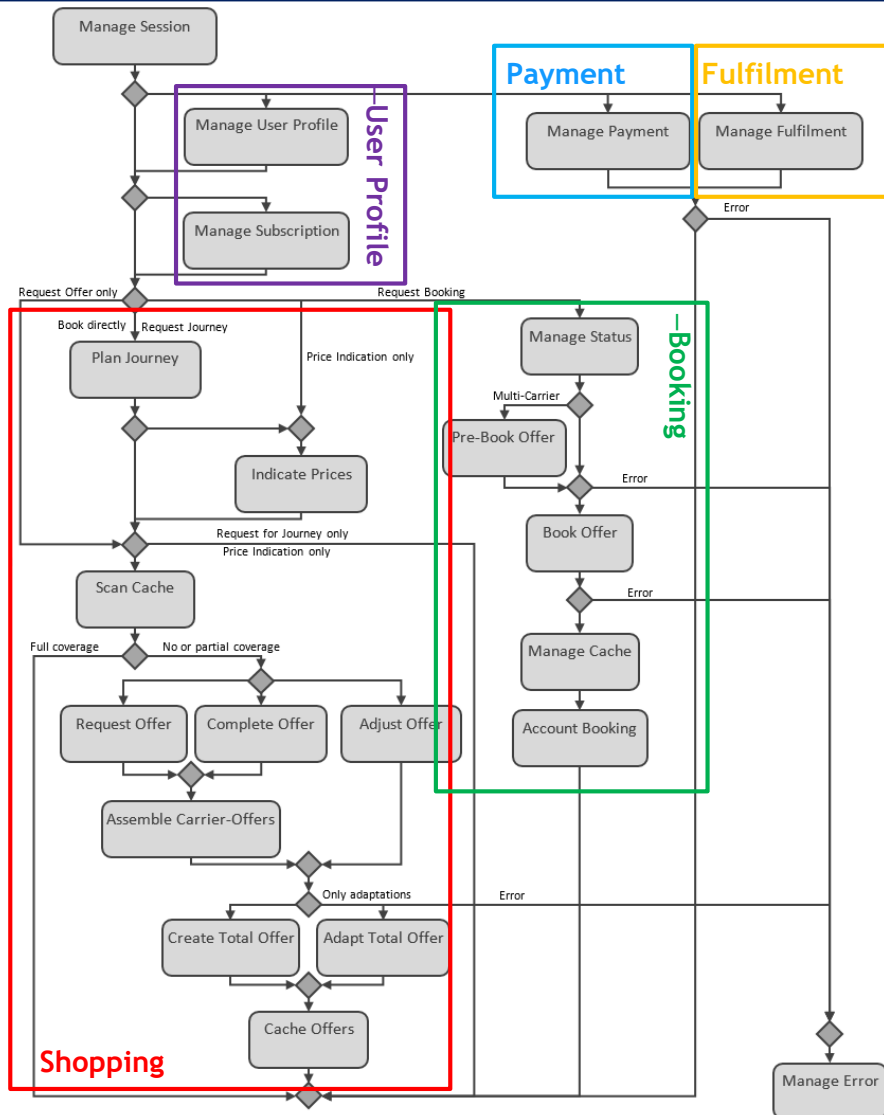


FSM covers the business processes between all players interacting to satisfy the needs of the customers

FSM process view



At design level the workflows and activities provide a common model of both computational and organisational processes



- The activity diagram provides an overview on the sales process
 - Shopping consisting of journey planning and offering
 - Booking
 - Customer payment
 - Fulfilment

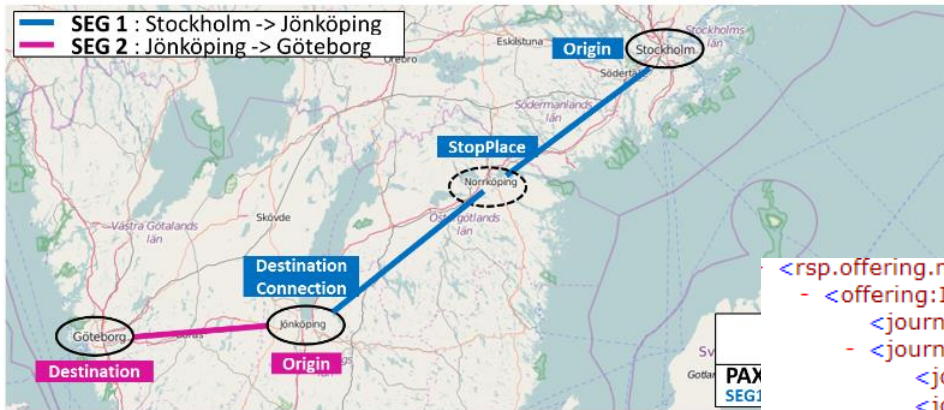
- The most complex process is offering
 - User profile
 - Subscribed services
 - Price indication and forecast
 - Cache of offers
 - Creation, completion and adjustment of offers

FSM provides business neutral XML messages enabling the data exchange between distributors and railways

Examples

Offering : 1 Passenger – 2 Segments

DISTRIBUTOR REQUEST :



RSP RESULT :



Simplified XML
Offer Request Offering Response

```
<rsp.offering.messages:OfferingParameters>
- <offering:Itinerary Id="xml_id_itinerary_01" DIST_ID="DIST_ITI_01">
  <journeyplan:ServiceTypeId>XXXX-TRAIN</journeyplan:ServiceTypeId>
- <journeyplan:Segment Id="xml_id_segment_01" DIST_ID="DIST_SE1">
  <journeyplan:ServiceModeId>XXXX-DAILY_REGULAR_SERVICE</journeyplan:ServiceModeId>
  <journeyplan:RouteTypeId>XXXX-SINGLE_TRAIN</journeyplan:RouteTypeId>
  <journeyplan:TrainPathTypeId>XXXX-HIGH_SPEED</journeyplan:TrainPathTypeId>
  <journeyplan:ServiceAvailabilityId>XXXX-DAY_TIME</journeyplan:ServiceAvailabilityId>
- <journeyplan:Origin StopPlaceTypeId="XXXX-RAILSTATION" StopPlaceName="Stockholm Centralstation" IsBorderPoint="false" BorderPoint="false">
  - <infrastructure:ScheduledStopPoint ScheduledStopPointId="XXXX-RAILSTATION-1"
    <infrastructure:ArrivalTime>2001-12-31T12:00:00</infrastructure:ArrivalTime>
    <infrastructure:CheckInTime>2001-12-31T12:00:00</infrastructure:CheckInTime>
    <infrastructure:CloseOfBoarding>2001-12-31T12:00:00</infrastructure:CloseOfBoarding>
    <infrastructure:EffectiveDeparture>2001-12-31T12:00:00</infrastructure:EffectiveDeparture>
    <infrastructure:GeoPoint SRSName="WGS84" Longitude="18.000000" Latitude="59.329386">
  </infrastructure:ScheduledStopPoint>
- <infrastructure:StopArea StopAreaId="XXXX-CENTRALPLAN-NATIONEN"
  - <infrastructure:VehicleAccess Name="CentralPlan-Track1"
    <infrastructure:GeoPoint SRSName="WGS84" Longitude="18.000000" Latitude="59.329386">
    <infrastructure:BoardingPosition VehicleRampSuitable="true"
    TRACK1-A"/>
  </infrastructure:VehicleAccess>
  </infrastructure:StopArea>
</journeyplan:Origin StopPlace>
</journeyplan:Segment>
</offering:Itinerary>
</rsp.offering.messages:OfferingParameters>
```



FSM offers a broad range of deliverables to get started

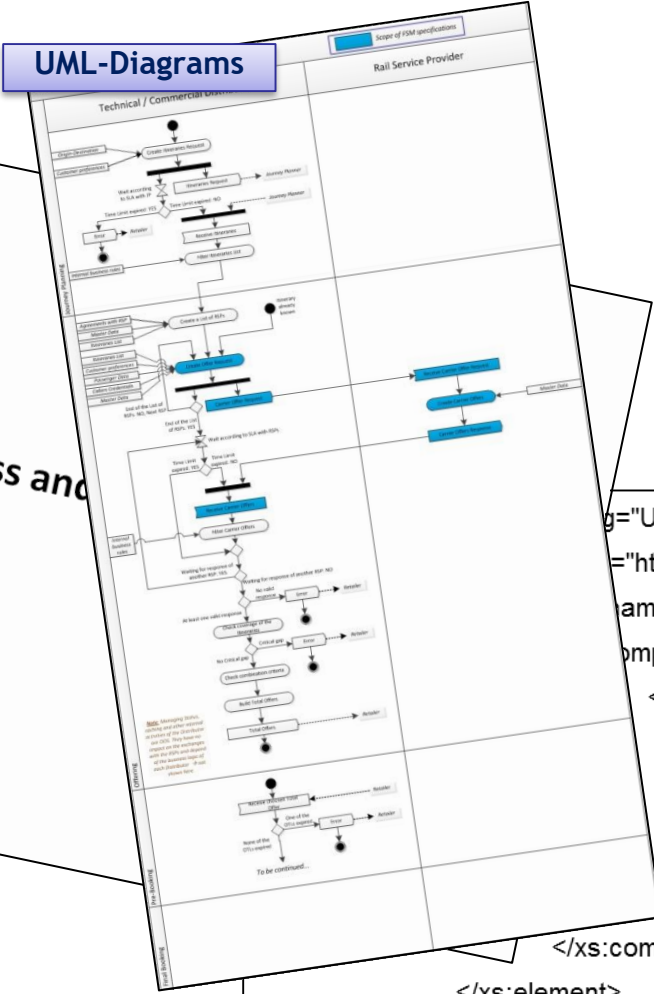
Business and functional requirements




High-Level Business and

Status: Final

UML-Diagrams



Specifications



Interface Specification

Offering and Booking

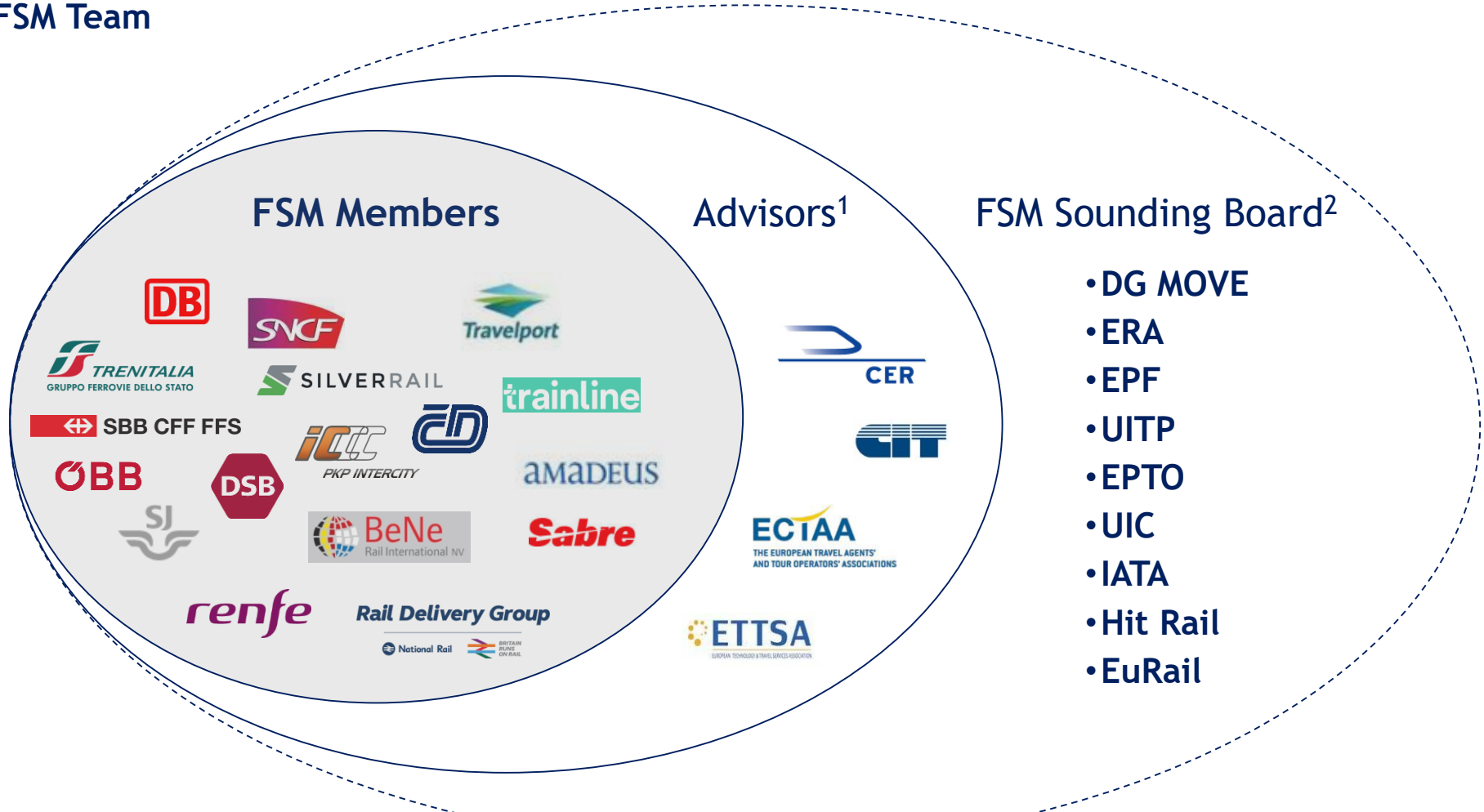
XSDs

```

g="UTF-8"?>
="http://www.w3.org/2001/XMLSchema">
name="personne">
complexType>
<xs:sequence>
  <xs:element name="nom" type="xs:string" />
  <xs:element name="prenom" type="xs:string" />
  <xs:element name="date_naissance" type="xs:date" />
  <xs:element name="etablissement" type="xs:string" />
  <xs:element name="num_tel" type="xs:string" />
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>
    
```

The FSM Members continue their commitment to the initiative and will drive further actions to make it happen

FSM Team



1) ETTSA (European Technology & Travel Services-Association), ECTAA (European-Travel Agents' and Tour Operators' Associations)
 2) Members of the TAP TSI Steering Committee plus representatives of other modes of transport