IP4 is specifying a bench of services on a eco system “web of transportation”, which provides to the passengers a seamless access for the preparation and a continuous support in their multimodal journey

- The objective of these slides is to present what is already done in the ongoing projects in order to avoid duplication and to foster complementarity with future projects

- For additional inputs regarding IP4 vision and organization, please refer to the Multi Annual Action Plan: [MAAP in Shift2Rail web site (pdf)](https://shift2rail.eu)
Overview of IP4

Technical Framework

TD1: Interop framework
TD2: Shopping
TD3: Booking & Ticketing
TD4: Trip-tracking
TD5: Travel Companion
TD6: Biz Analytics

Customer experience applications

Multimodal travel services

ITD7: Integration and demonstration
On-going Projects

- The “customer experience services” composed of the TDs “Trip Tracking” and “Travel Companion”, is addressed in 2 projects which are currently running:

  - IT2RAIL (http://www.it2rail.eu/), lighthouse project started in May 2015
    - 27 partners
    - Addressing all IP4 services with a reduced complexity (e.g. few number of modes, simple corridor, low TRL, individual traveller, traveller = customer = user, ...)
    - “Customer experiences services” are covered by WP4 Trip Tracking and WP5 Travel Companion
    - Mid-term conference on 17th November 2016 (slides can be downloaded on the IT2Rail web site)

  - ATTRACKTIVE (http://shift2rail.org/), project for JU members started in September 2016
    - Partners: HaCon, Diginext, Indra, Thales, Network Rail, Ansaldo STS
    - Covering both TDs of “customer experiences services”

- The next slides are describing the activities developed by these 2 projects on the “customer experience services”
Main goals of Trip-tracking work package

- Monitoring of unforeseen changes in transport (e.g. platform or gate changes, delays, cancellations or broken connections)
- Responding to such anomalies, incl. suggestions of alternative solutions

Trip Tracking activities

- Accessing passenger actual position
- Listening to the on-line information (real-time data)
- Identification of events that may affect passenger travel plan
- Matching these events with passenger itineraries
- Evaluation of impacts to original travel plans
- Automated alerting on disruptions or other changes (hints and warnings)
- Proposal of suitable alternative solutions in reaction to such exceptions
- Invoking of re-accommodation services
High level Trip Tracking activities in ATTRACkTIVE

- Determine and collect planned and real time data for all modes including public and personal transport
- Predict travel situations to detect possible journey interruptions in the future
- Analyse any transport events with impact for the itinerary of the traveller
- Generate notifications to be displayed on smart devices
- Orchestrate distributed tracking services

Specific Trip Tracking activities on top of IT2RAIL

- Integration of personal transportation, e.g. own car, bike and car sharing or pooling, cab
- Combination of tracking for public and private transport
- Prediction of upcoming situations
  → Inform the traveller ahead of an incident
Main goals of Travel Companion work package

• Develop a single mobile application for European door-to-door travel displaying to the traveller all the accessible services
• Develop a secure cloud storage ("cloud wallet")

Travel Companion activities

• Manage Identity and Preferences
• Manage Passengers Services: man-machine interface for the smart device & integration with multimodal services (shopping cart, validation etc.)
• Develop external connectivity functions (social networks, calendar)
• Interchange navigation functions for indoor travel episodes
• Manage the Wallet: virtual cloud space to store dedicated electronic payment, preference and travel wallets
• Tapping functions: Token and Embodiment validation mechanisms
High level Travel Companion activities in ATTRACkTIVE

- Generalise the architecture of travel applications
- Design and prototype novel forms of travel experiences incl. development of required tools
- Position the traveller in the geospatial environment for
  - providing guidance information
  - detecting and analysing deviation from the planned route
- Update travellers preferences by analysing the individual behaviour

Specific Travel Companion activities on top of IT2RAIL

- Module based framework with generalized In-App-Communication
- Navigation for all modes: routing, guidance, deviation recognition and re-routing
- Editor for passenger experiences and provision of travel experiences by using location based services
- Update of preferences on existing itineraries