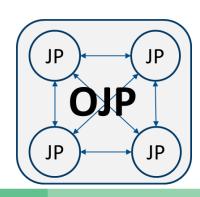


# LinkingAlps OJP Profile and Specification

#### What is OJP?



- OJP Open Journey Planning (API)
  - Goal
    - Open standard to exchange journey information between servers of different countries, to generate a long-distance travelling information for travelers.
    - One API, not several different proprietary APIs
    - Multimodal Journey Planning
      - Vehicles, busses, trains, walking, cycling
  - Distributed Approach
    - One doesn't need to know everything, but where to ask
    - Network of Journey Planners
    - Flexible and expandable

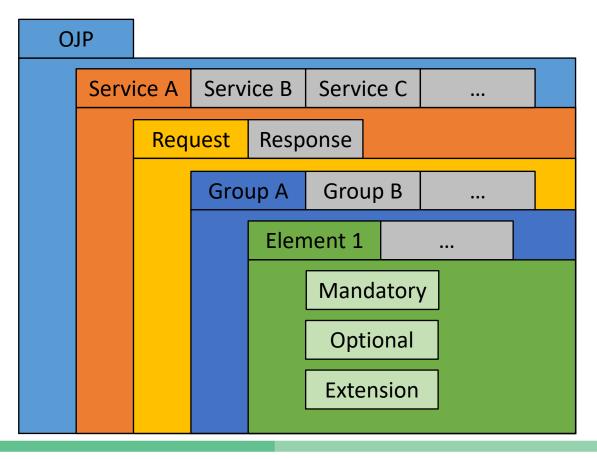


### What is an OJP Profile?



- OJP Standard covers
  - Various services (type of service, e.g. location information)
    - Each with it's own request / response
      - Parameters
      - Filters
      - Mandatory / optional fields
- Select what you need (service)
  - Mandatory fields define minimum to use the service
  - Rest is your choice
  - Extend as you like

#### OJP Structure (simplified)



### What is an OJP Profile?



OJP Service	Description	
LocationInformation	Information regarding places (e.g. stops, addresses, POIs, available public transport modes).	
Trip	Plan trips from "A" to "B"	
MultiPointTrip	Plan trips ("A to B via C and not via D"), trips with multiple origin and/or destination places given.	
TripInfo	Retrieve detailed information on a specific trip, e.g. the complete list of stops.	
ExchangePoints	Retrieve exchange points between operators / networks, either all of them or for a specific reference location.	
StopEvent	Retrieve stop events, e.g. for departure or arrival boards.	
Fare	Retrieve fare information, either static ones, for a stop, for a trip, or for multiple trips.	



- Goal LinkingAlps
  - Definition of a profile that fits the needs and requirements of
    - The traveller
    - The participating systems
    - The LA architecture
      - Interoperability
      - Compatibility with other OJP implementations





- Compatibility to other OJP implementations
  - EU-Spirit (<a href="https://eu-spirit.eu/">https://eu-spirit.eu/</a>)
    - Overall comparision of the profile
    - Coverage: Denmark, France, Germany, Luxembourg Poland, Sweden
  - OJP4Danube (<a href="https://ojp4danube-edu.net/">https://ojp4danube-edu.net/</a>)
    - Providing information
    - Coverage: Austria, Slovakia, Hungary, Romania, Czech Republik, Croatia, Moldavia







Method

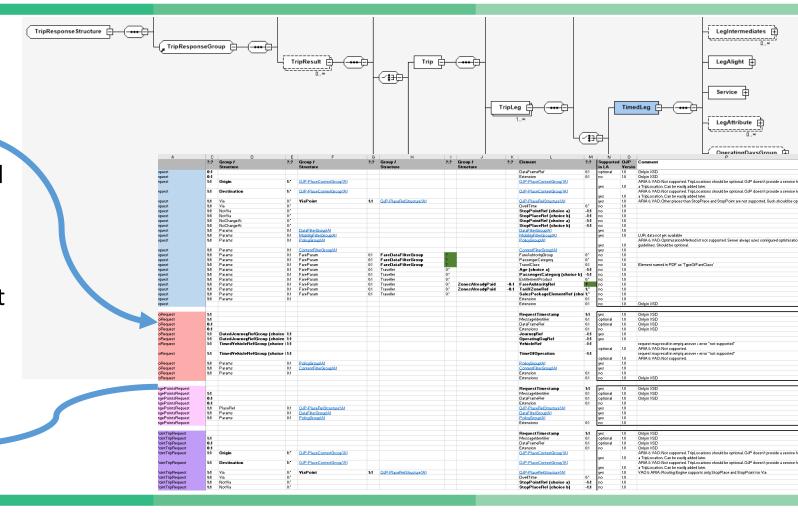
6 Workshops
(05/2020 – 03/2021) -

 In depth Walkthrough all parameters / elements with all AS/PS implementers

Decisions on the support of elements

Review phases

• Deliverable D.T1.5.1





OJP Service	Description	Used in LA
LocationInformation	Information regarding places (e.g. stops, addresses, POIs, available public transport modes).	Yes
Trip	Plan trips from "A" to "B"	Yes
MultiPointTrip	Plan trips ("A to B via C and not via D"), trips with multiple origin and/or destination places given.	Yes
TripInfo	Retrieve detailed information on a specific trip, e.g. the complete list of stops.	Yes
ExchangePoints	Retrieve exchange points between operators / networks, either all of them or for a specific reference location.	Yes
StopEvent	Retrieve stop events, e.g. for departure or arrival boards.	Yes
Fare	Retrieve fare information, either static ones, for a stop, for a trip, or for multiple trips.	No



- Challenges & Solutions
  - A priori definition of the profile
  - Identification of ExchangePoints across multiple systems
    - Common ID-System
  - Language
    - OJP 1.0 does not support multiple languages at once
    - Definition of language order (user, english, local)
  - General system behaviour (definition of rules)
    - Active → Passive
    - Passive ← Active
    - App

More on Exchange-Points in the next presentation



- Output
  - Detailed analysis / discussion of the OJP Standard
    - Project discussions on future OJP updates (standard)
    - Limitations of the OJP Standard
  - Fully defined OJP Profile for LinkingAlps
    - Includes extensions in regards to the environmental footprint
      - Emissions (CO2)
      - Defined scheme for further extensions in this regard





#### LinkingAlps OJP profile

Design, features, and specification

Version: 02.00

Dissemination level: Restricted (Partners only)

WP: D.T1.5.1 – Specification of API interface (specification)

Author: BLIC (PP7)

Date: 01. April 2021



#### Thank you for your attention

#### BLIC

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