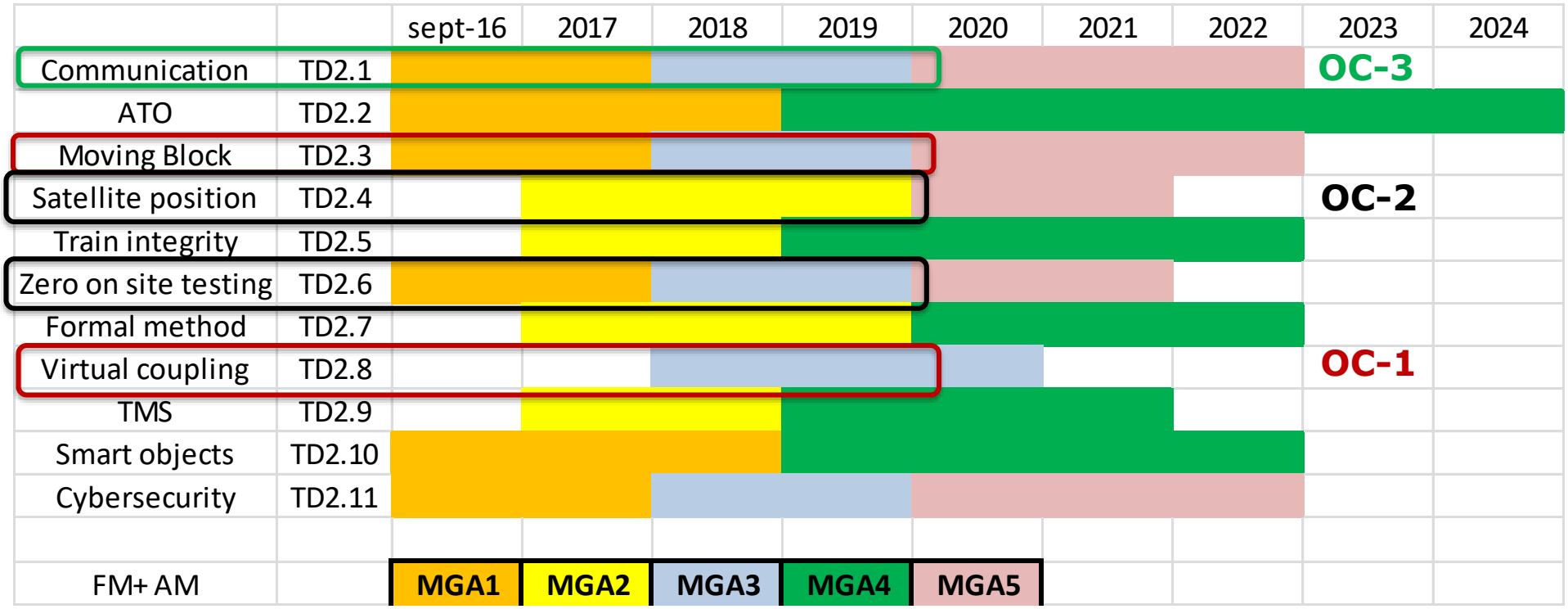

Shift2Rail

Shift2Rail Open call 2018

IP2 : Signalling

Rappel des Technical Demonstrators (TD) de IP2 et des 5 Projets annuels CFM



- Plus d'informations à retrouver dans le MAAP, sur le site Shift2Rail.
- Egalement dans le texte du call S2R-CFM-IP2-01-2018

S2R-OC-IP2- 01-2018

Analysis for Moving Block and implementation of Virtual Coupling concept - Project RIA (TRL3), budget = 1,3M€

- *Specific Challenge:*

Use of new Train Separation systems like Moving Block or systems based on Train Centric solutions, to increase line capacity and reduce the trackside LCC.

- *Scope :*

To identify and assess the best approach to test and bring into service Moving or Fixed Virtual Block

To analyse the potential business and market response for Virtual Coupling , and to investigate adapted Train-to-Train (T2T) communication solutions.

The action is complementary in particular with S2R-CFM-IP2-01-2018

- *Expected impact:*

Define processes to bring Moving block systems into service.

Define potential roadmap for introduction of Virtual coupling

S2R-OC-IP2- 02-2018

Methodologies and verifications for GNSS in Railways and virtual test environment - Project RIA (TRL 3), budget =1M€

- *Specific Challenge:*

In order to decrease the cost of track side equipment, the call will clarify conditions to use GNSS (TD2.4). The call will also improve Zero on Site Testing environment (TD2.6), maintaining simulation environments when introducing new functionalities.

- *Scope :*

GNSS: characterize and evaluate the GNSS performance (specificities of rail segments, of the constellation, special conditions of interference, multipath, spoofing). For the ZOST, develop automated update of test environments in case of changes, taking the safety aspect into account.

- *Expected impact:*

Contribute to the GNSS architecture, pro/cons of the approach depending of the market segments. Also contribute to the development of a Zero on-Site Testing (TD2.6) environment, in particular with better efficiency of the test environment.

S2R-OC-IP2- 03-2018

Communication environment assessment and validation - Project RIA , budget = 0,75M€

- *Specific Challenge:*

To avoid the complex and expensive installation of various real radio access in labs, develop a radio access emulation, flexible, configurable and programmable for end-to-end validation and verification activities.

- *Scope :*

The radio access emulator shall support multiple emulation instances of one or more access networks, including but not limited to LTE, LTE-Advanced, GSM-R, 5G, WiFi/802.11, SatCom networks.

- *Expected impact:*

Contribute to the development and testing activities for all TD2.1 communication systems. In practice it will reduce complexity and costs during testing with the usage of emulation instead of installing and operating real radio equipment, contributing also to TD2.6, and allowing to emulate various critical and rare conditions.

S2R-OC-IP2- 0X -2018
Company profiles

Proposition	Sujet	Profil
0C-IP2-01	Moving block, Virtual Coupling	Rail specialist, Strategy, business, deployment Pas de dévlopt tech.
0C-IP2-02	GNSS Simulation	Rail + GNSS specialist, Académique Pas de dévlopt tech.
0C-IP2-03	Communication	Dévelopt technique, Académique, SMEs

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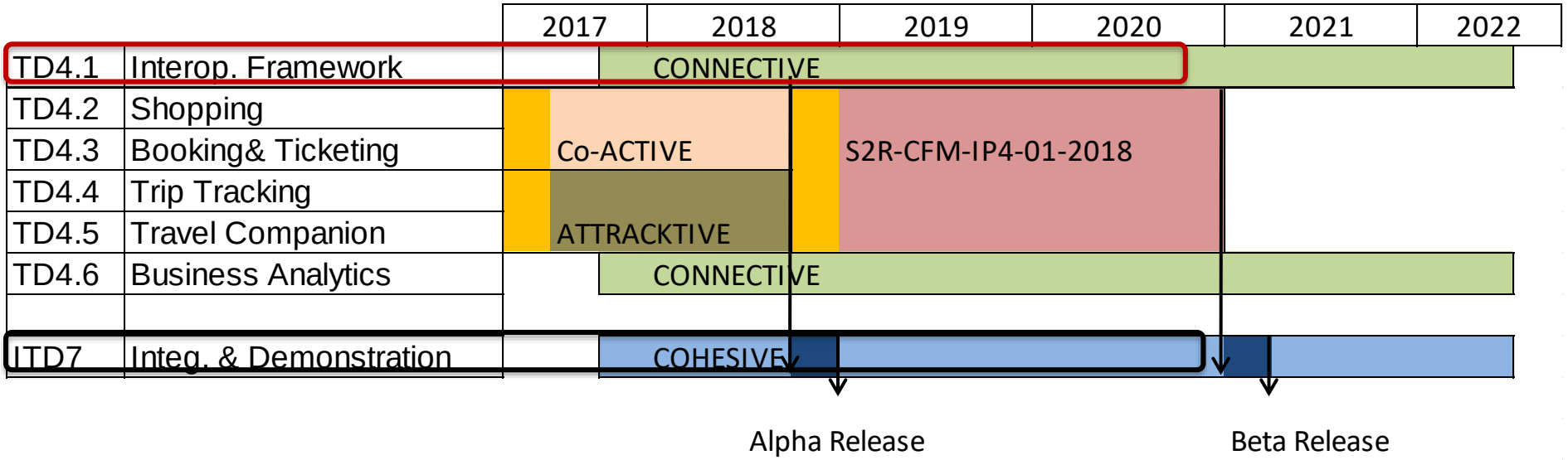
IP4 : IT Solutions

Rappel des Technical Demonstrators (TD) de IP4 et des Projets annuels CFM



OC-1 Performance of Interoperability framework

OC-2 Support to demonstration

S2R-OC-IP4- 01-2018
Semantic framework for multimodal transport services - Project RIA (TRL4), budget = 2 M€

- *Specific Challenge:*

Improving performance and scalability of the interoperability framework to sustain a large deployment. Support the market uptake by simplifying the integration of new services.

- *Scope :*

The project will propose different options, architecture, parallel computing, SW options to improve performances, and will also propose mechanisms to automate the annotation, mapping and translation between systems.

The action is complementary with S2R-CFM-IP4-01-2017 CONNECTIVE

- *Expected impact:*

Reach the necessary performance for the interop framework.

Reduce efforts and costs for the integration of new systems/services/actors in the transport ecosystem.

S2R-OC-IP4- 02-2018

Supporting the implementation of the IP4 multi-modal transport ecosystem - Project RIA, budget =1,5M€

- *Specific Challenge:*

Prepare the market uptake of IP4 developments by supporting end-to-end demonstration. Analyze the roles and business models in the new transport ecosystem that IP4 is enabling (for instance in the MaaS context).

- *Scope :*

Propose scenarios and use-cases, and support realistic demonstration using the developments made in the others IP4 projects, by providing relevant data, and an adequate environment to integrate and run the demo. Analyze the impact of the IP4 ecosystem on the passengers behaviours.
The action is complementary with S2R-CFM-IP4-02-2017 COHESIVE

- *Expected impact:*

Promote the market acceptance by bringing scenarios to build the demonstration use-cases, realistic business rules, real data and realistic environment.
Demonstrate that the IP4 eco-system is versatile, able to cope with legacy systems. The assessment of the business and socio-economic impacts will clarify the pros and cons, and accelerate the market uptake

S2R-OC-IP4- 0X -2018
Company profiles

Proposition	Sujet	Profil
0C-IP4-01	Interop Framework	IT; Academique Dévelopt technique
0C-IP4-01	Support démonstration	Cities, Authorities, Operators Pas de dévelopt

Thank you
for your attention!