

Opening

Mario Toma opened the meeting and welcomed the participants. Due to the Coronavirus situation, the meeting was kept remote, using MS Teams.

Implementation Plan of the Participants

With the agenda, Mario Toma sent out a link for a webform and the participants of the TSI Compliant PCS Mandatory Interface project were asked to fulfil it with their data.

<https://cms.rne.eu/tsi-compliant-pcs-mandatory-interface/content/tsi-compliant-pcs-mandatory-interface-report>

RNE received some answers before the meeting, but the others could provide their details during the meeting. The web form asks for some simple information:

- Company data
- What are you working on currently?
- Describe your current status of the implementation?
- The end date of implementation
- Do you consider your project on time?

As usual, the received information will be presented as written information to the RNE General Assembly.

Before and during the meeting the following feedbacks were received:

Infrabel – Currently we are working on the decomposition of the TAF/TAP 2.2.4 XSD schema to enlight the elements needed for PathRequestMessage, PathCoordinationMessage, PathCancelledMessage, PathDetailsMessage, PathConfirmedMessage & PathDetailsRefusedMessage. The planned end implementation date is December 2020 and the project is considered on time.

ADIF – we try to analyse the original implementation plan that was sent and provide modification of the original plan. The template of the initial plan is asked. Path Details Message is under development. Path Request Message is tendered currently. The end date of implementation is planned for April 2021 and regarding the original plan, it is delayed. Harald Reisinger mentioned that ADIF is also in the funding implementation of the PCS interface and if there is an issue in the implementation, it should be notified. ADIF will check the funding deadlines and provide information.

DB Netz – said that there is no confirmation of the original plan because of the other large projects they have, and something can happen in the implementation. The planned end implementation date is July 2022 and the project is considered on time.

HŽ Infrastruktura – currently we are writing the tender for the new system. They have to exchange the current system. The planned end implementation date is December 2021 and the project is considered on time.

BaneNOR – we are currently in the planning phase with the supplier and building a new architecture and the interface depends on it. The planned end implementation date is December 2021, regarding the original plan, it is delayed.

Harald Reisinger stressed that the aim is to be ready with the interface for the TT2025, in line with the TTR programme. If the companies will be delayed, it is necessary to bring this information to the next RNE GA meeting to inform their countries that we are facing with the situation that we risking not to be on time. The companies will be asked for their plans.

VPE – the project will be finished in the summer of 2020. Their implementation is faster.

SZDC – we have to revisit the former findings and we are waiting for the implementation on the PCS side, because of some missing parts. We are fully TSI compliant but this year we will restart OTS

implementation. The missing parts were already discussed time ago with Seid Maglajlić, Máté Bak and developers from our SZDC side.

Máté Bak asked is it needed to revise this topic, because in the meantime a lot of things is developed in the PCS on those points that were discussed.

Ondrej Kubena agreed that it will be good to meet and keep them informed.

SZDC is already TSI compliant and this new development is considered on time.

Trafikverket – we are planning to be feature complete in this year, but still missing part in own planning system. Therefore, we will go in live with TSI interface in January 2022.

There was also a question is it possible to have coordination messages earlier in the PCS production system and it will be very helpful to start even from next year.

Harald Reisinger said that it will be good to have the list of functions required and when the PCS is ready.

Máté Bak answered that the PCS development is on agenda and will be provided today in the meeting in later topics, together with the release plan for TSI interface for PCS. It will also answer Robert's question.

SBB Infrastruktur – The communication between CI and Facade system is established but the features for the PCS is not yet fully implemented. The planned end implementation date is September 2020 and the project is considered on time.

ProRail – the original plan mentioned in the presentation is wrong and in their national plan we always have the information that it should be done by the end of 2020.

Harald Reisinger highlighted that the first date was collected for RNE GA 2018 and it is just a starting point and can be corrected.

Floris Visser said that correct one was December 2020.

The planned end implementation date is June 2021 and the project is considered on time.

SŽ Infrastruktura – we will be ready by end of 2022, according to the plan and funding that last by the end of 2022. Some features will be ready earlier, but altogether will be finished in 2022. For the time being, we are in line with the plan.

Harald Reisinger stated that all the companies that didn't send their updates, should be contacted in personally and asked by individual emails for this information and put GA person and RNE CIO in the copy.

Information about the PCS - TSI connection developments

PCS connects to its Common Interface with a mapping tool (TIL – Transition Integration Layer). Máté Bak presented the development status of this tool and the further outlook.

TIL version 2.0.2 and 2.1

The new versions were deployed in March. Please find here the details of the releases:

- Version 2.0.2 (bug fixes)
 - o Traction Length bug fix (conversion the m to mm)
 - o Problem with the field TrainType in TIL notification service
 - o Missing responsible Applicant and responsible IM in TIL notification service
 - o OTN field is fulfilled properly from the path section and not based on from_op_id
 - o Proper sending of Planned and Related Planned Transport IDs (based on PCS Identifiers). The sub-path of the path request is sent in the Planned Transport ID, and all other sub-paths from the IM timetable are sent in Related Planned Transport IDs
- Version 2.1

- PCS – TIS connection: Path Details Message is generated when the dossier reaches Active Timetable and the message is sent to TIS
- Special sender and recipient configuration for Path Request and Path Details message avoiding broker element, but still having PCS in the communication chain (further details are shown later)

These recent changes were still made in the scope of the JS Pilot for Short-term path request and Train ID. However, the scope it's now being extended to the mandatory interface project to cover further use cases that were not in the scope of the JS Pilot.

TIL version 2.2.1

Version 2.2.1 will support **more RA – more IM communication**. Until now, in the scope of the pilot, the mapping tool could support use cases only up to 2 RA – 2 IM structure dossiers. The aim of the upgrade is to support n:m pairs of applicants and IMs.

Version 2.2.1 will support the **Network Specific Parameters** (called as National IM Parameters in PCS). It doesn't mean any change of the schema as the NSPs are already part of the messages. Also, working with NSPs is optional for the IMs, it's up to you whether you define any NSP on your network. However, during the tests in the JS Pilot it came clear that for some IMs it's crucial to receive their NSPs.

TIL version 2.2.2

Version 2.2.2 will support the already described use cases of the [TSI Communication Guide](#). It also means that we will support different process types using new codes in the Type of Request element, in line with the schema of the TTR IT XSD, e.g. New Path Request, Late Path Request, Rolling Planning, etc.

The new versions of 2.2.x are expected to be delivered in June.

TIL version 2.3

Version 2.3 shall be able to support the communication including PaPs. For that, there is a pre-condition until the end of June to define shared metadata for that. It's especially important for the applicant side because IMs can communicate about PaPs relying on the path section ID. PCS then knows whether the path section contains a PaP.

Floris Visser asked whether there is a release plan existing also for PCS Production. He assumed that these changes are planned for the PCS Test 4 system. Máté Bak confirmed that these deadlines and changes are planned for PCS Test 4. However, the tests are running OK, RNE is ready to roll-out the features to PCS Production either by the end of 2020 or beginning of 2021. He mentioned that there is a parallel project, called PCS Developments 2020 that includes the synchronization of CRD locations. Currently, the PCS Test 4 works with CRD only locations, but it's not the same for PCS Production. The pre-condition of the roll-out of the TSI communication to production is to have the locations synchronized from CRD.

ERA 2.3.1

ERA recently published a hotfix with version 2.3.1. Máté Bak confirmed that the JS Pilot will finish its last months with the sector schema 2.2.4, but for the PCS interface, we may need to check the update. Regarding that, an impact assessment survey will be sent out by RNE. It will be interesting especially for those partners who are already connected in the system because the configurations need to be updated.

Lessons learnt from the JS Pilot regarding sender/recipient

During the tests with VPE, RNE found an interesting issue when PCS is in the middle of the communication chain. Please note that there is a pending change request for having a broker element to cover PCS and other similar applications, but now an alternative solution was discovered. Please find the details below.

- Interesting findings: VPE route configuration: Path Request from RU to VPE (Allocation Body/IM) via PCS Common Interface
 - o PathRequestMessage
 - Sender: RU Company Code
 - Receiver: RNE Company Code
 - o Processing by PCS (Notification Service sends PathRequestMessage)
 - Sender: RNE Company Code
 - Receiver: VPE Company Code
- VPE Route configuration: PathDetailsMessage from VPE via PCS Common Interface
 - o PathDetailsMessage
 - Sender: VPE Company Code
 - Receiver: RNE Company Code
 - o Processing by PCS (Notification Service sends PathDetailsMessage)
 - Sender: RNE Company Code
 - Receiver: RU Company Code
- Reasoning:
 - o Saving of implementation and configuration costs: having just one route for multiple connections
 - o Broker element in message header still not supported by CI configuration

Ondrej Kubena asked whether legally it is in line with TAF TSI's basic principles, because they have already ca. 15 applicants that send PathRequestMessages to them as IMs and it would be strange for them to send the same message to RNE. Máté Bak explained that in his opinion it's a technical detail of the Path Request and Path Details. Obviously, RNE is not the one who really receives the Path Request or does the allocation with Path Details, but technically in the messages PCS is entered there to serve as a message broker. Seid Maglajlic also commented that he shares the concerns of Ondrej, and that is why we have prepared the change request for the broker element. However, we have to face the issue that the broker element has never been foreseen in the Common Interface communication and it depends also on the Change Control Board of the Common Components. It doesn't mean that it will be never implemented like that, but we had to find a solution now and technically it's proved that it works.

As part of the TTR IT implementation, RNE and FTE is working on the detailed process specification for each process type. On top of that, it's important to stress out how the message sequence can work with a central tool in the middle of the communication. Please find attached a PDF (Pier to central tool messaging). During the meeting Máté Bak explained the details of the diagram.

At this point, Máté Bak had an any other business topic. During the specification of such diagrams, RNE and FTE discovered an open point that shall be asked from applicants and IMs.

How do you deal with your path and draft/final offer, when you have them also in PCS dossiers and it's the leading IM (not you) who promotes the dossier to the next phase? When do you that? How do you

do that? Please note that even that is possible when it's PCS who promotes the dossier, if all the acceptance indicators (harmonization status) are green.

Feedback is expected from the participants after the minutes under the meeting event.

Seid Maglajlic mentioned that he raised the same questions in the FTE IT WG (lead by Sebastian Naundorf) because it will be interesting to see the answers from the Applicants too and then compare them to each other.

IM editing reserved capacity in PCS

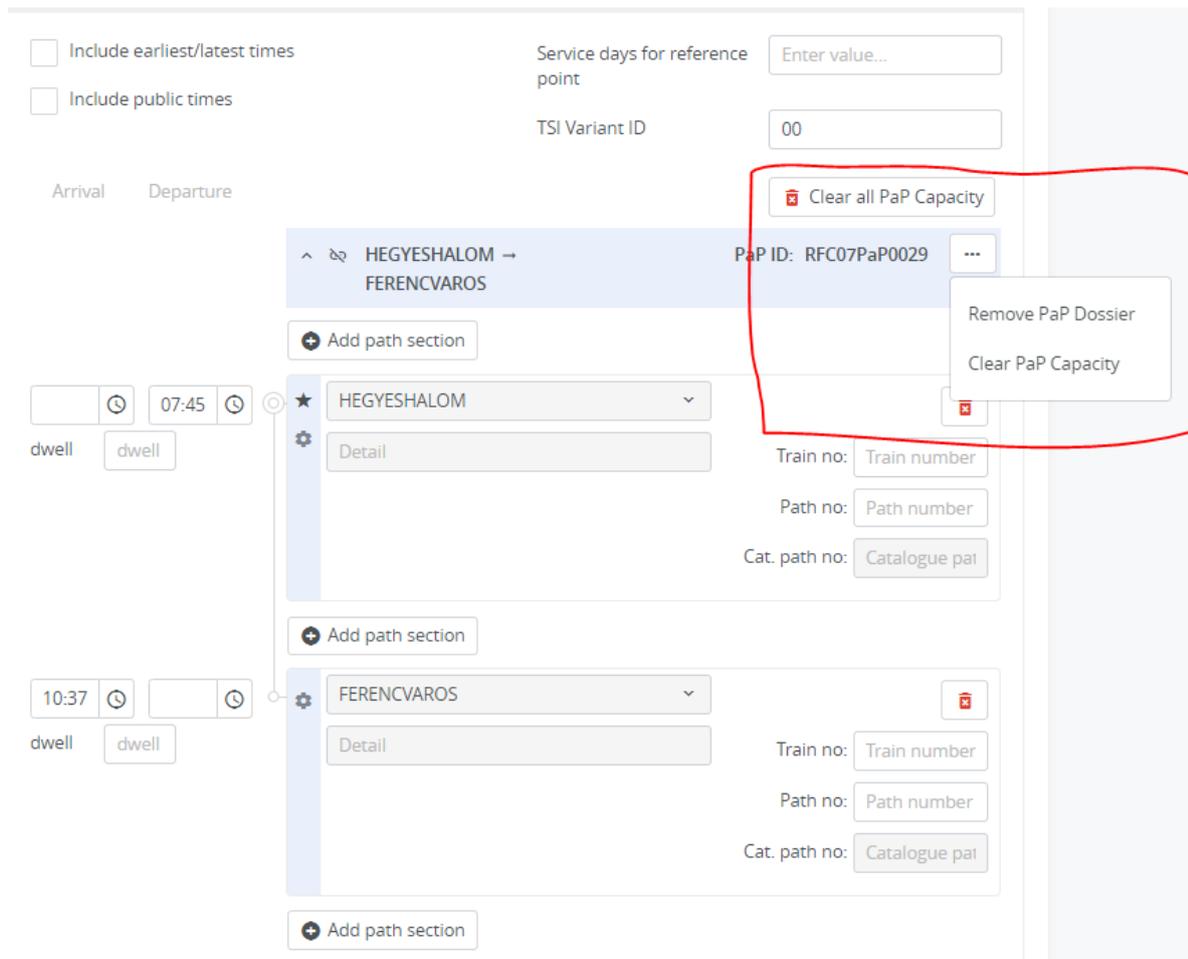
Since the beginning of April, the new PCS EC versions supports a crucial step of the C-OSS Guideline. According to that in Path Elaboration for Annual Timetable requests:

*"If necessary: Tailor made solutions are being created for pre-booked PaP sections not available anymore due to external influences, especially TCRs**

**) If IMs are forced to reconsider PaPs due to TCRs the principle of "guaranteed capacity" is to be kept. Therefore, all requests based on pre-booked PaPs have to receive an offer. The C-OSS has to be informed about reduced operation days of PaPs."*

To solve that, PCS GUI was extended with additional options in the timetable view.

- Clear all PaP Capacity -> whole SP to TM SP
- Remove PaP Dossier -> removed from the timetable
- Clear PaP Capacity -> just becomes TM, everything else remains -> delete confirmation question
- Remove the sub-path that has reserved capacity -> warning and delete confirmation
- Add a new sub-path which calendar contains days that were reserved already in other sub-paths' PaPs



The behaviour is the same on the web-service updates. If an IM sends back an update on a dossier using the path section IDs, PCS updates the timetable properly, keeping the reserved PaP capacity. When an IM does an update that would reduce the reserved capacity, it will happen as on the GUI.

Scenarios:

- Not supported
 - o Combined PaP is not supported for IMs, meaning they try to extend the calendar of a sub-path, but the PaP there cannot have more capacity than reserved. It results a new error code 672 COMBINED PAP NOT SUPPORTED
- Supported
 - o Cancellation of days with reserved capacity
 - o Creation of tailor-made sub-path where the switch will reduce the reserved capacity
 - o Split sub-path with PaPs: IM has to create a new sub-path with the used catalogue data there, remove all path section identifiers and only adapt the calendar (choose the days you want to have from the already existing sub-path)

Detailed Use Case

To understand easier the above written feature, please find here a use case that elaborates a bit more detailed on this issue. We will show the process from the very beginning of the process, starting with the publication of the PaP, via the request, reservation until we arrive to Path Elaboration.

X-11 PaP Publication deadline

Rail Freight Corridor, based on the files from the IMs, publishes the PaP for the annual timetable. Let's take one PaP for our use case as an example:

- PaP ID: RFCXYPaP0001, the PaP ID serves as a field to connect several PaPs together to be one harmonized route on the whole corridor
- PaP dossier ID: 154631, 6-digit identifier assigned by PCS, just like any for any other Applicant created dossiers. PCS stores the PaPs also in dossiers, but they have only IM timetable (=path information)
- Published PaP Calendar: 1-7 for the whole year (364 days)

X-8 Path Request deadline

Applicant prepares a dossier and it places the PaP 154631 also there.

- Dossier ID: 221654
- Requested Calendar: 6-7 for the whole year (104 days)
- PaP dossier ID: 154631
- Published PaP Calendar: 1-7 for the whole year (364 days)

X-7.5 Pre-booking deadline

In case of requests with PaPs, the dossiers don't go to Path Elaboration phase, before that, they stop in Pre-booking phase. This is the phase where the RFCs can check the requests, solve the conflicts and come up with their decision: reserve, request a tailor-made or reserve an alternative PaP. To keep the use case simpler and practice, let's assume that the RFC reserved PaP 154631 for day 6-7 in the dossier 221654.

Please note that at the end of the Pre-booking period, PCS returns all not requested capacity to the IMs so that they don't block anymore the capacity in the annual planning. Let's imagine that PaP 154631 was requested only in this dossier 221654.

- Dossier ID: 221654
- Requested Calendar: 6-7 for the whole year (104 days)
- PaP dossier ID: 154631
- Published PaP Calendar: 6-7 for the whole year (104 days)

X-7.5 – X.5 Path Elaboration

We arrived at the interesting part. IM has the dossier in Path Elaboration, the PaP 154631 is reserved for day 6-7.

To understand the new feature, let's check what could the IM do last year?

- IM could edit the times of the regular points of the flex PaP
- IM could edit the parameters of each points of the PaP

What can they do now and how?

- IM can give different offers for different days for the same PaP
 - o IM can split the paths with a feature "Copy sub-path with PaPs"
 - o Then the new sub-path can get a calendar e.g. day 7
 - o Result: two sub-paths, one for day 6, another for day 7
 - o Then, it's up to the IM how to proceed
 - o **Via web-service:** create a new sub-path without PCS IDs and put there the used catalogue data (of PaP 154631) to each path section. Apply the day 7 in the calendar of this new sub-path during the creation.
- IM can reduce the calendar 6-7 of the reserved PaP and prepare a tailor-made offer for the other days
 - o IM can go to the calendar and simply remove a day
 - o **Via web-service:** send an update of the sub-path that contains the PaP, but with less running days. Or create a new tailor-made sub-path with running days exist in the sub-

path with PaP. PCS will de-select automatically those days due to the calendar switch function.

- IM can clean completely the reserved PaP calendar
 - o IM can apply the clean capacity option in the dossier
- IM can delete the PaP from the IM timetable
 - o IM can apply the remove PaP dossier option in the dossier

What is still not possible?

- IM cannot increase the calendar of the path that contains the PaP 154631. Because the PaP is available only on 6-7 (Published PaP Calendar: 6-7 for the whole year (104 days)) and that would result a combined PaP and tailor-made solution, which is not supported.

Planned changes for PaPs in PCS

After several years of experience with flex PaPs, we plan to deploy new options for flex PaPs in **September 2020**. The changes won't introduce any new elements in the schema, but the access control will be updated.

Flex PaPs shall still have regular and protected points

- Regular points:
 - o Applicants can edit the times, delete the points in the Applicant timetable
 - o C-OSS can edit the times, delete the points in the C-OSS timetable
 - o **IM can edit the times, delete the points in the IM timetable**
- Protected points:
 - o Applicants can delete the points in the Applicant timetable
 - o C-OSS can delete the points in the C-OSS timetable
 - o **IM can edit the times, delete the points in the IM timetable**

Regarding the **parameters**, IM together with C-OSS shall be able to decide, whether the published parameters are restrictions (as today) or recommendation. To help the users, from September, PCS shall show the originally published parameters and currently used parameters, where published parameter value is available. The import sheet shall be adjusted according to this new option for the parameters. As the former restrictions were valid only for Applicants, this change has no impact on IMs.

You can follow the life of the change request in CMS on the link:

<https://cms.rne.eu/pcs/pcs-crs/improving-customization-flex-paps>

Presentation of the TTR XSD

Mario Toma presented the latest version of the TTR XSD. Please find it attached to the meeting's event. He mentioned the new:

- Objects
- Elements
- Messages
- Codes
- Etc.

Those changes are necessary to support different process types, the publication of capacity products such as capacity bands, pre-arranged path, catalogue paths and TCRs.

The capacity messages do not exist in the existing TAF/TAP TSI schema and therefore it is necessary to define new messages for sharing information about the available capacities between the systems (national and central).

To manage the capacity products, new objects, elements and messages are proposed. Besides, the existing document of the TAF/TAP TSI schema should be updated. After approval and acceptance from the TTR IT WG and TEG, the proposed schema will be sent to the SMO to be implemented in the official TAF/TAP TSI schema.

The new objects that should be defined in the "ObjectType" element are as follows:

- Capacity band (BA)
- Pre-arranged path (PP)
- Catalogue path (CP)
- TCR (TC)
- Business Identifier (BI) – needed for testing the multi-annual aspect

The list of new messages and new elements was done in the PowerPoint presentation and the messages' structure is presented in the XMLSpy. Each message was explained with the information about the new elements that were incorporated.

Capacity Product Coordination message

The message shall be used for the exchange of information between IMs for coordination and data synchronization purposes on capacity bands.

The structure of this message is similar to the structure of the "PathCoordinationMessage". The major difference is that the "TypeOfRUHarmonization", "TrainInformation", "NetworkSpecificParameter" and "RevisedRequest" elements do not exist.

A new "AffectedIMs", "InvolvedICES" and "BandInformation" elements have been added.

The "PathInformation" element can be used by stakeholders to coordinate path information and not only bands, using the "BandInformation" element, in case that path is more suitable to the RA request. The "PlannedCalendar" element is extended with optional elements: "NumberOfSlots" and "AllocationStatus"

Capacity Product Details message

This message shall be used by IM/AB and RFC for the publication of information on available capacity bands on the networks for which they are responsible. The same message will be used, in the case of multi-annual aspect, for sending a capacity offer to Applicant and it will be used by the IM to the RA confirming details of the path in response to an RA request.

New elements that are also part of the other messages:

- "BandInformation" is a new element for storing the information of the bands and this element will be used to request a band.
- "BandJourneyLocation" was created based on the "PlannedJourneyLocation" because "PlannedJourneyLocation" cannot be used as originally defined because of the additional data required to define the bandwidth (start and end time, capacity manager and so on).
- "BandTechnicalData" element, a complex type that contains the main technical characteristics of the band that was considered by the IM/AB/RFC during the construction
- "TrainWeightFrame", "TrainLengthFrame" are the frames of parameters with an attribute ParameterQualifierCode for the sum weights and lengths of wagons and traction units

- “WeightOfSetOfCarriagesFrame”, “LengthOfSetOfCarriagesFrame” are the frames of parameters with an attribute ParameterQualifierCode for the calculated maximum weight and length of all carriages without the traction
- “ReferenceLoco” element defines the design series, mode of deployment and technical specifications associated with the traction of a train
- “NumberOfSlots” element indicates the available slots per day inside a capacity band
- “AllocationStatus” element indicates the different allocation status of a path per day
- “CapacityManager” element shall be used for the whole journey, where it’s indicated which agency is responsible for handling and processing the capacity. It is an optional element and will be used in the case of PaPs, Catalogues and Capacity Bands to distinguish use cases between RFCs and IMs.
- “CapacityTitle” element used to identify the separated capacity products such as bands, PaPs, CPs as one harmonized route. This format is based on the current PaP ID structure.
- “TypeOfPartition” is an optional element, that defines the partition according to the TTR process description. This element is a type of “TypeOfPartition” that has two values:
 - o ATT – annual timetable
 - o RP – rolling planning
- The “PathInformation” is an optional element, of the “CapacityProductDetailsMessage”, that applicants may use to request the pre-arranged path or catalogue path for the up-coming TT period, while the “BandInformation” will be used for the subsequent TT periods.

Capacity Product Confirmed message

With the “CapacityProductDetailsMessage”, IM sends its offer to the RA request and by using the “CapacityProductConfirmedMessage” RA confirms the proposed path offer (in case that offer is acceptable for RA).

An optional “PlannedMultiAnnualTransportIdentifiers” element is added to the “Identifiers” element. It is needed for the multi-annual aspect, to connect the request for more than one TT period.

Capacity Product Details Refused message

This message is used by the RU to inform the IM that the CapacityProductDetails (with changed values of the request to earlier booked capacity product or path) is not acceptable.

The existing “TypeOfRequest” element was extended with new values:

- Rolling planning path request
- Capacity Bands
- Pre-arranged paths
- Catalogue paths
- TCR

Capacity Product Not Available message

The “CapacityProductNotAvailable” message is used to initiate alteration on capacity bands or to cancel days from a capacity offer.

For the TCRs, three messages were defined:

- TCRMessage – will be used by IMs to import TCRs to the central TCR Tool
- TCRCanceledMessage – will be used to cancel the particular TCR
- TCRResponseMessage – will be used by the tool to send the TCR validation information to the IM systems

To search for the capacity products, two additional messages were defined.

- SearchCapacityProductMessage – that will be used for sending the search criteria
- CapacityProductMessage – with this message the results of the search will be returned.

TTR IT Pilot

As the JS Pilot for Short-term Path Request and Train ID will officially end in June 2020, RNE would like to launch another pilot, but now for TTR implementation. It means taking over existing use cases and extending the scope according to the scope of TTR (TCRs, capacity products, etc.)

The feedback from the JS Pilot pilot is very important for testing the defined message and their implementation in a real environment to avoid the possible issues. The continuation of these activities is important for the TTR IT Landscape implementation and therefore a new TTR IT Pilot is defined.

The goals of the TTR IT Pilot are the following:

- Testing of proposed processes, messages and the whole concept of TTR IT landscape, to be well prepared for the full TTR IT Landscape implementation
- The proposed processes, including the multi-annual aspect, will be tested from the IT point of view. The feedback from these tests, if necessary, will be provided to the sub-group TTR process with the explanation of the findings
- By testing the proposed messages, some possible issues will be solved during the pilot and before the final implementation, to facilitate the TTR IT Landscape implementation to members
- All the necessary implementation steps will be tested in advance and members will be provided with the implementation handbook to reduce the possibility of delay

The expected benefits from the pilot:

- An experience that will be used as a basis for adopting the processes and developing other specifications. The TTR IT Landscape concept will be improved regarding the feedback, if necessary
- The members who participate in the pilot will be already well prepared for the implementation. The members will have a chance to check the impact on their national systems
- The possibility to start with testing immediately and not waiting for the approval of the messages by TEG and SMO groups
- Stakeholders will be informed and familiar with the implementation steps
- Altogether, it will lead to faster implementation

The IMs will know the detailed procedure for the TTR IT Landscape implementation. There are no unknowns regarding the implementation and all possible concerns are answered in advance.

The TTR IT Pilot is directly connected to:

- TTR IT Landscape – the IT Landscape concepts and proposed messages will be tested,
- TTR Process Implementation – the feedback will be provided according to the test result and needs for change
- TTR Pilots – the experience and proposals from the pilots will be taken into account and checked from the IT point of view