Redesign of the International Timetabling Process (TTR)

Annex II: Draft Implementation Plan

(Version 0.8)

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Version history

Version	Date	Description
0.1	28 February 2017	Document created by Philipp Koiser
0.2	1 March 2017	Corrections and input by RNE SG
0.3	3 March 2017	Input and corrections by the TTR Core Team
0.4	6 March 2017	Corrections after proofreading
0.5	6 March 2017	Approval by TTR Steering Committee
0.6	10 March 2017	Inclusions of input by TTR Round Table
0.7	4 April 2017	Inclusion of input in endorsement phase by TTR Core Team
0.8	5 April 2017	Corrections after proofreading

1. Basic consideration for TTR implementation

Based on the findings of the TTR project, elements were defined which will be gradually implemented. Due to the proposed step-by-step process, long development times and the experience required, implementation will be carried out as a joint programme by RNE and FTE, together with ERFA. Organisational structures, including decision and development workflows will be maintained (e.g. IT development) while TTR will serve as a strategic framework.

2. Implementation steps

2.1 Action plan

An action plan will be created based on the defined TTR elements. Each element will be analysed, taking into account the following aspects:

- Current state
- Target state
    - o Organisational requirements
    - o IT requirements
    - o Check concerning European legal framework
    - o Check concerning national legal frameworks
- Possible intermediate state

Based on this analysis, measures will be defined and collected in an action plan specifying:

- Timeline of required action
- Distribution of responsibilities
- Interconnection with other actions and/or elements

2.2 Change management

Change management will be applied in the programme management office (PMO) to tackle new input to improve the process. These can include:

- Improvements based on experience gathered in the pilots
- Measures to address newly discovered pressure points and risks detected by stakeholders

Note: It is not the goal of change management to reconsider or remove defined and improved basic TTR elements. If such action should be considered, the PMO will inform the Steering Committee which will decide on further actions.

2.3 Proposal for pilots

2.3.1 General pilot requirements

A large number of elements can be tested on the RFCs. Due to the long timeline of the TTR process itself (starting at X-60) and only some components of the required framework being available, a

complete trial of the entire process is not feasible. Therefore, the pilots would cover the phases starting at X-24 as follows:

Principles:

- The pilots require a pilot board which shall work in close cooperation with the TTR PMO.
- The participating stakeholders have to be selected before the pilots start. This should include IMs, RUs, RFCs, Applicants, Regulatory Bodies, Ministries of Transport, etc.
- The pilots must be executed on a line that carries mixed traffic (freight, passenger including long-distance and commuter).
- Gathered experience must be summarised regularly and submitted to the TTR PMO.
- Due to the new process co-existing with the old one, a clear distinction needs to be made between the two:
  o System-wise
  o Organisation-wise
- The pilots can only be executed in the framework (IT and legal framework) as it can be realised until the starting time of each phase.
- If the pilots' evaluation shows successful results, the process shall be rolled out to all international lines. On lines participating in the pilot the new process shall simply continue to be used.
- In order to avoid that findings are based on wrong or inconsistent conditions, the selection and approval of pilots falls to the TTR Steering Committee.
  o The pilots should be conducted on one RFC first.
  o Other pilots shall be avoided to prevent the implementation of different processes.
  o The TTR PMO will ask for volunteers to participate in the pilots within the RFC community. The TTR Steering Committee will select the pilots' line.

Pilot-criteria

- The pilots will follow common rules which have to be applied by all participating stakeholders.
- An IT prototype will be developed, which in the future may serve as the model for a production system.

Resources

- Prototype:
  o If available: Stakeholders are asked to share already existing prototypes
  o If not yet available: RNE will develop a prototype, taking input provided by FTE into consideration. RNE will also coordinate the budget for the prototype.
- Participation and input by all involved stakeholders according to the governance document (to be created until pilot start)

Connected developments

- TCR tool
- TAF TSI short-term path request pilot programme
- RNE common application database ("Big Data")

Preconditions

- Governance (to be created until pilots start)

- Annex to FCA covering the pilot principles has to be created
- KPIs and steering methods have to be commonly defined

Developments of legal framework

- Recast of Annex VII of Directive 2012/34/EU

2.3.2 Scope and timeline of the pilots

Pilot 1: Capacity partitioning and capacity planning

- Timeline
  - Governance setup: June-December 2017
    - Note: The participants are required to also participate in pilot 2
  - Definition of IT requirements for pilots: June-December 2017
    - Including the requirements for pilot 2 (capacity publication and capacity requests)
  - Start of pilot: December 2017
  - End of pilot: December 2018
  - Pilot evaluation: 1st quarter 2019
- Scope and content
  - Capacity planning for timetable 2020
  - Mixed traffic (freight, passenger, including long-distance and commuter)
  - TCRs to be included
  - All stakeholders of the line must participate in the pilot in order to give a complete view of the capacity and prevent discrimination.
- Location
  - Dedicated part of a network (max. 3 IMs)
  - Mixed usage of capacity (e.g. congested and non-congested lines)
  - Limited area so as to prevent an excessive workload
- Objectives and non-objectives
  - The pilot will be conducted based on a test/virtual system. Real data will be processed.
  - Harmonisation of TCRs using the TCR framework (e.g. TCR tool, TCR Working Group)
  - Impact definition of TCRs
  - Creation of a prototype for capacity modelling including capacity needs announcements and data reference model for capacity
  - Non-objective: creation of a production system
  - Non-objective: adaptation of existing systems (e.g. PCS)
- Expected results
  - Proof of the business reference model's accuracy
  - Definition and specification of data reference model for capacity
  - Input for pilot 2

Pilot 2: Capacity publication and capacity requests

- Timeline
  - Creation of a new annex for the FCA for TT 2020: June 2017 – December 2018
    - Specification of input within the pilot (June 2017 – December 2017)
    - Creation of annex (December 2017 – December 2018)

- o Possible adaptation of test/prototype IT system: December 2017 – December 2018
- o Availability of governance: December 2018
- o Start of pilot: December 2018
- o First pilot evaluation: 1st quarter 2020
- o End of pilot: December 2020
- o Final pilot evaluation: 1st quarter 2021
- Scope and content
  - o Capacity publication and requests for timetable 2020
  - o Mixed traffic (freight, passenger, including long-distance and commuter)
  - o TCRs to be included
  - o All stakeholders of the line must participate in the pilot in order to give a complete view of the capacity and prevent discrimination.
- Location
  - o Same as pilot 1
- Objectives and non-objectives
  - o The pilot will be conducted based on a test/virtual system. Real data will be processed.
  - o Harmonisation of TCRs using the TCR framework (e.g. TCR tool, TCR Working Group)
  - o Impact definition of TCRs (for TCRs announced late and minor TCRs)
  - o Creation of a prototype for capacity publication, capacity requests and capacity updates
  - o Non-objective: creation of a production system
  - o Non-objective: adaptation of existing systems (e.g. PCS)
- Expected results
  - o Proof of the business reference model's accuracy
  - o Input for process steering methods (e.g. priority rules, commercial conditions)
  - o Input for performance reference model
    - Comparing capacity model with actual requests
    - Number of modifications/alterations
    - Percentage of safeguarded capacity vs. residual capacity usage

3. Implementation timeline (for phase 1 and 2)

The implementation will be conducted in several phases:

- Phase 1 June 2017 – December 2017
  - o Installation of the programme structure (all boards and groups)
  - o Preparation of the pilots
  - o Action plan: Definition of target state for each element
  - o IT specification
  - o Active change management
- Phase 2 December 2017 – June 2018
  - o Start of pilot 1
  - o Action plan: creation of specific tasks
  - o Active change management
- Further phases will be defined in the action plan.

4. Programme structure

To fulfil the required tasks the programme responsibilities will be shared according to the following structure:

- Steering Committee
    - Consisting of RNE, FTE and ERFA.
    - Tasks:
        - Strategic decisions in TTR
        - Selection of the pilots' line
        - Agreement on milestones
        - Provision of resources and budget
- Programme Management Office (TTR PMO)
    - Consisting of programme leader (RNE) and FTE representative
    - Tasks:
        - Day-to-day management and monitoring of the programme
        - Maintaining risk and change management
        - Coordination of all project groups and boards
        - Coordination of external developments (e.g. RFC-related projects)
- Expert team
    - Consisting of TTR PMO and task force leaders
    - Tasks:
        - Management and coordination of specific TTR content (e.g. process-related issues, IT definition)
- Pilot board
    - Consisting of TTR PMO, pilot managers and experts (if required)
    - Tasks:
        - Coordination of the pilot
        - Feedback to TTR PMO
        - Agreement on next steps
- Task forces
    - To be formed when needed
    - Task forces starting immediately:
        - TT process (completion of action plan; input by change management; providing support for the preparation of pilots)
        - IT (IT definition)

5. Process risks

In order to ensure that the project goals of TTR are met in the implementation phase, the components will be constantly compared with the identified process risks in order to detect pressure points and to improve the process as early as possible. The process risks identified by the stakeholders are:

- General risk:
    - The process can only work if all stakeholders in the process use and apply the same process without individual interpretation (TT process, IT process, other processes…)

- Risks related to temporary capacity restrictions (TCRs):
    o Lack of understanding of decision making process for impact analysis (decision tree)
- Risks related to the capacity model/capacity partitioning:
    o Balance between safeguarded capacity and capacity for annual requests has to be kept.
    o It is not clear how "capacity" is defined as an entity (e.g. in IT systems)
    o A benefit can only be provided if stability throughout the process is maintained (e.g. if a large number of alterations is necessary, the planning of the model was insufficient)
    o "Translation" of TCRs' impact on TT (on single paths) is not defined clearly enough > TCR and TT departments' cooperation might be as low as today
- Risks related to the Annual Request:
    o Response time is very short for IMs, border harmonisation might not be possible
    o Observation phase is too short, especially for negotiations with requesters/end customers. Observation phase is too short for providing well investigated inputs.
    o Handling of residual capacity might be done incorrectly and could destroy capacity
    o Frozen zones for TCRs require discipline of IMs and RUs
    o What happens if more requests come in than ATT capacity is available?
- Risks related to the Rolling Planning Request
    o Multi-annual "guarantee" is seen in the same light as framework agreements, which are currently considered by the IMs to be capacity destroyers.
    o Multi-annual might allow for grandfather rights, especially if changes to any extent can be effected by the applicants
- Risks regarding general elements:
    o Why should the concept of leading entities work better in TTR than it does today? The description is basically the same.
    o All consequences of a losing bid due to the priority rules should be made clear, focussing on alternative offers; rejection should only occur if unavoidable.
    o Are priority rules necessary when creating the capacity model?
    o Use and amount of charges in the commercial conditions might be destructive to the sector (e.g. leading to wrong behavior, economically destructive).
- Risks regarding IT:
    o Parallel developments might lead to redundant investments.
    o Delay in IT implementation might delay the overall implementation. Unsynchronised developments may lead to varying implementation speeds throughout Europe.