

## PATHFINDER PROCESS GUIDELINES

(For path requests for the running timetable 2011 and the annual timetable 2012)

Version: 1.0 / 26.11.2010

### Updates

Every alteration in this document is reported in the following list of alterations

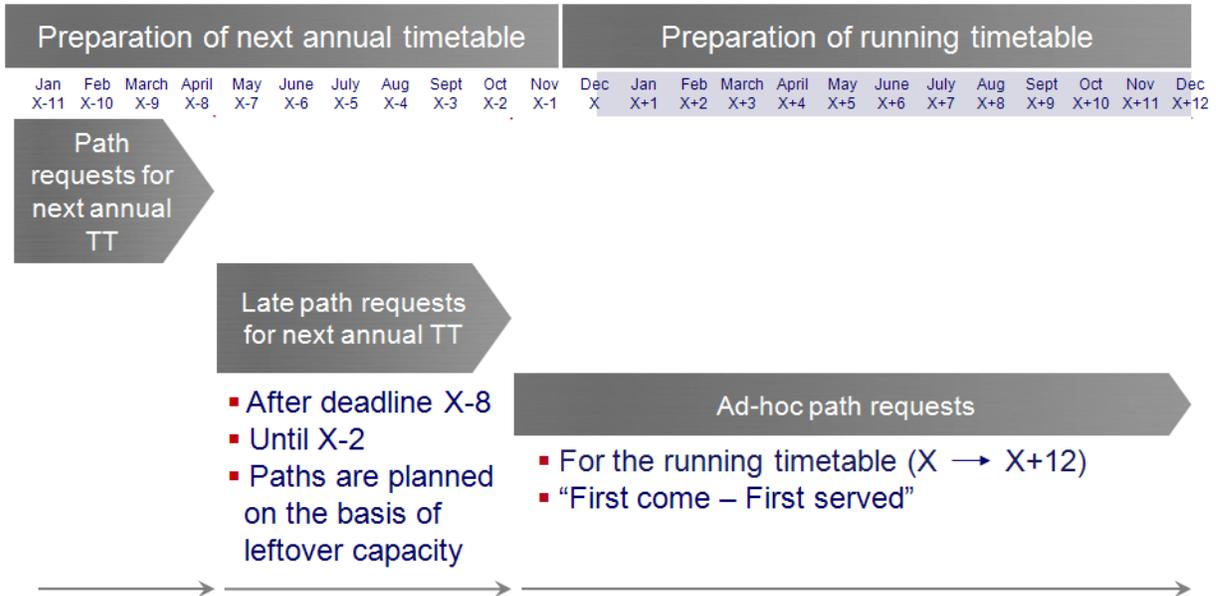
Nr.	Date	New (item, content)	Notes

## CONTENT

0.	SET-UP OF PATHFINDER .....	2
1.	INTRODUCTION.....	2
2.	PATHFINDER PROCESS.....	3
3.	OPEN A DOSSIER .....	3
4.	PATH CONSULTING / FEASIBILITY STUDY .....	4
5.	PATH REQUEST .....	6
6.	PATH ELABORATION .....	6
7.	DRAFT TIMETABLE / PATH OFFER .....	6
8.	OBSERVATIONS / ACCEPTANCE.....	7
9.	POST-PROCESSING .....	7
10.	FINAL OFFER.....	8
11.	ACTIVE TIMETABLE .....	8
12.	DEADLINES & MILESTONES.....	8
13.	PATHFINDER ORANGE BOOK.....	10
14.	NATIONAL PATH REQUESTS .....	10
15.	SUPPORT.....	11
16.	REMARK.....	11

## 0. SET-UP OF PATHFINDER

Since November 2009, applicants can use Pathfinder for all timetable phases. The date of submission of a path request to the Infrastructure Managers/Allocation Bodies (IMs/ABs) and the requested timetable period will decide if it is a path request placed in time for the next annual timetable, a late or an ad-hoc path request.



## 1. INTRODUCTION

RailNetEurope (RNE) and its members will do their best to promote the use of Pathfinder by companies applying for railway paths (hereafter: applicants).

Path requests will be accepted via Pathfinder and answers will be communicated through Pathfinder either in addition to, or in replacement of, the traditional answering process already in use within the national organisation.

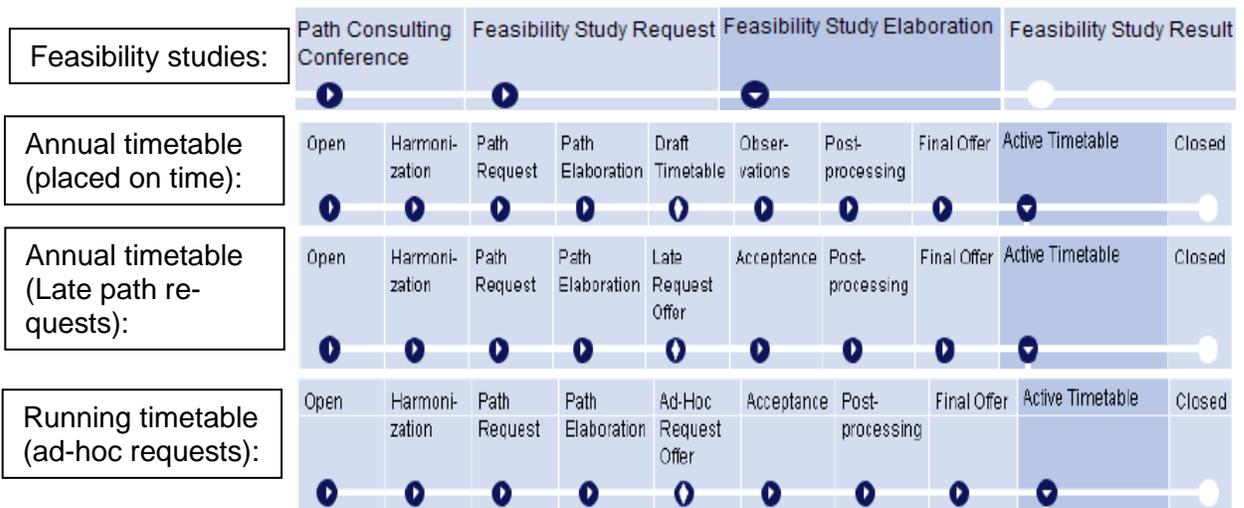
The RNE Joint Office shall help applicants by providing them with functional and technical information (e.g. training, e-learning, providing access to Pathfinder, interfaces, processes, guidelines ...).

The use of Pathfinder has to be made available to any applicant by any IMs/ABs for ad-hoc path requests for the running timetable 2011 and requests for the 2012 annual timetable. The process calendar for the timetable 2012 has been approved by RNE members and is valid both for passenger and freight path applications.

Pathfinder guidelines are applicable under the rules described in the *RNE process handbooks for path allocation* (documents are available on RNE website: [www.railneteurope.com](http://www.railneteurope.com)). These guidelines describe the main steps regarding international path requests which have to be fulfilled by applicants (either applicants or authorized applicants) requesting a path involving several IMs/ABs and by IMs/ABs itself.

## 2. PATHFINDER PROCESS

Process steps for feasibility studies, path requests (placed on time and late requests) for the next annual timetable and for the running timetable (ad-hoc requests) are unified:



## 3. OPEN A DOSSIER

The leading applicant may open a **New dossier** at any time of the year. It is of course also possible to start a path request with an old or existing dossier from a previous timetable period. This is possible by using the button “copy the dossier” in the section “Control” (index “details”). This means that the applicant is going to work with a copy of the original file.

After filling in the relevant data, the dossier can be moved to the **Harmonisation** phase. During this period, involved applicants fill in their data and harmonise their requests. There is one part for the harmonisation of path-related issues and a separate part for production-related issues (e.g. train information, train composition, requested connections, through coaches).

If no support (consultation) at all is needed from the IMs/ABs, the leading applicant may switch the dossier with all applicants light on green directly to ⇒ **Path Request**.

In case the applicants wish to receive a detailed feasibility study result, or simply consult the IMs/ABs, the dossier must be moved to ➔ **Path Consulting Conference**.

### Operation points

Several users (applicants and IMs/ABs) will finalise their interface with Pathfinder within the coming months. In order to be able to transfer the data, some prerequisites are necessary. One of them concerns the available operation points. Here are some hints regarding the choice of the correct operation point:

- Column *Type*: "I" = Infrastructure has to appear in this column for the relevant operation point
- Column *Agency name*: the name of the IM/AB in charge of this operation point has to be listed
- Border/handover stations: these stations should be listed twice, firstly with the code/agency name of the IM/AB in charge of the last path section until this point, secondly with the code of the IM/AB in charge of the next path section. As some IMs/ABs accept Pathfinder as formal path request and allocation tool, the requested path section plays a major role. In order to bring a path request placed in Pathfinder in line with legal requirements, it is suggested to add the network border operation points as well – even in cases where the train is not stopping there.

Remark: If an error message occurs at an operation point entry in the timetable, the operation point selection has to be opened and one of the proposed operation points has to be selected.

### IM-specific parameters

For the same reason as with operation points – i.e. due to the increasing use of Pathfinder requests in the company systems of IMs/ABs – the train parameters for the line sections of the particular IM/AB have to be entered. The correct input of train parameters in the requested timetable enables more efficient path construction by IMs/ABs following the request via Pathfinder. Therefore, the possibility to input the IM-specific train parameters at the operation point level in the requested timetable is provided and has to be used by authorised applicants. IM-specific parameters are configured or updated in the Pathfinder system by IMs/ABs at a certain period of the year for the next timetable period (usually in October for the second but next timetable period).

## 4. PATH CONSULTING / FEASIBILITY STUDY

Feasibility studies make a significant contribution to the efficiency of the train path allocation process for the annual timetable and for ad-hoc paths. They allow applicants' service plans to be checked for feasibility and, as necessary, taken through further iterations.

After the dossier has been moved to **Path Consulting**, the conference mode will be activated automatically, which allows applicants and IMs/ABs to share information and give advice on

the consistency of the request. This mode may be used for example during path consultation meetings between applicants and IMs/ABs. IMs/ABs may give remarks in general on the path in question. Afterwards the dossier may be moved back to Harmonisation either by the leading applicant or by the coordinating IM/AB. The dossier is moved back also to Harmonisation in case there is insufficient information.

If a detailed feasibility study with a concrete timetable is needed, the leading applicant has to **submit the Feasibility Study Request**. IMs/ABs will conduct path studies and will try to give answers to path feasibility study requests as soon as possible and in time, so that applicants may benefit from these results either as a preparation for their regular meetings and information ex-change or for immediately placing a path request. This procedure applies to feasibility studies for path requests placed until Mid-January for the next annual timetable and for path requests for the running timetable.

Submissions to feasibility study requests for the annual timetable placed until mid-January will be switched directly to **Path Study Elaboration Conference**. If IMs/ABs intend to examine some possible path solutions without involving the applicants too early, the coordinating IM/AB might switch off the conference mode. The dossier will be moved back to conference mode automatically at the latest 8 days after the switch off. In case the negotiations between IMs/ABs have not been concluded within these 8 days, the coordinating IM/AB may switch off the conference mode again. Nevertheless, the leading applicant has always the possibility to withdraw the feasibility study request.

In this phase of the process (**Feasibility Study Elaboration**), the applicant can only access an archive version of the dossier. In passenger traffic, the train composition may be changed by the applicant at any time, as long as it has no influence on the characteristics of the path. In freight traffic, train composition changes (e.g. weight, length or gauge (profile)) may require a new path study due to the necessity of cancelling the ongoing study.

When studies by all IMs/ABs have been finalized and the dossier has been updated according to the status of the request, the coordinating IM/AB releases the **Feasibility Study Response**. The leading applicant can only accept an acknowledgement of the Feasibility Study Result in the dossier (**Acknowledge Feasibility Study**). If doing so, it is moved to the **Harmonisation** mode. It might happen that, for one reason or another, an IM/AB is not able to make a feasibility study (e.g. line closure). In this case the light for this IM/AB will be red.

If the result of the feasibility study does not suit the requirements of the applicants, they may either request a new feasibility study after having adapted the parameters for example (only if there is enough time left), or they may place the request with their original requirements (copy RU timetable).

### 5. PATH REQUEST

If applicants wish to request the studied paths, the dossier status must be changed by the leading applicant by using the button “Replace requested timetables by IM timetables”.

The leading applicant must ensure that all participants agree with the request. This process is controlled by making sure that all path-related “lights” are green. Unless all lights are green it will not be possible to switch the path request to the next stage.

Requests for the running timetable 2011 will be classified by the system as **ad-hoc path request** and will be handled by the IMs/ABs on the base of “first in – first served” in case of a path conflict.

Requests for the annual timetable 2012 placed at the latest on 11<sup>th</sup> April 2011 will be handled as **path requests placed on time**. If a request is handed over to the IMs/ABs after 11<sup>th</sup> April 2011, the system will classify it automatically as **late path request**.

It is always possible for the leading applicant to withdraw a path request.

### 6. PATH ELABORATION

After having checked the consistency of the application, the coordinating IM/AB changes the dossier status from **Path Request** to **Path Elaboration** mode. This action allows all IMs/ABs to work on the design of the draft timetable. During this phase no dossier may be modified by any applicant and no applicant may see the working area of the IMs/ABs (IMs timetable) until the coordinating IM/AB switches the dossier either to the ⇒ **Draft Timetable** phase for path requests placed on time or to ⇒ **Path offer** (late request offer and ad-hoc request offer).

### 7. DRAFT TIMETABLE / PATH OFFER

**Path requests placed on time before the 2<sup>nd</sup> Monday in April:** All agreed and harmonized dossiers with all green lights from IMs/ABs will be switched automatically at internationally agreed deadline from **Path Elaboration** to **Draft Timetable**. Dossiers with yellow lights, i.e. dossiers with path conflicts unsolved in due time, will also be switched automatically. In Observations, these dossiers will be in the conference mode for the IMs/ABs (applicants’ right to make observations). The conference mode allows IMs/ABs to solve path conflicts and thus to make a subsequent path offer (draft timetable).

**Late path requests:** The coordinating IM/AB will switch manually agreed and harmonized dossiers with all green lights from IMs/ABs from **Path Elaboration** to **Late Request (path) Offer**.

**Ad-hoc path requests:** Dossiers with all IM/AB lights on green will be switched automatically (nightly at 23:59 h) to **Ad-hoc Request (path) Offer**.

All lights of the applicants will be changed to blue when shifting the dossier in ⇒ **Observations** or ⇒ **Acceptance**.

### 8. OBSERVATIONS / ACCEPTANCE

**Path requests placed on time before the 2<sup>nd</sup> Monday in April:** Applicants may make **Observations** regarding the proposed draft timetable in the available field. After these steps no observation can be made anymore. Afterwards the dossier will be switched to ⇒ **Post-Processing** by the leading applicant manually or automatically on the defined deadline.

**Late and ad-hoc path requests:** Applicants' **Acceptance** should be given within 5 working days for late path requests and 72 hours for ad-hoc path requests after receipt of the path offer. If the applicants do not have any remarks regarding the path offer, the leading applicant may switch the dossier directly to ⇒ **Active Timetable** in order to speed up the process. By doing so, all involved applicants consider the path offer as ⇒ **Final offer** which they all accept. As a consequence, two phases – Observations and Final offer – will be skipped. It has to be mentioned that the system does not take any automatic actions related to the time limits; the 5 days and/or 72 hours should serve as an organisational proposal.

In case the path offer does not correspond with the expectation of the applicants, the leading applicant may make remarks. This dossier will be switched to ⇒ **Post-Processing**. This is possible only if applicants' lights are at least green, yellow or red.

If an applicant puts the light on "red", they should indicate their reason for the need to adapt the path offer.

### 9. POST-PROCESSING

IMs/ABs prepare the final answers to the customers. In this phase, IMs/ABs may optimize the train path. Once all IMs/ABs have finished their final adjustments, the dossier for **Path requests placed on time before the 2<sup>nd</sup> Monday in April** is moved either manually or automatically to the ⇒ **Final offer** mode by the coordinating IM/AB.

In case an IM/AB is not in a position to submit a final offer for the annual timetable, it is considered as a **Path rejection**. The system will then forward a pdf file of the relevant Pathfinder dossier to the appropriate Regulatory Body on behalf of the responsible IM/AB. This procedure is based on an agreement between the European Commission and the European Regulatory Bodies on the one side, and RNE and its members on the other side.

If in a dossier not all IMs/ABs lights are on green on time (e.g. due to still unsolved conflicts), national regulations for submitting a final offer will be applied.

**Late & Ad-hoc path requests:** The system checks regularly the status of the acceptance indicators of the dossiers in this phase and transfers those dossiers every night at 23:59 h to ⇒ **Final offer**, where all IMs/ABs light are on green.

### 10. FINAL OFFER

**Path requests placed on time before the 2<sup>nd</sup> Monday in April:** All involved applicants accept the Final offer within 5 working days by setting all lights on green.

**Late and ad-hoc path requests:** If a dossier is moved from path acceptance directly to ⇒ **Active Timetable**, the **Final offer** is just a milestone.

If the dossier has been moved from **Post-Processing** directly to this phase, all involved applicants accept the **Final offer** within the deadlines mentioned in Sector 8 by setting all lights on green.

In order to keep the dossier “alive” after the path construction and once the final offer has been accepted, all dossiers **for all processes** with all applicants’ lights on green will be switched either manually or automatically (the system checks regularly (every night) the status of the acceptance indicators of the dossiers at 23:59 h) in the next phase ⇒ **Active Timetable** (see also Sector 12).

### 11. ACTIVE TIMETABLE

In this phase, applicants and IMs/ABs may use the dossier for adjustments or modifications of various elements (e.g. changes in rolling stock or path due to short-notice maintenance work).

### 12. DEADLINES & MILESTONES

- **17/01/2011 at 23:59 h (limit for placing feasibility study requests for the timetable 2012):** Automatically switching all dossiers which are in **Path Consulting Conference** to **Feasibility Study Elaboration Conference** – applicants lights must be green or at least yellow.
- **14/03/2011 at 23.59 h (limit for answering path study requests):** Automatically switching all dossiers which are in **Feasibility Study Elaboration Conference** to **Harmonisation** – IMs/ABs lights may be green, yellow, red or blue (IMPORTANT: the Feasibility Study Result will be treated in the system as “acknowledged”).
- **Between 14/03/11 and 18/03/11, nightly at 23:59 h:** Automatically switching all dossiers which are in **Feasibility Study Result** to **Harmonisation** (IMPORTANT: the Feasibility Study Result will be treated in the system as “acknowledged”). In case a feasibility study

cannot be completed by the IM/AB in due time, and the dossier should not yet automatically be switched to Harmonisation on 14/03/11 at 23.59 h, the IM/AB has to switch this dossier manually from conference to Feasibility Study Elaboration before 14/03/2011 at 23.59 h. Afterwards, the switching from Feasibility Study Elaboration to Feasibility Study Result has to be done manually by the coordinating IM/AB.

- **11/04/2011, at 03:00 h (NEW) and 23:00 h:** All dossiers in the **Harmonisation** phase with all applicants (path related) lights on green will be switched automatically to the **Path Request** phase.

If there are any remaining dossiers in the Path Consulting Conference, they will be transferred to Harmonisation at 04:00 on 11/04/2011. Note: for the dossiers that have already “acknowledged” the Feasibility Study Result only. With this approach, the leading RUs will be able to check the dossiers once more in the Harmonisation phase for the Path Request, and the dossiers will be considered on automatic promotion at 23:00 h on the same day. Dossiers that have just started the Path Consulting Conference will be kept in Path Consulting Conference.

The leading applicant must ensure that all participants agree with the request. This process is controlled by making sure that all “lights” are green. Unless all lights are green it will not be possible to switch the path request automatically to the next stage.

- **12/04/2011, at 00:01 h:** All dossiers submitted after this deadline will be treated by the IMs/ABs as **late path requests**. The system checks regularly (every night) the status of the acceptance indicators of the dossiers and automatically transfers those dossiers where all applicants’ lights are on green at 23:00 h to late path request until **10/10/2011**.
- **12/04/2011:** After having checked the consistency of the application, the coordinating IM/AB changes the dossier status from **Path Request** to **Path Elaboration** mode for requests placed on time.
- **By 19/06/2011:** In order to fulfil the harmonization process during the RNE Technical Meeting, all IMs/ABs have to guarantee the availability of the constructed/designed train path.
- **4/07/2011, at 02:00 h:** All agreed and harmonized dossiers with green lights as well as dossiers with yellow lights (see also Sector 7) will be switched automatically from **Path Elaboration** via **Draft Timetable** to **Observations** (or with yellow IM/AB lights to **Conference Mode in Observations**). After this deadline, the coordinating IM/AB may switch dossiers with all green lights manually. All lights of the applicants will be changed to blue in **Observations**.

The system will check nightly at 23:59 h if there are any dossiers with the IMs/ABs lights on at least yellow and will switch them from Path Elaboration to Conference Mode in Observations, and with IMs/ABs light on green directly either from Path Elaboration or Conference Mode in Observations to Observations.

- From **5/07/2011 to 5/08/2011:** applicants may make **Observations** in the available field.

- **5/08/2011, at 23:00 h:** At the end of this phase, all dossiers will be switched automatically from **Observation** and also from **Conference mode in Observations** to **Post-Processing** mode on the deadline, independently of the colours of the lights of the applicants (blue, green, yellow or red). The dossier can also be switched manually to Post-Processing by the leading applicant before the deadline. The IM/AB lights will change to blue in Post-Processing.
- Between **8/08/2011 and 22/08/2011**, IMs/ABs prepare the final answers to the customers. In this phase, IMs/ABs may optimize the train path. Once all IMs/ABs have finished their final adjustments, the dossier is moved to the **Final Offer** mode. The system checks regularly (nightly) the status of the acceptance indicators of the dossiers and transfers those dossiers that have all IMs/ABs light on green at 23:00 h automatically.
- Between **22/08/2011 and 27/08/2011**, all involved applicants accept the **Final offer** by setting all lights on green. In order to keep the dossier “alive” after the construction of the annual timetable once the final offer has been accepted, all dossiers with all applicants’ lights on green will be switched automatically in the next phase **Active Timetable** from **24/08/2011 to 10.09.2010 at 02:00 h**. This allows any participant to work on the dossier at any time. Participants also have read and write access to the dossier.  
  
Of course, applicants have the possibility either to accept or to refuse (with reds lights) the **Final offer**. After acceptance of the offer, the formal acceptance is filed in the Pathfinder archive.
- **10/10/2011 at 23:59 h:** Latest time to place late path requests for the annual timetable 2012.
- **11/10/2011 at 00:01 h:** First moment for placing ad-hoc path requests for the running timetable 2012. The system regularly checks (every night) the status of the acceptance indicators of the dossiers and automatically transfers those dossiers where all applicants’ lights are on green at 23:00 h to ad-hoc path request.

### 13. PATHFINDER ORANGE BOOK

The Pathfinder orange book serves as the detailed user manual and process description for working with Pathfinder ([https://www.pfndr.org/pathfinder/orangebook\\_en.pdf](https://www.pfndr.org/pathfinder/orangebook_en.pdf))

### 14. NATIONAL PATH REQUESTS

In cases where path requests are submitted by the applicant(s) exclusively through national processes for each national section of a given path (i.e. without Pathfinder) to each IM/AB separately (generally on one network until the border station), IMs/ABs will not be able to guarantee a co-ordination of these separate path applications and to provide answers within the

common calendar. This situation does not arise, if it has been agreed that the involved partners are using the Pathfinder Integration Platform.

In cases where national requests end or start at a border, IMs/ABs will provide answers according to the national calendar, and for the operating days requested country by country, according to the following principles:

- Arrival time from network A at the border station not later than the requested time
- Departure time from the border station to network A not earlier than the requested time

## 15. SUPPORT

### **Service & Support:**

RailNetEurope Service Desk:

Phone: +43 1 907 62 72 25                      Mon - Thu: 09:00 - 16:00; Fri: 09:00 - 15:00

E-mail: [support.pathfinder@railneteuropa.info](mailto:support.pathfinder@railneteuropa.info)

(Mail support: 24/7 for mails in English, max. response time 4h)

Should you have any questions about the timetable process and the guidelines in general, please contact:

E-mail: [daniel.haltner@rne.at](mailto:daniel.haltner@rne.at) Phone: +43 1 907 62 72 15

Should you have any questions about access to Pathfinder, please contact:

E-mail: [seid.magljic@rne.at](mailto:seid.magljic@rne.at)                      Phone: +43 1 907 62 72 24

**You are welcome to try our eLearning program as well!**

(<http://www.railneteuropa.com/index.php/elearning.html>)

## 16. REMARK

All times mentioned in this document refer to the “Central European Time” (CET).