

Question format for RFC ZitplaatsZoeker

NR	Document	page	paragraph	Question	Answer
1			Present Situation	Can NS confirm and explain ability or limitations to access data from onboard systems?	Depending on your solution this might be possible. Public information is generally available, e.g. travel information. Acces to other data from on board systems is dependend on rollingstock type (not every rollingstock has the same datapoints) and limited by, among other things, privacy and security aspects.
2			Purpose of consultation	What is the commercial / business case for doing this e.g. are there industry incentives for smoothing out passenger numbers at peak times, in- or external defined KPI's or is it part of optimizing the customer journey as part of ongoing digital transformation?	The reasons for doing so are related to and or incorporated in the project goals.
3			Desired Situation	Would it be possible to use CCTV, if applicable, as a source – is CCTV installed on the trains already? a. Would there be an appetite for other use cases enabled by CCTV, e.g. detecting anti-social behavior or obstructions to gangways & doors which may pose a safety risk's.	Specific trains are already equipped with a standard CCTV system for social security. This data (images) of this system could be used for a sensor solution. Other use cases than spread and occupation are not in scope of the Zitplaatszoeker program.
5			Present Situation	Is there the ability to integrate to other data sources such as reservations or ticketing to better predict occupancy either at a service or individual compartment level?	There is no reservation system for the national train operation. Ticketing would be the equivalent of Check In/Check Out data and will be used to predict occupancy (not on compartment level).
6			Desired Situation	Will data stream 3 be in scope for implementation and optimization after the tender.	Scope of the tender is not yet defined, it is likely it will contain stream 3 in order to enhance the ZitplaatsZoeker engine. The intention of NS is to use the proposed/developped solutions in order to define the scope of the Tender.
7			Purpose of consultation	What are Dutch Railways key- in- and external stakeholders which will enable and measure success as outcome of this tender and where there's dependency for Dutch Railways	The stakeholders which will enable success and quantify success will have their input in the tender documentation and selection/award procedure.

8	RFC Zitplaatszoeker D1.0.pdf	12	3,6	With respect to confidentiality are we able to agree a mutual non-disclosure agreement between 'party X' and NS? Not being able to do so at this stage will restrict the amount of detail we are able to share with our working system.	This is not objectionable provided that NS and the party agree that the NDA ends at the moment that the party is the appointed preferred tenderer and the Stand still term has expired
9	RFC Zitplaatszoeker D1.0	8 & 9	2.2.3	Is there a overview document with a description of the amount of rolling stock units and floorplans of the various compartment set-ups?	Yes, will be shared in a later stage when the tender starts.
10	RFC Zitplaatszoeker D1.0	8	2.2.2	What percentage of the rolling stock fleet is not equipped with the OBIS system and is this part of the fleet out of scope? (paragraph 2.3 states "for all of the rolling stock types and train tracks" this seems contradictory)	At this moment around 25% of the fleet is not equipped with an OBIS IT system. This percentage will decrease in the future, because the introduction of new rolling stock series and phasing out of the older rolling stock series.
11	RFC Zitplaatszoeker D1.0	9	2.3	Is the end solution a prediction based on historical data + real time measurements from stream 3 sensors? Or is real-time information from stream 3, if the accuracy and resolution are sufficient, displayed within the Zitplaatszoeker application the desired end state?	The end solution is a prediction based on historical data and real-time measurements from stream 3 sensors.
12	RFC Zitplaatszoeker D1.0	9	2.3	If real-time information is the goal, how much time for a measurement is allocated/allowed between two stations.	This is dependent on the trajectory time between two stations. Historical events indicate that when the measurement is until executed 2 minutes after departure it will suffice in most cases. Yet an exact timeframe is not defined and will follow in a later stage.
13	RFC Zitplaatszoeker D1.0	10	2.3	The visualization of the desired occupation and spreading information; what does green to red indicate in terms of (absolute) amount of passengers per compartment?	Green: up to 65% occupation, Yellow: 65 - 100% occupation and orange: more than 100% occupation. The absolute amount of seats in a compartment varies per rolling stock series and specific coaches. Indicative between 20 seats (1st class VIRM) and 80 seats (2nd class ICM)
14	RFC Zitplaatszoeker D1.0	12	3.5	Is there an indication towards a global timeline, and expected following steps. Assuming the RFC is satisfactory.	Timeliness will be communicated in the RfI documents. If this RFC is satisfactory following steps will probably be taken Q1 2019.
15				Is NS willing to sign a NDA?	This is not objectionable provided that NS and the party agree that the NDA ends at the moment that the party is the appointed preferred tenderer and the Stand still term has expired.

				Is there gamification schematics plans to spread the occupancy in the train?	This is deemed not relevant to the scope of this RfC.
16				Are there any plans to make seats reservable?	No, not for national operation.
17				Is the occupancy only related to mobile wifi signal? Or do you have more specific sensors such as silhouette cameras?	See tenderdocument 'ZitplaatsZoeker D1.pdf' table 1.
18				Does NS has a data scientist team?	Yes
19				Do you have an estimation on how passengers are spread across the platform before the train arrives? If yes, do you know the zones where the passengers are?	For (the few) smart stations both this information is available. For other stations we predict the occupancy and the zones where the passengers are.
20				What happens if the trains are already too full? Do you still want to let people come into the platforms? Some people may come out releasing space but overall there is likely to add delays on the operation.	The platform is open to all passengers.
21				Does NS has a tool to create data algorithms? If yes, which one?	NS uses off the shelve components to build our own models. More information is deemed not relevant for this RfC.
22				What IT platforms do you currently have that could be used for the ZitPlaatsZoeker engine?	The ZitplaatsZoeker engine itself is out of scope for the possible Tender. The scope is limited to Stream 3 solutions.
23				Can you give us what are the plans for your future IT architecture? Having the predictions and data source data model helps but the platform of choice can influence a lot the way you deliver the ZitPlaatsZoeker engine	The ZitplaatsZoeker engine itself is out of scope for this RfC. The scope is limited to Stream 3 solutions.

24			(App A, chap A, Company detail Q8)	Can NS please elaborate on “the intention to demand an option under which third parties will produce the solution under license & NDA”?	For example: NS decides to tender and a start-up qualifies with a prototype in the tender. During the RFP this business (just like other tenderers) develops their prototype into a viable, working solution in a train environment. At the end of the procedure this party is appointed the preferred tenderer. However, this party lacks the resources to construct the solution in the amounts needed by NS. During the Tender however this start-up agreed with the Requirement that NS can have a third party produce this new product under a NDA. NS then pays the start-up a licensee fee and pays the third party the costs of producing the solution. Of course the Award criteria will have to account for the total cost of ownership, both license and costs of production.
25			RfC , Chap 2.1.2	Do you confirm that sensors that are rail non-certified can be considered here in the project ?	Yes, in the first part of the project (prototyping, development and test) is it allowed that the sensor is not Rail certified yet. Although before serie production and installation the solution should be certified.