

NvI Market consultation Radars for Water levels and Wave heights

Date 8-7-2022

number	date	medium	Question	Answers
1	4-7-2022	Information session	Are there requirements for data protocols? Are there any limits on datatransfer?	Connectivity requirements are given by the context of our current IoT gateway, of which development and integration nears completion. The preliminary requirement comes down to a digital bi-directional wired communication. On a hardware level this will be RS232, RS485, RS422 or Ethernet without any requirements on physical shape (connectors etc). Data protocols should be industry standard such as ASCII, MODBUS, SDI-12, TCP-IP. Both free flow of data and polled systems are accepted. Data messages and instruction sets are left open and can be radar specific, the RWS-network will be adapted to accommodate to a radar type. In this phase we have not established any limits on data transfer.
2	4-7-2022	Information session	Do you use the same protocol for wave height and waterlevel?	Yes, generally we expect a single connection to the radar for both wave and level data. At the very least on a physical level, in terms of message content and instructions, waves and level can be separate data streams with, for example, individual output rates.
3	4-7-2022	Information session	Are the units for datatransfer all hardwired? Or is there also other datatransfer as cellular or satellite?	The radar units will be hard wired onto the measuring station. Telemetry on the stations is already in place and outside scope of this procurement. The stations itself are wired to the central network in a variety of ways, ranging from hard wired connections on the mainland to wireless telemetry solutions for nearshore and offshore stations.
4	4-7-2022	Information session	Are telemetry solutions everywhere available? Is there interest for combined solutions?	As envisaged, telemetry is outside scope. The existing IoT gateway and telemetry solution is a generic solution for all sensor types across all parameters measured in the LMW network.
5	4-7-2022	Information session	Can you explain what you mean by the questions about the leveling of the station? Do you for example expect a GPS reference on the radar? Or any other reference height?	Georeferencing functionality is outside the preliminary scope. The station set-ups itself are georeferenced. The questions are focused on the position of the zero level of the radar above it's own mounting plate (or any other physically known spot on the radar). The question in the questionnaire may be answered simply by choosing one of the multiple choice options, however any suggestions are welcome.
6	4-7-2022	Information session	Do you only select on price or do you also take the quality /better characteristics of the sensor of the sensor into account?	The criteria for awarding the Agreement is the 'economically most advantageous tender with the best price-quality ratio'. The ratio is usually 40% price and 60% quality, however for this tender this has not been decided. In almost all tenders of Rijkswaterstaat quality prevails. In the quality criteria Rijkswaterstaat is always looking for added value that helps us to succeed in our goals. This can be technical added value; extra services or meeting our sustainability goals. Rijkswaterstaat will specify exactly which items are seen as added value and that will be awarded 'points' for quality. These are not decided. If you have suggestions on what extra value is possible in the questionnaire, you are invited to do that in de last question.
7	4-7-2022	Information session	In terms of the sustainability goals set by Rijkswaterstaat, how important is it to have the contractor stationed in the Netherlands?	Moreover quality is not a 'free form' in the tender process. There will be a production of the radar certainly does not have to be in the Netherlands. However it can be an advantage to have a Dutch partner as Rijkswaterstaat tenders via the Dutch Public Procurement platform TenderNed; the contract is in Dutch under Dutch law; administration during contract executes better when in Dutch; and we still have to decide about bilingual tender documents.
8	4-7-2022	Information session	When do you expect the first delivery of radars?	With the current planning Rijkswaterstaat expects the first batch to be delivered in the first quarter of 2024.
9	6-7-2022	E-mail	How will sensors be integrated into current communications systems?	See the answer to question 1.
10	6-7-2022	E-mail	What IOT platform is RWS currently/envisaging using?	Rijkswaterstaat together with suppliers have developed a complete IoT solution for the National Water Monitoring Network, including data retrieval, validation, remote monitoring, processing and distribution through several channels. This IoT solution is based on SAS event stream processing both on our datacenter servers and on local IoT gateway hardware. The IoT gateways are based on a ruggedized and expanded industrial Raspberry Pi and on industrial computer servers.
11	6-7-2022	E-mail	"Social aspects under sustainability" - could RWS please expand with further details of what's important?	This is about people with a distance to the labor market and creating opportunities that allow them to participate in the labor process. Within Rijkswaterstaat we could ask commitment of contracting parties laid down in the contract to discover what are the possibilities with regard to the scope this project or within the business activities of the contracting company. You can think of hiring a person for simple work; outsourcing repetitive work to companies that employ these people; provide training, etc. In this phase Rijkswaterstaat wants to know what is the policy within your company; is their a policy or is it new for you and is it a Dutch policy.
12	6-7-2022	E-mail	We kindly ask RWS to share the slides used in session.	Yes we will.
13	6-7-2022	E-mail	If a non-NL company were to be successful in their bid, what would the desired approach to managing spares be?	Rijkswaterstaat envisages to keep and manage the stock of supplied spares in own facilities. The stock of spares is outside the scope of the tender. Preventive and corrective maintenance are in scope, and there is a preference that these could be carried out in a local facility of the company, for reasons of cost, turnaround time and sustainability.
14	6-7-2022	E-mail	What is the preferred way of sharing raw data from the sensors?	See the answer to question 1.
15	6-7-2022	E-mail	What are the communication protocols?	See the answer to question 1.
16	6-7-2022	E-mail	What is the minimum mounting height above water for A, B, C, D?	In this phase we have not established any requirements on minimum mounting height. A better insight into blanking specifications may help us doing so. For stations nearshore and especially inland blanking should be preferably as small as possible. The reason is that we have to meet a certain range of detectable water levels, and the highest water level determines the height of the whole set-up. So ideally, we would like to be able to install the radar just above the highest expected water level. Any need to install the radar higher than that (to keep it outside the blanking zone) will result in higher constructions and sometimes means a lot of extra necessary facilities like ladders, platforms and fencing and that are less likely to be accepted in urban areas.
17	6-7-2022	E-mail	Can sensor type D also be a laser/ultrasonic/infrared/guided radar/other sensor?	As envisaged now in this market consultation document, sensor type D is exclusively meant to be an unguided radar. Any suggestions for improvement are welcome. In that case, we would like to see which of the mentioned solutions you would recommend, what advantages this technique has over the radar technique chosen by Rijkswaterstaat, and what reasons there could be for Rijkswaterstaat to choose this technique.
18	6-7-2022	E-mail	Sensor type C is described as max 4 watts. Can this also be max 7 watts? These are locations with the best power supply if I understood correctly.	As envisaged now, the requirement for sensor type C is indeed 4 Watts. During the information session, we have indeed presented that the hard wired stations with the mains power supply are in this category. However this category also contains some of the smallest stand alone set-ups that rely on a small solar supply.