



RWS INFORMATIE

Market Consultation for Side Scan Sonars

RDD Team Instruments

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1 Introduction

1.1 Background

This Market Consultation serves to prepare for the proposed call for tenders to procure the supply and maintenance of Side Scan Sonars. These sensors replace the current sensors in two areas of application: the North Sea and inland waterways.

Rijkswaterstaat, the Public Works Department and Water Management (hereafter referred to as RWS), attaches great importance to the opinions of market parties and wants to involve them early and actively before the proposed call for tenders starts.

For implementation of its tasks, RWS requires information about the state of the remit that it manages. This includes information on the position of the seabed and underwater objects. RWS uses this information for implementation of the primary processes water management and maritime traffic management. The RWS Central Information Provision Service (RWS CIV) provides this information. Part of this information is obtained by RWS itself using survey vessels. Team Instruments at RWS CIV ensures availability of the sensors to be used on RWS survey vessels. RWS currently uses two types of Side Scan Sonar (KLEIN-3900 and KLEIN-5000) for mapping underwater objects, both in the North Sea and in inland waterways.

In short: RWS is responsible for a healthy and safe sea and inland waterways. Collecting data using Side Scan Sonars contributes to this goal.

RWS is inviting market parties to participate in this Market Consultation.

1.2 AIM OF MARKET CONSULTATION

RWS has published this Market Consultation Document on TenderNed with the aim of reaching as many market parties as possible, to interest and encourage them to help seek solutions.

With this Market Consultation, RWS aims:

- a) to gain an insight into the real feasibility of the contract and the preconditions under which the contract can be carried out;
- b) to gather input for the tendering strategy and the tender documents (getting new ideas, testing existing ideas);
- c) to involve the market in the project at an early stage to be able to coordinate the tender documents as closely as possible to the market situation;
- d) to establish to what extent a functional or technical specification is required and which standards are relevant, if any;
- e) for the set requirements to lead to an optimum solution for its own organisation;
- f) for the market to meet the set requirements.

RWS emphasizes that this Market Consultation does not form part of the call for tenders and one cannot derive any rights from it.

Insights gained from the Market Consultation will be used by RWS (where relevant) in preparation of the call for tenders and the tender documents. RWS reserves the right not to use these insights in full or in part.

1.3 Target group of the Market Consultation

The primary target group of this Market Consultation is those market parties who have experience with or knowledge of manufacturing and/or supplying and maintaining:

- Side Scan Sonars for use in the (North) sea (high ruggedness required for stronger currents, waves, relatively high recording rate);
- Side Scan Sonars for use in inland waterways (handiness required because the SSSonar often needs to be lifted overboard by hand and also exchanged and relocated between ships).

1.4 Main outline of the market survey/Market Consultation strategy

The market survey consists of two parts. Firstly, a written question-and-answer session takes place. Any interested market party who believes that it can contribute to the market survey, is requested to submit answers to the questions in this market survey in writing (see Chapter 4). In response to the reactions submitted, RWS has the option of inviting the parties to a one-on-one session to provide an additional oral explanation to their responses.

Chapter 3 describes the method and strategy of the Market Consultation in detail.

1.5 About Rijkswaterstaat

RWS is the implementing organisation that manages and develops the national networks in a sustainable manner on behalf of the Minister and State Secretary for Infrastructure and Water Management (I&W).

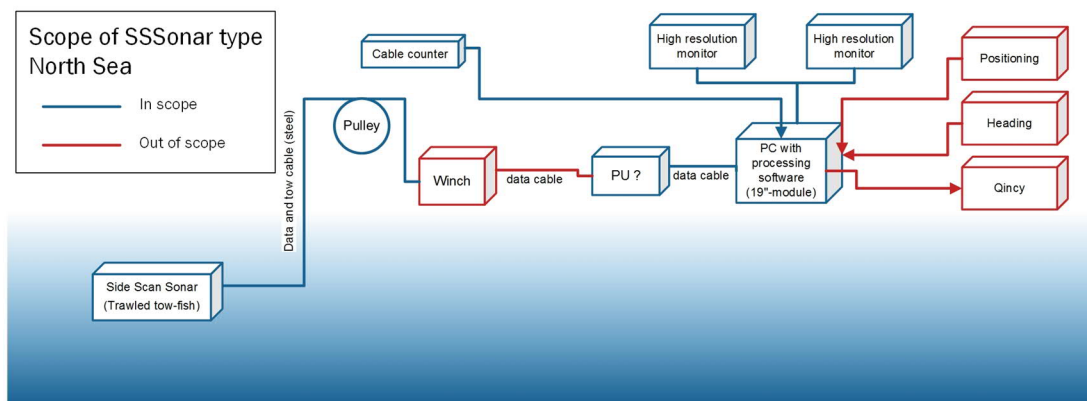
RWS is working on the smooth functioning and safe flow of traffic, on a safe, clean and user-oriented national waterway system, and on protecting our country from flooding. To achieve this, RWS manages the national roads network (5,695 km), the national navigable waterways network (1,686 km canals, rivers and 6,165 km of waterways in open water), as well as the national waterway system (65,250 km²).

The Rijkswaterstaat Central Information Services (RWS CIV) is one of the national organisational units of RWS. RWS CIV takes care of the collection, management and supply of data, as well as ICT management and development. More information about Rijkswaterstaat and RWS CIV is available on the website www.rijkswaterstaat.nl.

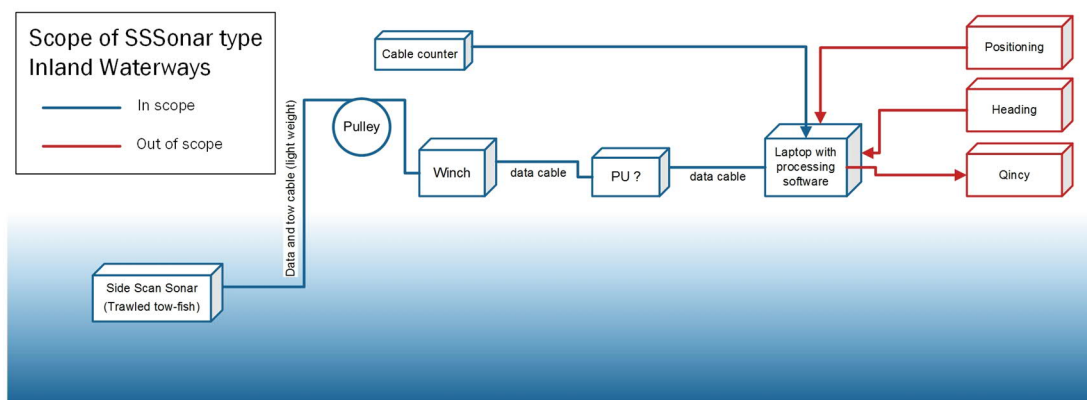
2 Scope

RWS is conducting this Market Consultation for the supply and maintenance of a number of complete Side Scan Sonar systems. This system includes a tow-fish, a winch, a pulley and a PC/laptop.

Scope of SSSonar type North Sea: trawled tow-fish, pulley, slip ring for existing winch, cable counter, PC with display, necessary cables.



Scope of SSSonar type Inland waterways: trawled tow-fish, pulley, winch, cable counter, laptop, necessary cables.



2.1 Side Scan Sonar applications

Side Scan Sonars are used for various applications:

- Obstacle detection/safe navigation passage
- Object survey: risk analysis for maintenance contracts of engineering structures
- Calamities
- Coastline protection

Obstacle detection/safe navigation passage in rivers and river deltas takes place throughout the country. Objects that could be surveyed include (a mast of a) shipwreck, anchors, car wrecks or car tyres. Waterways must be free of obstacles and this is checked annually.

Object surveys are conducted as a risk analysis before contracted maintenance activities on engineering structures (weirs, locks, containment facilities for riprap aprons, underwater slopes) are carried out. The purpose of the survey is to identify if there are any damages to the object, such as the absence of riprap aprons, cracks, etc.

Examples of calamities are lost cargo or collisions in which damage is caused to underwater structures/banks. RWS may also be requested to provide support to the police by using the SSSonar to help search for drowning victims.

Coastline protection: use is made of the Side Scan Sonar to search for new sand extraction sites. Sand extraction sites must be surveyed for the presence of objects (e.g. stones), which may cause damage to sand extraction vessels.

2.2 Distinguishing requirements

To be able to get an understanding of the requirements for applying Side Scan Sonars, a number of distinguishing requirements are listed below. The requirements set out in the call for tenders are always minimum requirements which must be fully met. The requirements below are provisional requirements and may still be altered by RWS; the full and actual schedule of requirements will be published in the call for tenders.

Technical requirements	North Sea	Inland waterways
Sonar type	Trawled Side Scan Sonar	Trawled Side Scan Sonar
Range	adjustable up to 150 metres per side	adjustable up to 100 metres per side
Resolution (across track)	4 cm or better, irrespective of distance	3 cm or better at range of 100 metres
Resolution (along track)	50 cm or better at 100 metres	50 cm or better at 100 metres
Recording speed (at this speed, the sonar must still meet the requirements)	8 knots	5 knots
Sailing speed (The sonar must be capable of towing at this speed, but no longer needs to meet the technical measurement requirements.)	12 knots	8 knots
Conditions	Sea state 4	

Water depth	up to 100 metres, sonar at approx. 15 metres above the seabed.	up to 100 metres, sonar at approx. 10 metres above the seabed.
Depth rating (min.)	100 metres	100 metres
Sensors	altimeter and/or depth sensor, heading, motion, USBL transponder	altimeter and/or depth sensor, heading, motion, USBL transponder
Supply	Up to two types of sonars suitable for use in the North Sea and inland waterways to be implemented for various applications.	
Delivery guarantee	Availability of this type over a period of at least 8 years, thereafter availability of an equivalent successive model.	
Services		
Preventive maintenance	The contractor offers a service for full preventive maintenance to make the sensor suitable for a new period of use. This includes functional checking as a minimum.	
Corrective maintenance	The contractor must provide a service for corrective maintenance to repair deviations and defects.	
Installation and dismantling of systems and putting into operation	The Contractor must install the supplied and maintained systems and ensure operational completion on board.	
Transportation	The contractor takes care of transportation from the RWS location for the preventive and corrective maintenance. If this maintenance is carried out outside the Netherlands, then this includes all activities and expenditure relating to international transportation.	
Support	The contractor offers a service to provide support and advice to maintenance staff and RWS consultants by telephone and on board. This service will be provided in the languages Dutch or English.	

2.3 What would be most helpful to RWS (RWS preferences)?

Organisational

- As few as possible different suppliers within the scope
- Requiring the least amount of own work on the system
- Requiring a minimum of maintenance administration for RWS
- A reserve pool to be as small as possible, e.g. with short turnaround times for maintenance/transportation.
- The least possible amount of effort for contract management by means of the contractor providing farther-reaching relief and assurance of quality.

Technical

- Efficient data collection: a sonar that performs within the set requirements at an as high a sailing speed as possible. This will reduce the data collection time and thus the sailing time.
- Flexible software: for example, the ability to zoom in, mark, save and view various objects of interest afterwards. These markings are georeferenced. Furthermore, several objects of interest could relate to each other geographically.
- Easy operation: the user sets a range. In so doing, the correct settings are automatically made such as frequency and pulse length to achieve this range.
- The user may prefer to opt for the heading of the tow-fish or Course Made Good (CMG). The inland waterway sonar may occasionally be attached to the ship, for which the ship's heading would have to be chosen.
- A sonar that reaches the set depth quickly and can then remain at depth and stay stable. All this to be done under prevailing conditions for both sonar types (e.g. sailing speed and sea state 4).

3 Time course of the Market Consultation

3.1 Timetable

RWS maintains the following timetable:

Activity	Date and time
Publication of Market Consultation Document	10 May 2021
Deadline to pose questions about this Market Consultation Document	18 May 2021
Publication of Summary of Additional Information and Changes	21 May 2021
Deadline for submitting completed questionnaire	28 May 2021
Dates for any individual explanatory discussions	June 2021
Finalisation and publication of final report	July 2021

Interested parties cannot derive any rights from the timetable. RWS reserves the right to alter the timetable. The above timetable is therefore indicative, taking the greatest possible care to comply with the timetable.

3.2 Questions about the Market Consultation Document

Market parties have the opportunity to pose questions about unclear formulations in the Market Consultation Document with the aim of transparent and unambiguous communication. If the parties have questions about the Market Consultation Document, these can be posed via email at: inkoopcentrum-iv@rws.nl before the “Deadline for posing questions about the Market Consultation Document” mentioned in paragraph 3.1. RWS will respond to the (anonymised) questions from market parties in a Summary of Additional Information and Changes published on TenderNed.

3.3 Submit questionnaire

Any interested market party who believes that it can contribute to the Market Consultation is requested to submit responses to the questionnaire in Chapter 4 of this Market Consultation Document in the attached Excel reply format by email: inkoopcentrum-iv@rws.nl before the “Deadline for submitting completed questionnaire” referred to in paragraph 3.1.

3.4 Verbal explanation to questionnaire

RWS would like to keep the option open – with reference to the submitted reactions – to invite parties to verbally provide additional explanations to their answers via a digital meeting. RWS will contact these parties and will, in consultation, schedule half a day during the period as mentioned in section 3.1 “Dates for any individual explanatory discussions”.

3.5 Finalisation of Market Consultation and feedback of results

Finalisation of the Market Consultation will take place in the period mentioned in paragraph 3.1. RWS will finalise the Market Consultation by publicly disclosing a report of the Market Consultation on TenderNed. The report will include, in the opinion of the project team, the main conclusions of the Market Consultation. In connection with this report, RWS explicitly points out the following:

1. The report will be publicly disclosed. Market parties authorise RWS to use their responses and other information and/or data provided by them as input for this report.
2. The information will be included in the report anonymously. The report will, however, mention the participating market parties.
3. The report will contain the conclusions as formulated by RWS. The contents of the report will not be harmonised in draft with participating market parties. The report will, however, state that it is the representation of the project team and that this is not necessarily endorsed by the participating market parties.

RWS will make it clear in the tender documents how the original ideas and/or questions have been updated or interpreted following the Market Consultation and will include the main conclusions.

3.6 Confidentiality

RWS will not publicly disclose the responses submitted and the discussion reports in full. RWS will only show this information to employees and consultants directly involved in the Market Consultation and/or in the call for tenders, unless RWS is required to make further disclosures on grounds of statutory regulations. RWS is, however, entitled to use the information provided for the purpose of drawing up the tender documents.

RWS will not include specific references to participants nor commercially sensitive information in the tender documents.

3.7 Other provisions in respect of the Market Consultation

The Market Consultation does not form part of the call for tenders. In order not to place Market Consultation participants in a privileged position, RWS will publicly disclose the results of the Market Consultation in the tender documents. In addition, all information shared by RWS during the Market Consultation will form part of the tender documents.

In the call for tenders, no distinction is made between parties who have and parties who have not participated in the Market Consultation.

Information in this Market Consultation may differ from information that is provided later (in the context of a call for tenders or other procurement procedure). No rights can be derived from the information provided in the context of the Market Consultation. The information is indicative and merely intended to improve the quality of the Market Consultation. If this information is contradictory to information that is provided later (in the context of a call for tenders or other procurement procedure), the latter will prevail.

RWS does not award any compensation to participants of the Market Consultation.

4 Market Consultation questions

RWS requests that you submit responses to the following questions in the attached Excel reply format.

1 - General details

We would like to receive information about your organisation that includes at least the following information:

- a) Name of the organisation;
- b) Contact details (name, email and telephone number).

General

1. Are you a manufacturer of side scan sonars? If so, which? If not, what is your relationship with the manufacturer(s) of side scan sonars (single dealership)?
2. What is the size of your company?
3. To what extent does your company have experience with contracts or European procurement procedures for the Dutch government?
4. Approximately how many Side Scan Sonars have you sold in the past three years?
5. For quality assurance, do you and/or your suppliers make use of ISO9001 certification or other certifications/standardisation?
6. Paragraph 2.3 contains a number of preferences: do you have any suggestions to implement them?

Technology

1. Which sonars are you able to offer for inland waterways and the North Sea which comply with the distinguishing technical requirements?
2. Is it possible to make the sonars capable of following the morphology of the seabed? Is that a widely-used option and realistic to demand? And how does this work? For example, is real-time external sensor data (e.g. SBES) of the trawling ship or bathymetric data needed?
3. RWS would like to have an alert (audio or visual) for reaching and/or deviating from the set depth. Is this realistic to demand?
4. RWS would like to have a safety device to prevent loss of the tow-fish, or a way to trace the tow-fish in case of loss, e.g. an integrated pinger. Could you provide solutions for this?
5. RWS has noticed major differences in weights of Side Scan Sonars available in the market. Ranging from less than 5 kg to more than 200 kg. What is the impact of weight on the sonar's measuring and/or application? In other words, is a certain minimum or maximum weight required for a specific application or use? Which weight would you recommend for our two sonar applications (inland waterways and the North Sea) with the prevailing conditions there (e.g. sailing speed and depth)?
6. RWS works with RD-coordinates (Dutch grid coordinates). Use is made of NAPTRANS2018 for converting to this coordinate system. Is this conversion possible within the sonar software?

Innovation and Delivery Guarantee

1. What innovative solutions do you know of that could make collection of the defined data more cost-effective for RWS?
2. What service life does the product have under normal use and service?
3. To what extent can the delivery guarantee be guaranteed in 10 years' time, and in what way?

4. How often are new types introduced and do some types reach end of life? How old are the current types and are new types envisaged in the next 2 years?

Services, Maintenance and Support

1. Which maintenance intervals do you recommend for your product and what activities are involved? Where is this maintenance normally carried out?
2. What is a realistic lead time for on-site support in the Netherlands?
3. Do you have a maintenance system in which maintenance reports are retained for a long time and from which recall can be facilitated for maintenance? Which overviews of this can be provided for RWS to further provide a full-service solution to RWS in its sensor management activities?

Verification

1. Would you recommend that we should conduct a comparative practical test in the assessment phase of the procurement procedure? What would you recommend to compare? Could you recommend how this test should be set up? Do you foresee any risks that should be taken into account for this test?
2. What activities can your company take for its own account in the practical tests?
3. If RWS does not carry out a practical test, but only does a verification of the winner's product after preliminary and final contract awarding: how can the preliminary winner prove that the sensor specifications meet the requirements? Do you have any proof yet. Is this possible with comparative measurements with a reference or something similar?

Invoicing

1. Several options for settlement of the services are possible;
 - a. Fixed annual rates versus retrospective settlement based on unit prices;
 - b. Invoicing after implementation versus regular invoices.What method do you normally use and does your company have particular preferences for this? Could you please explain your preference?

Sustainability

1. RWS wants the systems to be serviced in the Netherlands as much as possible. Preferably on shore near the ship, or on board the ship. Could you provide services such as maintenance in the Netherlands and on board?
2. RWS places added value on socially responsible procurement. RWS distinguishes 6 aspects; 1. Energy and climate, 2. Materials, raw materials and circular economy, 3. Environment and living environment, 4. Health and welfare, 5. Social aspects, 6. Employment aspects in the chain and SME aspects (see Table 1).
With which aspects do you have the most affinity and what added value can you or your suppliers offer?
3. Do you have any suggestions for RWS to make data collection with sonars more effective, which will enable RWS to make its own processes more sustainable?

Table 1: Aspects of socially responsible procurement

	Energy and Climate	• Use of energy in the production process • Energy consumption in the use phase • Logistics and sustainability of transport • CO₂ emission and reduction • Renewable energy generation
	Primary raw materials and circularity	• Origin of materials used (for example recycled content) • Design for reparability and disassembly • Responsible manner of processing at the end of its useful life • Processing packaging material
	Living environment	• Use of harmful / toxic materials for living environment • Optimize water use • Impact on living environment for example mining • Air pollution and emissions SOx en NOx
	Welfare and Healthcare	• Use of harmful / toxic materials by consumer • Noise disturbance for consumer • Radiation
	Social Return	• Labor inclusion for people with a distance from the labor market • Labor participation • Social entrepreneurship
	Labor aspects in the production chain and medium and small businesses	• International social conditions • Working conditions in international production chains • Reduce child labor • Prevention of conflict minerals