

Annex 3. FerryBox. Case number 31191766

Codes requirements and specifications

Chapter	Topic	Subtopic	Code	Requirement
3.1.1	Sensors and Instruments	Design and specification	SI1	The sensors implemented in the FerryBox are specifically designed for use in a FerryBox system, enabling the continuous recording of the parameters mentioned in Chapter 2.
3.1.1	Sensors and Instruments	Design and specification	SI2	The sensors in the FerryBox are of high quality and are based on a proven concept.
3.1.1	Sensors and Instruments	Design and specification	SI3	The FerryBox is equipped with sensors capable of measuring with the necessary accuracy, precision, resolution, and range typical for the Dutch part of the North Sea, producing data that can be used in scientific studies.
3.1.1	Sensors and Instruments	Design and specification	SI4	The Contractor must ensure that the sensors produce data that is consistent and comparable with the data generated by the FerryBox on the Connector (operated by NIVA). The Zirfaea and the Connector operate in overlapping areas, and the data produced by their FerryBoxes are likely to be used in the same studies.
3.1.1	Sensors and Instruments	Design and specification	SI5	The FerryBox must be equipped with its own GPS system.
3.1.1	Sensors and Instruments	Design and specification	SI6	Multi-sensor units must not be used if the failure of a single component could result in the interruption of measurements from all sensors within the unit.
3.1.1	Sensors and Instruments	Design and specification	SI7	The Contractor will install hyperspectral radiometers for conducting above-water hyperspectral measurements of radiance and irradiance. These sensors must be installed free from obstructions and not near any structures such as chimneys, ensuring unobstructed upward and downward views.
3.1.1	Sensors and Instruments	Design and specification	SI8	Sensors or instruments will be installed to measure the housekeeping parameters required for data quality control.
3.1.1	Sensors and Instruments	Selection and procurement	SI9	In situations where there is a choice between two qualitatively equivalent sensors or measurement methods, Rijkswaterstaat prefers the sensor or method that requires the lowest service, maintenance, and calibration needs.
3.1.1	Sensors and Instruments	Selection and procurement	SI10	For monitoring primary production and the composition of phyto- and zooplankton, Rijkswaterstaat has selected the LabSTAF from Chelsea Technologies, the CytoSense – C from CytoBuoy and the Pi-10 from Plankton Analytics, respectively. The Contractor is required to install these instruments into the FerryBox.
3.1.1	Sensors and Instruments	Selection and procurement	SI11	The Contractor will organize a meeting with Rijkswaterstaat (either online or at the office) with the goal of finalizing the selection of sensors to be implemented.
3.1.1	Sensors and Instruments	Selection and procurement	SI12	During the meeting, the Contractor will translate any choices regarding sensors into: Financial implications (purchase + maintenance), Impact on service, maintenance, and calibration and Accuracy, precision, resolution, and range.
3.1.1	Sensors and Instruments	Selection and procurement	SI13	The meeting will thoroughly explore the possibilities and implications of implementing automated nutrient analyzers, with a particular focus on determining what these instruments require from the Zirfaea's
3.1.1	Sensors and Instruments	Operation and maintenance	SI14	For the measurement of more than one nutrient parameter, it is recommended to use at least two devices: one for Ammonium measurements and another for the remaining parameters.
3.1.1	Sensors and Instruments	Operation and maintenance	SI15	All sensors and instruments must be thoroughly tested and calibrated before their installation in the FerryBox on board the Zirfaea.
3.1.1	Sensors and Instruments	Operation and maintenance	SI16	Where choices are available, the FerryBox system measures all variables within a time interval and spatial resolution that will be agreed upon in a meeting with the end users of the sensor data.
3.1.1	Sensors and Instruments	Operation and maintenance	SI17	All documents and specifications related to the sensors and instruments must be made available by the Contractor to
3.1.2	ICT	System integration and operation requirements	ICT1	The Contractor will deliver an ICT system for the FerryBox in which all sensors and instruments are seamlessly integrated, ensuring their optimal performance is guaranteed.

3.1.2	ICT	System integration and operation requirements	ICT2	The ICT system facilitates the autonomous operation of the FerryBox, enabling: automatic pumping, flow control. leak detection, automatic stop/start when entering or leaving a harbor, sampling at specific positions, data storage, rinsing and cleaning processes.
3.1.2	ICT	System integration and operation requirements	ICT3	The FerryBox system can be remotely operated and monitored. Settings and software can be adjusted from a distance.
3.1.2	ICT	System integration and operation requirements	ICT4	The system allows for the integration of additional sensors without requiring significant modifications.
3.1.2	ICT	Hardware and software specific requirements	ICT5	Due to the strict requirements regarding the integration of the Pi-10 and the CytoSense into the FerryBox's ICT system, the Contractor actively seeks advice from Plankton Analytics and CytoBuoy. Both parties are not only tasked with supplying the Pi-10 and CytoSense but are also commissioned to advise the Contractor on integrating the instruments into the FerryBox.
3.1.2	ICT	Hardware and software specific requirements	ICT6	For processing data from the other sensors and instruments and for managing the FerryBox control system, a separate PC, including necessary software and a user interface, is installed in the FerryBox. If required, a wired mouse and keyboard will be provided.
3.1.2	ICT	Data management and transfer requirements	ICT7	Data from the sensors and instruments are locally stored in the FerryBox. The data storage system has ample capacity for storing measurement data and is highly reliable due to the implementation of backup and redundancy procedures. For this purpose, a NAS or server equipped with HDDs or SSDs is an obvious solution.
3.1.2	ICT	Data management and transfer requirements	ICT8	The data storage system is designed to seamlessly switch to an alternative power supply during an onboard power outage, ensuring no data loss, and it can automatically restart itself after a complete blackout.
3.1.2	ICT	Data management and transfer requirements	ICT9	In the FerryBox, provisions will be installed to transmit data to the shore location via mobile networks during the voyage. However, the 4G (nor 5G) network doesn't fully cover the Dutch part of the North Sea, with coverage limited to approximately 10 km offshore and around certain platforms and wind farms. Therefore, the system will be designed to buffer data and transmit it when a network connection becomes available.
3.1.2	ICT	Data management and transfer requirements	ICT10	Two sets of drives will be purchased so that when the Zirfaea docks in the harbor, the drives containing the collected data can be swapped for empty drives. Ideally, and if possible, swapping the disks should be a simple operation.
3.1.2	ICT	Data management and transfer requirements	ICT11	For the safe transport of the drives to the (to be determined) data storage on land, the Contractor will provide shock-resistant cases and antistatic sleeves that can individually encase each hard drive.
3.1.2	ICT	Data management and transfer requirements	ICT12	The Contractor is responsible for organizing the data transfer and writing a data transfer procedure. This includes detailing the process for swapping and transporting the drives, transferring the data to land, and preparing the drives for the next voyage.
3.1.2	ICT	Data management and transfer requirements	ICT13	The Contractor will provide a comprehensive description of the FerryBox's ICT system, including 1) a clear description and schematic representation of the FerryBox's ICT system, focusing on hardware components, software applications, and their interactions, 2) complete specifications of each component within the ICT system, highlighting both hardware and software characteristics, 3) data redundancy and backup procedures, including how the system manages component failure, and 4) software updates and the maintenance and replacement of hardware.
3.1.3	Water circuit	Water inlet	WC1	The FerryBox will utilize an existing water inlet system on the Zirfaea. This system comprises an inlet located under the ship's bow, approximately 2 meters below the water surface and existing pipes that route water from the inlet to the designated FerryBox location on the deck.
3.1.3	Water circuit	Water inlet	WC2	The Contractor is asked to address the water temperature increase issue, install a temperature sensor immediately after the water inlet, verify and ensure the resolution of past contamination problems and assess and mitigate any additional concerns, such as line fouling or alterations in water properties.

3.1.3	Water circuit	Pump and tubing system	WC3	The pump's flow rate must be in accordance with the Pi-10 specifications, ensuring that it meets the required operational standards for the system's efficiency and effectiveness.
3.1.3	Water circuit	Pump and tubing system	WC4	The pump of the FerryBox needs to be assessed for its possible effects on the properties of the water being analyzed, especially regarding its influence on the integrity of biological samples throughout its
3.1.3	Water circuit	Pump and tubing system	WC5	The piping or hosing selected for transporting water to and from the system must be suitable for the required flow rate and compatible with the pump in use.
3.1.3	Water circuit	Pump and tubing system	WC6	The Contractor ensures the system's supply hoses and pipes are easily replaceable with standard parts that are readily available locally.
3.1.3	Water circuit	Flow rate	WC7	The water circuit, which includes the pump and the dimensions of the pipes, is customized to suit the sensors and instruments employed in the FerryBox. The optimal flow rate depends on the specifications of the sensors employed.
3.1.3	Water circuit	Bubbles	WC8	Bubbles can effect sensor reading. The ferrybox system shall incorporate design features or technologies that minimize bubble formation around sensor areas.
3.1.3	Water circuit	Bubbles	WC9	The Contractor must provide (field) testing and validation evidence in the Site Acceptance Test and subsequent operations, demonstrating the ferrybox system's effectiveness in minimizing the impact of bubbles on sensor readings.
3.1.3	Water circuit	Facilities for automated cleaning system	WC10	The FerryBox system requires the installation of specific facilities to enable automated cleaning, including: 1) facilities for flushing and rinsing using freshwater, acidified water, or detergents, along with the option for high-pressure cleaning if required, to ensure the system remains clean and functional, 2) No substances that are harmful to the environment should be discharged. Permissible substances may be discharged overboard, but all other waste must be stored and properly processed at the harbor, 3) A supply of, or an instrument designed to produce, ultra-pure water dedicated to cleaning the chemical analyzers, 4) Electronically actuated solenoid valves designed to automate the flushing process of the plumbing system, ensuring efficient maintenance and reduction of biofouling and mineral deposits.
3.1.4	Quality control	Automated sampling device	QC1	The Contractor will install an automated sampling device aboard the FerryBox. This includes 1) equipping the device with an automatic refrigeration function to immediately preserve water samples upon collection, 2) the device must be programmable to collect water samples at specific, predetermined locations along the FerryBox's route and must support remote activation for sampling activities. Sample data and sensor data need to be flagged to enable proper
3.2	Container	General	CON1	The container must be purchased or built by the Contractor and, based on a design approved by the Client (see drawings section), be equipped with the sensors, instruments, systems, and installations described in this assignment.
3.2	Container	General	CON2	Occupational health and safety legislation, (Dutch) NEN standards and European directives must be observed.
3.2	Container	General	CON3	The entire unit must be safe to use, with the risk of injury minimized.
3.2.1	Container	Location and placement	CON4	The container must be capable of being securely fastened on board the Zirfaea using universal twist-lock holes at all corners.
3.2.1	Container	Location and placement	CON5	The container must be positioned between the funnel casing at the rear of the deck and the environmental measurement container (EMC). See photos in Appendix A.
3.2.1	Container	Location and placement	CON6	The design and placement of the container must accommodate the future positioning of the EMC with its door facing towards the rear of the ship, ensuring full accessibility to the EMC at all times. This requires coordination with Rijkswaterstaat.
3.2.2	Container	Container dimensions	CON7	Given the limited deck space, the container must be dimensioned in such a way that the available space is used efficiently and operational activities are not hindered.
3.2.2	Container	Container dimensions	CON8	The maximum dimensions for the container are 4.0 x 2.5 x 2.9 meters (length x width x height). A smaller container size is preferred, but it is also important to have sufficient space inside the container for work activities and maintenance.

3.2.2	Container	Container dimensions	CON9	There are currently no twist-lock sockets present for securing the container at the intended location. In this sense, the twist-lock sockets are not determining factors for the container's dimensions. The contractor shall coordinate the container's dimensions with Rijkswaterstaat, so that Rijkswaterstaat can install twist-lock sockets in the correct locations in a timely manner.
3.2.A56	Container	Container exterior	CON10	Sea water resistant and durable against corrosion, with special attention to the preservation of the container's underside.
3.2.2	Container	Container exterior	CON11	Thermally insulated (non-organic) with a smooth, flat outer wall.
3.2.2	Container	Container exterior	CON12	Exterior color is RAL 1016 (sulfur yellow), with a 5-year warranty on the preservation.
3.2.2	Container	Container exterior	CON13	A nameplate is to be attached to the exterior of the container displaying 1) Noctiluca (name FerryBox), 2) Dimensions (l x w x h) and weight of the container, 3) Year of commissioning, 3) Rijkswaterstaat logo, 4) North Sea Consultation, 5) logo of the European Commission, 6) the design for the nameplate will be provided by Rijkswaterstaat, 7) the plate will be manufactured/procured and
3.2.3	Container	Container exterior	CON14	The container roof is accessible by stairs: 1) anti-slip surface on the steps and on the container roof, 2) racket to step onto the roof (compliant with occupational health and safety regulations), 3) provision for attaching fall protection.
3.2.3	Container	Container exterior	CON15	Waterproof cable entry for instruments on the roof.
3.2.3	Container	Container exterior	CON16	All equipment and installations on the container's roof must be designed for easy removal to facilitate transport. No permanent fixtures are allowed on the roof that would interfere with the container's mobility or transportability.
3.2.4	Container	Mobility container	CON17	Although currently only the Zirfaea is eligible for the installation of the FerryBox, the container must be mobile enough to be installed on other vessels as well.
3.2.4	Container	Mobility container	CON18	The container must be equipped with fork sleeves for transportation with a forklift, positioned in such a way that the entire unit remains balanced when lifted.
3.2.4	Container	Mobility container	CON19	The container must be equipped with twistlock fittings at all corners to enable secure lifting and fastening. These twistlock fittings, along with the container's structure, must be capable of supporting a minimum weight equal to the maximum total weight of the fully loaded container, plus an additional safety margin of at least 25% to ensure safe handling during crane lifting operations. The design and placement of these fittings should comply with relevant international
3.2.5	Container	Water niche	CON20	The container is equipped with a water niche that allows for the intake and discharge of water through the container wall: 1) inlet for tap water, 2) inlet for process water to the pump, 3) outlet for tap water and process water, 4) all incoming and outgoing pipes are fitted with corrosion-resistant quick couplings and are supplied with matching counter couplings.
3.2.6	Container	Electrical niche	CON21	The container is equipped with an electrical niche that allows for power supply through the container wall: 1) Wind and waterproof sealing when no cables are connected, cable entry in the door to be covered with an oversized rubber or plastic flap, 2) 35-meter power cable, 3) Install a normally open contact in the electrical niche for connection to the ship's alarm system. Mount an acoustic alarm on the electrical cabinet, connected to this contact in the niche.
3.2.7	Container	Pump niche	CON22	The container has a pump niche where the pump is installed: 1) The pump is placed in the container but is separated from the interior space of the container by the pump niche. 2) The pump is accessible from the outside of the container. The pump must be easily accessible for maintenance work. 3) On the outside of the container, there is an access hatch to the pump that can be mounted and removed with toggle clamps. 4) The niche must be provided with insulation for noise reduction. Minimize vibration and noise from the pump by placing it on vibration dampers. 5) The suction line of the pump originates in the water niche. 6) In case of any pump leakage, the leak water must be drained to the outside, without water entering the container. 7) Install a bypass over the pump so that an external pump can also be connected to the same coupling. Switching to the external pump should be achievable in a simple manner through easily accessible

3.2.8	Container	Container access	CON23	An electric sliding door on the short side of the container with 1) a minimum width of 90 cm and a minimum height of at least 200 cm, 2) in the upper part, a window with sun-protective glass of the appropriate class, 3) a foot switch on the inside, 4) a push button at hand height on the outside, 5) in case of emergency or malfunction, operable with handles from both inside and outside, and 6) lockable with a cylinder lock, provided with at least five keys.
3.2.8	Container	Container access	CON24	A seaworthy step to be attached to the container, intended for safe entry and exit of the container (NEN1814). The steps must be provided with anti-slip material. The stairs must be made of seawater and corrosion-resistant material and must be easy to assemble and disassemble.
3.2.9	Container	Floor	CON25	A poured floor in the container with 1) anti-slip effect, easily cleanable, liquid-tight and (if necessary) acid-resistant, 2) rising approximately 5 cm up the wall, 3) water drainage with a stainless steel floor drain, sufficient slope towards the drain, and 5) joints
3.2.10	Container	Interior layout	CON26	All sensors, instruments, and facilities in the container must be securely fastened for sea conditions.
3.2.10	Container	Interior layout	CON27	A server rack for the ICT system (logging computer and hard drives).
3.2.10	Container	Interior layout	CON28	The Pi-10 comes with a stainless steel frame that should be used for mounting the Pi-10 in the container.
3.2.10	Container	Interior layout	CON29	10% free space for installation of additional sensors in the future.
3.2.10	Container	Interior layout	CON30	A cabinet for storage of necessary materials such as items frequently needed for cleaning and maintenance, or folders with documentation about the FerryBox that is required on-site. The cabinet should not have excessive space. The contents of the cabinet must be securely fastened. The cabinet door must be able to be securely closed for sea
3.2.11	Container	Work bench	CON31	The container is equipped with a workbench suitable for setting up small test arrangements: 1) The workbench height is 95 cm, allowing for standing work. 2) The depth of the bench should be determined based on the available space in the container. 3) The workbench is provided with a raised edge. 4) Sealing between walls and workbench is liquid-tight. 5) The workbench is equipped with a small sink with taps for process and rinsing water (tap water) at least 45 centimeters above the bottom of the sink to facilitate filling bottles. 6) 3 double
3.2.11	Container	Work bench	CON32	Near the workbench, an easily accessible eye wash station is mounted in a wall holder with a replaceable bottle.
3.2.12	Container	Electrical Cabinet	CON33	An electrical cabinet is installed in the container to centrally manage and protect all electrical facilities. This cabinet is corrosion-resistant, has lighting that activates when the cabinet is opened, and has 5% overcapacity in space.
3.2.12	Container	Electrical Cabinet	CON34	Install an automatic phase sequence switch in the electrical cabinet with indication of whether the phases are present.
3.2.12	Container	Electrical Cabinet	CON35	The electrical provisions should be compatible with both shore power and onboard power, using a 5-pin CEE-form connector with a capacity of 32 amperes.
3.2.12	Container	Electrical Cabinet	CON36	Safety provisions: 1) main switch for electrical shutdown, 2) grounding of container and equipment in container.
3.2.12	Container	Electrical Cabinet	CON37	separate 230 V group for climate control.
3.2.12	Container	Electrical Cabinet	CON38	2 double wall sockets.
3.2.12	Container	Electrical Cabinet	CON39	Contractor will install a UPS in online mode in the electrical cabinet to provide a power reserve in case the ship's main power supply fails, to regulate input current, and to act as a filter against voltage spikes. Contractor will ensure that the UPS specifications match the power requirements of the equipment in the FerryBox and are capable of covering the duration of likely power outages. All sensors, equipment, systems, and computers are connected to UPS power.
3.2.12	Container	Electrical Cabinet	CON40	A certified CO2 fire extinguisher is placed in the vicinity of the electrical cabinet. The extinguisher has sufficient capacity to extinguish a fire in the relevant space with the facilities present.

3.2.13	Container	Cabling	CON41	The placement of pipes, cables, and tubes complies with the applicable safety standards and regulations: 1) Wiring of the electrical installation must be carried out using lead-free and halogen-free cabling that is fire-retardant. No harmful substances as per the RoHS II directive, 2) Data connections, cables, and connectors are electrically robust enough to function in a ship environment where cabling is routed in close proximity to other power supplies. If possible, this is demonstrated by compliance with the IEC60533 (or a comparable)
3.2.13	Container	Cabling	CON42	All pipes, cables, and tubes must be neatly and securely concealed within the designated facilities, such as cable trays or conduits, to ensure a tidy and organized appearance and increase overall safety.
3.2.13	Container	Cabling	CON43	Cable trays must have 10% space remaining after installation to allow for additional cables.
3.2.13	Container	Cabling	CON44	A cable numbering list must be created for the cabling, indicating 1) cable number, 2) cable type and specification, 3) start and end destination, and 4) voltage type.
3.2.13	Container	Cabling	CON45	Connection diagrams must be made for the cable connections. Also, provide information on the connectors to be used.
3.2.13	Container	Cabling	CON46	Cables are labeled at the beginning and end with their cable number.
3.2.14	Container	Lightning	CON47	LED lighting: 1) sufficient indirect, non-reflective, and natural-looking artificial light, 2) minimum 500 LUX, and 3) splash-proof switch easily accessible upon entering the container.
3.2.14	Container	Lightning	CON48	Emergency lighting E=10 Lux.
3.2.15	Container	Climate control	CON49	The temperature and humidity in the container can be regulated: 1) For optimal performance of the Pi-10, it is necessary that the temperature in the container is at least 3°C lower than the internal temperature of the Pi-10. The internal temperature of the Pi-10 is set by Plankton Analytics. The contractor should consult Plankton Analytics about this. 2) Similar margins may apply to other measuring instruments in the FerryBox. Consult the supplier/manufacturer about this. 3) Consult manufacturers regarding humidity requirements.
3.2.15	Container	Climate control	CON50	The temperature and humidity in the container are regulated with an HVAC system: 1) The HVAC system must have sufficient capacity to maintain the desired internal temperature in the container at outside temperatures ranging from -10°C to +30°C. 2) In case of a power failure, the operation of the HVAC system is ensured via the UPS.
3.2.15	Container	Climate control	CON51	The temperature in the container and, where necessary, the (internal) temperature of sensors and instruments are monitored.
3.2.16	Container	Engineering drawings	CON52	The contractor will produce a 3D design of the container layout with multiple cross-sections showing how the various sensors, instruments, and systems are placed and secured in the container.
3.2.16	Container	Engineering drawings	CON53	The contractor will produce detailed drawings of: 1) the container, 2) the electrotechnical and control engineering provisions including cabling, and 3) water circuit including drinking, rinsing, and process
3.2.16	Container	Engineering drawings	CON54	The Contractor shall provide all revision drawings that show the progression of the design and the as-built drawings that show the final construction. The revision drawings must be clearly labeled and dated.
3.2.16	Container	Engineering drawings	CON55	The Contractor is responsible for providing a complete set of documentation supporting the revision and as-built drawings. This documentation includes, but is not limited to, technical specifications, product data sheets, warranty certificates, maintenance instructions, and certificates of conformity.
3.2.16	Container	Engineering drawings	CON56	The design drawings are submitted as a concept to the Client for review and approval. If these do not meet the stated requirements, the Contractor must implement the necessary corrections within an agreed timeframe.
3.3	Factory and site acceptance test	General	CON57	The Contractor shall develop a FAT and SAT protocol in accordance with the below specified requirements and submit these to Rijkswaterstaat for review.

3.3	Factory and site acceptance test	General	CON58	The Contractor shall provide a technical drawing and schematic representation of all components of the FerryBox in their interrelation. One of the objectives of this drawing and representation is that it serves as a framework for the client during the Site Acceptance Test (SAT), providing an overview for the required inspections. The drawings and representation, at a minimum, provide an overview and insight into: 1) the water flow from inlet to outlet and the associated components and devices, 2) the placement of sensors and instruments within the container, 3) components of the ICT system, and 4) secondary systems, instruments, and sensors.
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT1	The Contractor will ensure that all specified sensors, instruments, and systems are installed correctly and operate within the parameters and requirements provided by the manufacturers.
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT2	The Contractor will ensure all sensors and instruments are calibrated.
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT3	The Contractor will correct any errors identified during the FAT, and retest the affected components or systems.
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT4	Retesting will be conducted before the delivery of the FerryBox to Rijkswaterstaat.
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT5	The Contractor will verify the completeness and accuracy of all FerryBox related documentation, including manuals and technical
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT6	The Contractor will generate a comprehensive FAT report detailing test procedures, results, and corrective actions taken.
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT7	The Contractor shall provide a clear statement confirming compliance with the program of requirements for approval by Rijkswaterstaat.
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT8	Generate a comprehensive FAT report summarizing the testing procedures, results, and any corrective actions taken.
3.3.1	Factory and site acceptance test	Factory acceptance test requirements	FAT9	The FAT shall be formally concluded with a statement confirming compliance with the specified requirements. This statement shall be signed by the Contractor and approved by the Client.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT1	The Contractor will confirm safe installation and secure positioning of the FerryBox on the deck of the Zirfaea.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT2	The Contractor will confirm the stability and reliability of the power and tap water supply to the FerryBox.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT3	The Contractor will confirm the stability and reliability of the (sea) water inlet and outlet.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT4	The Contractor will verify that all pipes, cables, and conduits are professionally installed and neatly concealed within designated facilities, such as cable trays or conduits, eliminating any potential
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT5	The Contractor will ensure the FerryBox's adherence to maritime safety standards and safety protocols on board the Zirfaea.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT6	The Contractor will verify that all the equipment has arrived in good operating condition.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT7	The Contractor will confirm that all materials necessary for service and cleaning are present.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT8	The Contractor will validate the operational performance of the FerryBox under actual operating conditions at sea.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT9	The Contractor will validate all sensor and instrument data to ensure accurate and reliable data collection.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT10	The Contractor will confirm the proper functioning of data logging, storage and transfer systems within the FerryBox.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT11	The Contractor will verify the capability for remote monitoring and control of the FerryBox.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT12	The Contractor will verify that all documentation relevant to the installation and operation of the FerryBox at the site is complete and accurate.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT13	If applicable, The Contractor will conduct instruction sessions for the crew of the Zirfaea on the correct usage and service procedures of the FerryBox.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT14	Generate a comprehensive SAT report summarizing the testing procedures, results, and any corrective actions taken.
3.3.2	Factory and site acceptance test	Site acceptance test requirements	SAT15	The SAT shall be formally concluded with a statement confirming compliance with the specified requirements. This statement shall be signed by the Contractor and approved by the Client.
3.4.1	Operational Phase	Continuity requirements	OP1	The Contractor is required to efficiently plan and execute tasks during the operational phase to minimize costs and system unavailability.

3.4.1	Operational Phase	Continuity requirements	OP2	Inevitable unavailability due to work on or related to the ferrybox is planned (as much as possible) for December and January.
3.4.1	Operational Phase	Continuity requirements	OP3	The Contractor is vigilant in monitoring and reporting recurring complaints, identifying recurring issues, analyzing their causes, and suggesting solutions and improvements. This also includes making recommendations for improvements or providing advice for usage by Rijkswaterstaat based on recurring complaints or issues.
3.4.2.1	Operational Phase	Preventive maintenance	OP4	The Contractor is responsible for, and shall provide a service for preventive maintenance of the Ferrybox, ensuring systematic inspection, cleaning, and timely replacement of parts, materials, and systems as necessary. This service must be designed to prevent sudden failures, extend the lifespan of the equipment, and optimize operational efficiency and safety.
3.4.2.1	Operational Phase	Preventive maintenance	OP5	The Contractor ensures that the sensors are in optimal condition during periods critical for ecological monitoring.
3.4.2.1	Operational Phase	Preventive maintenance	OP6	From the Ferrybox community, there are no known examples of performance indicators that can be used to evaluate the effectiveness of preventive maintenance, and thus they are not employed for the quantitative evaluation of preventive maintenance effectiveness. This subject will, however, be revisited qualitatively in the client-Contractor discussions.
3.4.2.1	Operational Phase	Preventive maintenance	OP7	Should it be determined that repairs cannot be conducted immediately onboard the ship during a port call or voyage, the Contractor is authorized to perform the necessary maintenance at their own facility (or a third party). See paragraph 4.6 for details regarding the transport of ferrybox components.
3.4.2.1	Operational Phase	Preventive maintenance	OP8	If certain tasks or activities prove to be disproportionately time-consuming or costly for the Contractor, or a third party, to perform, the Contractor is permitted, in accordance with the framework 'Minimize Activities for Rijkswaterstaat', to approach Rijkswaterstaat to explore the possibility of utilizing the crew of the Zirfaea for the specific task in question.
3.4.2.1	Operational Phase	Preventive maintenance	OP9	Replacement and maintenance activities for any part or system of the Ferrybox must result in the maintained or enhanced performance of the said component or system.
3.4.2.1	Operational Phase	Preventive maintenance	OP10	The Contractor writes a preventive maintenance protocol describing which recurring and predictable routine tasks need to be performed, specifying when and at what expected frequency.
3.4.2.1	Operational Phase	Preventive maintenance	OP11	Rijkswaterstaat provides the Contractor with an annual voyage schedule of the Zirfaea to facilitate the coordination of activities.
3.4.2.1	Operational Phase	Preventive maintenance	OP12	Using the provided schedule of the Zirfaea, the Contractor will develop a detailed one-year schedule for service and maintenance activities, along with a four-year forecast for expected preventive maintenance, culminating in a five-year maintenance plan.
3.4.2.1	Operational Phase	Preventive maintenance	OP13	The detailed one-year schedule must take into account potential challenges identified in schedule of the Zirfaea, ensuring a proactive approach to maintenance planning, such as: 1) Long port calls: possibility of the Ferrybox system entering a standby state, which could lead to biofouling. 2) Short port calls: may require staff to travel with the ship to carry out necessary maintenance. In such instances, it is imperative that the service staff possess the requisite qualifications to ensure that the work is conducted effectively and safely.
3.4.2.1	Operational Phase	Preventive maintenance	OP14	The detailed five-year maintenance plan, will be submitted to Rijkswaterstaat for approval in Q3 or Q4 of the preceding year, depending on Rijkswaterstaat's needs. For example, the planning for 2026 will be discussed and submitted for approval in Q3 or Q4 of
3.4.2.1	Operational Phase	Preventive maintenance	OP15	The Contractor incorporates feedback and requested modifications based on discussions with Rijkswaterstaat into the final five-year plan.
3.4.2.2	Operational Phase	Corrective maintenance	OP16	The Contractor is responsible for providing a corrective maintenance service for the Ferrybox. This service must promptly address and repair any identified deviations and defects, with the aim of resuming measurement activities with minimal interruption. The specific tasks involved in this service will be evaluated and determined on a case-by-case basis by the Contractor, ensuring tailored and effective maintenance solutions are implemented to maintain the Ferrybox's operational integrity and reliability.

3.4.2.2	Operational Phase	Corrective maintenance	OP17	Should it be determined that repairs cannot be conducted immediately onboard the ship during a port call or voyage, the Contractor is authorized to perform the necessary maintenance at their own facility (or a third party).
3.4.2.3	Operational Phase	Maintenance reporting	OP18	Every instance of preventive and corrective maintenance performed, including the associated activities, must be thoroughly documented in a Service Report.
3.4.2.3	Operational Phase	Maintenance reporting	OP19	The Service Report is structured to offer a comprehensive maintenance history, facilitate the resolution of potential warranty claims, and aid in the planning of future maintenance activities.
3.4.2.3	Operational Phase	Maintenance reporting	OP20	The Service Report shall include, but not be limited to, the following details: 1) CIB number(s) and serial number(s); 2) reason for the service call; 3) date on which the maintenance activities were carried out; 4) analysis of the problem encountered; 5) detailed account of the maintenance work performed, materials used, and labor hours; 6) justification for any parts taken off-site by the Contractor for maintenance.
3.4.2.3	Operational Phase	Maintenance reporting	OP21	evidence of correct functioning post-maintenance (factory and/or site acceptance test, or final inspection); 7) expected duration of correct functioning until next scheduled maintenance.
3.4.2.3	Operational Phase	Maintenance reporting	OP22	If a registered item is disposed of or reused outside the scope of the Client's control, the Service Report must include proof of proper disposal or the intended purpose of reuse.
3.4.2.3	Operational Phase	Maintenance reporting	OP23	The Service Report must be made available to the Client within five working days following the completion of the maintenance activities.
3.4.3.1	Operational Phase	Calibration requirements	OP24	The Contractor is responsible for ensuring that all sensors aboard the FerryBox are calibrated, either by performing the calibration service in-house or by coordinating calibration with the manufacturer or an accredited third party.
3.4.3.1	Operational Phase	Calibration requirements	OP25	Calibration of the sensors is performed by facilities holding the relevant accreditation standards (e.g. ISO/IEC 17025).
3.4.3.1	Operational Phase	Calibration requirements	OP26	Sensors must be calibrated following the guidelines specified in the 'Report on Calibration Best Practices' (Jerico 2014), or, if deviating, with well-justified reasoning.
3.4.3.1	Operational Phase	Calibration requirements	OP27	The calibration of the Pi-10, CytoSense-C and LabSTAF must be conducted either directly by the manufacturer, or under the manufacturer's supervision.
3.4.3.1	Operational Phase	Calibration requirements	OP28	Calibration of the sensors and instruments must be conducted every 1-2 years, or as specified by the manufacturer.
3.4.3.1	Operational Phase	Calibration requirements	OP29	The Contractor is tasked with the organization and management of the calibration process, committed to 1) ensuring that the sensors are in optimal condition during periods critical for ecological monitoring; 2) minimizing downtime; 3) reducing costs and maximizing operational efficiency through streamlined operations.
3.4.3.2	Operational Phase	Validation requirements	OP30	The Contractor is responsible for ensuring the validation of all sensor data, either by conducting the validation processes in-house or by coordinating validation activities with accredited third parties.
3.4.3.2	Operational Phase	Validation requirements	OP31	Validation of the sensor data must be conducted in accordance with the relevant quality standards (e.g. ISO/IEC 17025).
3.4.3.2	Operational Phase	Validation requirements	OP32	The Contractor must develop and document a comprehensive validation protocol for comparing sensor data from the FerryBox system against reference bottle samples, with specific attention to the following aspects: 1) The frequency of validation checks to ensure ongoing accuracy and reliability of the FerryBox sensor data; 2) Specific schedules and preferred locations for (automated) sample collection to ensure a representative range of data for validation purposes; 3) Time-sensitive handling of samples that are prone to potential deterioration. Establish a strict timeline for the processing of these time-sensitive samples, detailing the maximum allowable time
3.4.3.3	Operational Phase	Quality assurance logbook	OP33	Reports on calibration and validation must adhere to established quality management standards (e.g. ISO 9000 / 9001, ISO/IEC

3.4.3.3	Operational Phase	Quality assurance logbook	OP34	Minimum requirements for the Quality Assurance (QA) Logbook: 1) Full details of each instrument, including type, model, serial number. 2) Calibration records: a) When the calibration was performed. b) Who performed the calibration (individual or organization, including contact information). c) Details on the standards and reference materials used. d) A detailed description of the calibration procedures used. e) Results of the calibration, including pre- and post-calibration values, calculated uncertainties, and any identified discrepancy. f) Schedule of future calibration dates to ensure ongoing calibration maintenance. 3) Validation records: a) Description of the methods used for validating the instrument data. b) Information on samples taken for validation and comparisons with known standards or reference materials. c) Outcomes of the validation tests, including an assessment of the instrument's performance post-calibration. 4) Details of any corrective actions taken as a result of the calibration or validation processes. 5) Signatures of the individuals responsible for conducting the calibration
3.4.3.3	Operational Phase	Quality assurance logbook	OP35	The Quality Assurance Logbook must be made available upon request to RWS and to the persons carrying out the quality control of the data.
3.4.4	Operational Phase	Data delivery, quality control and performance monitoring	OP36	The Contractor is responsible for near real-time and delayed quality control of all data. This quality control must be conducted either in-house or by coordinating activities with accredited third parties. Rijkswaterstaat has experience from previous contracts regarding data processing of various monitoring instruments, including the Pi-10 and CytoSense. Given the specialized nature of the data and its applications, consideration should be given to involving established research institutions that have expertise with such data. Similar arrangements could potentially be made for processing data from the
3.4.4	Operational Phase	Data delivery, quality control and performance monitoring	OP37	The Contractor will implement a comprehensive quality control system to monitor the performance of the FerryBox system and to ensure the accuracy, reliability, and integrity of all data collected by the FerryBox: 1) The Contractor details in a Quality Control Protocol the methodologies to be used and how these methodologies ensure the accuracy, reliability, and integrity of the collected data. 2) This documentation must include a detailed description and illustration of data flow from collection to storage, including data type and format. 3) The Contractor's proposed quality control system must be submitted to Rijkswaterstaat for review and approval.
3.4.4	Operational Phase	Data delivery, quality control and performance monitoring	OP38	Insights gained from the data quality control process should directly inform the scheduling and execution of service and maintenance activities, ensuring the system operates within its optimal parameters.
3.4.4	Operational Phase	Data delivery, quality control and performance monitoring	OP39	To facilitate the discussion on the allocation of quality control responsibilities, the Quality Control (QC) Framework as defined by SMHI (Jerico, WP 10.3) is utilized as a reference framework.
3.4.4	Operational Phase	Data delivery, quality control and performance monitoring	OP40	Given the involvement of research institutions working for Rijkswaterstaat in this process, the Contractor is required to: 1) Engage in discussions with Rijkswaterstaat to determine the scope of involvement in QC Level 2 and 3. 2) Coordinate efforts with RWS and possibly other research institutions to ensure a seamless and integrated approach to the annual comprehensive review of the data.
3.4.4	Operational Phase	Data delivery, quality control and performance monitoring	OP41	The Contractor is responsible for the delivery of the data collected by the FerryBox within 7 days of collection, ensuring both near real-time and delayed quality control of all data. The delivered data should include the raw data, the initial near real-time quality-controlled data and the more thoroughly processed data resulting from delayed quality control procedures.
3.4.4	Operational Phase	Data delivery, quality control and performance monitoring	OP42	The data will be accessible to the oceanographic community only following the publication of the associated research by Rijkswaterstaat.
3.4.4	Operational Phase	Data delivery, quality control and performance monitoring	OP43	The Contractor maintains comprehensive records of all quality control activities in the Quality Assurance Logbook, encompassing both the methodologies applied and the outcomes of such analyses.

3.4.5.1	Operational Phase	Reducing workload Rijkswaterstaat	OP44	The principle regarding operational, maintenance and service activities related to the ferrybox is that Rijkswaterstaat and the crew of the Zirfaea are to be relieved as much as possible.
3.4.5.1	Operational Phase	Reducing workload Rijkswaterstaat	OP45	To meet this, the ferrybox must operate as autonomously and automatically as possible and be remotely controlled and managed by the Contractor.
3.4.5.1	Operational Phase	Reducing workload Rijkswaterstaat	OP46	Tasks and activities that cannot be automated or performed remotely are carried out by the Contractor or a third party. Third parties are contracted and managed by the Contractor after consultation with Rijkswaterstaat. The Contractor retains final responsibility for tasks performed by third parties.
3.4.5.1	Operational Phase	Reducing workload Rijkswaterstaat	OP47	If it costs disproportionately much time or money for certain tasks to be performed by the Contractor or a third party, the Contractor may approach Rijkswaterstaat to explore whether the crew of the Zirfaea (who largely work for market parties) can be deployed for the specific task. The following conditions apply: 1) The task should not significantly demand time and effort from the crew; 2) The task is simple and can be performed routinely; 3) The task matches the crew's level of education; no (additional) training is required to perform the task. 4) The Contractor must be reachable by phone when support is requested during a voyage for task execution; 5) In a request to Rijkswaterstaat to have a task performed by the crew of the Zirfaea, the above points are addressed. 6) Rijkswaterstaat reserves the right to refuse; 7) If there is an agreement to allocate a task to the crew, the Contractor writes a clear protocol describing the task execution step by step. Where necessary, these steps are supported with visual information such as photographs or schematic views. The protocols are physically present in the ferrybox (A4, laminated, in a folder) 8) Such protocols are first reviewed by Rijkswaterstaat before being provided to the respective crew members; 9) The Contractor provides instructions to the relevant crew members for the first use of the ferrybox on location. New crew members taking over a task are also instructed on location by the
3.4.5.2	Operational Phase	Onboard Work Activities on the Zirfaea	OP48	If it is necessary for the Contractor or a third party to perform work activities on the FerryBox during a voyage of the Zirfaea, explicit permission is requested from Rijkswaterstaat.
3.4.5.2	Operational Phase	Onboard Work Activities on the Zirfaea	OP49	Ensure all personnel involved in work activities on the FerryBox possess the necessary training and qualifications. Documentation of these qualifications must be submitted, together with the work plan, to Rijkswaterstaat for approval.
3.4.5.2	Operational Phase	Onboard Work Activities on the Zirfaea	OP50	Also, in advance, provide a list of all individuals who will perform work on the FerryBox, detailing their roles and qualifications, as an annex to both the Maintenance Protocol and Quality Assurance Logbook.
3.4.5.2	Operational Phase	Onboard Work Activities on the Zirfaea	OP51	Adhere to defined safety standards and emergency procedures specific to onboard work activities.
3.4.5.2	Operational Phase	Onboard Work Activities on the Zirfaea	OP52	Coordinate with Rijkswaterstaat to schedule work activities, ensuring minimal disruption to the vessel's operations. This includes: 1) Submitting a comprehensive work plan to Rijkswaterstaat for approval at least 6 weeks before the planned start of any work with a predictable nature. 2) Identifying optimal windows of opportunity for conducting work that align with the vessel's operational schedule and monitoring goals of the FerryBox. 3) Creating and agreeing upon contingency plans for any delays or schedule changes.
3.4.5.3	Operational Phase	Compliance and regulations	OP53	Ensure all work activities comply with relevant maritime, safety and environmental regulations. This includes obtaining necessary permits, adhering to environmental protection guidelines, and ensuring work does not impact marine life or water quality.
3.4.6.1	Operational Phase	Transparent pricing	OP54	The Contractor is required to compile a detailed and transparent Price List to justify the costs associated with the requested services. This list, together with the maintenance, calibration, and validation procedures, will help Rijkswaterstaat estimate the annual service costs for the FerryBox.

3.4.6.1	Operational Phase	Transparent pricing	OP55	The Contractor is required to determine the scope of the corrective maintenance on board the Zirfaea (during a port call), before the maintenance is performed: 1) If the estimated scope is less than €5,000 excluding VAT, the maintenance can be carried out immediately without coordination with Rijkswaterstaat. 2) When the costs exceed the threshold amount of €5,000 excluding VAT, approval from Rijkswaterstaat must first be obtained. 3) This coordination is done with a maintenance proposal that includes a cost specification. 4) If this coordination cannot take place immediately, the Contractor will cease the work on board the Zirfaea and send a maintenance proposal with cost specification to Rijkswaterstaat within five working days. 5) Costs not specified in the maintenance proposal are not eligible for reimbursement.
3.4.6.1	Operational Phase	Transparent pricing	OP56	In the event that a specific service is expected to be performed by a third party, an initial estimate of the costs is made. After contracting a third party, this estimate can be refined.
3.4.6.1	Operational Phase	Transparent pricing	OP57	The Price List shall be updated annually prior to the annual Contractor-client consultation, or whenever it becomes apparent that the cost of a service consistently deviates from the listed price. Rijkswaterstaat will be notified of any changes to the price list.
3.4.6.2	Operational Phase	Billing and invoicing	OP58	Invoicing occurs immediately after execution of the service activity.
3.4.6.2	Operational Phase	Billing and invoicing	OP59	The Contractor intends to use the Price List as the basis for billing as consistently as possible, yet billing will reflect the actual costs
3.4.6.2	Operational Phase	Billing and invoicing	OP60	To approve an invoice, Rijkswaterstaat requires documentation of the provided service, which can be an entry in the Service Report or Quality Assurance Logbook.
3.4.6.2	Operational Phase	Billing and invoicing	OP61	If a third party is required for performing a specific task related to the FerryBox, they will be hired by the Contractor. Following a (positive) assessment of the work provided by the third party, the Contractor may invoice the costs to Rijkswaterstaat.
3.4.6.2	Operational Phase	Billing and invoicing	OP62	Costs incurred by the Contractor related to the assignment of the third party can be charged to RWS.
3.4.7	Operational Phase	Transportation for offsite service activities	OP63	The Contractor ensures the reliable and efficient transport of the FerryBox (components), reducing costs and maximizing operational efficiency through streamlined operations.
3.4.7	Operational Phase	Transportation for offsite service activities	OP64	The Contractor is liable for any damage, theft, or loss of systems and/or components owned by Rijkswaterstaat at times when they are in possession of them. The Contractor must act as a good custodian of the systems by handling, transporting, and storing them carefully and under controlled conditions. Additionally, the Contractor ensures that adequate measures are taken in the work processes against damage, theft, and loss, and during handling by manufacturers, third parties, or
3.4.7	Operational Phase	Transportation for offsite service activities	OP65	The Contractor provides Rijkswaterstaat with detailed updates on the status and location of FerryBox components when they require servicing at a location other than onboard the Zirfaea. Rijkswaterstaat wishes to be informed with a transport overview about: 1) the parts to be transported, including CIB numbers and serial numbers; 2) date and time of sensor/instrument retrieval from the FerryBox; 3) the number of packaging units (e.g., transport cases, crates); 4) the destination of the transportation; 5) expected date of arrival; 6) the expected completion date of the service activity; 7) details regarding the return shipment; 8) the scheduled date for reinstallation.
3.4.7	Operational Phase	Transportation for offsite service activities	OP66	The Contractor independently coordinates the pickup or delivery address and time with the contact person at Rijkswaterstaat.
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP67	The Contractor will organize an annual meeting with Rijkswaterstaat in November or December to evaluate the preceding year and plan for the upcoming year.
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP68	The following documents will serve as the input for the session: 1) Service Report; 2) Quality Assurance Logbook; 3) Maintenance Plan; 4) Price List; 5) Voyage Schedule Zirfaea.
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP69	It is required that these documents will be approved by Rijkswaterstaat during the meeting, especially concerning plans for the upcoming year.

3.4.8	Operational Phase	Communication and feedback in the operational phase	OP70	The Contractor is responsible for drafting and coordinating the agenda with Rijkswaterstaat. Rijkswaterstaat will receive the draft agenda and preliminary documents 20 working days prior to the annual meeting. Rijkswaterstaat is required to provide feedback on the draft agenda and, if necessary, on the preliminary documents within 5 working days. The final agenda will be sent to the participants 8 working days before the meeting.
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP71	After the annual meeting, the Contractor must prepare a draft report and send it to Rijkswaterstaat within 10 working days. Rijkswaterstaat will review it and suggest changes within 5 working days. The Contractor will then update the report based on these suggestions and send the final version to the meeting attendees within another 5
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP72	Additionally, the Contractor will set up more frequent, periodic meetings to concentrate on operational issues related to performance, maintenance, validation, calibration, and data quality.
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP73	The frequency of the periodic meetings is determined during the annual meeting and can be adjusted during the year if necessary, following coordination with Rijkswaterstaat.
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP74	The Contractor is responsible for drafting and coordinating the agenda with Rijkswaterstaat. Rijkswaterstaat will receive the draft agenda and preliminary documents no later than 10 working days before the meeting. Rijkswaterstaat is required to provide feedback on the draft agenda and, if necessary, on the preliminary documents within 3 working days. The final agenda will be sent to the participants no later than 5 working days before the meeting.
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP75	The Contractor will send the draft report to Rijkswaterstaat within 5 working days after the meeting. Rijkswaterstaat will review the report and suggest changes within 3 working days. The Contractor will then update the report based on these suggestions and send the final version to the meeting participants within 2 working days.
3.4.8	Operational Phase	Communication and feedback in the operational phase	OP76	The contact details for all relevant persons within Rijkswaterstaat will be provided after the awarding of the contract. Until then, inquiries regarding content will be directed to Ronald Rense. Inquiries regarding the tendering project will be handled by Carolina Correa Jaramillo.

By submitting a Tender, you as Tenderer, explicitly consent to all requirements and conditions specified in the Tender document and declare that you will continue to comply with these throughout the entirety of the contract period. Furthermore, you confirm that you will comply with all of the following specified requirements.

The undersigned:

legally represented in this respect by,

Subcontracting:

For the part / parts the Contractor will have the following work / Services performed subcontracted by:

.....

The documents required in the Invitation to Tender are attached to this Registration State, namely:

.....

The undersigned (s) declare (declare) that there are no facts and circumstances as referred to in Article 27 of the ARVODI 2018 (takeover of staff, bribery and conflict of interest) with regard to the present project.

Done at (place), dated 20 ..

(signature)

name:

position:

(note: digital signing, security level IV,
PKIoverheid certificate or EU Qualified certificate)

