

Section II: Schedule of Requirements

eSourcing reference: ITB/2021/34583

A. Summary of Requirements

UNOPS requirements are comprised of the following lots:

- Lot 1: A 15 Ton-Capacity double ended ferry with a fully welded or modular hull and propulsion provided by **one (01)** azimuth thruster mounted on the main deck
- Lot 2: A 15 Ton-Capacity double ended ferry with a fully welded or modular hull and propulsion provided by two (02) azimuth thrusters mounted on the main deck
- Lot 3: A second-hand (used) 15 Ton-Capacity double ended ferry with a fully welded or modular hull and propulsion provided by either one (01) OR two (02) azimuth thrusters mounted on the main deck

B. Technical specifications for Goods and Comparative Data Table

Lot No 1: a double ended ferry with a fully welded or modular hull and propulsion provided by one azimuth thruster mounted on the main deck.

ltem No	UNOPS minimum technical requirements	Quant ity	Is bid compliant? Bidder to complete	Details of goods offered. Bidder to complete
	Double ended ferry with single (01) deck mountable propulsion unit		□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable
1	Dimensions: Length of pontoon (excluding boarding ramps): 10 m (+ - 0,5 m); Length o.a: 16 m (+ - 0,5 m) Beam Pontoon: 8 m (+- 0,5 m) Beam o.a: 10 m (+ - 0,5 m) Side depth: 1.30 m (+- 0,1m); Draft (full load of 15 tons): 1 m (+ - 0,1m) Boarding ramp: - Number: 2 - Length: 3 m(+-0,1m); - Width: 4 m (+-0,1 m); When the ferry is at maximum load case, its draught must not exceed: 100 cm (+/- 10 cm) for a fully loaded ferry with fuel tanks at 100 per cent capacity, hereinafter referred to as "full load case".		<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable



The average freeboard, at full load case, should be a minimum of 45 cm (+/- 10 cm). The navigation speed should range from 9 knots (+ and – 2 knots) depending on the load of the vessel and safety navigation			
Hull The bidder can choose between two types of hull construction: a single welded piece hull or a modular hull assembled by bolts. The hull and superstructure of the ferry will be made of grade A marine steel or S355JR steel and profiled plates of S235 steel, or their equivalents. The interior of the float must be accessible through manholes located on the deck. The hull must have a flat bottom and vertical sides.	1	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
Maximum load case 15 tons: Heavy trucks (or vehicles), Total weight (ton) 13 T Passengers with luggage and three crew members Number 20, Weight or payload 0,1; total weight (ton) 2'		<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
Propulsion and steering system: The Propulsion provided by one deck mountable propulsion unit with an azimuth thruster. The main diesel engine will be started, stopped and controlled from wheelhouse or engine canopy. The proposed characteristics of the propulsion unit as follows: - Minimum power: 150 hp; - Engine strokes: 4 - Air suction: Turbo compressed;		<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable



 Number of cylinders: 6; Total weight: Equal to or less than 1000 kg Fuel: Diesel Fuel capacity: minimum 0,4 ton Electric start: 24 V direct current (Battery); Alternator: 80A; Propeller diameter: from 600 mm to 800 mm; Tilt up thruster: 90° hydraulic The bidder will verify by calculation that the engines they propose enable the vessel to achieve the required performance. 		
Boarding ramp The boarding ramp must be articulated, with a cabled operating bracket. It must be calculated taking into the vehicle and the truck with full load (see annexed document for truck characteristics) The bidder must provide a calculation note confirming this performance in its technical proposal. The boarding ramp must be operated by hydraulic devices and possibly be fitted with davits, cables and pulleys, controlled from the wheelhouse. The energy required to operate the ramp must come from the vessel's engines. The hydraulic system must be designed in such a way that each engine is capable of operating the ramp on its own. There must be a device that allows the ramp to be operated manually in the event of a breakdown. The hydraulic lines must be equipped with a bypass that allows the boarding ramp to be operated manually.	Yes No	Insert details of goods offered, including specifications and brand/model offered if applicable
Main deck	 □ Yes □ No	Insert details of goods offered, including specifications and

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 the boarding ramp fixed in the middle of the bow; a manual anchor windlass attached to a deck doubling plate on the port side bow. Its shafts will be horizontal. On the starboard bow, a bracket for manoeuvring the boarding ramp attached to a doubling plate (see Boarding ramps); two fast winches equipped with ropes will be placed on the starboard and port sides of the foredeck. a carriage platform (vehicle deck) of 3.2 x 10 m, to support an axle load of 15 tons, a foot passenger platform on each side of the carriageway; 		brand/model offered if applicable
Wheelhouse deck The wheelhouse must have a direct view of the boarding ramps and offers an unobstructed view in all directions included the anchor winch and the vessel's mooring bollards, both forward and aft. The wheelhouse must have a toilet and a store/technical space. The wheelhouse is placed on top of the superstructure. The efficient layout offers an unobstructed view in all directions. The wheelhouse furniture will include a console for the controls, a table, a raised helmsman chair, and a chair with armrests and castors for the captain.	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
RailingsSteel handrails along:- The stairs;- Around the main deck;- Around each propulsion unit.They will be made of steel tubingwith a minimum diameter of 3cm.For areas occupied by footpassengers, guardrails will be	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable



provided for the safety of the passengers. Roof Access to the roof is provided by an interior vertical access ladder attached to the aft wall of the wheelhouse. This ladder leads to a hatch that opens from the inside. The hatch can also be used for ventilation. The following are installed on the roof: • the signal mast; • daytime navigation marks; • the two navigation lights; • one raw water tank with a	
Roof Access to the roof is provided by an interior vertical access ladder attached to the aft wall of the wheelhouse. This ladder leads to a hatch that opens from the inside. The hatch can also be used for ventilation. The following are installed on the roof: • the signal mast; • daytime navigation marks; • the two navigation lights; • one raw water tank with a	
 The following are installed on the roof: the signal mast; daytime navigation marks; the two navigation lights; one raw water tank with a 	
 capacity of 1 m³ for toilets and showers; one VHF antenna; a set of solar panels to keep the starter and service batteries charged. 	s offered, 1s and f
Maintenance area (mechanic/electrician) The vessel will be equipped with an area for one electromechanical engineer. The size of the area will allow for the storage of a table, a chair and tool boxes.	s offered, ns and f
Sampling/structure Sampling is done in accordance with the Bureau Veritas standards (Rules for the Construction of Inland Navigation Vessels NR 217) and any applicable national regulations. In all cases, the builder will be responsible for the quality of the structural elements of the vessel supplied. The framing system, either transverse or longitudinal, is left to the discretion of the builder. All smooth plates will be made of marine grade A steel or S355JR steel and	s offered, ns and f
profiled plates of S235 steel, or their equivalents. Insert details of goods including specification Steel Plates Insert details of goods including specification	s offered, ns and



 General bottom shell: 6 mm; Forward bottom shell (beaching area): 8 mm; Bilge plating: 6 mm; Side shell plating: 6 mm; Collision and aft bulkheads: 6 mm; 			brand/model offered if applicable
- Other bulkheads: 6 mm;			
 The propulsion unit will be controlled and monitored from the wheelhouse and from engine canopy. In the wheelhouse, these panels will include visible and audible alarms to signal: drop in lubricating oil pressure; rise in the temperature of the cooling water; drop in the electrical charge of the batteries; exhaust gas temperature. They will also include: a tachometer; an hour meter; dials indicating: oil pressure; the temperature of the primary cooling water; the supply voltage of the starter batteries; the supply voltage of the starter batteries; the current between the starter batteries; the current between the starter batteries and the engine (+ and -); an ignition key with two positions (OFF/ON) (the engine is started from the secondary panel in the engine room by the mechanic). The third position, "preheat", is not used at our altitudes and must be deactivated. 		■ Yes ■ No	Insert details of goods offered, including specifications and brand/model offered if applicable
Electricity onboard The on-board electricity will be a single voltage of 24 V DC negative neutral to earth; This self-sufficient network will comprise: a 24 V direct current that can meet all the on-board needs, based on a classic energy		<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
	 General bottom shell: 6 mm; Forward bottom shell (beaching area): 8 mm; Bilge plating: 6 mm; Side shell plating: 6 mm; Collision and aft bulkheads: 6 mm; Other bulkheads: 6 mm; drag of the batteries; rise in the temperature of the cooling water; drop in the electrical charge of the batteries; exhaust gas temperature. They will also include: a tachometer; an hour meter; dials indicating: oil pressure; the temperature of the primary cooling water; the supply voltage of the starter batteries; and the engine (+ and -); an ignition key with two positions (OFF/ON) (the engine is started from the secondary panel in the engine room by the mechanic). The third position, "preheat", is not used at our altitudes and must be deactivated. Electricity onboard the carrent between the single	 General bottom shell: 6 mm; Forward bottom shell (beaching area): 8 mm; Bilge plating: 6 mm; Side shell plating: 6 mm; Collision and aft bulkheads: 6 mm; Other bulkheads: 6 mm; Other bulkheads: 6 mm; Other bulkheads: 6 mm; Propulsion unit will be controlled and monitored from the wheelhouse and from engine canopy. In the wheelhouse, these panels will include visible and audible alarms to signal: drop in lubricating oil pressure; rise in the temperature of the cooling water; drop in lubricating oil pressure; rise in the temperature of the cooling water; drop in the electrical charge of the batteries; exhaust gas temperature. They will also include: a tachometer; an hour meter; dials indicating: oil pressure; the temperature of the primary cooling water; the temperature of the starter batteries; the current between the starter batteries; the current between the starter batteries; the current between the starter batteries and the engine (+ and -); an ignition key with two positions (OFF/ON) (the engine is started from the secondary panel in the engine room by the mechanic). The third position, "preheat", is not used at our altitudes and must be deactivated. Electricity onboard The on-board electricity will be a single voltage of 24 V DC negative neutral to earth; This self-sufficient network will comprise: a 24 V direct current that can meet all the on-board needs, based on a classic energy store: lead batteries, with	 General bottom shell: 6 mm; Forward bottom shell (beaching area): 8 mm; Bilge plating: 6 mm; Collision and aft bulkheads: 6 mm; Collision and aft bulkheads: 6 mm; Other bulkheads: 6 mm; Propulsion unit will be controlled and monitored from the wheelhouse and from engine canopy. In the wheelhouse, these panels will include visible and audible alarms to signal: drop in lubricating oil pressure; drop in lubricating oil pressure; drop in the electrical charge of the batteries; exhaust gas temperature. They will also include: a tachometer; an hour meter; dials include: a tachometer; an hour meter; dials include: a tachometer; the temperature of the primary cooling water; the current between the starter batteries; the current between the starter batteries and the engine (+ and -); an ignition key with two positions (OFF/ON) (the engine is started from the secondary panel in the engine room by the mechanic). The third position, "preheat", is not used at our alitudes and must be deactivated. Yes No



accessible electrolyte. The 24 V network is single wire (positive), the earth (negative) being constituted by the hull of the vessel.		
It will be composed, in particular, of: - starter battery bank: 12 - service battery;		
 24 V inputs: propulsion engine alternator; solar panel controller. A protection panel (resettable circuit breakers) for the utilities, located on the dashboard in the wheelhouse, and including the following outgoing feeders: navigation lights; anchor light; corridor lighting; search lights; bilge pumps; wipers; horn; navigational aids; 24 V electrical socket circuit in wheelhouse; This panel in the wheelhouse will also include an ammeter and a voltmeter for each battery bank. Necessary cables, cable trays and bulkhead fittings. 		
The solar panels are used to charge and maintain the starter and service battery banks at 80% of their maximum charge,		
The panels will be installed on the wheelhouse roof in a corner-moulded, welded steel frame to prevent theft. The cables will be shielded, laid in ducts and/or on cable trays and will pass through the walls in rubber protections to prevent any damage.		
Specifications of the proposed products to be attached to the bid.		



Horn The vessel will be equipped with a foghorn with a 24 V electric compressor, and will be controlled from the dashboard. The foghorn will be installed outside the wheelhouse under the roof cap.	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
 Navigational aids The supplier will deliver, install and set up the following navigational aids: One echosounder A clock A barometer; A rudder angle indicator; Two temperature indicators in the engine rooms; A radar All this equipment will be supplied in 24 V DC. The indicators in the wheelhouse will be harmoniously integrated into the dashboard, next to the engine monitoring dials and the battery charge controllers. The quality of the dashboard design will be evaluated on the basis of its ergonomics. The bidder will, in particular, ensure that the dials are legible for both the captain and the helmsman (both at night and during the day) and that reflections are avoided (e.g. by tilting the panel or applying a visor). The builder will equip the front of the floats with sonar probes. These probes will be equipped with devices allowing them to be cleaned from the main deck at any time. 	Yes ■ No	Insert details of goods offered, including specifications and brand/model offered if applicable
Main steering system and emergency steering The steering is provided with electro-hydraulic the rudder	□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable











All navigation lights, signal lights, electric equipment, electric cables etc must be waterproof as IP55 standards and the manufacturer must be accredited with a bureau of classification (as BV, GL, LG, ABS etc)		
Paint Rust protection Before painting, all sheets and sections are machine blasted (to grade S.A. x 21/2) and then coated with an anti-rust primer compatible with the subsequent paints. Sheets that have been pre-painted during the construction phase of the vessel. During assembly, damaged areas should be protected as soon as possible with a rust inhibitor compatible rust inhibitor. Steel elements not protected in the factory and fitted on the vessel during construction must be painted with rustproofing paint as soon as they are brought on board. Painting of the underwater hull The underwater hull, up to the height of the main deck, will be covered with two coats of epoxy paint Specifications of the proposed products to be attached to the bid. The builder will ensure that its chosen products are perfectly compatible and adhere to the application surface. Prior to the launch of the vessel, the delegated project manager will inspect the painting of the underwater hull and give their written approval. Any defects in the paint on the underwater hull will be corrected immediately and the launch will be delayed by 24 hours to allow for a further inspection.	Yes No	Insert details of goods offered, including specifications and brand/model offered if applicable

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The anchors will also be painted with epoxy.		
Painting of the upper works		
WORKS		
• The decks and bilges will		
be painted with two coats		
achieve a minimum to		
thickness of 150 µm.		
• The external vertical upper		
works will be painted with		
paint. followed by two		
coats of bi-component		
polyurethane to achieve a		
minimum total thickness of		
the proposed products to		
be attached to the bid.		
The roofs will be painted with 300 µm reflective		
bituminous paint.		
Specifications of the		
proposed products to be		
 The floors, walls, doors 		
and ceilings of the		
toilets/showers will be		
painted with two coats of a		
system. Minimum		
thickness 150 µm.		
The waterline at maximum load		
will be indicated by a metal plate		
10 cm wide and 4 mm thick,		
continuously welded along the		
and painted in red paint.		
The four draught scales of the		
indications of the managing		
official, must indicate the draft of		
the hulls to an accuracy of 5 cm.		
10 cm by a welded steel bar 100		
mm long, 10 mm wide and 4 mm		
thick. The 5 cm intermediate		
same way, but will be 50 mm		
long. They will be painted with		
white or black epoxy depending		



The paint systems proposed by the bidder will be indicated in the bid. The colours will be chosen from a colour chart by the designated representative of the project owner before being supplied to the site. N.B: All painting products and works must be done following the ISO 16145-3:2012 Protective coatings and inspection method.		
Cathodic protection		
Cathodic protection will be provided by zinc anodes attached to the hull.		
 The following welding process certificates/documents must be submitted: WPS – Welding Procedure Specifications PQR – Procedure Qualification Records WQT / WPQ – Welder Qualification Test / Welder Performance Qualifications 	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
The bidder's supplies must be guaranteed for a period of one (01) year from the date of provisional acceptance. During the warranty period, the successful bidder will rectify any defect noted and notified by the project manager or their representative, which appears after the provisional receipt of the barge including all the equipments, at its own expense (parts, labour and additional costs) on request	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable

C. Delivery requirements and Comparative Data Table

UNOPS Requirements		Is bid compliant? Bidder to complete	Details Bidder to complete
Implementatio n planning and	Bidder shall provide a detailed planning listing each activity and	🗆 Yes 🔲 No	Insert details



Delivery time	its duration from contract signature to final delivery, installation and training in Guinea Bissau. The total delivery time from contract signature to final delivery shall not exceed 6 months CPT after Contract signature.		
Delivery place and Incoterms rules	CPT, Bissau Guinée-Bissau Incoterms 2020	□ Yes □ No	Insert details
Consignee details	Avenida Pansau Na Isna N-15, Bairro Banco, Bissau	Yes No	Insert details

D. Related services requirements

Service	UNOPS minimum requirements for services	Quantity	Place where services will be performed	Final completion date(s) of services
1.2	Training for four people on proper use and maintenance of the ferry: The preferred language of training is Portuguese or French. English will be an alternative. In case of english, the Bidder should get the services of an interpreter in French or Portuguese	4 people to be trained	Bissau, Guinea-Biss au	Within 8 days of arrival of equipment in-country. 3 theoretical days (knowledge of the bac and its equipment) and 05 days of practice and testing of the equipment.

E. Inspections and tests

The following inspections and tests shall be performed:

UNOPS Requirements	Is bid compliant? Bidder to complete	Details Bidder to complete
The vendor must have the goods inspected in the manufacturer's works by a competent authority and submit a test certificate and also a guarantee/warranty certificate that the goods conform to written specifications. This is at the cost of the bidder.	□ Yes □ No	Insert details
A pre-delivery inspection must be done by an international bureau of classification and the surveyor must verify and prove that the ferry is in good condition and meets all the requirements of a safely inland navigation. This is at the cost of the bidder.	□ Yes □ No	Insert details



Lot No 2: a double ended ferry with a fully welded or modular hull and propulsion provided by two azimuth thrusters mounted on the main deck.

ltem No	UNOPS minimum technical requirements	Quant ity	Is bid compliant? Bidder to complete	Details of goods offered. Bidder to complete
	A double ended ferry with double (02) deck mountable propulsion units		□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable
2.1	Dimensions: Length of pontoon (excluding boarding ramps): 10 m (+ - 0,5 m); Length o.a: 16 m (+ - 0,5 m) Beam Pontoon: 8 m (+- 0,5); Beam o.a: 10 m (+ - 0,5 m) Side depth: 1.30 m (+- 0,1m); Draft (full load of 15 tons): 1 m (+ - 0,1m) Boarding ramp: - Number: 2 - Length: 3 m(+-0,1m); - Width: 4 m (+-0,1 m); When the ferry is at maximum load case, its draught must not exceed: 100 cm (+/- 10 cm) for a fully loaded ferry with fuel tanks at 100 per cent capacity, hereinafter referred to as "full load case". The average freeboard, at full load case, should be a minimum of 45 cm (+/- 10 cm). The navigation speed should range from 9 knots (+ and – 2 knots)	1	Yes ■ No	Insert details of goods offered, including specifications and brand/model offered if applicable
	vessel and safety navigation			
	The bidder can choose between two types of hull construction: a single welded piece hull or a modular hull assembled by bolts. The hull and superstructure of the ferry will be made of grade A marine steel or		<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable



S355JR steel and profiled plates of S235 steel, or their equivalents.		
The interior of the float must be accessible through manholes located on the deck.		
The hull must have a flat bottom and vertical sides.		
Maximum load case 15 tons: Heavy trucks (or vehicles), Total weight (ton) 13 T Passengers with luggage and three crew members Number 20, Weight or payload 0,1; total weight (ton) 2'	□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable
Propulsion and steering system:		
The Propulsion provided by two (02) deck mountable propulsion units with an azimuth thruster. The main diesel engine will be started, stopped and controlled from wheelhouse or engine canopies.		
The proposed characteristics of each propulsion unit as follows:		
 Minimum power: 150 hp; Engine strokes: 4 Air suction: Turbo compressed; Number of cylinders: 6; Total weight: Equal to or less than 1000 kg Fuel: Diesel Fuel capacity: minimum 0,4 ton Electric start: 24 V direct current (Battery); Alternator: 80A; Propeller diameter: from 600 mm to 800 mm; Tilt up thruster: 90° hydraulic 	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
The bidder will verify by calculation that the engines they propose enable the vessel to		



-		
achieve the required performance.		
 Boarding ramp The boarding ramp must be articulated, with a cabled operating bracket. It must be calculated taking into the vehicle and the truck with full load (see annexed document for truck characteristics) The bidder must provide a calculation note confirming this performance in its technical proposal. The boarding ramp must be operated by hydraulic devices and possibly be fitted with davits, cables and pulleys, controlled from the wheelhouse. The energy required to operate the ramp must come from the vessel's engines. The hydraulic system must be designed in such a way that each engine is capable of operating the ramp on its own. There must be a device that allows the ramp to be operated manually in the event of a breakdown. The hydraulic lines must be equipped with a bypass that allows the boarding ramp to be operated manually.	Yes ■ No	Insert details of goods offered, including specifications and brand/model offered if applicable
 Main deck The main deck features: the boarding ramp fixed in the middle of the bow; a manual anchor windlass attached to a deck doubling plate on the port side bow. Its shafts will be horizontal. On the starboard bow, a bracket for manoeuvring the boarding ramp attached to a doubling plate (see Boarding ramps): 	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable



 two fast winches equipped with ropes will be placed on the starboard and port sides of the foredeck. a carriage platform (vehicle deck) of 3.2 x 10 m, to support an axle load of 15 tons, a foot passenger platform on each side of the carriageway; 		
Wheelhouse deck The wheelhouse must have a direct view of the boarding ramps and offers an unobstructed view in all directions included the anchor winch and the vessel's mooring bollards, both forward and aft. The wheelhouse must have a toilet and a store/technical space. The wheelhouse is placed on top of the superstructure. The efficient layout offers an unobstructed view in all directions. The wheelhouse furniture will include a console for the controls, a table, a raised helmsman chair, and a chair with armrests and castors for the captain.	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
RailingsSteel handrails along:- The stairs;- Around the main deck;- Around each propulsion unit.They will be made of steel tubingwith a minimum diameter of 3cm.For areas occupied by footpassengers, guardrails will beprovided for the safety of thepassengers.	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
Roof Access to the roof is provided by an interior vertical access ladder attached to the aft wall of the wheelhouse. This ladder leads to a hatch that opens from the inside. The hatch can also be used for ventilation.	<mark>□ Yes</mark> □ No	Insert details of goods offered, including specifications and brand/model offered if applicable



 The following are installed on the roof: the signal mast; daytime navigation marks; the two navigation lights; one raw water tank with a capacity of 1 m³ for toilets and showers; VHF antennas; a set of solar panels to keep the starter and service batteries charged. 		
Maintenance area (mechanic/electrician) The vessel will be equipped with an area for one electromechanical engineer. The size of the area will allow for the storage of a table, a chair and tool boxes.	□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable
Sampling/structure Sampling is done in accordance with the Bureau Veritas standards (Rules for the Construction of Inland Navigation Vessels NR 217) and any applicable national regulations. In all cases, the builder will be responsible for the quality of the structural elements of the vessel supplied. The framing system, either transverse or longitudinal, is left to the discretion of the builder. All smooth plates will be made of marine grade A steel or S355JR steel and profiled plates of S235 steel, or their equivalents.	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
Steel Plates Hull - General bottom shell: 6 mm maximum; - Forward bottom shell (beaching area): 8 mm maximum; - Bilge plating: 6 mm maximum; - Side shell plating: 6 mm; - Collision and aft bulkheads: 6 mm; Other bulkheads: 6 mm;	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable



Propulsion system:		
 The propulsion unit will be controlled and monitored from the wheelhouse and from engine canopies. In the wheelhouse, these panels will include visible and audible alarms to signal: drop in lubricating oil pressure; rise in the temperature of the cooling water; drop in the electrical charge of the batteries; exhaust gas temperature. They will also include: a tachometer; an hour meter; dials indicating: oil pressure; the temperature of the primary cooling water; the temperature of the starter batteries; the supply voltage of the starter batteries; the current between the starter batteries and the engine (+ and -); an ignition key with two positions (OFF/ON) (the engine is started from the secondary panel in the engine room by the mechanic). The third position, "preheat", is not used at our altitudes and rowt he destivated 	Yes No	Insert details of goods offered, including specifications and brand/model offered if applicable
Electricity onboard The on-board electricity will be a single voltage of 24 V DC negative neutral to earth; This self-sufficient network will comprise: a 24 V direct current that can meet all the on-board needs, based on a classic energy store: lead batteries, with accessible electrolyte. The 24 V network is single wire (positive), the earth (negative) being constituted by the hull of the	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
vessel.		



It will be composed, in particular,		
of:		
- starter battery bank: 12		
- service battery;		
24 v inputs:		
- propulsion engine		
allernalor,		
- solar parter controller.		
A protection parter (resettable		
circuit breakers) for the databased in the		
wheelbouse, and including the		
following outgoing feeders:		
- navigation lights:		
- anchor light		
- corridor lighting.		
- search lights:		
- bilge pumps:		
- wipers:		
- horn;		
 navigational aids; 		
- 24 V electrical socket		
circuit in wheelhouse;		
This panel in the wheelhouse will		
also include an ammeter and a		
voltmeter for each battery bank.		
Necessary cables, cable trays		
and bulkhead fittings.		
Solar panels and accessories		
The selection of the second to		
The solar panels are used to		
charge and maintain the starter		
and service battery banks at		
80% of their maximum charge,		
The nanels will be installed on		
the wheelbouse roof in a		
corner-moulded welded steel		
frame to prevent theft. The		
cables will be shielded, laid in		
ducts and/or on cable trays and		
will pass through the walls in		
rubber protections to prevent any		
damage.		
Specifications of the proposed		
products to be attached to the		
bid.		
Horn		
The vessel will be equipped with		Insert details of goods offered
a forhorn with a 24 V electric		including specifications and
compressor and will be	🗆 Yes 🛛 No	brand/model offered if
controlled from the dashboard		applicable
The foghorn will be installed		



outside the wheelhouse under the roof cap.		
 Navigational aids The supplier will deliver, install and set up the following navigational aids: One echosounder A clock A barometer; A rudder angle indicator; Two temperature indicators in the engine rooms; A radar All this equipment will be supplied in 24 V DC. The indicators in the wheelhouse will be harmoniously integrated into the dashboard, next to the engine monitoring dials and the battery charge controllers. The quality of the dashboard design will be evaluated on the basis of its ergonomics. The bidder will, in particular, ensure that the dials are legible for both the captain and the helmsman (both at night and during the day) and that reflections are avoided (e.g. by tilting the panel or applying a visor). The builder will equip the front of the floats with sonar probes. These probes will be equipped with devices allowing them to be cleaned from the main deck at any time. 	■ Yes ■ No	Insert details of goods offered, including specifications and brand/model offered if applicable
emergency steering The steering is provided with electro-hydraulic the rudder propeller of the azimuth thruster coupled to deck mountable engine who rotates 360 degrees	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
around the vertical axis so that the thruster can perform both the		



propulsion and steering duties for the barge. For unlikely event, an emergency steering will be provided by a mechanical lever which operates directly on the shat of transmission. This option shall ensure a safe navigation and return to land point.		
 Deck equipment Deck equipment will include: three pairs of moulded double bollards on the starboard and port sides at the bow, midship and stern; a manual windlass, installed on the starboard side of the vessel. This windlass will operate an articulated anchor weighing at least 150 kg, secured to a chain at least 40 m long with 16 mm links. The bidder will propose the anchor best suited to the conditions of the operating sites. Two (2) fast winches equipped with 22 mm diameter ropes will be placed on the starboard and port sides of the foredeck. Bulwarks and guard rails will be installed for the protection of the crew on the stern, starting from the front of the wheelhouse. They will have openings that include anti-chafe guards. A sturdy belt made of steel plate, 10 mm thick and 150 mm wide, will act as a defence. It will run all around the hull at deck level. 	☐ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable
Navigation Lights, signalling and lightingThe signal mast will be fitted on top of the wheelhouse. It will be		







round off the signaling requirements. A complete set of spare bulbs will be provided by the builder at the point the vessel is provisionally accepted. These will be stored in the wheelhouse locker.		
Rust protection		
Before painting, all sheets and sections are machine blasted (to grade S.A. \times 21/2) and then coated with an anti-rust primer compatible with the subsequent paints.		
Sheets that have been pre-painted during the construction phase of the vessel. During assembly, damaged areas should be protected as soon as possible with a rust inhibitor compatible rust inhibitor.		
Steel elements not protected in the factory and fitted on the vesssel during construction must be painted with rustproofing paint as soon as they are brought on board.	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
Painting of the underwater hull		
The underwater hull, up to the height of the main deck, will be covered with two coats of epoxy paint		
Specifications of the proposed products to be attached to the bid.		
The builder will ensure that its chosen products are perfectly compatible and adhere to the application surface.		



Prior to the launch of the vessel,		
the delegated project manager		
will inspect the painting of the		
underwater hull and give their		
written approval Apy defects in		
the point on the underwater hull		
will be corrected immediately		
will be corrected infinediately		
and the launch will be delayed		
by 24 hours to allow for a further		
inspection.		
The second second line is a second second		
i ne anchors will also be painted		
with epoxy.		
Painting of the upper works		
The decks and bilges will be		
painted with two coats of iron		
oxide minimum to achieve a		
minimum thickness of 150 µm.		
The external vertical upper		
works will be painted with one		
coat of rustproofing paint,		
followed by two coats of		
bi-component polyurethane to		
achieve a minimum total		
thickness of 150 µm.		
Specifications of the proposed		
products to be attached to the		
bid.		
The roofs will be painted with		
300 µm reflective bituminous		
paint. Specifications of the		
proposed products to be		
attached to the bid.		
The floors, walls, doors and		
ceilings of the toilets/showers will		
be painted with two coats of a		
bi-component epoxy paint		
system. Minimum thickness 150		
μm.		
The waterline at maximum load		
will be indicated by a metal plate		
10 cm wide and 4 mm thick,		
continuously welded along the		



entire length of the outer walls		
and painted in red paint.		
The four draught scales of the		
vessels. located according to the		
indications of the managing		
official must indicate the draft of		
the bulle to an accuracy of 5 or		
The eacles will be marked even		
The scales will be marked every		
10 cm by a weided steel bar 100		
mm long, 10 mm wide and 4 mm		
thick. The 5 cm intermediate		
marks will be created in the		
same way, but will be 50 mm		
long. They will be painted with		
white or black epoxy depending		
on the colour of the hull.		
The paint systems proposed by		
the bidder will be indicated in the		
hid		
Did.		
The colours will be chosen from		
a colour chart by the designated		
a colour chart by the designated		
representative of the project		
owner before being supplied to		
the site.		
Cathodic protection		
Cathodic protection will be		
provided by zinc anodes		
attached to the hull.		
The following welding process		
certificates/documents must		
be submitted:		
Specifications		Insert details of goods offered,
Specifications		including specifications and
PO- Procedure Qualification		brand/model offered if
Records		applicable
WQT / WPQ – Welder		
Qualification Test / Welder		
Performance Qualifications		
The bidder's supplies must be		
guaranteed for a period of one		insert details of goods offered,
(01) year from the date of	🗆 Yes 🛛 No	brand/model offered if
provisional acceptance.		annlicable
-		applicable



During the warranty period, the		
successful bidder will rectify		
any defect noted and notified		
by the project manager or their		
representative, which appears		
after the provisional receipt of		
the barge including all the		
equipments, at its own expense		
(parts, labour and additional		
costs) on request		

F. Delivery requirements and Comparative Data Table

UNOPS Requirements		Is bid compliant? Bidder to complete	Details Bidder to complete
Implementatio n planning and Delivery time	Bidder shall provide a detailed planning listing each activity and its duration from contract signature to final delivery, installation and training in Guinea Bissau. The total delivery time from contract signature to final delivery shall not exceed 6 months CPT after Contract signature.	<mark>□ Yes □ No</mark>	Insert details
Delivery place and Incoterms rules	CPT, Bissau Guinée-Bissau Incoterms 2020	□ Yes □ No	Insert details
Consignee details	Avenida Pansau Na Isna N-15, Bairro Banco, Bissau		Insert details

G. Related services requirements

Service	UNOPS minimum requirements for services	Quantity	Place where services will be performed	Final completion date(s) of services
2.2	Training for four people on proper use and maintenance of the ferry: The preferred language of training is Portuguese or French. English will be an alternative. In case of english, the Bidder should get the services of an interpreter in French or Portuguese	4 people to be trained	Bissau, Guinea-Biss au	Within 8 days of arrival of equipment in-country. 3 theoretical days (knowledge of the bac and its equipment) and 05 days of practice and testing of the equipment.



H. Inspections and tests The following inspections and tests shall be performed:

UNOPS Requirements	Is bid compliant? Bidder to complete	Details Bidder to complete
The vendor must have the goods inspected in the manufacturer's works by a competent authority and submit a test certificate and also a guarantee/warranty certificate that the goods conform to written specifications. This is at the cost of the bidder.	□ Yes □ No	Insert details
A pre-delivery inspection must be done by an international bureau of classification and the survey or must verify and prove that the ferry is in good conditions and he met all the requirements of a safely inland navigation. This is at the cost of the bidder.	□ Yes □ No	Insert details



Lot No 3: a second-hand (used) double ended ferry with either a fully welded or modular hull and propulsion provided by a single or double azimuth thrusters mounted on the main deck

Item No	UNOPS minimum technical requirements	Quant itv	Is bid compliant? Bidder to complete	Details of goods offered. Bidder to complete
	Second-hand(used) double ended ferry with either a single or double new deck mountable propulsion units. The propulsion unit/s must not have been used before		□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable
	The age of the ferry will be to equal or less than 10 years		🗆 Yes 🔲 No	Insert details of goods offered, including specifications and brand/model offered if applicable
	The minimum estimated remaining life time must be 20 years or more.		🗆 Yes 🔲 No	Insert details of goods offered, including specifications and brand/model offered if applicable
	All material and equipment must equivalent or better than in lot 1 or lot 2		🗆 Yes 🔲 No	Insert details of goods offered, including specifications and brand/model offered if applicable
3	Dimensions: Length of pontoon (excluding boarding ramps): 10 m (+ - 0,5 m); Length o.a: 16 m (+ - 0,5 m) Beam Pontoon: 8 m (+- 0,5); Beam o.a: 10 m (+ - 0,5 m) Side depth: 1.30 m (+- 0,1m); Draft (full load of 15 tons): 1 m (+ - 0,1m) Boarding ramp: - Number: 2 - Length: 3 m(+-0,1m); - Width: 4 m (+-0,1m); - Width: 4 m (+-0,1m); When the ferry is at maximum load case, its draught must not exceed: 100 cm (+/- 10 cm) for a fully loaded ferry with fuel tanks at 100 per cent capacity, hereinafter referred to as "full load case". The average freeboard, at full load case, should be a minimum of 45 cm (+/- 10 cm). The navigation speed should range from 9 knots (+ and – 2 knots) depending on the load of the vessel and safety navigation	1	☐ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable
	Maximum load case 15 tons: Heavy trucks (or vehicles), Total weight (ton) 13 T		□ Yes □ No	Insert details of goods offered, including specifications and



Passengers with luggage and three crew members Number 20, Weight or payload 0,1; total weight (top) 2'			brand/model offered if applicable
Propulsion and steering			
system:			
The Propulsion provided by either one deck mountable propulsion unit with an azimuth thruster			
OR			
two (02) deck mountable propulsion units with an azimuth thruster.			
The main diesel engine will be started, stopped and controlled from wheelhouse or engine canopies.			
The proposed characteristics of each propulsion unit as follows:			Insert details of goods offered
 Minimum power: 150 hp; Engine strokes: 4 Air suction: Turbo compressed; Number of cylinders: 6; Total weight: Equal to or less than 1000 kg Fuel: Diesel Fuel capacity: minimum 0,4 ton Electric start: 24 V direct current (Battery); Alternator: 80A; Propeller diameter: from 600 mm to 800 mm; Tilt up thruster: 90° hydraulic The bidder will verify by calculation that the engines they propose enable the vessel to achieve the required performance. 		Yes No	including specifications and brand/model offered if applicable
Boarding ramp The boarding ramp must be articulated, with a cabled operating bracket. It must be calculated taking into the vehicle and the truck with full		□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable



load (see annexed document for truck characteristics)		
The bidder must provide a calculation note confirming this performance in its technical proposal.		
The boarding ramp must be operated by hydraulic devices and possibly be fitted with davits, cables and pulleys, controlled from the wheelhouse. The energy required to operate the ramp must come from the vessel's engines. The hydraulic system must be designed in such a way that each engine is capable of operating the ramp on its own.		
There must be a device that allows the ramp to be operated manually in the event of a breakdown. The hydraulic lines must be equipped with a bypass that allows the boarding ramp to be operated manually.		
 Main deck the boarding ramp fixed in the middle of the bow; a manual anchor windlass attached to a deck doubling plate on the port side bow. Its shafts will be horizontal. On the starboard bow, a bracket for manoeuvring the boarding ramp attached to a doubling plate (see Boarding ramps); two fast winches equipped with ropes will be placed on the starboard and port sides of the foredeck. a carriage platform (vehicle deck) of 3.2 x 10 m, to support an axle load of 15 tons, a foot passenger platform on each side of the carriageway; 	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
Wheelhouse deck The wheelhouse must have a direct view of the boarding ramps and offers an unobstructed view in all directions included the	□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable



anchor winch and the vessel's			
and aft			
The wheelhouse must have a			
toilet and a store/technical space			
The wheelhouse is placed on top			
of the superstructure. The			
efficient layout offers an			
unobstructed view in all			
directions.			
The wheelhouse furniture will			
include a console for the controls.			
a table, a raised helmsman chair,			
and a chair with armrests and			
castors for the captain.			
Railings			
Steel handrails along:			
- The stairs;			
- Around the main deck;			
- Around each propulsion unit.			Insert details of goods offered,
They will be made of steel tubing			including specifications and
with a minimum diameter of 3 cm.			brand/model offered if
			applicable
For areas occupied by foot			
passengers, guardrails will be			
provided for the safety of the			
passengers.			
Roof			
Access to the roof is provided by			
an interior vertical access ladder			
attached to the att wall of the			
wheelhouse. This ladder leads to			
a natch that opens from the			
Inside. The hatch can also be			
used for ventilation.			
The following are installed on the			Insert details of goods offered,
roof.		Ves No	including specifications and
 the signal mast: 			brand/model offered if
 davtime navigation marks; 			applicable
 the two navigation lights: 			
 one raw water tank with a 			
capacity of 1 m ³ for toilets			
and showers;			
 VHF antennas; 			
 a set of solar panels to keep 			
the starter and service			
batteries charged.			
Maintenance area			
(mechanic/electrician)			
The vessel will be equipped with			Insert details of goods offered
an area for one			including specifications and
electromechanical engineer.		🗆 Yes 🛛 No	brand/model offered if
The size of the area will allow for			applicable
the storage of a table, a chair and			
tool boxes.			
	1		1



	Sampling/structure Sampling is done in accordance with the Bureau Veritas standards (Rules for the Construction of Inland Navigation Vessels NR 217) and any applicable national regulations. In all cases, the builder will be responsible for the quality of the structural elements of the vessel supplied. The framing system, either transverse or longitudinal, is left to the discretion of the builder. All smooth plates will be made of marine grade A steel or S355JR steel and profiled plates of S235 steel, or their equivalents.		<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
3.2	Steel Plates Hull - General bottom shell: 6 mm maximum; - Forward bottom shell (beaching area): 8 mm maximum; - Bilge plating: 6 mm maximum; - Side shell plating: 6 mm; - Collision and aft bulkheads: 6 mm;	2	<mark> Yes No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
3.3	 Propulsion system: The propulsion unit will be controlled and monitored from the wheelhouse and from engine canopy. In the wheelhouse, these panels will include visible and audible alarms to signal: drop in lubricating oil pressure; rise in the temperature of the cooling water; drop in the electrical charge of the batteries; exhaust gas temperature. They will also include: a tachometer; an hour meter; dials indicating: oil pressure; the temperature of the primary cooling water; 	1	<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable



 the supply voltage of the starter batteries; the current between the starter batteries and the engine (+ and -); an ignition key with two positions (OFF/ON) (the engine is started from the secondary panel in the engine room by the mechanic). The third position, "preheat", is not used at our altitudes and must be deactivated. 			
The following welding process certificates/documents must be submitted:			
WPS – Welding Procedure Specifications		□ Yes □ No	Insert details of goods offered, including specifications and brand/model offered if applicable
PQ- Procedure Qualification Records			
WQT / WPQ – Welder Qualification Test / Welder Performance Qualifications			
The bidder's supplies must be guaranteed for a period of one			
(01) year from the date of provisional acceptance.		<mark>□ Yes □ No</mark>	Insert details of goods offered, including specifications and brand/model offered if applicable
During the warranty period, the successful bidder will rectify			
any defect noted and notified by the project manager or their			
representative, which appears after the provisional receipt of			
the barge including all the			
(parts, labour and additional			
costs) on request			

I. Delivery requirements and Comparative Data Table

UNOPS Requirements		Is bid compliant? Bidder to complete	Details Bidder to complete
Implementatio n planning and Delivery time	Bidder shall provide a detailed planning listing each activity and its duration from contract signature to final delivery, installation and training in Guinea Bissau. The total delivery time from contract signature to final delivery shall not exceed 5 months CPT after Contract signature.	<mark>□ Yes □ No</mark>	Insert details



Delivery place and Incoterms rules	CPT, Bissau Guinée-Bissau Incoterms 2020	□ Yes □ No	Insert details
Consignee details	Avenida Pansau Na Isna N-15, Bairro Banco, Bissau	🗆 Yes 🗌 No	Insert details

J. Related services requirements

Service	UNOPS minimum requirements for services	Quantity	Place where services will be performed	Final completion date(s) of services
3.3	Training for four people on proper use and maintenance of the ferry: The preferred language of training is Portuguese or French. English will be an alternative. In case of english, the Bidder should get the services of an interpreter in French or Portuguese	4 people to be trained	Bissau, Guinea-Biss au	Within 8 days of arrival of equipment in-country. 3 theoretical days (knowledge of the bac and its equipment) and 05 days of practice and testing of the equipment.

K. Inspections and tests

The following inspections and tests shall be performed:

UNOPS Requirements	Is bid compliant? Bidder to complete	Details Bidder to complete
The vendor must have the goods inspected in the manufacturer's works by a competent authority and submit a test certificate and also a guarantee/warranty certificate that the goods conform to written specifications. This is at the cost of the bidder.	<mark> Yes No</mark>	Insert details
A pre-delivery inspection must be done by an international bureau of classification and the survey or must verify and prove that the ferry is in good conditions and he met all the requirements of a safely inland navigation. This is at the cost of the bidder.	C Yes C No	Insert details