

**Ports & Logistics
Consultants Ltd.**

Support to Sulina Port Concession, Romania

Revised Final Opportunity Study

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ACRONYMS AND ABBREVIATIONS

ACN	Administration of the Navigable Canals
AGN	European Agreement on Major Inland Waterways of International Importance
AFDJ	Administration for the Lower Danube River
APDM	Maritime Danube Ports Administration
APMC	Constanta Port Administration
AZL/SFZA	Sulina Free Zone Authority
CARG	Cargo Growth
CCNR	Central Commission for the Navigation of the Rhine
CEE	Central and Eastern Europe
CEF	Connecting Europe Facility
DBSC	Danube Black Sea Canal
DC	Danube Commission
DWT	Dead Weight Tonnage
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EIB	European Investment Bank
EU	European Union
Eur.	Euro(s)
EUSDR	EU Strategy for the Danube Region
GDP	Gross Domestic Product
GTMP	General Transport Master Plan
ICPDR	International Commission for the Protection of the Danube River
IW	Inland Waterways
IWT	Inland Waterways Transport
KPI	Key Performance Indicators
LiM	Lanes in Meters
LNWL	Low Navigable Water Level
LOA	Length Overall
MPI	Malmquist Productivity Index
MTI	Ministry of Transport and Infrastructure (of Romania)
NM.	Nautical Miles
NRRP	National Recovery and Resilience Plan
O/D	Origin Destination
PPP	Public Private Partnership(s)
RIS	River Information Services
SGP	Sulina Green Port (Project)
SPM	Sulina Port Modernization (EU-funded Project)
SSS	Sort Sea Shipping
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TEN-T	Trans-European Transport Networks
TEU	Twenty-Foot Equivalent Unit
TOR	Terms of Reference
UNECE	United Nations Economic Commission for Europe
USD	US Dollar

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EXECUTIVE SUMMARY

Background

Strategically located on the right bank of the Sulina canal; approximately 7.5 km downstream from the mouth of the Danube on the Black Sea, Sulina port (UNLO Code ROSUL) was built in 1967, then expanded in 1978 by adding a maritime basin with a draft of -11 m capable of accommodating seagoing ships of up to 35,000 dead weight tonnage (dwt). This has resulted into the clustering of Sulina port into two main areas or Perimeters:

- An area of 3.46 ha (Perimeter I) located in Sulina town. Perimeter I has a vertical wharf of 150 m long on the Danube side, along few warehouses and buildings on the landside.
- An area of 172.05 ha (Perimeter II) located further east of Sulina town. Perimeter II comprises a small river basin of 5 ha, a maritime basin of 140 ha (40 ha water basin and 100 ha surrounding land), and other surrounding land and road connections.

Following its expansion, Sulina port was further assigned a 'Free Port' status which has boosted its competitiveness vis-à-vis neighbouring ports and has led to many years of thriving traffic and high-volume growth. However, the impacts of the Romanian revolution and subsequent period of transition have translated into fewer and irregular maintenance of port channels and structures, leading to the clogging and degradation of several port sections. This has severely reduced the port's attractiveness, usability, and level of activity.

Over recent years, a consolidated effort from local, national and EU stakeholders to regenerate the port and its maritime basin have rejuvenated the prospects of Sulina port. In 2020, the 'Sulina Port Modernisation' (SPM) project secured EU-grant funding for the rehabilitation and upgrade of Perimeter I and part of Perimeter II. Rehabilitation and construction work on the SPM project is expected to officially start in Q1 of 2024.

While the EU-funded SPM project will provide a much needed upgrade to some of the port infrastructure, it will not be able to attract sufficient traffic nor to achieve the growth potential of Sulina port especially as a hub facility handling handysize ships and their large cargo volumes. This is at the pertinent time where there is a high demand for a hub river port facility in Sulina. This is driven by the emergence of new patterns of waterborne trade and transport logistics within the Black Sea and the Lower Danube, favouring scale and cost-efficient systems combining sea-going vessels with river pushed barge convoys. A modern port in Sulina will also help ease the constraints on regional port capacity, the recurring seasonal navigation bottlenecks in the Danube river, and the increased ship congestion along the Sulina canal and neighbouring ports. Most recently, the war on the Ukraine and the blockade of Black Sea ports have put further emphasis on the need of alternative shipping routes and long-term modern port capacity in the region.

To take advantage of favourable market and demand conditions, while at the same time rehabilitating Sulina port and dredging its maritime basin, the Sulina Free Zone Administration

(SFZA), the landlord and administration authority for Sulina port, is considering the concessioning of the Sulina Green Port (SGP) project (the Project) and its two Perimeters. This Opportunity Study (Study) conducts a review and analysis of market, technical, legal, and financial aspects the SGP project, reports on the market sounding exercise and initial investors' feedback, identifies the applicable project tendering option and procurement strategy, and provides recommendations on the most feasible project structure and delivery option(s).

Review of SGP Markets and Competition

A detailed review of the SGP market and competition was carried out, leading to an estimation of traffic and cargo forecasts for the SGP project. In this respect, three markets were identified as the main markets for the SGP:

- Captive SGP market: This market includes the town of Sulina and nearby communities up to Tulcea city. The review and assessment of this market has shown that it can be considered a pure captive market, i.e. with little or no competition. This is because once the SGP project is developed and operational, it is almost certain to assume that all cargo bound to Sulina town and communities will be directly shipped to and handled by Sulina port instead of being currently transhipped in Tulcea from road/rail transport into small barges and passenger ferries heading to Sulina.
- Shared hinterland market: This market includes the ports of Tulcea and Constanta and the ports along the Black Sea artificial navigable canals. The assessment of this market has shown that the SGP project has a significant competitive advantage. Based on transport cost and distance parameters and in view of the feedback received from major users of and operators, it is estimated that a large chunk of bulk traffic currently being shipped to Tulcea by road from Constanta or via barges from the Black Sea canal can be re-routed to the fully developed port facilities at SGP's Perimeter II. Surging inland congestion at Constanta port along recurrent drought seasons affecting the Black Sea canal offers further opportunities for Sulina port and canal to attract seasonal and peak cargo flows.
- Foreland market: This market includes the maritime Danube ports of Galati and Braila, the river ports of Reni and Izmil in the Ukraine, and the port of Giurgiulesti in Moldova. For the foreland market of Galati and Braila, the analysis shows the predominance of maritime cargo over river cargo and a moderate cargo growth in the contestable markets of grain and fertilizers. Furthermore, there is a noticeable reduction in both the size and cargo load of maritime vessels plying the two ports, clearly highlighting scale diseconomies and cost inefficiencies of the current maritime logistics patterns. Replacing the latter by a combination of handysize maritime vessels calling at SGP and pushed barge convoys connecting to/from Galati and Braila would save between 30% to 50% of vessel transport and cargo freight costs, while having no negative impact on cargo throughput in either port. For the foreland market of Reni and Izmil ports, the analysis shows that their combined throughput has more than trebled as a result of the blockade of Ukraine's Black Sea ports. Even though, capacity constraints at Reni and Izmil and the time required to reconstruct the Ukraine and its port

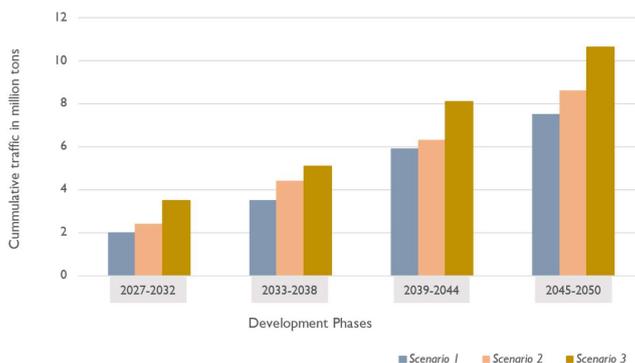
and transport infrastructure mean that Sulina port and canal are well placed to absorb some of Ukraine's re-routed exports and imports.

SGP Cargo and Traffic Forecasts

Based on the above review, high-level traffic projections were estimated based on 3-tier scenarios commensurate with port markets and expected development plans for the SGP:

- Scenario 1 for trade-based projection for the SGP captive market of Sulina town and nearby communities. This market is estimated to derive a cumulative traffic of 2 million tons in 2027-2032, 3.5 million tons in 2033-2038, 5.9 million tons in 2039-2044, and 7.5 million tons in 2045-2050.
- Scenario 2 adds to scenario 1 the traffic expected to be derived from competition with the shared hinterland market. This market is estimated to derive a cumulative traffic of 2.2 million tons in 2027-2032, 4.3 million tons in 2033-2038, 6.2 million tons in 2039-2044, and 8.4 million tons in 2045-2050.
- Scenario 3 builds on scenarios 1 and 2 to add the traffic expected to be derived from competition with the foreland market. This market is estimated to derive a cumulative traffic of 3.5 million tons in 2027-2032, 5.1 million tons in 2033-2038, 8.1 million tons in 2039-2044, and 10.7 million tons in 2045-2050.

Figure below shows the aggregated scenarios for all markets and scenarios up till 2050. It shows that the annual traffic forecast for the SGP will range from 0.4 to 0.7 million tons per year in 2027-2031, 0.6 to 0.85 million tons per year in 2033-2038, 1.0 to 1.35 million tons per year in 2039-2044, and 1.25 to 1.8 million tons per year in 2045-2050. Beyond 2050, cargo growth is estimated to grow marginally given a 75% base utilisation threshold of port capacity which is currently estimated at 2.5 million tons annually for the SGP.



Cumulative Traffic Forecasts and cargo projections for SGP

Technical and Planning Review

Following the assessment of SGP market and competition, a technical review was carried out using a combination of desktop review of project documents as well as two site and field visits. The review found that Sulina port existing assets and structures have suffered various levels of neglect and degradation due to long periods of inactivity and lack of regular maintenance. At present, the port infrastructure that is the subject of modernisation investments is practically unusable.

- For Perimeter I, the front wall needs rehabilitation and dredging and the yard areas need resurfacing and systemisation.
- For Perimeter II, the maritime basin and its four inner quay walls require major upgrade and rehabilitation, while the adjacent surrounding land areas require complete resurfacing and systemisation and internal utility connections and zoning configuration. To be able to accommodate and handle larger ships up to 35,000 dwt, the upper area of the basin will require significant volumes of dredging along a major quay rehabilitation and yard reconfiguration. For the lower part of the basin, ~~and~~ no dredging will be needed given the presence of shipwrecks yet quay wall rehabilitation and yard resurfacing and systemisation will still be required. For both basin areas, new port superstructure equipment and modern warehouses would be required to accommodate ship and cargo operations.

Parallel to the technical review, a review of port and urban plans was also carried out:

- A detailed review of the land-use plan for Sulina town and port (PUZ) found that the latter provides an appropriate framework for Sulina port development and rehabilitation. The PUZ zoning and planning arrangements were fully integrated into the SGP port options and planning structures.
- The EU funded 'Sulina Port Modernisation' (SPM) project covers the dredging and modernisation of the front quay wall (on the Danube side) and immediate general platform of Perimeter II, as well as the rehabilitation of the quayside infrastructure of Perimeter I.
- The Consultant also highlighted other interface commitments to be made prior to the concessioning of the SGP project. These include legal commitments from the MTI/AFDJ to dredge the clogged sections of the canal stretch leading to the maritime basin, adequate navigational rules for handysize ship and barge pushed convoys plying the Sulina canal, and flexible planning rules for relaxing navigation restrictions at night.

SGP Cost Estimates

In view of the above, the main development plan for Perimeter I was found to be already covered by the EU-funded SPM project. As such, only superstructure would be needed for Perimeter I to become fully operational. For Perimeter II, given the rehabilitation of part of the river-facing walls and adjacent land platform under the SPM project, much of the required upgrade would be centred around the maritime basin and its surrounding land areas.

Based on the capacity required to satisfy an average demand base (Scenario 2 of traffic forecast), high-level initial Capital Expenditure (CAPEX) estimates for the SGP project would range between €20.0 million and €24.00 million (pre-tax and VAT). Costs were based on international prices and an estimated volume of 150,000 m³ to 200,000 m³ of dredged material based on extrapolated estimates from the SPM project and related technical feasibilities. The correct estimates of dredging volumes and costs will only be known after full bathymetric and geotechnical surveys that will need to be carried out before project start.

Category	Lower Estimates (€)	Higher Estimates (€)
Preparatory, dredging and excavation	8,000,000.00	9,000,000.00
Quay walls, land and infrastructure upgrade	6,000,000.00	7,500,000.00
Superstructure, equipment and vehicles	4,500,000.00	5,500,000.00
Transshipment and handling system	1,500,000.00	2,000,000.00
Total (excluding Tax and VAT)	20,000,000.00	24,000,000.00

High level CAPEX estimates for the SGP Project

Project OPEX were not estimated given that the SGP will be structured as an output based concession where the potential concessionaire proposes its own operational technology (see below). However, as a rule of thumb for this type of port development projects, a 45% to 125% OPEX to CAPEX ratio can be applied based on full utilisation, starting from low rate and increasing through the project duration as CAPEX infra and supra amortise over time.

The duration of project construction can take anytime between 18 to 36 months, but a 24-month period was considered given that the construction period will be incorporated in the duration of the concession pushing the concessionaire to complete construction sooner rather than later. This does not include project preparation/ approvals which can take 6 to 12 months.

Desk-Based Environmental Review

A desk-based environmental review was carried out based on PUZ plans and environmental processes, the SPM project feasibility documents and environmental approvals, and existing and past operations. Specifically, the activities intended to be carried out in Perimeter II have been in principle anticipated and approved from an environmental perspective as part of the environmental approval process carried out by Sulina County Council and as part of the approval process of the EU-funded SPM project.

Based on the above, the project would be classified as category C (as per EBRD classification) meaning that it will result into low adverse environmental impacts. Negative environmental impacts of the project will mostly take place during project construction and can be mitigated against by appropriately complying with environmental regulation and implementing measures and processes for minimising negative externalities. Note that the SGP project will also generate positive environmental impacts stemming from reduced ship/barge emissions along the canal as result of deploying handysize ships and connecting them to barge transport. Even though, we recommend appropriate environmental scoping be carried out by qualified environmental experts to ensure that the SGP development plans are fully compatible with applicable environmental laws and regulations.

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Legal Review and Analysis

As part of this Assignment, a detailed review of SFZA status and applicable legislation was carried out along an assessment of the legal regime of Sulina port land and assets. The review found that SFZA is indeed the administration entrusted with concessioning the SGP project, as the Grantor, with approval to be sought from the SFZA board including Tulcea Council.

According to SFZA, port land and assets are free and clear of any encumbrances, which is confirmed by their respective registration in the land book. The review also found that the free zone status of Perimeter II was withdrawn in 2011, thus opening it to any type of commercial or industrial activities. However, Perimeter I remains still under free zone status, hence placing some restrictions, but also providing incentives, on the type of activities to be undertaken.

The Consultant also carried out a comprehensive assessment for the project's legal regime and tendering options. The review found that neither PPP contracts nor the acquisition of works and services contracts cannot be applicable in the paradigm of the SPG project, while lease agreements were not deemed a preferred option for either the SFZA or potential investors. This was then followed by a detailed comparative analysis of the concession of goods versus the concession of works, leading to the conclusion that the concession of goods/assets was the most suitable, and potentially the only possible, option for the project.

Further analysis was carried out on the concession of assets under the administration of free zones in Romania and found that the Government Decision (HG 1998/2004) regarding the procedure for the concession of public property under the administration of free zones and also has the advantage that it must be approved by local authorities (not the Government), which translates into a quicker and less complex process.

Given the above, the Consultant's conclusion is that the optimal decision is for the Project to be structured as a concession of assets/ goods, specifically the project shall be prepared, procured and contracted in accordance with the provisions of Government Decision no. 1998/2004.

Market Sounding

Following the completion of market, competition, technical, planning and legal assessments, the Consultant ~~team~~ developed and implemented a viable leading to the preparation of a Preliminary (Project) Information Memorandum (PIM) and the administration of two questionnaires for potential concessionaires and lenders. An initial short-list of potential investors was drawn up to whom the PIM and questionnaires were distributed. Furthermore, an initial investor conference was held in Bucharest on 15 November 2023.

Initial post-conference meetings were taken with the 5 investors who attended the conference, and online meetings were conducted with 3 other potential investors who could not attend the conference. The main feedback from the meetings and the investors' conference are summarised below:

- (i) Perimeters I and II represent different business cases, therefore it would not be advisable to bundle them under the same concession,
- (ii) Perimeter II should not be unbundled other than what was advised by the Consultant in their updated PIM,
- (iii) As part of the concession contract and tender documentation, the Granting Authority shall ensure that interface risks stemming from dredging the fairways and rules on night navigation and barge convoys are dealt with appropriately.
- (iv) Most investors spoken to requested to be updated once a final project option and the date and process of tendering are confirmed. This was further accentuated by other potential interested parties which prefer not to hold meetings until such time those issues are ironed out and officially confirmed.

The response from potential investors along feedback from SFZA were taken onboard by the Consultant for adjusting and recommending project options and updating the PIM. Following the selection of the project option and confirmation of the tendering procedures and milestones, subsequent investor meetings should be considered to attract further interests and update the investors' community on the project status and procurement/tendering milestones.

Concession's Procurement Strategy

Parallel to the marketing sounding exercise, the Consultant developed the concession's procurement strategy for the SGP project. The details of the documents to be prepared and process to be followed were described in this Opportunity Study, highlighting, among others, the need for SFZA to prepare well and plan ahead. The Consultant then provided structured proposals for the requirements and evaluations of Eols, shortlisting and qualification criteria, and bid evaluation criteria (both technical and financial). In all these steps, the Consultant provides its interpretation of the criteria and proposed scoring in ways that best meets the project objectives.

It is important to point out that the SGP project is being structured as an output based concession where the Grantor does not define nor impose detailed technical inputs and characteristics of the project; instead it is the prospective concessionaire(s) who proposes and selects his own mix of operational and technological configuration in ways that can maximise project's outputs. Output based concessions focus on achieving the output of a project, for instance in terms of traffic generation, throughput volumes, and performance efficiency. Concession based projects provide more room for the concessionaires to implement innovative, flexible and cost effective operations, while also minimising construction, operation, volume and performance risk exposure of the Grantor. This explains their popularity and wide implementation in commercial port and logistics projects such as the SGP.

Both the scope of the SGP project and the selected legal regime of the project's concession meant that a formally lengthy two-stage process or competitive dialogue are not possible. Instead, the Consultant has incorporated the spirit of those in the stages of the procurement regime applicable to the SGP project, leading to the following procurement schedule.

Activity	Date
Tender announcement (Publication).....	Week 1 -
Deadline for receipt of Eols.....	Week 8
Short list of qualified bidders.....	Week 9
Retrieval of documentation package.....	Week 9
Deadline for request for clarifications.....	Week 11
Response to request for clarifications.....	Week 13
Deadline for submission of technical offers.....	Week 18
Submission of financial offers / Auction date.....	Week 20
Negotiations with selected bidder.....	Within 2 weeks from auction date
Commercial close / Contract signing.....	Within 4 weeks from auction date

SGP Project Procurement Schedule

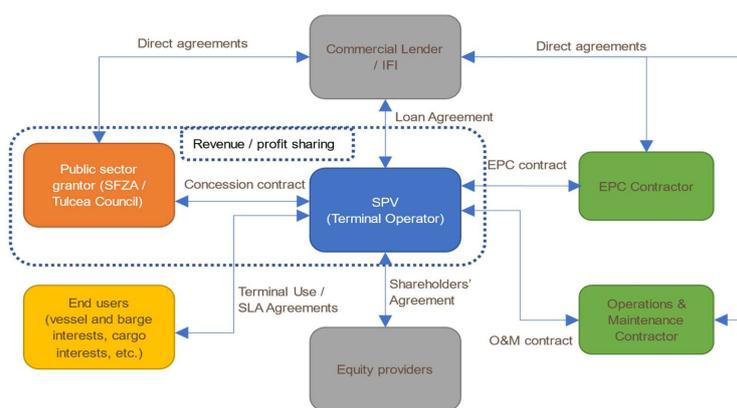
Note that the tender announcement cannot be made until the SFZA board formally selects a project option, then approves the tender documentation. The latter requires 4 to 6 weeks for preparation and another 2 to 3 weeks for validation. Furthermore, due to very short timing of the actual procurement process, the Grantor, SFZA, must plan ahead and draft the Project Specification which constitutes an element of the Tender Book. SFZA must also form the Evaluation Committee prior to issuing the tender announcement.

Project Options and Structures

Following the above analyses, the Consultant assessed various project structures with a view to proposing the most suitable delivery options. The choice of project structure and delivery option depends not only on a trade-off between various sources and types of project risks (financial, commercial, legal, political; interface, etc.) but also on a trade-off between the Grantor's plans and ambitions for the project and the market's (i.e. investors') perceptions and risk appetite.

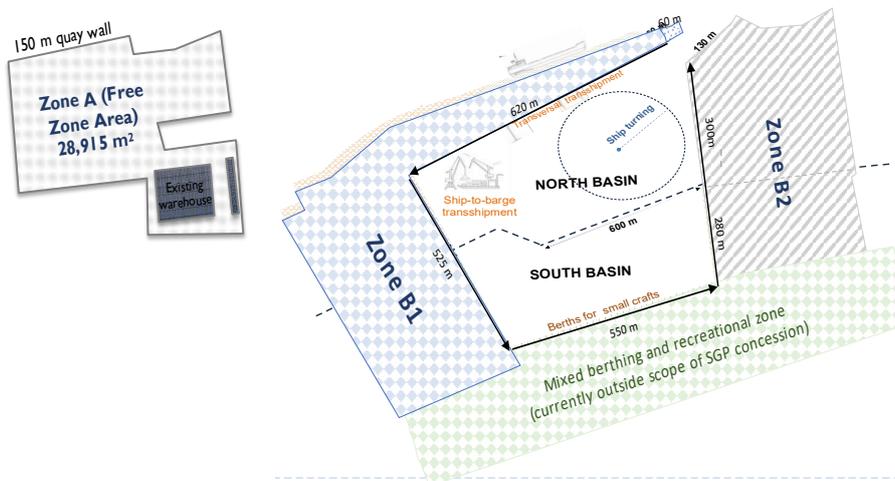
- Starting with the institutional structure, and given the financial, technical and legal capacity of SFZA, the Project cannot be structured other than as a basic landlord model. Here, the concessionaire(s) take on the responsibility of rehabilitating, equipping, operating, and maintaining the concessioned project assets and facilities throughout the concession period, while the Grantor, SFZA, will take on the role of the managing and regulating port authority.
- The project's legal structure is designated as a concession of goods/assets as per the Government Decision (HG 1998/2004) which specifies the procurement and tendering procedure for the concession of public property under the administration of free zones. To ensure project attractiveness and delivery, the Consultant recommends other legal commitments to be annexed to the concession contract, most notably an interface agreement for fairway dredging and maintenance.
- For the commercial structure, the project's business case and investment plan will follow the concessionaire(s)'s proposed business and development plan(s) as per the scope of the concession and general obligations put in the tender documentation. The recommendations and estimates provided in this Opportunity Study could be used by the grantor as a guide or benchmark for assessing investor's development plans.

- The revenue streams for the SGP project, i.e. revenues for the concessionaire, are indicated as handling, storage, transport, lease/rental, storage/warehousing, cargo processing, and other miscellaneous revenues. As for the Grantor, SFZA, it will receive direct revenues drawn from port dues, mooring and navigation charges levied on calling ships and barges, and indirect revenues corresponding to concession fee payments received from the concessionaire. The proposed fee structure is set to combine a fixed (minimum) fee plus a variable (revenue sharing) fee. The level of the concession fees for both fixed and revenue-share elements, will be part of the financial offers by the bidders / prospective concessionaire(s) and in line with their proposed development plans. It may however be possible provide indicative or de minimis thresholds in the tender specifications, and structure them in ways that incentivise the concessionaire to develop the Project and attract more traffic and cargo volumes.
- Also under the commercial structure, the Consultant recommends the provisional duration of the SGP concession to run for a period of up to 30 years. This is based on 5 years for project construction and initial market entry, and 20 to 25 years for staged port operations and traffic build-up. Such an extended duration is also in line with international best practice especially for port projects with no existing or historical activity and where investors are expected to bear traffic, market, financial and operational risks. Note, however, that should SFZA decide to concession the SGP project as two or three zones, as per the recommendation of the Consultant, the duration of the concession of each zone will be adjusted accordingly with a recommended duration of 15 years for Perimeter I and 30 years for Perimeter II.
- For the financing structure, and given the project's institutional and commercial structures, the concessionaire(s) will be responsible for securing the project's financing and for the repayment of any borrowed loans under finance agreements. Debt service will be provided from the project's gross profits while investor returns will be covered by net profit generated. As such, debt lenders could enter into direct agreements with both the Grantor and the Concessionaire; as shown in the Figure below.



Financial structure of the SGP project

- For the planning/zoning structure, it is recommended to devise the SGP into 3 zones (A, B1 and/or B2) for single or combined bid(s) as shown in the Figure below. The recommendation to unbundle the SGP into three zones is based on several considerations. First, the PUZ development plan specifically provides for recreational areas which would neither fit nor align with cargo handling and port industrial activities. These areas (marked as the green areas in the Figure below) have therefore been taken outside the scope of the SGP concession. Second, the market feedback received during the market sounding exercise points towards unbundling Perimeter I from Perimeter II since the former presents a different business case given its size, free zone status and proximity to Sulina town. Third, the assessment of the port market in Romania shows that while some local port investors/operators are keen to be involved in the SGP project, they are relatively small and do not have the commercial or financial capacity to develop or operate the entirety of Perimeter II. Conversely, the big ticket items for dredging and development require a big enough port investor who would be incentivised by the readily developed areas under the EU-SPM project. Last, but not least, the operational requirements for handling ship-to-barge transshipment mean that contiguous long berths and wide yards will be needed by the operator.



Operational/Zonal Project Structure

High-level Economic and Financial Assessment

Given the scope and time framework of the Opportunity Study, a high-level assessment of the economic and financial benefits of the SGP project was carried out.

From an economic perspective, key benefits generated by the project are summarised below:

- Incremental economic output through jobs. Based on similar port projects, it is expected that the SGP will create 200 direct jobs during construction, around 60 direct jobs during operations, and up to 150 indirect jobs (in pilotage, ship and port agency, bunkering, ship repair, chandlery and supply, cargo warehousing, etc.) based on the industry's 2.5 multiplier factor. Each job created generates taxes but also livelihood and economic growth in the project area (Sulina town and vicinity) which have been suffering from long-term trends of depopulation and spatial deprivation. If properly structured, operated and managed, the SGP and the businesses directly depending on it will be the major employer and economic engine of Sulina town and communities.
- Incremental economic output through taxation. In addition to taxes generated from direct and indirect jobs, additional tax revenues would be generated from the project's activity. Both the operator(s) of the SGP and the businesses around it would be liable to pay corporation, local and other business taxes on their profits, thus generating further revenues to local authorities and the national Government.
- Reduction in freight cost: The SGP project will establish new alternative transport routes for cargo routing and logistics arrangements. Compared with existing sea-river traffic, river transport via the Black Sea canal, rail and more disadvantageously road, are far cheaper and cost-efficient. This is particularly important for cargo bound to Sulina town which can benefit from a reduction of at least 20% of the cost of transportation.
- Reduction in transport journeys: The transport distance to hinterland and even some foreland markets can be reduced by up to a 1/3rd when using the SGP Sulina route compared with the Black Sea canal route, even assuming similar speed. For instance goods bound to Tulcea via the Black sea canal would travel 220 km from Cernavoda against 75 km from Sulina. The reduction in transport distance and travelled journey translates into cost and time savings benefits for both ship and cargo interests.
- Reduction of vessel operating costs: Along the reduction in transport journeys, the SGP project will offer transshipment services through the combined use of handysize ships and barge-convoys thus resulting in scale economies and the reduction of unit-ton fuel, crew and operating costs. Furthermore as ship/barge utilisation is expected to increase significantly with the SGP, compared with current half or part-full ship, it is expected that fuel cost per unit transported may be halved on ship/barge journeys across the maritime Danube.
- Environmental benefits derived from reduction of noise and emissions. The SGP project environmental benefits manifest themselves not only in the reduction of fuel consumption due to the reduction in distance travelled but also in the reduced amount of emissions from barge convoys compared with ship only or ship-road transport combinations. As an indication, using the same amount of fuel, a ship-barge combination will carry 10,000 tons over 375km, compared with 1,500 tons over 300 km by rail, and only 20 tons over 100 km by trucks.

- Additional induced economic benefits due to sector multipliers and linkages: The SGP project will not only generate jobs and taxes and reduce vessel operating and freight costs, but most importantly it will increase connectivity and accessibility and attract investments and economic growth and support other sectors such as cruise shipping and tourism.

From a financial perspective, high level SGP project costs and revenues were estimated across 3 project development phases starting at years 1, 3 and 17, respectively.

- Project costs are categorised as project CAPEX taking place at phase 1 and phase 2 of the project, fixed project OPEX which are independent from port activity and traffic volumes, and variable project OPEX relating to equipment and system's maintenance. Project revenues, on the other hand, are a function of port throughput (tons handled) and prices (tariff and charges). Port volumes were based on traffic forecasts and multiplied by a factor of 1.65 to account for revenues from transshipment, storage and value added services. Port prices were based on market-based pricing against Tulcea port tariffs.
- Based on the above, initial project costs for all phases totalised €47.3 million against an estimated cumulative gross revenue of €400 million to €500 million (in current prices) over a period of 30 years as shown in the Figure below. Nevertheless, actual project costs are likely to be 30% to 35% higher once financing, escalation, marketing, regulatory and other costs are considered. Similarly, net project revenues are likely to be 40% to 50% of lower once taxes, dues and other charges are considered. Even with those adjustments, the initial project financials seem healthy and sustainable with a gross profit of over 35-40% which is well beyond industry benchmarks.
- Project revenues should not be confused with the Grantor's (SFZA) revenues, the latter include revenues both from concession fee payments (anything between 10% to 30% of project net revenues) and from port dues and mooring charges (usually set at market or regulatory rates). However, when forecasting project revenues, the grantor must also consider project benefits using evaluation tools such as value-for-money and public-sector-comparator benchmarks, which are not part of this Opportunity Study.
- Even without considering revenues from concession fees and port dues, SFZA's net gain from the project will be at least equivalent to the project's base costs, estimated above at €63.8 million inclusive of financing, preparation and escalation. Simply put, the initial intrinsic value of the project would be at least equal to the cost of investment by the concessionaire, as without concessioning the SGP project, existing port assets will only further deteriorate (beyond their already depilated state) and will cost more to rehabilitate and upgrade in the future.
- In addition, the grantor may also need to consider that part of the competitive advantage of the SGP driven by the current favourable regional context might be diminished once regional risks and uncertainties are settled or restored.

Phase	Construction commences	Operation commences	Operation ends	Cost (Euro)	Throughput (tons)	Revenue (Euro)
1	Year 1	N/A	N/A	CAPEX: 20,000,000 Fixed OPEX: 400,000 Fixed Maint. OPEX: 0 Variable OPEX:0	0	0
2	N/A	Year 3	Year 30	CAPEX: 0 Fixed OPEX: 6,000,000 Fixed Maint. OPEX: 3,000,000 Variable OPEX:1,800,000	23,000,000	300,000,000- 350,000,000
3	Year 16	Year 17	Year 30	CAPEX: 10,000,000 Fixed OPEX: 3,600,000 Fixed Maint. OPEX: 1,500,000 Variable OPEX:1,000,000	8,500,000	100,000,000- 150,000,000

High Level Estimates of Project Costs and Revenues

Risk Analysis

The Opportunity Study culminated by assessing the main project risks in view of the recommended project structures and delivery option(s). A full review and description of various projects risks in port PPPs and concessions was carried out, with follow up discussion on the best practice and international standards on their assessment and allocation.

The consultant then set out a detailed risk matrix which mirrors the institutional structure of SFZA and the commercial, legal, financial and planning option(s) for the project. For each identified risk, a Likert-scale rating of 1 (for very low risk) to 5 (for very high risk) was estimated then allocated to the risk-incurring party: Authority (A), Concessionaire (C), and/or both (B); as shown below for a sample of the main risks.

Risk	Implication on Project	Rating	Allocation		
			A	C	B
Interface Risk	Project hindered or postponed to non-cooperating agencies	4	<input checked="" type="checkbox"/>		
Political / Regulatory	Change in law (general or discriminatory)	1	<input checked="" type="checkbox"/>		
Political /Regulatory	Change in taxation (general or discriminatory)	2			<input checked="" type="checkbox"/>
Design	Project not designed adequately for the required purposes	2		<input checked="" type="checkbox"/>	
Site	Land use rights/ lease (eventually right-of-way)	1	<input checked="" type="checkbox"/>		
Site	Consent to use/ lease additional land	2	<input checked="" type="checkbox"/>		
Construction	Quality assurance and quality control	1		<input checked="" type="checkbox"/>	
Construction	Cost overrun	2		<input checked="" type="checkbox"/>	
Construction	Delays caused by Authority or Government entities	4	<input checked="" type="checkbox"/>		
Construction	Delays due to Operator changes	2		<input checked="" type="checkbox"/>	
Revenue	Volume risk	3		<input checked="" type="checkbox"/>	
O&M	Increased maintenance due to traffic	2			<input checked="" type="checkbox"/>
Performance	Meeting output KPIs	2		<input checked="" type="checkbox"/>	
Performance	Compliance with laws	2		<input checked="" type="checkbox"/>	

Market / Financial	Currency fluctuations	1		<input checked="" type="checkbox"/>	
Default	Termination due to breach by Government	1	<input checked="" type="checkbox"/>		
Default	Termination due to breach by Operator	1		<input checked="" type="checkbox"/>	
Force Majeure	Natural disasters, epidemics and acts of God	2			<input checked="" type="checkbox"/>
Force Majeure	Political force majeure	3	<input checked="" type="checkbox"/>		
Force Majeure	Uninsurable risks (during concession)	1			<input checked="" type="checkbox"/>
Environmental	Environmental –pre-existing conditions	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Key Risks and Allocation Matrix for the SGP port project

REZUMAT

Context

Situat strategic pe malul drept al canalului Sulina, la aproximativ 7,5 km în amonte de Bara Sulina (zona de vărsare a Dunării în Marea Neagră), portul Sulina (cod UNLO ROSUL) a fost construit în 1967, apoi extins în 1978 prin adăugarea unui bazin maritim cu un pescaj de -11,0 m, capabil să primească nave maritime de până la 35,000 de tone (dwt). Acest lucru a condus la divizarea portului Sulina în două zone sau perimetre principale:

- O suprafață de 3,46 ha (Perimetrul I) situată în orașul Sulina. Perimetrul I are un cheu vertical de 150 m lungime pe malul Dunării, de-a lungul câtorva depozite și clădiri situate pe terenul adiacent.

- O suprafață de 172,05 ha (Perimetrul II) situată mai departe, la est de orașul Sulina. Perimetrul II cuprinde un mic bazin fluvial de 5 ha, un bazin maritim de 140 ha (40 ha luciu de apă și 100 ha teren adiacent) și alte conexiuni rutiere pe terenurile din jur.

Ca urmare a expansiunii sale, portului i-a fost atribuit statutul de "Port Liber", ceea ce i-a sporit competitivitatea în raport cu alte porturi din zona și a condus la mulți ani de trafic înfloritor și de creștere a volumului (de marfuri și nave). Cu toate acestea, impactul revoluției din România și al perioadei de tranziție care a urmat a determinat o întreținere mai redusă și neregulată a canalului de acces și a infrastructurii portuare, ceea ce a condus la colmatarea și degradarea mai multor secțiuni. Acest lucru, la rândul său, a redus atractivitatea și utilizarea portului, respectiv a activităților portuare.

În ultimii ani, un efort consolidat din partea organizațiilor interesate la nivel local, național și din UE de a regenera portul și bazinul său maritim, a îmbunătățit perspectivele (de dezvoltare ale) portului Sulina. În 2020, proiectul „Modernizarea Portului Sulina” (SPM) a asigurat finanțarea prin granturi acordate de UE pentru reabilitarea și modernizarea în totalitate a Perimetrului I și parțial, a Perimetrului II. Lucrările de reabilitare și construcție aferente proiectului SPM sunt de așteptat să înceapă oficial în primul trimestru al anului 2024.

În timp ce proiectul SPM, finanțat de UE, va oferi modernizarea atât de necesară pentru o parte din infrastructura portuară, nu va putea să atragă trafic suficient și nici să atingă potențialul de creștere al portului Sulina, în special ca un centru (hub / facilitate portuară) care gestionează nave de dimensiuni mari și manipulează volumele lor mari de marfă. Acesta este momentul potrivit în care există o cerere mare pentru o facilitate portuară (fluvială și maritimă) în Sulina. Acest lucru este determinat de apariția unor noi modele de comerț naval și servicii logistice de transport în zona Marii Negre și a Dunării de Jos, favorizând sisteme eficiente din punct de vedere al costurilor, care combină navele maritime cu convoaiele de barje fluviale. Un port modern în Sulina va ajuta, de asemenea, la atenuarea constrângerilor referitoare la capacitățile portuare regionale, a blocajelor sezoniere recurente ale navigației pe Dunăre și a

aglomerației navelor de-a lungul canalului Sulina și în porturile învecinate. Cel mai recent, războiul din Ucraina și blocada porturilor sale de la Marea Neagră au pus și mai mult accentul pe necesitatea identificării unor rute alternative de transport maritim și a dezvoltării unei capacități portuare moderne pe termen lung în această regiune.

Pentru a profita de condițiile favorabile ale pieței și ale cererii sporite de servicii logistice, reabilitând în același timp portul și asigurând dragarea bazinului său maritim, Administrația Zonei Libere Sulina (SFZA), în calitate de autoritate care asigură administrarea portului Sulina, are în vedere concesionarea proiectului Sulina Green Port (SGP) (Proiectul) și a celor două perimetre ale sale. Acest Studiu de Oportunitate realizează o analiză a aspectelor de piață, tehnice, juridice și financiare aferente proiectului SGP, informează cu privire la rezultatele acțiunilor de sondare a pieței și a feedback-ului inițial furnizat de (potențialii) investitori, identifică opțiunea de licitație aplicabilă pentru proiect și strategia de achiziție și oferă recomandări cu privire la cea mai fezabilă structură a proiectului și a opțiunilor sale de livrare.

Examinarea piețelor (regionale) și a concurenței în cadrul SGP

A fost efectuată o analiză detaliată a pieței și concurenței proiectului SGP, care a condus la o estimare a previziunilor de trafic și de marfă pentru proiectul SGP. În acest sens, au fost identificate trei piețe drept piețe principale pentru SGP:

- Piața captivă a proiectului SGP: Aceasta piață include orașul Sulina și comunitățile din apropiere până la Municipiul Tulcea. Analiza și evaluarea acestei piețe a arătat că poate fi considerată o piață captivă pură, adică cu concurență redusă sau deloc. Acest lucru se datorează faptului că, odată ce proiectul SGP este dezvoltat și operațional, este aproape sigur să presupunem că toate mărfurile care se îndreaptă spre orașul Sulina și comunitățile din jurul acestuia vor fi expediate direct și manipulate prin portul Sulina, în loc să fie transbordate în Municipiul Tulcea din transportul rutier / feroviar în mici șlepuri (barje) și feriboturi de pasageri pentru a fi transportate spre Sulina, astfel cum este situația curentă.

- Piața interioară comună: Această piață include porturile Tulcea și Constanța și porturile situate de-a lungul canalelor navigabile artificiale ale Mării Negre. Evaluarea acestei piețe a arătat că proiectul SGP are un avantaj competitiv semnificativ. Pe baza costurilor de transport și a parametrilor de distanță și având în vedere feedback-ul primit de la principalii utilizatori și operatori, se estimează că o mare parte din traficul vrac transportat în prezent către Tulcea prin transport rutier din Constanța sau prin șlepuri (barje) prin Canalul Dunare - Marea Neagră poate fi redirecționat către facilitățile portuare complet dezvoltate din Perimetrul II al SGP. Creșterea congestiei interioare în portul Constanța de-a lungul sezonelor recurente de secetă care afectează Canalul Dunare - Marea Neagră oferă oportunități suplimentare pentru portul și canalul Sulina de a atrage fluxuri de marfă sezoniere și cele din perioadele de vârf.

- Piața externă (extinsă): Aceasta piață include porturile Galați și Braila situate pe sectorul maritim al Dunării, porturile fluviale Reni și Izmail din Ucraina și portul Giurgiulești din Republica Moldova. Pentru piețele externe din Galați și Brăila, analiza arată predominanța

mărfurilor transportate pe cale maritimă asupra mărfurilor transportate cu unități fluviale și o creștere moderată a mărfurilor pe piețele de cereale și îngrășăminte. În plus, există o reducere vizibilă atât a dimensiunilor, cât și a încărcăturii de marfă în navele maritime care navighează în cele două porturi, evidențiind în mod clar un model contrar economiei de scară și ineficiențele de cost ale modelelor actuale de servicii logistice maritime. Înlocuirea acestora din urmă cu o combinație de nave maritime de dimensiuni mari care fac escală la (proiectul) SGP și convoaie cu șlepuri (barje) împinse care se conectează la/dinspre porturile Galați și Brăila ar economisi între 30% și 50% din costul de transport al navelor și cel aferent transportului mărfurilor, fără a avea un impact negativ asupra cantitatilor de marfă operate în oricare din aceste porturi. Pentru piața externă (extinsă) a porturilor Reni și Izmail, analiza arată că traficul lor combinat s-a triplat ca urmare a blocării porturilor ucrainene de la Marea Neagră. Chiar și în acest caz, constrângerile de capacitate din porturile Reni și Izmail și timpul necesar pentru reconstrucția Ucrainei și a infrastructurii portuare și de transport arată că portul și canalul Sulina sunt bine plasate pentru a absorbi unele dintre exporturile și importurile redirecționate ale Ucrainei.

Estimările de trafic și de marfuri în cadrul (proiectului) SGP

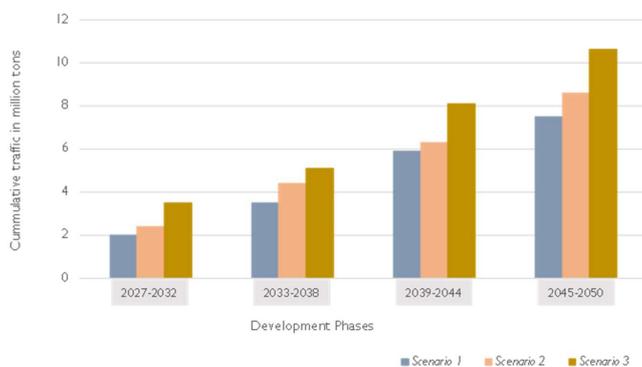
Pe baza analizei de mai sus, proiecțiile de trafic la nivel înalt (general) au fost estimate pe baza a 3 scenarii, proporționale cu piețele portuare și cu planurile de dezvoltare așteptate pentru proiectul SGP:

- Scenariul 1 pentru proiecția bazată pe comerțul pentru piața captivă a SGP din orașul Sulina și comunitățile din apropiere. Se estimează că această piață va genera un trafic cumulativ de 2 milioane de tone în 2027-2032, 3,5 milioane de tone în 2033-2038, 5,9 milioane de tone în 2039-2044 și 7,5 milioane de tone în 2045-2050.

- Scenariul 2 adaugă scenariului 1 traficul estimat a fi derivat din concurența cu piața interioară comună. Se estimează că această piață va genera un trafic cumulativ de 2,2 milioane de tone în 2027-2032, 4,3 milioane de tone în 2033-2038, 6,2 milioane de tone în 2039-2044 și 8,4 milioane de tone în 2045-2050.

- Scenariul 3 se bazează pe scenariile 1 și 2 la care se adaugă traficul care se preconizează a fi derivat din concurența cu piața externă (extinsă). Se estimează că această piață va genera un trafic cumulativ de 3,5 milioane de tone în 2027-2032, 5,1 milioane de tone în 2033-2038, 8,1 milioane de tone în 2039-2044 și 10,7 milioane de tone în 2045-2050.

Figura de mai jos prezintă scenariile agregate pentru toate piețele și scenariile până în 2050. Arată că estimarea anuală de trafic pentru proiectul SGP va varia între 0,4 și 0,7 milioane de tone pe an în perioada 2027-2031, 0,6 până la 0,85 milioane de tone pe an în perioada 2033-2038, 1,0 până la 1,35 milioane de tone pe an în perioada 2039-2044 și 1,25 până la 1,8 milioane de tone pe an în perioada 2045-2050. Dincolo de 2050, se estimează că traficul de marfuri va crește marginal, având în vedere un prag de utilizare de bază de 75% a capacității portuare, care este estimat în prezent la 2,5 milioane de tone anual pentru proiectul SGP.



Proiecții pentru traficul cumulat al proiectului SGP

Reevaluarea tehnică și de planificare

În urma evaluării pieței și a concurenței aferente proiectului SGP, a fost efectuată o analiză tehnică prin combinarea unei analize a documentelor proiectului și a două vizite la fața locului și pe teren. În urma analizei s-a constatat că activele și structurile existente ale portului Sulina au suferit diferite niveluri de degradare din cauza unor perioade lungi de inactivitate și a lipsei lucrărilor de întreținere periodică. În prezent, infrastructura portuară care face obiectul investițiilor de modernizare este practic inutilizabilă.

- Referitor la Perimetrul I, cheul de la Dunare are nevoie de lucrari de reabilitare și dragare, iar zonele de teren (si/sau platforme) din interiorul perimetrului au nevoie de reasfaltare și sistematizare.

- Referitor la Perimetrul II, bazinul maritim și cele patru cheuri interioare ale acestuia necesită modernizări și reabilitări majore, în timp ce zonele de teren adiacente din jur necesită o reasfaltare și o sistematizare completă, precum și conexiuni interne de utilități și configurare a zonării. Pentru a avea posibilitatea de a acosta și opera nave de mare capacitate, de până la 35,000 dwt, zona superioară a bazinului va necesita volume semnificative de dragare însoțite de o reabilitare majoră a cheurilor și o reconfigurare a terenurilor. În ceea ce privește partea inferioară a bazinului (portuar), nu vor fi necesare lucrari de dragaj având în vedere prezența epavelor, dar va fi necesară reabilitarea cheurilor și o reconfigurare și sistematizare a terenurilor. Pentru ambele zone ale Perimetrului II, vor fi necesare noi echipamente portuare de suprastructură și facilitati moderne de depozitare pentru a permite acostarea navelor și manipularea mărfurilor.

În paralel cu revizuirea tehnică, a fost efectuată o revizuire a planurilor portuare și de amenajări urbane:

- O analiză detaliată a planului de utilizare a terenurilor (PUZ) a constatat că acesta oferă un cadru adecvat pentru dezvoltarea și reabilitarea portului Sulina. Planurile de amenajare și de

utilizare în cadrul PUZ au fost pe deplin integrate în opțiunile și structurile de planificare ale proiectului SGP.

- Proiectul "Modernizarea Portului Sulina" (SPM), finanțat prin fonduri nerambursabile ale UE, acoperă operațiunile de dragare și modernizare a cheului de la Dunare și a platformei generale adiacente din Perimetrul II, precum și reabilitarea infrastructurii portuare din Perimetrul I.

- Consultantul a evidențiat alte angajamente și proceduri de planificare cheie care trebuie executate înainte de realizarea concesiunii în cadrul proiectului SGP. Acestea includ angajamentele legale din partea MTI / AFDJ de a draga secțiunile colmatate ale canalului care permite accesul la bazinul maritim, de a asigura reguli de navigație adecvate pentru navele de capacitate mare și convoaiele de barje care utilizează canalul Sulina și reguli de planificare flexibile pentru relaxarea restricțiilor de navigație pe timp de noapte.

Estimări de costuri în cadrul (proiectului) SGP

Având în vedere cele de mai sus, planul principal de dezvoltare pentru Perimetrul I este deja acoperit de proiectul SPM finanțat prin fonduri UE. Ca atare, doar suprastructura portuară ar fi necesară pentru ca Perimetrul I să devină pe deplin operațional. Pentru Perimetrul II, luând în considerare reabilitarea unei părți a cheurilor orientate spre Dunare și a platformei terestre adiacente în cadrul proiectului SPM, o mare parte din modernizarea necesară ar fi centrată în jurul bazinului maritim și a zonelor de teren înconjurătoare.

Pe baza capacității necesare de a satisface o bază medie de cerere (Scenariul 2 de prognoză de trafic), estimările la nivel înalt (general) pentru Costurile de Capital (CAPEX) ale proiectului SGP variază între 20,0 milioane EUR și 24,00 milioane EUR (înainte de impozitare și TVA). Costurile (estimate) s-au bazat pe prețurile internaționale și pe un volum estimat de 150.000 m³ până la 200.000 m³ de material dragat, pe baza estimărilor extrapolate din proiectul SPM și a studiilor tehnice de fezabilitate aferente. Estimările corecte ale volumelor și costurilor de dragare vor fi cunoscute numai după realizarea studiilor batimetrice și geotehnice complete, care vor trebui efectuate înainte de începerea proiectului.

Estimări CAPEX la nivel înalt (general) pentru proiectul SGP

Categoria	Estimări minime (€)	Estimări maxime (€)
Pregătire, dragare și excavare	8,000,000.00	9,000,000.00
Cheuri, modernizarea infrastructurii portuare și amenajarea terenurilor	6,000,000.00	7,500,000.00
Elemente de suprastructură, echipamente și vehicule	4,500,000.00	5,500,000.00
Sisteme de transbordare și operare (portuara)	1,500,000.00	2,000,000.00
Total (fără taxe și TVA)	20,000,000.00	24,000,000.00

OPEX-ul proiectului nu a fost estimat, dat fiind că proiectul SGP va fi structurat ca un rezultat al unei concesiuni bazat pe rezultat (pe output), în care potențialul concesionar va propune și

își va selecta propria sa configurație operațională și tehnologică (a se vedea mai jos). Cu toate acestea, ca regulă generală pentru acest tip de proiecte de dezvoltare portuară, se poate aplica un raport OPEX la CAPEX de 45% până la 125% pe baza utilizării complete, pornind de la rata scăzută și crescând nominal pe durata proiectului, deoarece costurile cu infrastructura și suprastructura din cadrul CAPEX sunt amortizate în timp.

În timp ce durata construcției proiectului poate fi estimată între 18 și 36 de luni, a fost luată în considerare o perioadă de construcție de 24 de luni, având în vedere că perioada de construcție va fi încorporată în durata concesiunii și astfel forțând concesionarul să finalizeze perioada de construcție mai degrabă devreme, decât mai târziu. Aceasta nu include pregătirea proiectului și obținerea aprobărilor, care pot dura de la 6 luni până la 12 luni.

Revizuirea pe baza documentarea a aspectelor de mediu

Având în vedere cele de mai sus, a fost efectuată o revizuire pe baza documentarea a aspectelor de mediu pe baza planurilor din cadrul PUZ și a procedurilor de mediu din cadrul acestuia, a documentelor de fezabilitate ale proiectului SPM și a aprobărilor (avizelor) referitoare la mediu din cadrul acestuia și a operațiunilor curente și anterioare desfășurate în locațiile proiectului. În mod specific, activitățile care se intenționează a fi desfășurate în Perimetrul II ca parte a proiectului au fost, în principiu, deja aprobate din punct de vedere al mediului, ca parte a procedurii de aprobare privind aspectele de mediu derulate de Consiliul Local Sulina în cadrul aprobării PUZ și, de asemenea, parțial ca parte a procesului de aprobare a proiectului SPM finanțat prin fonduri UE.

Pe baza celor de mai sus, ipoteza noastră inițială este că proiectul ar fi clasificat în categoria C (pe baza clasificării BERD), ceea ce înseamnă că proiectul este probabil să aibă ca rezultat impacturi negative scăzute asupra mediului. Impacturile „negative” asupra mediului identificate în cadrul proiectului vor avea loc în cea mai mare parte în timpul perioadei de construcție a proiectului și pot fi atenuate prin aplicarea corespunzătoare a procedurilor de protecție a mediului și implementarea măsurilor și proceselor operaționale pentru minimizarea externalităților negative. Rețineți că proiectul SGP va genera, de asemenea, impacturi „pozitive” asupra mediului, care decurg din reducerea emisiilor navelor/barjelor care naviga de-a lungul canalului, ca urmare a utilizării navelor de dimensiuni mari și a conectării acestora la transportul cu barje.

Cu toate acestea, se recomandă ca un expert în mediu calificat să realizeze o evaluare adecvată a tuturor aspectelor de mediu pentru a se asigura că planurile de dezvoltare ale proiectului SGP sunt pe deplin compatibile cu legile și reglementările de mediu aplicabile.

Analiza juridică

Ca parte a acestei sarcini, a fost efectuată o revizuire detaliată a statutului juridic al SFZA și a legislației aplicabile, împreună cu o evaluare a regimului juridic al terenurilor și activelor portului Sulina. Revizuirea a constatat că SFZA este într-adevăr administrația însărcinată cu

concesionarea proiectului SGP, in calitate de Concedent, cu aprobarea care trebuie solicitată de la Consiliul de Administratie al SFZA, inclusiv de la Consiliul Judetean Tulcea.

Potrivit SFZA, terenurile și activele portuare sunt libere și libere de orice grevare, ceea ce este confirmat de înregistrarea lor în cartea funciară. Analiza a mai constatat că statutul de zonă liberă a Perimetrului II a fost retras în 2011, deschizându-l astfel oricărui tip de activități comerciale sau industriale. Cu toate acestea, Perimetrul I rămâne în continuare cu statutul de zonă liberă, ceea ce impune unele restricții, dar ofera și stimulente, în ceea ce privește tipul de activități care pot fi întreprinse.

Consultantul a efectuat de asemenea o evaluare documentară a regimului juridic al proiectului și a opțiunilor de licitație. Evaluarea a constatat că nici contractele de tip PPP, nici contractele de achiziție de lucrări și servicii nu pot fi aplicabile în paradigma proiectului SPG, în timp ce contractele de închiriere nu au fost considerate o opțiune preferată nici de SFZA, nici de potențialii investitori. Aceasta a fost apoi urmată de o analiză comparativă detaliată a concesiunii de bunuri *versus* concesiunea de lucrări care a condus la concluzia că concesionarea bunurilor/activelor a fost cea mai potrivită și, potențial, singura opțiune posibilă pentru proiect.

A fost efectuată o analiză suplimentară privind concesionarea bunurilor aflate în administrarea zonelor libere din România și s-a constatat că Hotărârea de Guvern nr. 1998/2004 privind procedura de concesionare a bunurilor proprietate publică aflate în administrarea zonelor libere se califică drept cadrul legal aplicabil și de asemenea are avantajul că trebuie să fie aprobată de autoritățile locale (nu de Guvern), ceea ce se traduce printr-un proces mai rapid și mai puțin complex.

Având în vedere cele de mai sus, concluzia Consultantului este că decizia optimă este ca Proiectul să fie structurat ca o concesiune de bunuri/active, în mod specific proiectul urmând să fie pregătit, executat și contractat în conformitate cu prevederile Hotărârii Guvernului nr. 1998/2004.

Strategia de sondare a pieței

În urma executiei analizelor de piață, de concurență, tehnice, legale (juridice) și de planificare, Consultantul a elaborat și a pus în aplicare o strategie viabilă de sondare a pieței, care a condus la pregătirea unui Memorandum (Preliminar) de Informare a Proiectului (PIM) și la administrarea a două chestionare pentru potențialii concesionari și creditorii. A fost întocmită o listă scurtă inițială de potențiali investitori, cărora le-au fost distribuite documentele respective, PIM și chestionarele. În plus, a fost organizată o conferință inițială a investitorilor la București, la 15 Noiembrie 2023.

Este important de reținut că proiectul SGP va fi structurat ca un rezultat al unei concesiuni bazat pe output (pe rezultate), în care Concedentul nu definește și nici nu impune intrări și caracteristici tehnice detaliate ale proiectului; în schimb, concesionarii potențiali sunt cei care își propun și își selectează propriul mix de configurație operațională și tehnologică în moduri care pot maximiza rezultatele proiectului. Concesiunile bazate pe output se concentrează pe realizarea rezultatelor unui proiect, de exemplu, în ceea ce privește generarea de trafic, volumele de trafic și eficiența performanței.

Concesiunile bazate pe output oferă mai mult spațiu de manevră concesionarilor pentru a pune în aplicare operațiuni inovatoare, flexibile și eficiente din punct de vedere al costurilor, reducând totodată la minimum expunerea concedentului la riscurile de construcție, exploatare, volum și performanță. Acest lucru explică popularitatea și implementarea lor pe scară largă în proiecte portuare și logistice comerciale, cum ar fi SGP.

Au fost realizate întâlniri inițiale postconferință cu cei 5 investitori care au participat la conferință, iar întâlniri online au fost realizate cu alți 3 potențiali investitori care nu au putut participa la conferință. Principalele constatari de la aceste întâlniri și de la conferința investitorilor sunt rezumate mai jos:

(i) Perimetrele I și II reprezintă modele de afaceri diferite, prin urmare, nu ar fi recomandabil să le grupăm în cadrul aceleiași concesiuni,

(ii) Perimetrul II nu ar trebui să fie impartit altfel decât a fost recomandat de Consultant în PIM actualizat,

(iii) Ca parte a contractului de concesiune și a documentației de licitație, autoritatea care acordă concesiunea (SFZA / Concedentul) trebuie să se asigure că riscurile de interfață care decurg din dragarea senalului navigabil, din normele privind navigația pe timp de noapte și (marimea) convoaielor de barje sunt tratate în mod corespunzător,

(iv) Majoritatea investitorilor cu care s-a vorbit au solicitat să fie anunțati odată ce o opțiune finală a proiectului, data și procedura de licitație sunt confirmate. Acest lucru a fost accentuat și mai mult de alte părți potențiale interesate care preferă să nu țină întâlniri până în momentul în care aceste probleme sunt rezolvate și confirmate oficial.

Răspunsul potențialilor investitori, împreună cu feedback-ul de la SFZA au fost preluate de Consultant pentru ajustarea și recomandarea opțiunilor de proiect și actualizarea PIM. În urma selecției opțiunii de proiect și a confirmării procedurilor de licitație și a etapelor de referință, ar trebui luate în considerare întâlniri ulterioare cu investitorii pentru a atrage alți potențiali investitori și pentru a informa comunitatea investitorilor cu privire la stadiul proiectului și la etapele de referință ale procedurii de achiziție/licitație.

Strategia (derulării) procedurii de concesionare

În paralel cu exercițiul de sondare a pieței, consultantul a elaborat strategia de concesiune pentru proiectul SGP. Detaliile documentelor care trebuie pregătite și ale procesului care trebuie urmat au fost descrise în acest studiu de oportunitate, subliniind, printre altele, necesitatea ca SFZA să se pregătească bine și să planifice din timp (procedura). Consultantul a oferit apoi propuneri structurate pentru cerințele și evaluările Eol (Expresii de Interes), criteriile de selecție și calificare și criteriile de evaluare a ofertelor (atât tehnice, cât și financiare). În toate aceste etape, Consultantul oferă interpretarea sa asupra criteriilor și a punctajului propus în moduri care corespund cel mai bine obiectivelor proiectului.

Atât domeniul de aplicare al proiectului SGP, cât și regimul juridic ales al concesiunii proiectului au făcut ca un proces formal îndelungat în două etape sau un dialog competitiv să nu fie posibile. În schimb, Consultantul a încorporat spiritul acelor proceduri în etapele regimului de concesiune aplicabil proiectului SGP, ceea ce a condus la urmatorul program al procedurii de licitație.

Programul procedurii de licitație a proiectului

Activitatea	Data
Anunț de licitație (Publicare).....	Săptămâna 1
Termen limită de primire a Eol (Expresii de Interes)	Săptămâna 8
Lista scurtă a ofertanților calificați.....	Săptămâna 9
Preluarea pachetului de documente.....	Săptămâna 9
Termenul limită de solicitare a clarificărilor.....	Săptămâna 11
Răspuns la solicitările de clarificări.....	Săptămâna 13
Termenul limită de depunere a ofertelor tehnice....	Săptămâna 18
Depunerea ofertelor financiare / Data licitației.....	Săptămâna 20
Negocieri cu ofertantul selectat.....	În termen de 2 săptămâni de la data licitației
Închidere comercială / Semnarea contractului.....	În termen de 4 săptămâni de la data licitației

A se reține că anunțul de licitație nu poate fi făcut până când Consiliul (de Administrație al) SFZA selectează în mod oficial o opțiune de proiect, apoi aprobă documentația de licitație. Aceasta din urmă necesită 4 până la 6 săptămâni pentru pregătire și încă 2 până la 3 săptămâni pentru validare. În plus, din cauza timpului foarte scurt al procesului propriu-zis de licitație, Concedentul, SFZA, trebuie să planifice în avans și să elaboreze Specificațiile de Proiect, care constituie un element al Caietului de Sarcini. De asemenea, SFZA trebuie să stabilească Comitetul de Evaluare înainte de emiterea anunțului de licitație.

Opțiuni și structuri ale proiectului

În urma analizelor de mai sus, consultantul a evaluat diverse structuri de proiect în vederea propunerii celor mai potrivite opțiuni de implementare. Alegerea structurii proiectului și a opțiunii de implementare depinde nu numai de compromisul dintre diversele surse și tipuri de riscuri ale proiectului (financiare, comerciale, juridice, politice, de interfață, etc.), ci și de un compromis între planurile și ambițiile Concedentului pentru proiect și percepțiile și apetitul pentru risc al pieței (adică al investitorilor).

- Începând cu structura instituțională, și având în vedere capacitatea financiară, tehnică și juridică a SFZA, proiectul nu poate fi structurat altfel decât ca un model de proprietar (de bază). În acest caz, concesionarul (concesionarii) își asumă responsabilitatea reabilitării, echipării, operării și întreținerii activelor și facilităților proiectului concesionat pe toată perioada concesiunii, în timp ce Concedentul, SFZA, își va asuma rolul de autoritate portuară de gestionare și reglementare.

- Structura juridică (legală) a proiectului este desemnată drept concesiune de bunuri/active conform Hotărârii Guvernului (HG 1998/2004) care precizează procedura de achiziție și licitație pentru concesiunea proprietății publice aflate în administrarea zonelor libere. Pentru a asigura atractivitatea și livrarea proiectului, Consultantul recomandă să fie anexate la contractul de concesiune și alte angajamente legale, în special un acord de interfață pentru dragarea și întreținerea corespunzătoare a senalului navigabil al canalului (Sulina).

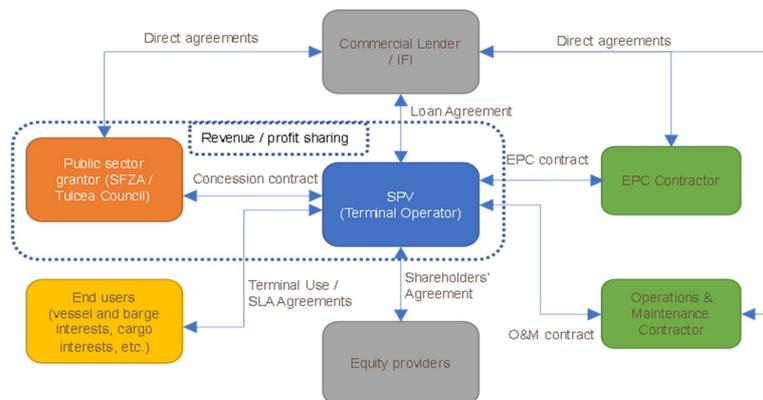
- În ceea ce privește structura comercială, planul de afaceri și planul de investiții al proiectului vor urma planul (planurile) de afaceri și de dezvoltare propus(e) de concesionar(i), în conformitate cu domeniul de aplicare al concesiunii și cu obligațiile generale prevăzute în documentația de licitație. Recomandarile și estimările furnizate în acest Studiu de Oportunitate, ar putea fi utilizate de către Concedent ca un ghid sau un punct de referință pentru evaluarea planurilor de dezvoltare ale investitorilor.

- Fluxurile de venituri pentru proiectul SGP, adică veniturile concesionarului, sunt indicate ca venituri din (activități de) manipulare, depozitare, transport, închiriere, depozitare (spații închise/magazii și spații deschise/platforme), procesare mărfuri și alte venituri diverse. În ceea ce privește Concedentul, SFZA, acesta va încasa venituri directe din taxele portuare, taxe de acostare și navigație percepute la acostarea navelor și șlepurilor (barjelor) și venituri indirecte, respectiv plata taxelor de concesiune primite de la concesionar. Structura de taxe propusă este setată să combine o taxă fixă (minimă) plus o taxă variabilă (de partajare a veniturilor). Nivelul taxelor de concesiune atât pentru elementul fix, cât și pentru cota de venit, va face parte din ofertele financiare ale ofertanților/concesionarilor potențiali și în conformitate cu planurile de dezvoltare propuse de aceștia. Cu toate acestea, ar putea fi posibil să se prevadă praguri orientative sau *de minimis* în specificațiile de licitație și să fie structurate în moduri care să stimuleze concesionarul să dezvolte Proiectul și să atragă volume mai mari de trafic și de marfă.

- Tot în ceea ce privește structura comercială, Consultantul recomandă ca durata provizorie a concesiunii SGP să se deruleze pe o perioadă de până la 30 de ani. Aceasta a luat în considerare 5 ani pentru etapele de construcție și intrare inițială pe piața activităților portuare și 20 până la 25 de ani pentru operațiuni portuare în etape și creșterea traficului. O astfel de durată extinsă este, de asemenea, în conformitate cu cele mai bune practici internaționale, în special pentru proiectele portuare fără activitate anterioară existentă (istoric) și în care se așteaptă ca investitorii să suporte riscurile de trafic, de piață, financiare și operaționale. Rețineți, totuși, că în cazul în care SFZA decide concesiunea proiectului SGP în două sau trei

zone, conform recomandării Consultanțului, durata concesiunii fiecărei zone va fi ajustată corespunzător cu o durată recomandată de 15 ani pentru Perimetrul I și 30 de ani pentru Perimetrul II.

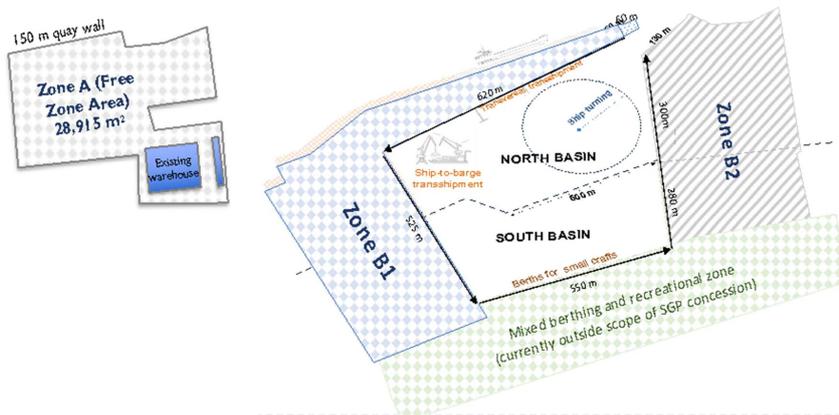
- În ceea ce privește structura de finanțare, și având în vedere structurile instituționale și comerciale ale proiectului, concesionarul (concesionarii) va (vor) fi responsabil(e) pentru asigurarea finanțării proiectului și pentru rambursarea oricăror împrumuturi contractate în cadrul acordurilor de finanțare. Serviciul datoriei va fi asigurat din profitul brut al proiectului, în timp ce randamentul investitorilor va fi acoperit din profitul net generat. Ca atare, creditorii de datorii ar putea încheia acorduri directe atât cu Concedentul, cât și cu Concesionarul, așa cum se arată în figura de mai jos.



Structura financiară a proiectului SGP

- Pentru structura de planificare/zonare, se recomandă împartirea SGP în 3 zone (A, B1 și/sau B2) pentru ofertele unice sau combinate, așa cum se arată în figura de mai jos. Recomandarea de a separa SGP în trei zone se bazează pe mai multe considerente. În primul rând, planul de dezvoltare (PUZ) prevede în mod specific zone de agrement care nu s-ar potrivi și nici nu s-ar alinia cu activitățile industriale portuare și de manipulare a mărfurilor. Prin urmare, aceste zone (marcate ca zone verzi în figura de mai jos) au fost scoase în afara domeniului de aplicare al concesiunii SGP. În al doilea rând, feedback-ul primit în timpul exercițiului de sondare a pieței indică separarea Perimetrului I de Perimetrul II, deoarece primul prezintă un model de afaceri diferit, având în vedere dimensiunea, statutul de zonă liberă și proximitatea față de orașul Sulina. În al treilea rând, evaluarea pieței portuare din România arată că, deși unii investitori/operatori portuari locali sunt dornici să fie implicați în proiectul SGP, aceștia sunt relativ mici și nu au capacitatea comercială sau financiară de a dezvolta sau opera în întregime Perimetrul II. Dimpotrivă, lucrările mari (principale) pentru dragare și dezvoltare necesită un investitor portuar suficient de mare, care ar fi stimulat de zonele modernizate din cadrul proiectului EU-SPM. Nu în ultimul rând, cerințele operaționale pentru manipularea

transbordării de la navă (maritima) la barja înseamnă că operatorul va avea nevoie de dane lungi și terenuri (platforme) largi învecinate.



Structura operationala / de zonare a proiectului

Evaluarea economica si financiara de nivel inalt (general)

Având în vedere domeniul de aplicare și cadrul temporal al Studiului de Oportunitate a fost realizata o evaluare la nivel înalt (general) a beneficiilor economice și financiare ale proiectului SGP.

Din punct de vedere economic, principalele beneficii generate de proiect sunt rezumate mai jos:

- Situatia economică imbunatatita prin locuri de muncă. Pe baza unor proiecte portuare similare, este de așteptat ca SGP să creeze 200 de locuri de muncă directe în timpul etapei de construcție, aproximativ 60 de locuri de muncă directe în timpul operațiunilor (perioada efectivă de exploatare) și până la 150 de locuri de muncă indirecte (în activități de pilotaj, agenturare nave, bunkeraj, reparații navale și aprovizionare, depozitare mărfuri, etc.) pe baza factorului multiplicator de 2,5 al industriei (specifice). Fiecare loc de muncă creat generează taxe, dar și mijloace de trai și creștere economică în zona proiectului (orașul Sulina și împrejurimi) care suferă pe termen lung de tendințe de depopulare și deprivare teritorială. Dacă sunt structurate, operate și gestionate corespunzător, (proiectul) SGP și afacerile care depind direct de el vor fi principalii angajatori și motorul economic al orașului Sulina și comunităților învecinate cu acesta.

- Situatia economica imbunatatita prin impozitare. Pe lângă impozitele generate de locurile de muncă directe și indirecte, venituri fiscale suplimentare ar fi generate din activitatea (de exploatare a) proiectului. Atât operatorul (operatorii) proiectului SGP, cât și întreprinderile

din jurul acestuia ar fi obligați să plătească impozite pe profit, impozite locale și alte taxe și impozite, generând astfel venituri suplimentare autorităților locale și guvernului național.

- Reducerea costurilor de transport: Proiectul SGP va stabili noi rute alternative de transport pentru transportul mărfurilor și aranjamentele (serviciile) logistice. În comparație cu traficul maritim-fluvial existent, transportul fluvial prin canalele conectate cu Marea Neagra, feroviar și, mai dezavantajos, rutier, este mult mai ieftin și rentabil. Acest lucru este deosebit de important pentru mărfurile care se îndreaptă spre orașul Sulina, care pot beneficia de o reducere de cel puțin 20% a costului de transport.

- Reducerea duratei de transport: Distanța de transport către hinterland (piața interioară comuna) și chiar către unele piețe externe (extinse) poate fi redusă cu până la 1/3 la utilizarea traseului corespunzător proiectului SGP, în comparație cu ruta canalului Dunare - Marea Neagra, chiar presupunând o viteză similară. De exemplu, mărfurile care au ca destinație Tulcea prin canalul Dunare - Marea Neagra ar parcurge 220 km de la Cernavodă față de 75 km de la Sulina. Reducerea distanței de transport și a duratei călătoriei parcurse se traduce în beneficii de economisire a costurilor și a timpului atât pentru nave, cât și pentru marfă.

- Reducerea costurilor de operare a navelor: Pe lângă reducerea duratelor de transport, proiectul SGP va oferi servicii de transbordare prin utilizarea combinată a navelor mari (handysize) și a convoaielor de barje, rezultând astfel economii de scară și reducerea costurilor de combustibil, cu echipajul și de operare. În plus, deoarece utilizarea navelor/barjelor este de așteptat să crească semnificativ odată cu proiectul SGP, în comparație cu situația curentă - nave jumătate sau parțial pline - este de așteptat ca costul combustibilului pe unitate transportată să se reducă la jumătate în transporturile cu nave / barje pe Dunărea maritimă.

- Beneficii pentru mediu derivate din reducerea zgomotului și a emisiilor. Beneficiile de mediu ale proiectului SGP se manifestă nu numai prin reducerea consumului de combustibil datorită reducerii distanței parcurse, ci și prin cantitatea redusă de emisii de la convoaiele cu barje în comparație cu combinațiile de transport, numai navale sau rutiere. Ca indicativ, folosind aceeași cantitate de combustibil, o combinație navă-barja va transporta 10.000 de tone pe 375 km, față de 1.500 de tone pe 300 km pe calea ferată și doar 20 de tone pe 100 km pe camioane.

- Beneficii economice suplimentare datorate multiplicatorilor și legăturilor sectoriale: Proiectul SGP nu numai că va genera locuri de muncă și taxe și va reduce costurile de operare și de transport ale navelor, dar, cel mai important, va crește conectivitatea și accesibilitatea și va atrage investiții și creșterea economică, de exemplu prin sprijinirea altor sectoare precum transportul cu nave de croazieră și turismul.

Dintr-o perspectivă financiară, costurile și veniturile la nivel înalt (general) ale proiectului SGP au fost estimate pe parcursul a 3 faze de dezvoltare ale proiectului, începând cu anii 1, 3 și, respectiv, 17.

- Costurile proiectului sunt clasificate ca: CAPEX (al proiectului) care se desfășoară în faza I și faza 2 a proiectului, OPEX fix (al proiectului) care sunt independente de activitatea portuară și volumele de trafic și OPEX variabil (al proiectului) legat de întreținerea echipamentelor și a sistemului.

- Veniturile proiectului, pe de altă parte, sunt în funcție de traficul portului (tone manipulate) și prețurile aplicate (tarife și taxe). Volumele de marfuri în port s-au bazat pe prognozele de trafic și s-au înmulțit cu un factor de 1,65 pentru a ține cont de veniturile din servicii de transbordare, servicii de depozitare și servicii cu valoare adăugată. Tarifele portuare s-au bazat pe tarifele de piață în comparație cu tarifele aplicate în portul Tulcea.

- Pe baza celor de mai sus, costurile inițiale ale proiectului pentru toate fazele au totalizat 47,3 milioane EUR față de un venit brut cumulat estimat de 400 milioane EUR până la 500 milioane EUR (în prețuri curente) pe o perioadă de 30 de ani, așa cum se arată în figura de mai jos. Cu toate acestea, costurile reale ale proiectului sunt probabil să fie cu 30% până la 35% mai mari odată ce sunt luate în considerare costurile de finanțare, creștere (dezvoltare), marketing, reglementare și alte costuri. În mod similar, veniturile nete ale proiectelor sunt probabil să fie mai mici cu 40% până la 50% odată ce sunt luate în considerare impozitele, tarifele și alte taxe. Chiar și cu aceste ajustări, datele financiare inițiale ale proiectului par sănătoase și sustenabile, cu un profit brut de peste 35-40%, ceea ce depășește cu mult valorile de referință din industrie.

- Veniturile proiectului nu trebuie confundate cu veniturile Concedentului (SFZA), acestea din urmă includ atât veniturile din plățile taxelor de concesiune (orice între 10% până la 30% din veniturile nete ale proiectului), cât și din tarifele portuare și taxele de acostare (de obicei stabilite în funcție de piața regională sau reglementate). Cu toate acestea, atunci când prognozează veniturile proiectului, Concedentul trebuie să ia în considerare și beneficiile proiectului utilizând instrumente de evaluare, cum ar fi raportul calitate-preț și valorile de referință pentru sectorul public, care nu fac parte din acest Studiu de Oportunitate. Chiar și fără a lua în considerare veniturile din taxele de concesiune și taxele portuare, câștigul net al SFZA din proiect va fi cel puțin echivalent cu costurile de bază ale proiectului, estimate mai sus la 63,8 milioane EUR, inclusiv finanțarea, pregătirea și creșterea (dezvoltarea). Mai simplu spus, valoarea intrinsecă inițială a proiectului ar fi cel puțin egală cu costul investiției de către concesionar, deoarece fără concesionarea proiectului SGP, activele portuare existente se vor deteriora și mai mult (dincolo de starea lor deja degradată) și va costa mai mult pentru a fi reabilitate și modernizate în viitor.

- În plus, Concedentul poate fi nevoit să ia în considerare faptul că o parte din avantajul competitiv al proiectului SGP determinat de contextul regional actual ar putea fi diminuat odată ce riscurile și dinamica regională este restabilită.

Faza	Construcția începe	Operațiunile încep	Operațiunile se termina	Cost (Euro)	Trafic portuar (tone)	Venituri (Euro)
------	--------------------	--------------------	-------------------------	-------------	-----------------------	-----------------

Faza 1	Anul 1	N/A	N/A	CAPEX: 20,000,000 OPEX Fix: 400,000 OPEX Fix Intretinere: 0 OPEX Variabil: 0	0	0
Faza 2	N/A	Anul 3	Anul 30	CAPEX: 0 OPEX Fix: 6,000,000 OPEX Fix Intretinere: 3,000,000 OPEX Variabil: 1,800,000	23,000,000	300,000,000-350,000,000
Faza 3	Anul 16	Anul 17	Anul 30	CAPEX: 10,000,000 OPEX Fix: 3,600,000 OPEX Fix Intretinere: 1,500,000 OPEX Variabil: 1,000,000	8,500,000	100,000,000-150,000,000

Estimări la nivel înalt ale costurilor și veniturilor proiectului

Analiza de risc

Studiul de Oportunitate a culminat cu evaluarea principalelor riscuri ale proiectului, având în vedere structurile de proiect recomandate și opțiunile de livrare. A fost efectuată o revizuire completă și o descriere a diferitelor riscuri ale proiectelor în PPP-urile și concesiunile portuare, cu discuții ulterioare privind cele mai bune practici și standardele internaționale privind evaluarea și alocarea acestora.

Consultantul a stabilit mai jos o matrice de risc care reflectă structura instituțională a SFZA și opțiunile comerciale, juridice, financiare și de planificare pentru proiect. Pentru fiecare risc identificat, a fost estimată o evaluare pe scară Likert de la 1 (pentru risc foarte scăzut) la 5 (pentru risc foarte ridicat), apoi a fost alocată părții care asumă riscul: Autoritatea (A), Concesionarul (C) și/sau ambele (B); după cum se arată mai jos pentru un eșantion al riscurilor principale.

Risc	Implicatie asupra proiectului	Rating	Alocare		
			A	C	B
Risc de interfata	Proiect împiedicat sau amânat de agențiile necooperante	4	<input checked="" type="checkbox"/>		
Politic / Reglementare	Modificari legislative (generale sau discriminatorii)	1	<input checked="" type="checkbox"/>		
Politic /Reglementare	Modificari fiscale (generale sau discriminatorii)	2			<input checked="" type="checkbox"/>
Proiectare	Proiect neproiectat adecvat pentru scopurile cerute	2		<input checked="" type="checkbox"/>	
Teren	Drepturi de utilizare a terenurilor/închiriere (eventual dreptul de trecere)	1	<input checked="" type="checkbox"/>		
Teren	Consimțământ pentru utilizarea/închirierea unui teren suplimentar	2	<input checked="" type="checkbox"/>		
Constructie	Asigurarea si controlul calitatii	1		<input checked="" type="checkbox"/>	
Constructie	Depasirea costurilor	2		<input checked="" type="checkbox"/>	
Constructie	Intarzieri cauzate de SFZA sau de entitati guvernamentale	4	<input checked="" type="checkbox"/>		
Constructie	Intarzieri datorate schimbarilor concesionarului	2		<input checked="" type="checkbox"/>	
Venituri	Risc de colum	3		<input checked="" type="checkbox"/>	

Operatiuni Mentenanata	& Intretinere sporita din cauza volumului de trafic	2			<input checked="" type="checkbox"/>
Performanta	Indeplinirea indicatorilor cheie de performanta	2		<input checked="" type="checkbox"/>	
Performanta	Conformitatea cu legislatia aplicabila	2		<input checked="" type="checkbox"/>	
Piata / Financiar	Fluctuatii ale cursului de schimb	1		<input checked="" type="checkbox"/>	
Neplata	Incetare din cauza incalcarii de catre guvern a obligatiilor sale	1	<input checked="" type="checkbox"/>		
Neplata	Incetare din cauza incalcarii de catre concesionar a obligatiilor sale	1		<input checked="" type="checkbox"/>	
Forta Majora	Dezastre naturale, terorism, razboi	2			<input checked="" type="checkbox"/>
Forta Majora	Forta majora in plan politic	3	<input checked="" type="checkbox"/>		
Forta Majora	Riscuri neasigurabile (pe toata durata concesiunii)	1			<input checked="" type="checkbox"/>
Mediu	Mediu – Conditii pre-existente	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Riscurile cheie si alocarea acestora pentru proiectul SGP

FULL OPPORTUNITY STUDY

I. Background and Introduction

Romania is strategically located at the crossroads of the main trade routes between Southeast Europe, Central Europe and Central Asia. This strategic geographical position has enabled the development and operation of various waterborne transport infrastructure and services. On the Black Sea, the main seaport of Constanta and the satellite ports of Midia and Mangalia provide direct access to regional and international maritime routes. On the Danube River, Inland Waterways Transport (IWT) is enabled via more than two-dozen of river ports which are dotted along the main navigable waterways, canals and secondary branches.

For IWT navigation, the connection of the Danube River to the Black Sea is ensured through two main canals in Romania namely the Black Sea Canal and the Sulina Canal:

- Built in the late 19th century, the Sulina Canal is a long-running international navigation waterway of 71 km long and 7.3 m depth providing free access to small and lower-medium size international maritime ships. However, there is no hub or deepsea port intersecting the Sulina canal with the Black Sea therefore limiting the canal's market potential and network logistics reach.
- The Black Sea Canal, which was opened in 1984, connects the Danube to the deepsea port of Constanta on the Black Sea and its hub-and-spoke network of maritime services; but the 64km long canal is limited by its draft (5.5 m), locks and domestic waterway status. As such, it can only be used by river ships and barges against payment of toll fees.



Figure 1: Existing waterways and canal connecting the Lower Danube with the Black Sea

The port development subject to this Opportunity Study is situated in the suburbs of Sulina, a small town of around 5,000 inhabitants located at the lowest average altitude (less than 4 m above sea level) on the eastern extremity of Romania at the point where the Sulina arm of the Danube flows into the Black Sea. The town stretches on both banks of the Danube, but mostly on the right bank. Sulina is not directly connected to the road or rail network of Romania, and access to the town is only possible by boat mainly from the city of Tulcea, at a distance of approximately 39 Nautical Miles (NM) or about 72 km.

Sulina port (UNLO ROSUL) is located on the right bank of the Sulina canal approximately 1.7 km downstream from the mouth of the Danube (Mile 0) to the limit of Sulina city, including areas within Sulina town. Administered by the autonomous Sulina Free Zone Administration

(SFZA), the port is part of a combined area of 175.5 hectares (ha) comprising several zones and perimeters located both in the city and around the maritime basin:

- An area of 3.46 ha (Perimeter I) located in Sulina town. On the landside, Perimeter I hosts the premises of SFZA, two warehouse and workshop buildings, stations for network utilities, and open plots for lease or rent. On the Danube side, Perimeter I has a vertical wharf of 150 m long and 2.5 m draft.
- An area of 172.05 ha (Perimeter II) further east of Sulina town and comprised of a river basin of 5 ha currently used by fishing boats and pleasure crafts, a maritime basin of 33 ha area (excluding entrance) for use by maritime ships both in the inner basin and at on the river side, and an underdeveloped 134 ha adjusting land platform made from dredged basin material.

The initial Sulina port infrastructure was built in 1964, then rehabilitated and expanded with the addition of the maritime basin in 1978. Initially dredged to a draft of -11 m at local water level, the maritime basin was intended to provide access to mini-bulkers and handy-size ships of up to 25,000 dead weight tonnage (dwt) fully loaded, or 35,000 dwt partly loaded, for the handling and transshipment to/from river ships and barges for cereals and general cargo and for iron ores destined to the Galati iron and steel plant. Ship and port operations were configured for use of the basin's berths with pointed sea pontoons and floating cranes.

The above was commensurate with the provision of similar -11 m draft along the 7 km stretch of the Sulina canal down to the basin. However, this section of the Sulina Bar and canal was not regularly dredged to the intended draft; instead regular dredging was only carried out to maintain the canal's depth of -7.3 m allowing ships of up to 15,000 dwt to reach the maritime-river ports of Galati and Braila, about 150 km and 170 km upriver from Sulina, respectively. From Braila upriver, transport can only be carried out by barges and tugs, and sometimes by self-propelled barges. Linked to Sulina canal are Ukraine's river ports of Izmail and Reni and Moldova's port of Giurgiulesti. These ports have different draft and capacity constraints allowing ships up to 10,000 dwt to call their terminal facilities.

Despite those setbacks, ship and cargo traffic at Sulina port was booming until the early 1990s where a succession of events has led to a sharp decline of traffic and port operations. First, the construction of the Black Sea canal, which was completed in 1984, provided an alternative route to the Sulina canal especially with the use of pushed barge convoys. Then, the end of the Communist rule in 1989 has brought about a new era of economic reform including terminating the 'free port' status of Sulina port and replacing it with a 'free zone' status which was extended to other port areas in the country including in Galati and Braila ports.

In 1997, Sulina port and free zone facilities were transferred from the Maritime Danube Ports Administration (APDM), which also managed the Danube ports of Tulcea, Galati and Braila, to the newly established SFZA. This created a new dynamic of competition and market rivalry, further prompted by large investments in upstream ports and favourable changing trade and logistics patterns in the Black Sea and Lower Danube region. More recently, the war on the

Ukraine has led to severe congestion and delays which were further exacerbated due to the blockade of Ukraine's Black Sea ports and the non-renewal of the Grain Deal.

Over the past 3 years, SFZA has been working on plans and solutions to revitalise Sulina port, rehabilitate its infrastructure and modernise its superstructure. In 2020, a new urban development plan was approved for Sulina port by Tulcea City Council, and in 2021, EU-funding was approved for the Sulina Port Modernisation (SPM) project aimed at upgrading Perimeter I and part of Perimeter II. Building on this success, SFZA is now considering the development of the Sulina Green Port (SGP) project, subject to this Assignment.

2. Review of Port Markets, Demand and Competition

Currently, minimal to no traffic is being handled at Sulina port facilities and immediate vicinity. However, a substantial volume of traffic may appear fairly quickly as a result of the development of the SPM and SGP projects. Both projects will spur new dynamics in port demand, capacity, and competition across Sulina port's hinterlands and forelands, as well as inducing a structural change in the patterns of logistics distribution in the maritime Danube. Because SGP intersects all these perspectives, it is crucial to examine various potential markets so as to inform on competition and demand projections for the project:

- The economic and industrial market in terms of the trade, industrial and economic drivers for the port activity in Sulina port 's captive and contestable markets.
- The port market in terms of port competition along the Sulina canal and the project's captive and contestable hinterlands.
- The shipping and logistics market in terms of the project's ship service type and logistics network configurations and their subsequent cost and operational options.

2.1. Economic and Industrial Market

Despite the size Salina port's regional hinterland, its socio-economic performance lags behind that of other regions in Romania. The South-East region economy contributes around 10% to national GDP. In particular, the region depicts low levels of economic growth and high unemployment rates (14% to 16%) while witnessing sharp depopulation trends. Because of low economic and population growth, substantial port demand driven by GDP or economic growth is not foreseen in the short and medium terms.

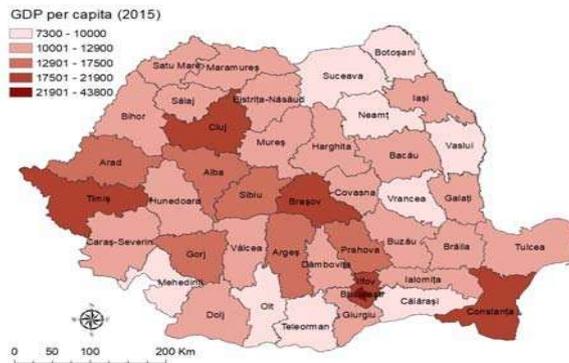


Figure 2: Regional GDP per capita in Romania (Eurostat)

Conversely, the industrial and service market for Sulina port could be more attractive than its broader socio-economic market. For a small port facility such as Sulina's, significant demand may be generated by attracting a few cargo interests such as large bulk shippers, major commodity traders, and/or integrated logistics providers. In this respect, the demand from major industrial and cargo interests in or around Sulina is usually driven by shippers' and traders' port choice and supply chain decisions.

2.2. Port Markets and Competition

2.2.1. Review of Sulina Port Hinterland Markets

In line with the geography of the waterborne transport in Romania, the country's ports may be categorized into 4 main port hinterland or spatial clusters.

- Constanta's port cluster which comprises both maritime and inland waterway port interfaces as well as a range of intermodal connections and hinterland components,
- The port cluster of the maritime Danube stretches from Sulina port at the mouth of the Black Sea through to the main ports of Tulcea, Galati and Braila.
- The port cluster along the Black Sea artificial navigable canals comprising both the main Danube Black Sea canal and the Poarta Alba-Midia Navodari branch.
- The port cluster of the inland Danube upstream from Braila, along the common Romanian Bulgarian section of the Danube, till Serbia.

Looking at cargo logistics and flows, the volume of freight carried out by the waterborne transport sector in Romania has totalized 88.8 million tons in 2022, of which 60.3 million tons on maritime routes to-from the country's seaports and sea-river ports, and 28.6 million tons on the Romanian's IWT sector of the Danube. For both segments, the port of Constanta dominates cargo flows, albeit with different proportions. In volume terms, maritime traffic is largely dominated by solid bulks (56%), followed by liquid bulks (28.4%) then containerized

cargo (8.7%) in volume terms. For IWVT, traffic is even more dominated by solid bulks (79%), followed by oil products (12.2%) and general cargo (4.5%).

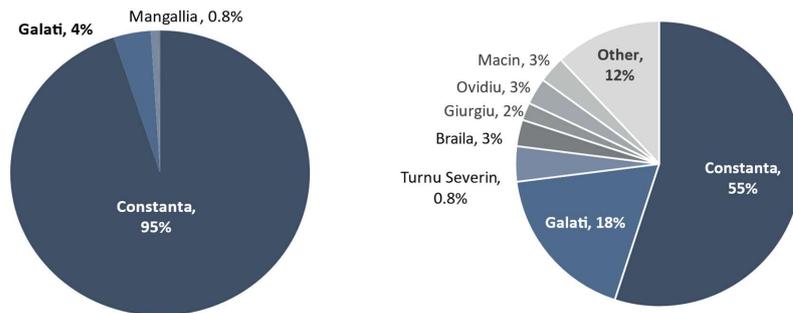


Figure 3: Waterborne transport in Romanian ports (MTI, NSI)

Left: Maritime traffic in seaports and sea-river ports; Right: IWVT traffic in river ports.

Further assessment of the port markets within Romania and their contestability with regards Sulina port and the SGP project is provided in the section below. The section focuses on the first three port clusters, given that the port cluster of the inland Danube is outside the competitive market for Sulina port and the SGP project.

2.2.1.1. Constanta Port Cluster

The Constanta port cluster which is managed by the Constanta Port Administration (APMC) consists of the port of Constanta and the satellite ports of Midia (25 km North with 14 berths) and Mangalia (35 km South with two multipurpose berths). Constanta is both a maritime and river port and is the biggest port in the Black Sea with a projected annual operational capacity of 100 million tons, of which 80% serves maritime traffic and 20% serves river traffic.

The port of Constanta is a large port complex with an area of 3,960 ha, a total quay length of 32 km, drafts between 7 m and to 19 m and a designed annual capacity of 100 million tons. The port has over 140 operational berths which can handle almost all types of cargo. The Northern part comprises 100 berths dispersed over a quay wall of 15.5 km long serving liquid, dry bulk and general cargo ships and their cargoes. The Southern part, next to the entrance of the Black Sea canal, stretches over a quay length of 6.5 km and 3 basins designed to handle containerized and unitized cargo along areas for handling cargo logistics related to this traffic.



Figure 4: Bird eye view of Constanta port and terminals

Table 1 below shows the annual volumes of the main cargoes handled in the port, excluding containers. It shows the predominance of grain traffic (about 42% of total volumes), followed by liquid bulk products (~28%), then dry bulk minerals (~21%). With the inclusion of container volumes in tons, these four broad categories make up 95% of cargo traffic at the port.

Table 1. Evolution of main cargo traffic at Constanta port; excluding containers (APMC)

	2016	2017	2018	2019	2020	2021	2022
Grains	20,393,803	17,891,285	17,963,535	21,329,156	21,893,550	25,174,619	24,010,975
Crude oil	7,487,357	7,352,164	7,475,408	8,027,409	6,638,429	6,715,111	9,512,520
Oil products	5,653,512	5,473,279	5,897,915	6,296,060	5,042,322	5,438,743	7,202,140
Fertilizers	2,927,072	3,094,332	3,007,574	4,024,682	4,420,218	4,103,372	4,507,272
Iron ore, scrap	2,594,201	3,924,125	4,521,893	5,189,807	3,868,790	4,766,262	7,002,094
Solid mineral fuels	2,226,771	2,830,470	3,770,447	3,834,946	2,850,701	3,438,621	3,481,817
Non-ferrous ores	3,158,060	3,111,182	3,976,068	3,861,530	2,276,486	3,150,187	953,943

After the eruption of the war on the Ukraine in early 2022, and the Blockade of the port of Constanta was in high demand and handled its largest cargo throughput to-date of 75.54 million tons, of which over 3.5 million tons and 3,3 million tons additional grain and iron ore, respectively. This period has been marked by severe congestion at the port, especially on the landside, which highlights among others capacity constraints at Constanta port and its hinterland connections.

Table 2. Ukraine bound cargo handled by Constanta port in 2022 (USPEA).

2022 Ukraine-bound cargo	Volume handled in tons
Grains	6,908,585
Oil Seeds, Oily Fruits and Fats	1,799,650
Solid mineral fuels	118,584
Oil products	467,125
Iron ore, iron scrap	1,840,016
Metal products	349,213
Raw and processed minerals	96,039
Natural and chemical fertilizers	125,881
Chemical Products derived from Coal and Tar	11,355
Other chemical products	14,980
Equipment, machines	60,505
Miscellaneous	95,206
TOTAL	11,905,064

2.2.1.2. Port Network of the Maritime Danube River

The port network of the maritime Danube comprises several port and terminal facilities from Sulina to Braila. This section of the Danube allows the intersection of both inland and sea waterways with major ports serving both maritime and river ships and barges.

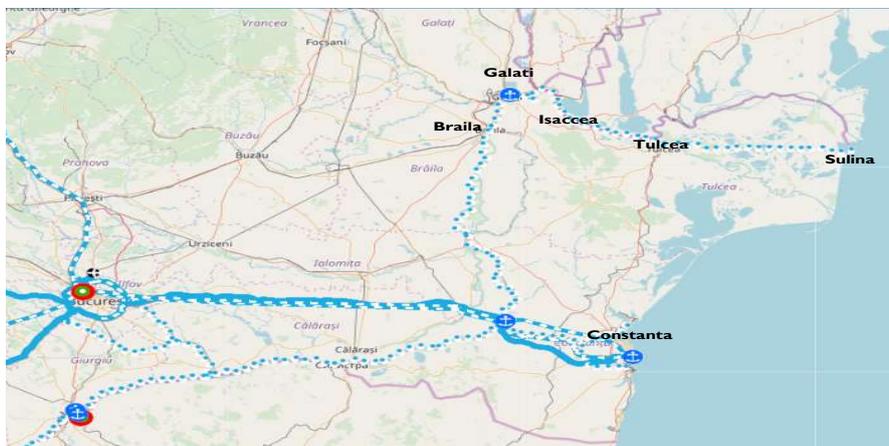


Figure 5: Maritime Danube Ports, Romania

Ports along the maritime Danube River include the 3 main port complexes of Tulcea, Galati and Braila, as well as the port of Sulina and other secondary ports and piers. All ports except Sulina's operate under the management of the Maritime Danube Ports Administration (APDM). Appendix I provides a detailed review of the main port complexes under this cluster.

In terms of cargo and ship traffic, [Figure 6](#) and [Figure 7](#) below show the dominance of Galati port over other ports on the one hand, and the predominance of maritime cargo over river cargo on the other hand. In terms of cargo growth (CARG) and types, the overall trend is that of a low to moderate increase of volumes in the contestable markets of grain and fertilizers against decreasing volumes in the captive markets of steel and iron ores, the latter depend almost entirely on the activity and supply chain decisions of steel factories in the region. The Figures also show the near irrelevance of maritime traffic in the port of Tulcea implying that this city port can be served directly from Sulina via barge convoys.

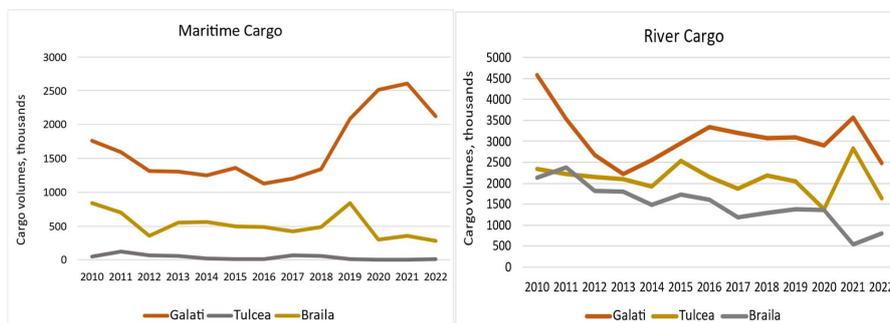


Figure 6: Evolution of maritime and river cargo traffic in the major ports of the maritime Danube (APDM)

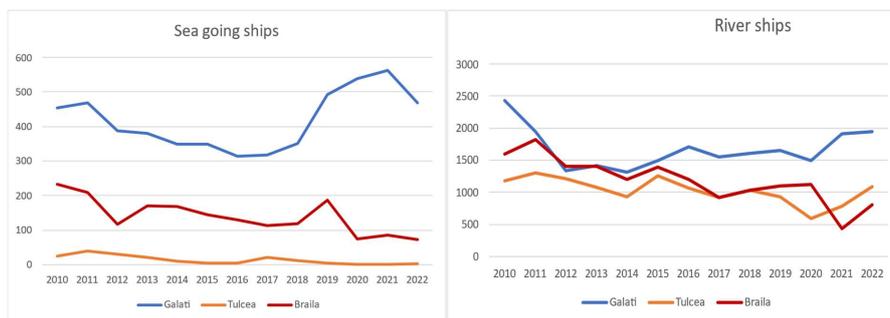


Figure 7: Number of maritime and river ships calling the major ports of the maritime Danube (APDM)

2.2.1.3. Port Cluster of the Black Sea Artificial Navigable Canals

The cluster of the Black Sea artificial navigable canals is made of ports located at both the junctions and arteries of the navigable canals and managed by the Administration of the Navigable Canals (ACN). The two main ports in this cluster are the port of Medgidia with a capacity of 11.5 million tons and the port of Ovidiu with a capacity of 32 million tons.

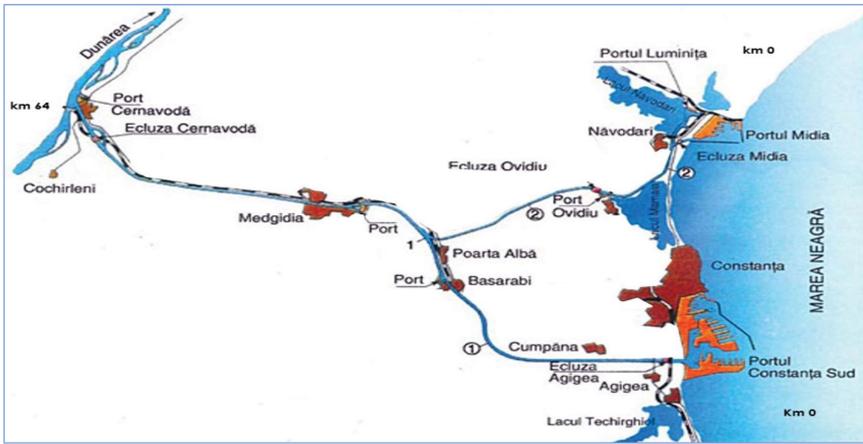


Figure 8: Port network across the navigable Black Sea Canal system

Figure 9 shows the growth of cargo volumes transiting through the Black Sea canal desegregated by domestic vs. international destinations. It is important to highlight that while the domestic traffic is destined to the domestic ports of Galati, Braila and beyond, the international traffic is often destined to the landlocked Danube countries of Moldova, Serbia, Hungary, and even further to Austria and Germany.

Over the past 3 to 4 years, navigation conditions have been marked by low water phase during the summer season caused by extremely high temperatures and lack of precipitation in the Danube basin and in the tributary river basins. This situation led to a sharp drop in water levels along the entire Danube but especially on the (river) IWT and related canal sections of the Danube. This has resulted to a significant decrease in operating draughts in the third quarter of the years causing occasional long stops of convoys, organisation of special pilotage for barges, lightering of vessels to operating draughts, which led to a decrease in traffic volumes on the river sections of the Danube.

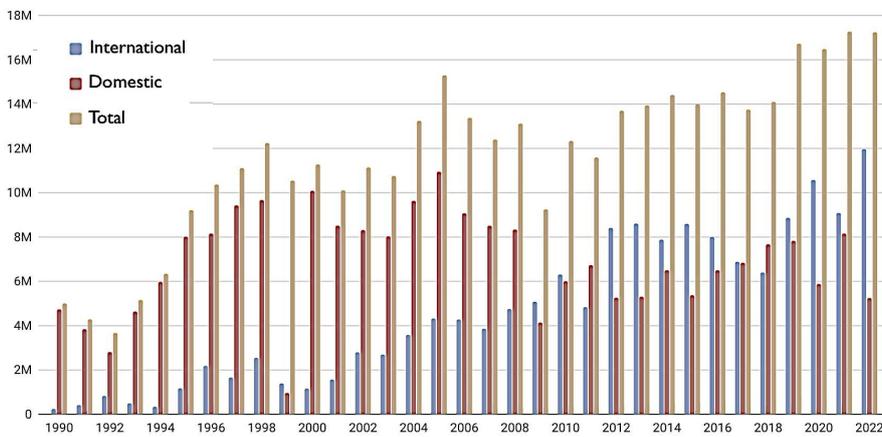


Figure 9: Transport cargo volumes crossing the Black Sea artificial navigable canals (in million tons) [ACN]

2.2.2. Review of Sulina Port Foreland Markets

The foreland port market for Sulina port are the ports of Reni and Izmail in the Ukraine and Giurgiulesti in Moldova. Appendix 2 provides a detailed review of the Reni, Izmail and Giurgiulesti ports.

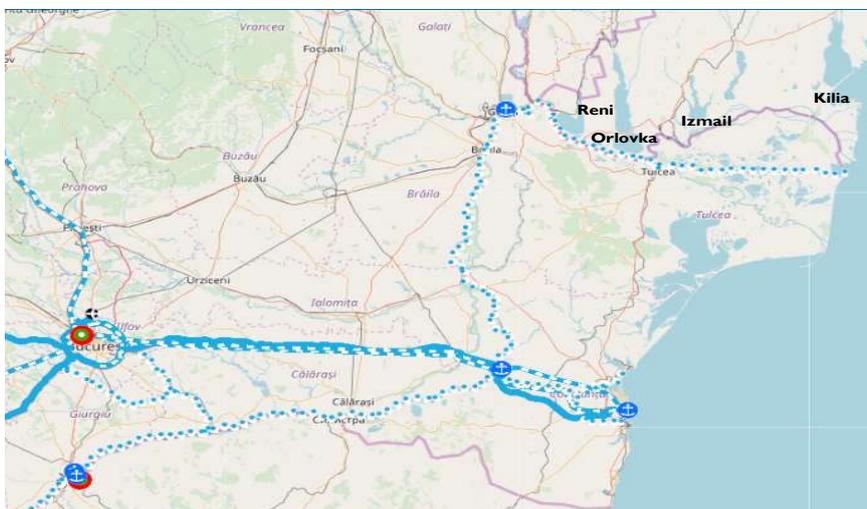


Figure 10: Ukrainian Ports on the Danube Connection to Sulina

- The port of Reni is located on the left bank of the Danube River at the junction of the Ukrainian, Romanian and Moldovan borders. The port's overall area is a just over 95 ha of

which 3.9 km of berths with a maximum draft of 7m, leading to an annual cargo handling capacity of 7 million tons.

- The port of Izmail is located further south on the left bank of the Kiliya water area. The port has 24 berths with varying drafts between 3.5 m and 7m, leading to an annual cargo handling capacity of 8.5 million tons.
- Ust-Danaisk is a small port of less than 1 million ton capacity, specializing in cargo transshipment to/from maritime and river ships. The port is adjacent to the Ochakov mouth of the Danube River and comprises the port point Kiliya and a berth in Vilково.
- In addition to the above, the port of Giurgiulesti is the only waterborne transport gateway of Moldova. The port consists of the ‘Giurgiulesti International Free Port’ which is solely a cargo port owned by EBRD under a 99 year concession and the much smaller state-owned port which handles both passengers and cargo. The port has over 6 berths with a total annual capacity of 2.2 million tons. In 2022, the port throughput amounted to 1.8 million tons, up from 1.4 million tons in 2021.

As a result of the war, many Ukrainian exporters have diverted their cargo exports through the western border crossings and the ports in the Danube region. This has resulted into an all-time increase of cargo throughput at Ukrainian Danube ports as shown in Figure 11 below.

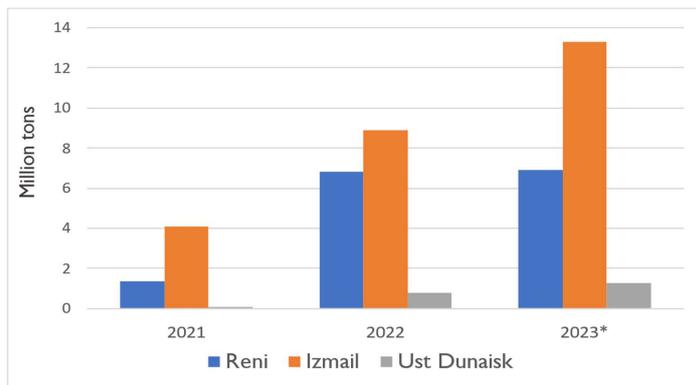


Figure 11: CARG at major Ukraine's Danube ports. (* Jan-Oct 2023) (USPEA)

2.2.3. Competition within Sulina Port Markets

As summarised in Table 3 below, the qualitative assessment of port competition undertaken by the expert team found that the SGP project does not face any major competitive threat from its hinterland or foreland port markets. For the hinterland market, the SGP project is not foreseen to compete directly with either maritime Danube ports or Constanta ports; instead the SGP project will introduce new transshipment patterns for cost-effective shipping and efficient cargo logistics. For foreland markets, the need for extra capacity to meet

increasing demand from Ukraine bound cargo means that the SGP project will play a welcome complementary role in absorbing some of the demand and congestion pressures.

Table 3. Outline of port competition for the SGP project

Hinterland Competition	Foreland Competition
<ul style="list-style-type: none"> ▪ No competition for captive hinterland ▪ Cooperation → Feeder ports for Sulina Port ▪ Connection with Constanta Port (for IWT vessels/barges) by the Danube – Black Sea Canal → More expensive and longer time of voyages, compared with Sulina Canal. ▪ Galati & Braila → Significant infrastructure & superstructure available for both sea-going & inland vessels (barges) ▪ No depths problems, on the river Danube and inside ports ▪ Silos available in both ports for cereals from RO, UA and MD ▪ <u>New</u>: 24 MEUR granted by the EU for supporting the modernization of RO ports 	<ul style="list-style-type: none"> ▪ Competition could be considered by using the Bystroye Canal → Significant and permanent dredging works are necessary to keep it functional → Increased costs. ▪ Cooperation could be considered → Feeder ports for Sulina Port ▪ Connection with Constanta Port (for IWT vessels/barges) by the Danube – Black Sea Canal → More expensive and longer time of voyages, compared with Sulina Canal. ▪ Reni & Izmail → Significant infrastructure & superstructure available for both sea-going & inland vessels (barges) (Situation before the war) → Current situation of the availability of port services: Unknown, due to periodic bombing of port's infrastructure & superstructure. ▪ No depths problems, on the river Danube and inside ports

2.3. Logistics and Shipping Markets

Beyond the considerations for industrial structure and port competition, the demand for port services is also driven by the structure of shipping and transport networks and the economics of cargo logistics.

Current draft and capacity arrangements in the Sulina Canal are such that maritime (seagoing) ships of up to 10,000 dwt fully loaded or 20,000 dwt half loaded can enter the canal from the Black Sea and directly call the Danube River ports of Tulcea, Galati and Braila in Romania, Remi and Izmail in the Ukraine and Giurgiulesti in Moldova. Beyond Braila, transport upriver in the Danube can only take place via self-propelled inland vessels, which are equipped with an engine and a cargo hold, or through pushed convoys combining a motor cargo vessel (pusher) and one or more non-motorised pushed lighters or barges.

The analysis of ship size shows that while the number of maritime vessels calling at the maritime Danube ports has increased over recent years, the average size of those vessels has decreased over time, which implies some degree of diseconomies of scale for larger ships which ran the risk of plying the routes on half or part full capacity (Figure 12).

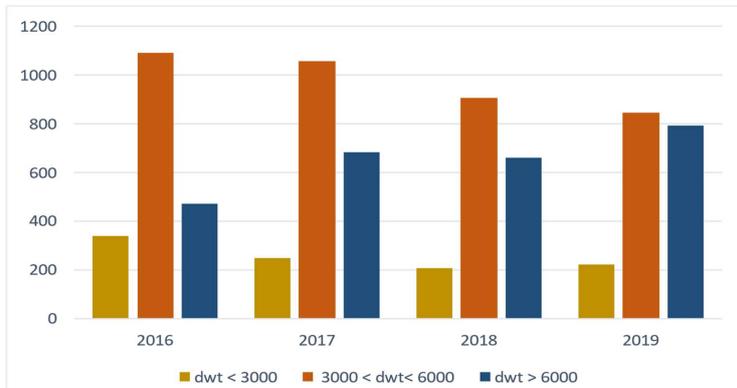


Figure 12: Size distribution of river-sea vessels crossing the Sulina Canal (APDM, MTI, NSI)

The pushed convoys configuration is widely used in the Danube owing to its scale and cost efficiency for IWT. Especially for Sulina’s canal section (Class VII waterway), convoys of up to 9 barges with a combined carrying capacity of 20,000 tons can sail through Sulina branch compared with the max 6 barge configuration allowed on the Black Sea canal from Constanta. A shift in the logistics process and configuration of ship transit and cargo transfer will create new markets and generate significant demand for Sulina port and basin development. Specifically, the development of hub-and-spoke transshipment system combining seagoing and barge transport will significantly reduce ship voyage, cargo-carrying and total logistics costs. By developing the SGP project and similarly dredging the relevant canal section, Sulina port can become a major consolidation and distribution hub whereby scale and cost-efficient handysize class vessels (up to 35,000 dwt) will be able tranship large volumes of goods in Sulina port for delivery via cost effective barge convoys to-from their origins and destinations.

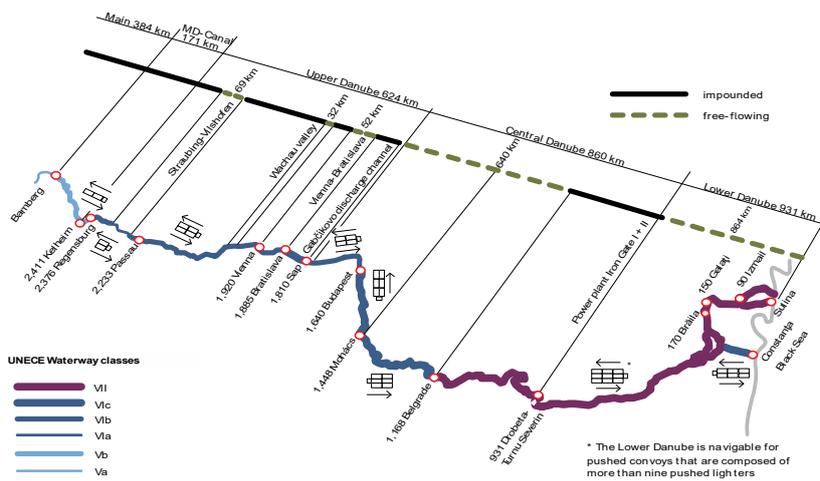


Figure 13: UNECE configuration rules for pushed and barge convoys across the Danube River.

These arrangements will benefit maritime ship operators by reducing their voyage and operating costs, to barge operators by increasing traffic and load capacity, to shippers and cargo interests by reducing transport and logistics costs, and to Sulina's port and city communities by creating jobs and generating direct and indirect economic multiplier effects. This arrangement would also markedly reduce the negative externalities of IWT through the Danube Delta since barge-convoys produce significantly less noise and emissions compared with direct transport via maritime ships.

Such arrangements will also allow Sulina port and waterway transport connection to directly compete with Constanta port and its Black Sea canal, therefore expanding market reach and contestability. While there are specific captive markets for each canal, they both share a large contestable market that extend to wide range of river ports in three countries (Romania, Ukraine and Moldova) across the Danube Delta. Furthermore, the Sulina branch has several advantages over the Constanta branch. It has a shorter distance to hinterland and foreland ports; and allows higher loads' capacity due to its maximum convoy arrangements. It also provides toll and lock free access and transit passage.

But the two branches do not necessarily need to fiercely compete as there are many reasons for them to cooperate. The development of Sulina port and basin, along the related dredging of the Canal, will help ease both high demand pressures from overseas operators and capacity constraints on Black Sea canal. Over the past decade, there have been intense demand pressures on the Black Sea canal owing to various factors such as the expansions at Constanta port and the strong economic growth of Romania and some neighbouring countries.

In the most recent years, the capacity of the Black Sea canal was stretched due to recurring drought seasons. In the summer of 2022, many barge operators were forced to sail half-loaded due to record levels of low water on the Danube. Some form of cooptation is therefore required for managing demand and capacity pressures at the Black Sea Canal while expanding Sulina's Canal traffic and market reach. Most importantly, the development of the SGP project will provide alternative choices to both transport operators and cargo shippers to design and operate logistics and supply chain systems that are cost and time efficient.

2.4. Traffic Forecasts and Demand Projections

The traffic forecasts for the SGP were therefore estimated based on 3-tier scenarios as shown below. The scenarios are mutually exclusive, meaning that each scenario can take place regardless of other scenarios once the SGP port project is phase-completed leading to additional river and (deep) sea port capacity in the market.

- (i) The traffic derived from trade projections based on existing economic and industrial conditions in Sulina town and free zone extended to the spatial market up to and including Tulcea's city. The estimated forecast for this scenario is based on traditional GDP to trade multiplier factor extrapolations added to the assumption of near full utilisation of Perimeter I as a free zone storage and bonded warehousing facility.

- (ii) The traffic derived from the attractiveness of the SGP transshipment, logistics, and capacity offerings compared with existing direct shipments to downstream ports. The estimated forecast for this scenario is based on a total transport and logistics cost analysis between direct shipments through coasters (current offering) and hub-and-spoke transshipment (SGP offering). Although branded competition with the hinterland, this scenario does not imply diversion of traffic to/from other ports in the hinterland, but rather a change in the logistics structure and routing of such traffic.
- (iii) The traffic derived from competition with the foreland. The estimated forecast for this scenario is based on two sub-scenarios. The 1st sub-scenario corresponds to the traffic diversion derived from the competition with the Black-Sea canal route based on a cost-distance modelling function. The 2nd sub-scenario corresponds to the demand derived by medium to long-run capacity constraints at Ukraine's ports (without consideration of the recent cancellation of the Black Sea grain initiative).

The starting point for the assessment of the project's demand is a high-level forecast of regional trade based over the next 15-20 years based on IMF and WBG forecasts for economic growth as a basis or driver for trade growth. The current population of Sulina town and vicinity amounts to around 4,500 inhabitants, which increases by a 3rd or more during the summer and touristic season. While cargo-related demand from this market is not expected to increase significantly over the next 15-20 years, it is the logistics pattern by which this cargo is distributed that will create a new market for SGP. This is because most, if not all, goods bound to Sulina town inhabitants and visitors are currently transported via small barges and/or passenger boats from Tulcea. Once the SGP becomes built and operational, it is all but reasonable that much of this traffic will be concentrated in Sulina using larger lot sizes, especially if appropriate bonded warehouses are built in Perimeter I, benefiting among others its advantageous free zone status.

Building on the above demand is the demand stemming from Tulcea port users, especially for ores and metal products, cereals, building materials, coal and chemicals. As shown in the sections above, all these goods are currently transported from the Port of Tulcea to the Port of Constanta, and vice versa, by barges via the Black Sea Canal or by trucks the road network. Assuming appropriate draft and infrastructure facilities at SPG's Perimeter II, along suitable barge navigation rules across the Sulina canal, the results from a distance-cost port function backed up by feedback from some major users of and operators in Tulcea port (Azimut SRL Tulcea, Navlomar Maritime SRL, Bio Center Delta, Cereals Collect Distribution, TTS River Ports SRL) has shown that a large chunk of the current port traffic at Tulcea port (approx. 1.5 million tons/year) can be re-routed via SGP and the Sulina canal.

A similar analysis was carried out for the foreland markets extending to Galati and Braila ports in Romania, Giurgiulesti in Moldova, and Reni and Izmail port in the Ukraine, to derive traffic that would be most economically and logistically diverted to the SGP/Perimeter II via the Sulina branch than via exiting routes in particular via the Black Sea Canal. Adding to this 3rd scenario was an assessment of the potential traffic derived from medium to long-run capacity constraints at Ukraine's ports. Although this demand was found to be very significant to the

extent of filling up the SGP capacity entirely, not least due to the cancellation of the Black Sea grain initiative and the various EU and US initiatives solidarity lanes with the Ukraine, it has been decided to limit its contribution to only 25% of the derived traffic under scenario 3.

Based on the above review, high-level traffic projections were estimated for each scenario:

- Scenario 1 for trade-based projection for the SGP captive market of Sulina town and nearby communities. This market is estimated to derive a cumulative traffic of 2 million tons in 2027-2032, 3.5 million tons in 2033-2038, 5.9 million tons in 2039-2044, and 7.5 million tons in 2045-2050.
- Scenario 2 adds to scenario 1 the traffic expected to be derived from competition with the shared hinterland market. This market is estimated to derive a cumulative traffic of 2.2 million tons in 2027-2032, 4.3 million tons in 2033-2038, 6.2 million tons in 2039-2044, and 8.4 million tons in 2045-2050.
- Scenario 3 builds on scenarios 1 and 2 to add the traffic expected to be derived from competition with the foreland market. This market is estimated to derive a cumulative traffic of 3.5 million tons in 2027-2032, 5.1 million tons in 2033-2038, 8.1 million tons in 2039-2044, and 10.7 million tons in 2045-2050.

Figure below shows the aggregated scenarios for all markets and scenarios up till 2050. It shows that the annual traffic forecast for the SGP will range from 0.4 to 0.7 million tons per year in 2027-2031, 0.6 to 0.85 million tons per year in 2033-2038, 1.0 to 1.35 million tons per year in 2039-2044, and 1.25 to 1.8 million tons per year in 2045-2050. Beyond 2050, cargo growth is estimated to grow marginally given a 75% base utilisation threshold of port capacity which is currently estimated at 2.5 million tons annually for the SGP.

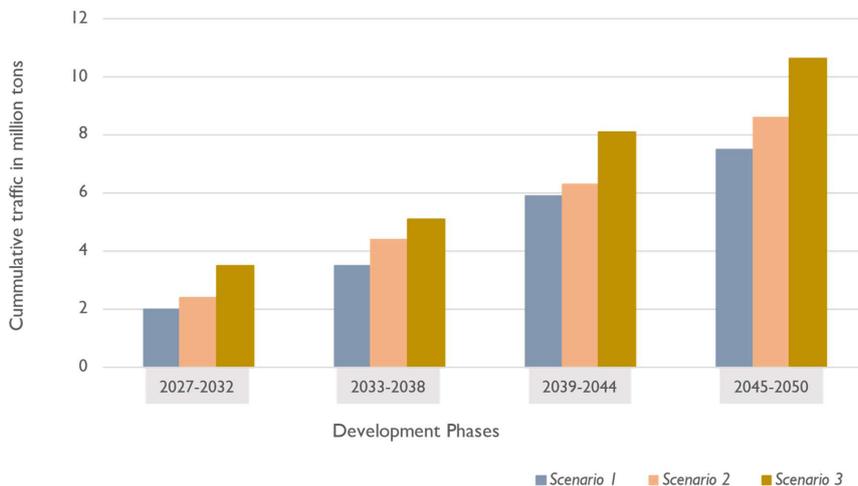


Figure 14 : Projections for cumulative traffic at SGP project (all phases till 2050)

3. Project's Technical Update and Review

The technical assessment provided in this chapter is based on a technical review of existing and collected documentation, a five-day field visit to the Sulina port and project site, and discussions with SFZA staff and management during several face-to-face and online meetings. For the purpose of this assessment, the Consultant's team has reviewed the following documents and reports:

- The European Union Strategy for the Danube Region -SUERD- (2010)
- The General Transport Master Plan (MPGT) of Romania (2016)
- The Integrated Strategy for Sustainable Development of the Danube Delta -SIDDD-
- EU Large Infrastructure Operational Program of 2014-2020
- South-East Regional Development Plan 2014-2020
- Integrated Sustainable Development Strategy of Tulcea County 2015-2020
- EU Global TEN-T Network (Ports of Braila, Galati, Tulcea and Sulina)

3.1. Description of Existing Port and Project Site

As mentioned above, Sulina port and free zone covers an area of 175 ha divided into two main zones or perimeters: the currently operational Perimeter I located in Sulina town, and the underutilized / underdeveloped Perimeter II located further north of the Sulina Canal. This assessment focuses on Perimeter II where the maritime basin is located.

Perimeter II stretches over an area of over 170 ha and can be divided into 3 main facilities: the pier and front wall on the Danube facing the Sulina Canal, the maritime basin and its walled quays and structures, and the general platform and the land areas surrounding the basin.



Figure 15 : Areal view of Sulina Port and Sites

3.1.1. Perimeter II- Front Quay Wall on the Side of the Sulina Canal

The front quay wall is a 615 m long bank structure on the right bank of the Sulina canal and separated from the adjacent maritime basin by a general land platform. Explicitly, it is located at the alignment between the root of the main pier (from the city side) and the root of the concrete pier (from the entrance to the maritime basin).

The front quay wall is comprised of the following structures:

- A sloped quay wall of about 425 m long (excluding the front pier head at the access mouth of the basin) which is elevated at around 1.5 m above local level.
- Large rough stone blocks towards the base delimiting and protecting the slope wall.
- Several supporting accessories including bollards, reinforced concrete for footbridge access, and access stairs on the slope between the crest and the intermediate beam.

From field observation, the front walled quay looks as partly damaged and the stability of the banks is strongly affected, but the facility can still be for indirect mooring of ships for waiting or temporary berthing. However, for the facility to be used for ship handling and cargo transfer, major repairs are required to address the observed damages listed below. What's more, because of the Danube's currents and navigation effects the front wall cannot operate with floating pontoons. Hence, a vertical quay would be required in reduced openings towards the Danube so as not to influence current navigation in the channel.

- On the waterside, the original minimum depth of -7 m is not guaranteed (from naked eye observation). Over the years, sediments and river deposits to the base of the wall have reduced the draft of the pier by 2 to 3 metres.
- Several wall sections are damaged while others have visible cracks and fissures. We also observed some subsidence and block displacement at both slope and beam locations.
- Both the wall base and crest sections are invaded by dense vegetation, weeds and trees.
- There is currently no port or mooring activity along the quay wall and there are no direct installations or connections for water and power supply or for fire safety.

3.1.2. Perimeter II- Maritime Basin

The maritime basin, located on the right bank of the canal, was built in 1978 with its head facing downstream towards the channel. It is configured as a semi-enclosed quadrilateral shape of 4 sloped quays at each side with a combined length (L) of around 2,200 m:

- The upper side opposite to the front quay wall on the Sulina Canal (West orientation per cardinal point): L = 600 m (L= 662 m inclusive the concrete pier head where the old lighthouse is located) This wall has two floating maritime berths equipped with mooring bridges and floating cranes.
- The side facing the city (South orientation per cardinal point): L = 520 m. This side of the basin is arranged in similar ways to west-orientation side above, forming when both combined an L-shaped contiguous wall. However, the lower part of this wall is neither developed nor dredged to the same arrangements as there is no designated apron or surfacing of the adjacent land. Currently, a floating fish farm is operating in this part of the wall.
- The bottom basin side (East orientation per cardinal point): L = 550 m. This side of the basin has no berthing facility or extended apron land-wise. This side of the basin is said

to be intended for small crafts and pleasure vessels to complement the residential development plans on its backyard land area.

- The side facing the beach and the Black Sea (North orientation per cardinal point): L =540 m or L =710 m up to the axis the inlet and the line of the bank of the Sulina canal. This side does not currently have a berthing facility or designed apron development.

From field observation, several areas of the inner basin walled quays show some level of damage or degradation which require minor repair and rehabilitation; however for handling handy-size type ships for which the basin was intended to serve, significant volumes of dredging will be required given that large alluvium river deposits have clogged the basin by about 3 to 4 metres.

Recent surveys indicated that while the upper part of the basin can be dredged back to its original level of -11 m, the lower part of the basin has some wooden ships and shipwrecks (discovered in 2017) and as a result the area is currently declared as an archaeological site. As such, the lower / southern part of the basin cannot be dredged at this time beyond its current draft levels and should be exploited for alternative use.

On the landside of the basin, the quay aprons have mooring accessories including several size bollards, some of which are displaced or damaged. There are also trees and dense vegetation particularly around the slopes.



Figure 16 : Maritime Basin Infrastructure and Conditions

3.1.3. General Platform and Land Area

Next to the quay walls and adjacent aprons, a platform and land area of about 100 ha was built at +2.8 m peak elevation using dredged material from the basin.

On the upper side of the basin, in the area between the front quay wall on the side of the Danube and the upper quay wall of the basin, a general platform area of around 6,500 m² is partially concreted with cobbled surfaces but has many potholes, bumps and uneven surfaces.

The general platform houses several old buildings and disused warehouses along some lighting installations and other utility connections; but both sets of superstructures are either non-functional or in poor working condition. There is also a crest at the height of the general platform, of about 2.9 m above local water level, and delimited by a longitudinal border made of concrete joint sections. The platform has no markings, zoning arrangements, or design configuration (horizontal or vertical) for organising cargo flows and work processes.



Figure 17 : General Platform Superstructure and Conditions

On the other three land sides of the basin (East, North and South), the land areas are simply underdeveloped and do not seem to have been used in the recent past as evidenced by the large sway of short trees and abundant vegetation.

3.2. Review of Existing and Future Plans

3.2.1. City and Urban Master Plan

In 2020, Sulina Local Council approved the resolution document Resolution no. 41/30.04.2020 titled "Zonal Urban Plan (PUZ) - Economic development of the area through the use of land located in the public domain of Tulcea County and currently administered by SFZA". The period of validity of the urban planning documentation is 5 years from the date of approval and can therefore be used as a basis for the assessment of the port and site plans.

As shown in the PUZ (Figure 18), the inner and front maritime development areas relative to the SGP project are marked under port zones A (A1 to A7) and M2 (mixed area for equipment and services). The areas that require deeper draft and dredging as per the above technical assessment are marked as A1 and A2 zones on the North-Eastern side forming the L-shape basin quay structure including part of the front wall on the Sulina canal, and (potentially) A6 and A7 zones on the North-Western side on the left. The maritime and port areas in zones A2 to A5 cannot be dredged but can still be developed as maritime and port service areas such as for small crafts and pleasure boats. Other functional areas not directly related to port and maritime services (M1, M3, M4, VI-4 and IS) are all located behind quay aprons and M2 zones.

In accordance with the PUZ provisions, the functional zoning areas are identified as follows:

- M1: Mixed area housing and services (0.71 ha)

- M2: Mixed area equipment and services (22.45 ha)
- M3: Mixed recreation area (17.13 ha)
- M4a: Area intended for services complementary to individual homes (5.05 ha)
- M4b: Area intended for services complementary to traditional houses (2.53 ha)
- M4c: Area intended for complementary services of holiday homes (3.16 ha)
- V1: Park area (2.48 ha)
- V2: Theme Park (15.28 ha)
- V3: Forest / park area (2.65 ha)
- V4: Forest / protection area (4.38 ha)
- Port A: Large basin, including front quay wall (39.96 ha)
- Port B: Small pool corresponding to the river basin (4.5 ha)
- IS: Area intended for general public facilities (1.08 ha)
- Ship mooring area and related activities including cargo berth (9.92 ha)
- Defence dike (1.33 ha)
- Pontoons + Platforms + Other facilities (21.52 ha)

3.2.2. Modernisation Plan of front wall and general platform

In 2020, the SFZA has secured financing for the Sulina Port Modernisation (SMP) project through the EU's Danube Delta ITI Mechanism (Large Infrastructure Operational Program 2014-2020). The project aims at modernizing and upgrading several sections of Sulina port in order to rehabilitate damaged infrastructure, improve efficiency and operational safety, and increase ship and cargo traffic at the port. Specifically, the SMP project targets two main structures in the Sulina port and free zone:

- In perimeter I, the project involves the rehabilitation of the existing wharf structure, the upgrade and resurfacing of road and gate access to the wharf and yard platform, and the installation of ancillary services and network utilities:
 - A 150 m long vertical trestle-type quay structure,
 - Road from access gate to the wharf and yard platform of a total area of 28,915 m²
 - Electrical installations for public lighting and for powering ships,
 - Utility connections for supplying water to ships, and
 - Rainwater drainage.

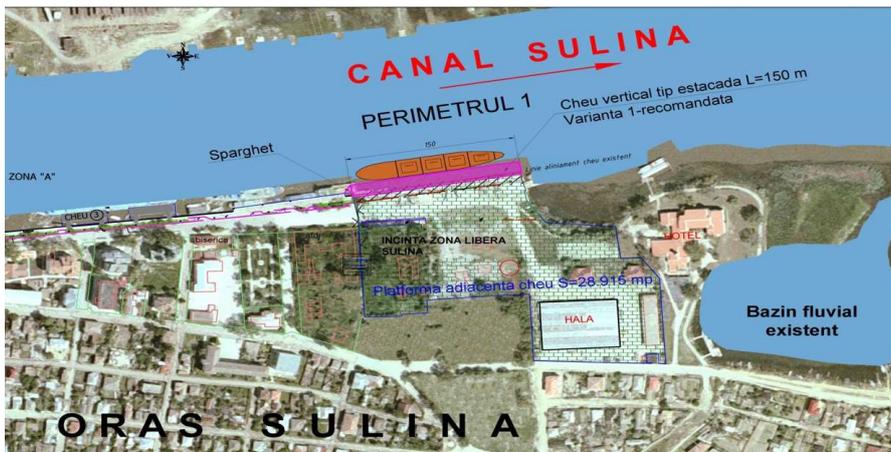


Figure 19 : Perimeter I development plan under SMP

- In perimeter II, the SPM project involves the upgrading of part of the front walled quay on the Sulina canal and the rehabilitation of the general land platform between the front quay and the maritime basin. The project is designed to be implemented in two stages, but the financing secured is for stage I only involving the following work:

- Dredging the front quay wall to -7 m draft requirements along a 2-berth of L = 400 m.
- Two vertical jetty columns for ship mooring
- Resurfacing and rehabilitation of the 28,800 m² of the general platform (out of the total 65,000 m² platform area) servicing the new rehabilitated wharf,
- Access road of 650 m long,
- Electrical installations for public lighting and for powering ships,
- Utility connections for water supply to ships and land facilities,
- Drainage and sewage networks, and
- Other required ancillary facilities.

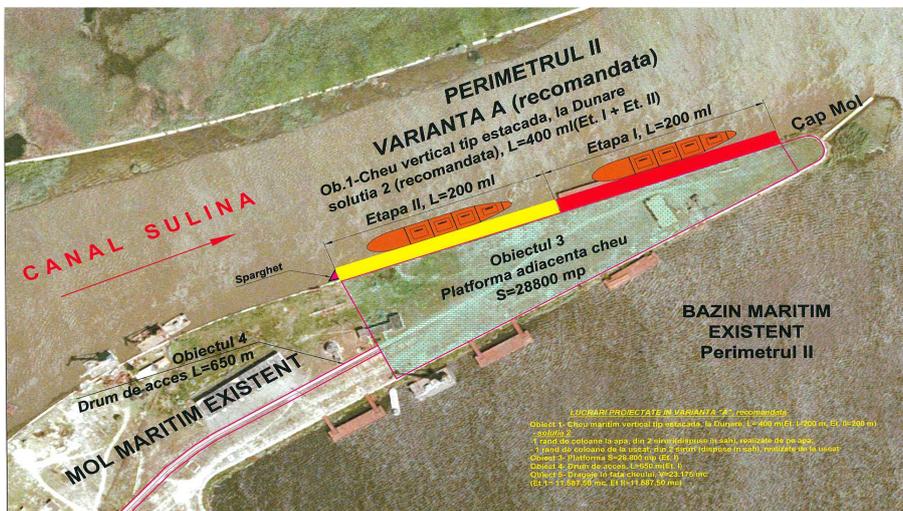


Figure 20 : Perimeter II development plan under SMP

3.3. Summary, Update and Conclusions

In summary, the above review shows that Perimeter II structures comprising the front quay, the maritime basin and its surrounding platform and land areas had suffered various levels of and degradation to long periods of inactivity and lack of regular maintenance:

- The front walled quay on the side of the Sulina canal is in general good condition and only require minor reparation and upgrade to continue being used as a mooring and waiting point for maritime ships. However, in order to be exploited as a maritime ship berthing and cargo handling facility, the front wall need major upgrade and reconfiguration: dredging up to -7.3 m draft commensurate with the depth levels across the Sulina canal, a vertical quay with reduced openings, appropriate and cargo handling cranes and equipment, and investment in network and utility connections.

- The maritime basin and its four inner walls show some damage and malfunction, while its quay aprons and adjacent areas require some minor repair and maintenance. However, major upgrade will be required if the basin is to accommodate and operate handysize class vessels with deeper drafts, large displacements and increased traffic volumes. As such, the L-shaped upper area of the basin will require significant volumes of dredging along a major reconfiguration through vertical quay structures and ship-to-shore specialized handling equipment for direct ship mooring and cargo handling. On the other hand, given the presence of shipwrecks, the lower part of the basin walls should be kept in its current draft level but would still require minor repair and upgrade to accommodate small crafts and leisure vessels.
- The adjacent land areas surrounding the maritime basin require complete resurfacing and systematisation, appropriate access roads and zoning configuration, functioning network installations and utility connections, and new sets of superstructure equipment, warehouses and buildings commensurate with heavy uses and other various needs.

In response to the long-term degradation of port infrastructure, SFZA and the Tulcea Council has sought and secured funding from the EU for the 'Sulina Port Modernisation (SMP) project' aimed at upgrading and modernising existing quay wall and port structures in both perimeters of the Sulina port and free zone area. The projects are currently being at the stage of tendering before start of work. From discussion with SFZA staff and managers, the process has been postponed twice due to disqualified of bidders and other procedural inefficiencies. When it will start, the development work at the two sites is expected to take between 18 and 36 months till completion and delivery.

With the tendering and realisation of the work under the Sulina port modernisation project, some sections of the port infrastructure will be upgraded and modernised to accommodate and handle river and maritime ships up to 8,000 dwt and 7 m draft, potentially increasing traffic and cargo activity at the port. However, this will not capitalise on the existing maritime basin and facilities with areas structures capable, after rehabilitation and consolidation work and subject to similar drafts at the Sulina Canal access, to service maritime ships of up to 25,000 dwt, accommodate high volumes of gateway and transshipment trade, and handle various goods and cargo type.

The following is the latest update on the EU-funded SPM project:

- The relocation of the lighthouse in Perimeter II was finally solved with the Ministry of Culture. However, a new construction authorisation must be obtained as the old one expired. SFZA already started the process and expect to have the new authorization by Jan-Feb 2024 following which the official order will be issued for starting works on the SPM project in Perimeter II.
- As for work related to the upgrade of Perimeter I within the framework of the EU-funded SPM project, SFZA already issued the official order for starting the works.

- As for navigational rules and issues stemming from the SGP project, the MTI officially announced in mid-Dec 2023 that the Project PRIMUS (equipment) was implemented so the navigation on Sulina Canal during the night time will start soon. AFDJ will start the training of pilots very soon and after that the night navigation will start.

3.4. Proposed Plans and Configurations

In view of the above technical assessment and planning review, the development plan for Perimeter I is already covered by the EU-funded SPM project. As such, only storage and superstructure equipment would be needed for Perimeter I to become fully operational. For Perimeter II, the site requires major upgrade and rehabilitation, but considering the rehabilitation of the river-facing quay-wall and land platform under the EU-funded SPM project, much of the development needs would be centred around the maritime basin and its surrounding land areas.

Nonetheless, for Perimeter II and its maritime basin to be developed in ways that maximises their market and economic potential, while considering existing urban plans and complementing the forthcoming infrastructure developments in the front quay wall and general platform areas. To this end, we put forward several development plan configurations as outlined below:

- The starting drawing canvas is to divide the basin into two separate port zones commensurate with dredging data and requirements. The upper part of the basin is about 1,220 m of walled quays section (entire West quay, and the upper sides of the Southern and Northern quay walls). The upper part can be dredged up to its originally designed draft of -11 m therefore allowing for a contiguous L-shaped configuration with up to 3 berths for handysize ships (2 on the Western side and 1 on the Southern side) with the use of tugs and safe mooring and manoeuvring procedures. Alternatively, a 2-berth configuration can be selected with either berth be also used as a turning zone for ships.
- The lower part of the basin (entire East/bottom wall, and the lower sides of the Southern and Northern quay walls) cannot be dredged beyond their existing draft and as such they can only be used as mooring and berthing areas to small crafts and pleasure boats as well as potentially to river barges and other types of low-lying floating structures such as low-draft static boat hotels and restaurants. The development plans of the lower/bottom side of the basin are indeed, as per the PUZ, more akin to recreational and real estate developments than ship or cargo-related industrial development.
- Inside the upper part of the basin, ship to barge transfer can take place in similar ways of what is currently practiced in Constanta for barges bound to the Black Sea canal, i.e. maximising the barge-push combinations allowed in the lower Danube. This can be done through direct ship to barge transshipment (cost minimising) using either ship derricks for geared maritime vessels or one or two floating cranes operating onsite. Alternatively, indirect shipments (throughput maximising) methods can be used for ship to barge transfer using systems such as conveyor

belts to be installed onshore. A third option maybe considered when the traffic type involves cargo consignments that require break-bulk and consolidation and/or long-term storage on site, in which case maritime vessel and river barge operations will be separated from each other with assigned and/or designated berths for each.

- Given the modernisation work of the front quay walls and general platform, it is advisable that any operational configuration of the basin links with and complements the development in those areas. It is possible to develop a transshipment system between maritime ships on both sides of the general platform. Cargo transfer across the platform can be carried out through a conveyor belt, a transversal gantry crane or through truck transportation.
- Any one or combination of the above configurations can work as a 1st phase development for the upper side of the maritime basin, and there will be flexibility for the port operator to switch between configurations as the main cost of the development would be tied to capex dredging and infrastructure upgrade rather than superstructure or equipment cost.
- As the initial focus will be on developing the upper port, the lower port can be developed either in parallel or in the stage 2 of the basin development. As there will be no dredging required for lower port, both CAPEX and OPEX expenses for this side of the basin will be a fraction of those incurred in the upper port, and therefore it is recommended the latter be developed in parallel to promote additional activities and generate further income.

Based on the above, we concur with the preliminary design plan for dredging options of the maritime basin. The selected concessionaire(s) will need to carry out further surveys to select the best option of site and quantity dredging in line with the proposed business/operational plan.

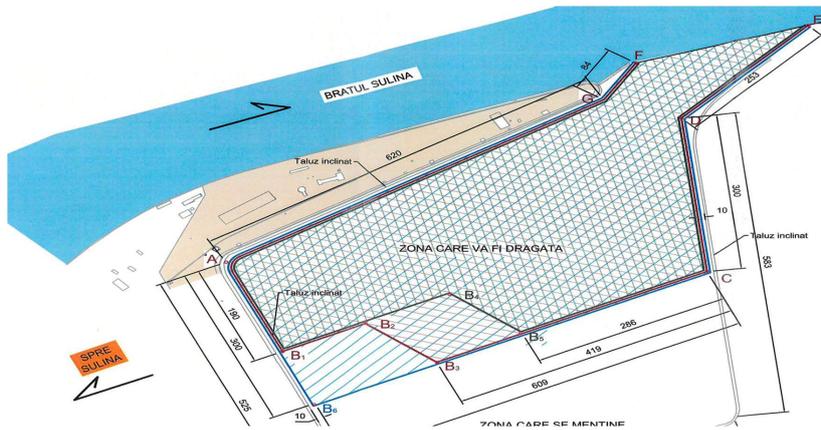


Figure 21 : Consultant proposed plan for Perimeter II under SGP

Based on the above preliminary design, initial cost estimates are provided for the purpose of economic and financial analysis. As shown in the table below, the CAPEX of developing the upper part basin (entire West quay, upper sides of the Southern and Northern quay walls, and land areas behind them) is estimated between €20.0 million and €24.00 million (excl. VAT). Clearly, the main capital expense items remain those related to quay wall rehabilitation, basin dredging, and upgrade of terminal infrastructure.

Table 4. High-level CAPEX estimates for the Upper maritime basin

Category	Lower Estimates (€)	Higher Estimates (€)
Preparatory, dredging and excavation	8,000,000.00	9,000,000.00
Quay walls, land and infrastructure upgrade	6,000,000.00	7,500,000.00
Superstructure buildings, equipment and vehicles	4,500,000.00	5,500,000.00
Transshipment and handling system	1,500,000.00	2,000,000.00
Total (excluding Tax and VAT)	20,000,000.00	24,000,000.00

Cost assumptions are also based on international dredging costs of between 150,000 m³ and 200,000 m³ of dredged material, based on extrapolated estimates from the SPM project and related technical feasibilities, as well as on the assumption of a full rehabilitation of the upper basin including the construction of vertical jetty structures and installation of fixed and barge crane systems. Obviously, dredging costs may be lower, if local suppliers are contracted, or higher if full bathymetric and geotechnical surveys point towards more expensive dredging requirements. Similarly, resurfacing and equipment costs may be proportionally lower than those provided depending on the range of operational configuration and superstructure equipment to be provided by the investor.

In either case, it is important to be reminded that the estimates relate to *initial* cost estimate, that is costs deriving from the capacity required to satisfy an average demand base (scenario 2). Should higher demand materialise during project implementation, e.g. Scenarios 3 or demand from other markets, it would be expected from the concessionaire to provide extra-capacity and upgrade operational technology. In such case, an estimated additional €10 millions of CAPEX would be needed [See further explanation in Chapter 6].

On project OPEX, those have not been itemised nor estimated individually, largely due to the nature of output based concessions under which the SGP project is structured [Chapter 6]. However, as a rule of thumb for this type of port development projects, a 45% to 125% OPEX to CAPEX ratio can be applied based on full utilisation, starting from low rate and nominally increasing through the project duration as CAPEX infrastructure and superstructure are amortised over time. The thrust of this cascading ratio overtime stems from the need for a proper asset management strategy, including the replacement and/or upgrade of technically or economically amortized infrastructure and superstructure assets. Finally, the duration of project development can take anything between 15 to 36 months, depending on administrative and procedural arrangements and the speed, reliability and efficiency of contractor's work, and

obviously the sites and zones to be developed. For further projections and structuring of the project, a 24-month construction period was considered. The SGP construction period may seem less than the construction period for the SMP, a much smaller and limited project; however as the construction period will be incorporated into the concession duration, the concessionaire would be expected to complete the construction period sooner rather than later. This is also in line with the fact that private port operators and concessionaires have a far greater expertise in contracting out and monitoring than public authorities.

3.5. Desk-based Environmental Review

A quick desk-based environmental assessment found that the development of the basin subject to this Study will have no major negative environmental impact:

- For Perimeter I, the work to be undertaken under the EU-funded SPM project has already received environmental and non-environmental approvals and rehabilitation/modernisation work is expected to start in January 2024.
- For Perimeter II, the work to be undertaken under the EU-funded SPM project has also received all the required environmental and non-environmental approvals, the last of which was on the approval by the relevant cultural authorities for the relocation of a historical lighthouse. For this component, work is expected to start in Feb-Mar 2024. For the dredging and rehabilitation of the maritime basin, environmental scoping and eventually EIA will need to be carried out as part of project preparation and preparatory work.

For now, based solely on our desk-based review from existing project feasibility documents and consideration of historical and past operations, our initial assumption is that the project may be classified as category C (based on EBRD classification) meaning that the project is likely to result in minimal or no adverse future environmental impacts and therefore may not require a full EIA. Our assumptions is based on the followings:

- (i) The SGP project, including the dredging and rehabilitation of the maritime basin, is not a new project per se. The site was dredged and operational some decades ago for similar objectives to those currently proposed in the SGP development plan.
- (ii) The SGP project and development plans are both in line with the PUZ for Sulina town and port as shown above, For the PUZ to be approved and formalized, there must have been initial environmental screening and assessment.
- (iii) Part of the SGP project is being developed under the EU-funded SPM project, the latter has already received EU and local environmental approvals.
- (iv) Therefore, the SGP works will have an impact that will manifest itself mainly during the execution period and consist of physical modifications inherent to the implementation of

any construction project. The execution works will be carried out over a short period of time, on a limited site, located in a highly anthropized area. The works consist of hydro-technical works and utility works (electricity, water supply and sewerage networks).

- (v) The project overlaps with Natura 2000 protected areas. As the works will be carried out on the existing site, in a highly anthropized area, no additional impact on these protected areas will be introduced, except for the period of execution of the port infrastructure works.
- (vi) Further, we have also checked the distribution of habitats and species identified under community interest, including as part of Natura 2000, and compared them against the proposed works under the project (See [Appendix 3](#)) to preliminary conclude that no major negative impact on habitats or species will be generated by this project.
- (vii) Within the project area, no optimal areas for protected bird species have been identified within the Natura 2000 protected areas. The species that have been identified are the communities of Salicornia and other annual species that colonize the wet and sandy land in the vicinity of the project and mostly further up along the Sulina Canal and beach, and as such the main impact will be that of dust, noise and emissions during project construction.
- (viii) Finally, the cultural and archaeological status of the southern part of the basin being currently considered due to the discovery of shipwrecks will not be of an issue as long as plans for developing this part do not involve dredging or industrial environmental risk.

In summary, the cumulative negative environmental impact of the project is likely to be low and mostly take place during project construction, reversing to minimum after completion. The main environmental risk during project construction will stem from the disposal of dredging material can be partly mitigated within the confound of the project by using much or all of the material for surface reinforcement of various basin sections. During project operations, no major environmental risks or hazards will be foreseen assuming appropriate adherence with Romanian and EU operational environmental rules and regulations. With good compliance and observance of regulatory and mitigation provisions along appropriate operational measures and processes for minimising negative externalities, the global impact will be low and will be kept within the tolerability limits for all environmental factors.

4. Project Market Sounding and Concession's Procurement Strategy

Project market sounding, usually conducted at an early stage of concession/PPP and other complex projects appraisal and structuring, allows for testing whether project assumptions are viable and capture potential private investors' (and lenders') perspectives of the project. It is particularly important in case when procurement route chosen for the project does not include negotiations component (like in case of the Sulina Green Port Concession Project), in which case market sounding provides a structured dialogue between private and public sector stakeholders.

An effective market sounding which results in eliminating constraints, like certain risks hindering investors from submitting bids to a great degree eliminates lack of project closure. Moreover, market sounding allows for communication of the project and its tender process and via incorporating notably critical feedback is likely to ensure its smooth implementation.

4.1. SPG Market Sounding

4.1.1. Market Sounding Approach

The market sounding approach was developed as per Figure below.

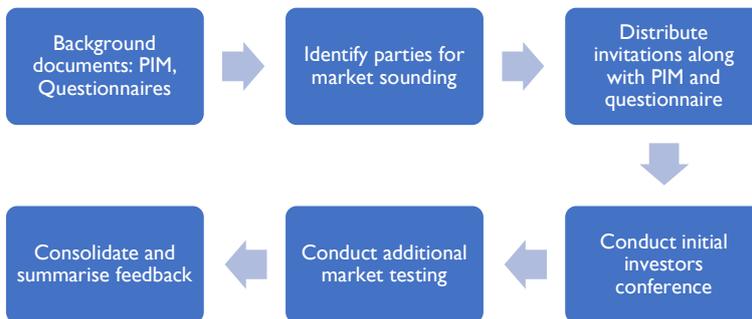


Figure 22 : Process for developing market sounding Strategy.

4.1.2. Preparation of Background Documents for Market Sounding

The Consultant developed the Preliminary (Project) Information Memorandum (PIM), a document specially structured for the purpose of market so. It contains the relevant information necessary for the concessionaires and lenders to make an initial decision whether to engage in the project. The preliminary PIM for the SGP project is enclosed in [Appendix 4](#) of this document. As per best-in class and industry practice, the memorandum must contain enough information about the project with the objective of both the public entity and the consultant expecting market feedback from targeted respondents. In particular, the PIM comprises the following:

- Introduction to the Sulina Green Port concession project and presentation of the Grantor,
- The Project presentation, description of existing infrastructure, planned scope of services to be rendered by the concessionaire,
- Initial risk identification and proposed allocation,
- Capex (and OPEX where applicable),
- Payment mechanism, potential sources of revenue,
- Legal structure,
- Financial structure,
- Description of the concession's procurement strategy along with its legal basis and timeline for selection of a concessionaire, and
- List of documents made available by the Grantor.

In addition to the PIM, the Consultant prepared two questionnaires –for potential concessionaires and for financial institutions. They are used as means to provide structured feedback from the concessionaires and lenders. The questionnaires are provided in [Appendix 5](#). The PIM was distributed to potentially interested parties at least 2 weeks prior to the investors' conference.

4.1.3. Identification of Parties to the Market Sounding

The prime targets of the market sounding will be bulk terminal operators, construction companies experienced in hydrotechnical constructions, logistics operators and commodity, particularly grain traders as well as the consultants with interest in structuring and facilitating the development of port and logistics projects.

The second group of companies will be the lenders, especially commercial banks which can offer finance for the projects. The latter may provide relevant information on the drivers for bankability, commercial feasibility.

The consultant has drawn up a broad list based on the previous experience in Romania and internationally in ports and logistics concession and PPP projects. Additionally, we will turn to the SFZA, AFDJ and the EBRD to supplement the list. ([Appendix 6](#)).

4.1.4. Distribution of Invitations for the Investor Conference

The market sounding exercise was conceived to be part of one or two investor conferences and road shows. An initial investor conference was held in Bucharest on 15 November 2023, based on a targeted number of potential investors. The main purpose of this event was to introduce the Project, receive questions from a small and targeted pool of parties, incorporate / consider their feedback on the preliminary PIM and initial Project structure to better develop the tendering stages of the Project. [Appendix 7](#) shows the agenda of the Investors Conference while [Appendix 8](#) provides a summary of the conference and recommendations on actions to be taken.

Further to the initial investors' conference and questionnaires, a follow up email communication shall be sent to a wider list of investors along an adjusted PIM and questionnaires asking them to provide their feedback and if interested book a one-to-one session with the Consultants and the Grantor. This task was entrusted to SFZA as the granting authority. Additionally, information about the SGP project, updated and final PIM in view of the selected project option, the project presentation and other relevant project documentations shall be published on the SFZA website and incorporated as part of a project data warehouse. Upon official confirmation of the project option and start of Stage 2 of the Project, and depending on the speed and momentum taken, it is expected that further one-to-one meetings and requests from investors will take place.

4.1.5. Conducting the Market Sounding

In parallel to and as follow up to the initial investors' conference, the Consultant drew up plans to meet with the potential concessionaires and representatives of the financial institutions, especially those who were unable to attend or not initially invited yet wish to conduct a meeting and/or arrange a video conference. Initial post-conference meetings were taken with the 5 investors who attended the conference, and 3 other meetings were conducted with 3 other potential investors.

In order to assure that it the market sounding activity, the Consultant discussed all the issues included in the questionnaire in order to understand the private sector parties' expectations we will conduct the dialogue to obtain feedback on the aspects:

- Technical aspects, which will look to elicit feedback on the technical offering of the Project, including, but not limited to, the capacity of the Sulina port, the construction plan and all aspects related to technical operation of the Project,
- Legal aspects, which will prompt feedback, for example, on the specific structuring of the concession in line with the Romanian Concession Law and other relevant legal acts,
- Financial aspects, which will evoke feedback on inter alia the proposed financial structure and anticipated investor returns; and
- Commercial aspects, such as the payment mechanism, concession/operating fees and other aspects – the tender itself (process, timeline).

[Appendix 9](#) provides a summary of the 3 individual meetings carried out with 3 other prospective investors who could not attend the investors' conference. Two further meetings were also scheduled but then postponed at the request of investors until such time the SFZA decides about the final project option and date for EOI and launch of the tender.

The main feedback from the meetings and the investor's conference are summarised below:

- (v) Perimeters I and II represent different business cases and thus would not be advisable to bundle them under the same concession,

- (vi) Perimeter II should not be unbundled other than what was advised by the Consultant in their updated PIM,
- (vii) As part of the concession contract and tender documentation, the Granting Authority shall ensure that interface risks stemming from dredging the fairways and rules on night navigation and barge convoys are dealt with appropriately.
- (viii) Most investors spoken to requested to be updated once a final project option and the date and process of tendering are confirmed. This last feedback was further accentuated by other potential interested parties which prefer not to hold meetings until such time those issues are ironed out and officially confirmed.

4.1.6. Consolidating and Summarizing the Market Sounding

Well-conducted market sounding provides a very important output, with the objective of aligning the views and objectives of public authorities with those of the private sector. This allows for eliminating or altering the issues which could reduce the market attractiveness of, and interest in, the project before the formal procurement phase is launched. This has been largely achieved for the purpose of this Project with the incorporation of the views of the market into the project options and further into the tender documentation.

The feedback may be further used as inputs data into the technical requirements and the financial structure, thus enabling improvement of the project assumption mainly from the technical and financial perspective. Following the selection of the project option and confirmation of the tendering procedures and milestones, and upon holding a 2nd round of investor meetings and/or conference, the Consultant will prepare a summary of all findings gathered during the market sounding exercise and shall incorporate relevant feedback into the technical and financial specifications of the Project.

4.2. Concessions' Procurement Strategy for the Project

Before describing the concession's procurement strategy for the SGP, it is important to point out that the SGP project is being structured as an output based concession where the Grantor does not define nor impose detailed technical inputs and characteristics of the project; instead it is the prospective concessionaire(s) who proposes and selects his own mix of operational and technological configuration in ways that can maximise project's outputs.

Output based concessions focus on achieving the output of a project, for instance in terms of traffic generation, throughput volumes, and performance efficiency. Concession based projects provide more room for the concessionaires to implement innovative, flexible and cost effective operations, while also minimising construction, operation, volume and performance risk exposure of the Grantor. This explains their popularity and wide implementation in commercial port and logistics projects such as the SGP.

Bearing in mind the above, the concession's procurement strategy for the SGP project can then be elaborated and specify how the private sector investor/concessionaire will be selected. This should be done in ways that assure transparency, free competition and equal opportunities to all participants, while also creating incentives to submit competitive bids.

Generally, the concession's procurement strategy defines the following essential issues:

- The approach to qualifications, including:
 - The moment when the request for qualifications is issued, in advance of or at the same time as the request for proposals (RFP)
 - Whether to pre-select according to qualification criteria verifying capacity and capability of bidder companies (and set up a short list) or only apply pass/fail qualification criteria.
- The approach to request for proposals, including:
 - The timing of the finalization and issue of the RFP and contract – whether before or after a period of dialogue and interaction
 - The approach to bid submittal and evaluation – whether negotiations are allowed.

Essentially, the main types of procurement routes that can be chosen to incorporate those issues are the following:

- Open tender or one-stage tender process
- Open tender with pass/fail prequalification process (or two-stage open tender)
- Restricted procedure (short listing with one bid)
- Negotiated process (short listing with negotiations)
- Dialogue or interaction

4.2.1. Procurement Legal regime

As indicated in Chapter 5 describing the legal aspects of the Sulina Green Project, the Project should be structured a concession of assets/goods as well as prepared, procured and contracted in accordance with the provisions of Government Decision no. 1998/2004 regarding the concessioning of goods under the administration of free zone authorities (HG 1998/2004).

The Project Grantor will be SFZA, which will be obliged to fulfil all the obligations stemming from the legislation such as:

- Drawing up the tender specification, based on the conclusions and recommendations from this Opportunity Study,
- Form the evaluation committee,
- Conduct the procurement process, including preparation of the tender book and draft concession contract,
- Select the winning bidder and negotiate and sign the concession contract.

The procurement process is described in detail in the HG 1998/2004 and consists of these steps:

- publication of the tender announcement nationally and internationally,
- submission of expressions of interest to participate in the tender by all interested parties,
- announcement of the prequalified bidders by the Grantor,
- provision of the concession documentation package (tender book including the Terms of Reference, project specification and draft concession contract) to the prequalified bidders,
- time for preparation and submission of the technical and financial bids by the prequalified bidders,
- on the auction date, SFZA will evaluate the technical qualification criteria and the technically qualified bidders will have the opportunity to financially bid for the concession,
- the winning bidder will negotiate and conclude the concession contract with the SFZA.

Although the process is multi stage, it can be conducted in a time efficient manner, due to short de minimis periods defined for each step. Hence the procurement schedule is presented below. Note that the tender announcement will only take place after the board of SFZA approves the project and select the best option, as suggested in this Opportunity Study, then approves the tender documentation (most particularly the minimum bidding fee).

Table 5: SGP Project Procurement Schedule

Activity	Date
Tender announcement (Publication).....	Week 1 (Expected mid or end Jan 2024)
Deadline for receipt of Eols.....	Week 8
Short list of qualified bidders.....	Week 9
Retrieval of documentation package.....	Week 9
Deadline for request for clarifications.....	Week 11
Response to request for clarifications.....	Week 13
Deadline for submission of technical offers.....	Week 18
Submission of financial offers / Auction date.....	Week 20
Negotiations with selected bidder.....	Within 2 weeks from auction date
Commercial close / Contract signing.....	Within 4 weeks from auction date

The Project will be awarded to the Bidder who submits the most economically advantageous Tender. The most economically advantageous Tender is chosen based on the comparative balance of the financial and technical elements of the Tender as will be set out in the Tender Book. The individual steps of the procurement process are summarised in the below subsections:

4.2.2. Preparatory Activities of the Grantor

Due to very short timing of the actual procurement process, the Grantor, SFZA, must plan ahead and draft the Project Specification, which should include:

- The general information about the concession
- The general conditions of the concession,

- Information on the validity of the tenders,
- Identification of goods and assets which will be the subject of the concession,
- The general conditions for exploitation of the objects of the concession,
- The environmental protection obligations,
- The operation phase obligations including the essential KPIs,
- Duration of the concession,
- The structure of payments made by the Concessionaire to the Grantor,
- The nature and amount of security required by the Grantor,
- The bid bond requirements, and
- Other conditions specific to the subject of the Concession.

The Specification shall constitute an element of the Tender Book. Furthermore, before the issuance of the tender announcement the Grantor should form the Evaluation Committee, which should include technical, financial, public procurement and legal experts, one or more representatives of Tulcea County. The Evaluation Committee will be responsible for:

- Preparation of the announcement and the tender book,
- Provision of clarifications to the bidders before they submit their bids; and
- Examination of the Eols submitted and establishing of short list of bidders invited to submit technical and financial tenders.
- Evaluation of technical tenders against the bid conditions with the bids and identification all bids which have complied with the criteria and elimination of those which did not, if the bidder does not provide satisfactory explanations or supplementary documents requested,
- Issuing invitations to the bidders who submitted satisfactory tenders to submit financial tenders,
- Evaluation of the bids submitted according to the principle of selection of the most economically advantageous bid,
- Negotiations the selected bidder.

4.2.3. Tender Announcement

As a preliminary step the Grantor will publish the tender announcement in the Romanian Public Procurement Journal as well as the Tenders Electronic Daily (TED) which is an official EU Public Procurement Journal, as well as on the original SFZA and Tulcea County websites. The announcement should provide the same information (in terms of headings) as the Tender Specification, however in the abbreviated form. Additionally it should include the contact details of the Grantor employee responsible for communication with bidders to be addressed in case of requests for clarification. The tender announcement will provide instruction for submission of Eols, including the formal and technical information required from bidders.

4.2.4. Eol and Shortlisting

In line with the described procurement procedure under HG 1998/2004 the Eols submitted may be of very simple nature and consist in a declaration of will in order to participate in the procurement process. However in order to avoid bidders without financial and technical capacity,

the Consultant recommends that, along the declarations, bidders submit the following statements of their technical and financial capacity. The proposed legal requirements are as follows:

Table 6: Proposed Legal Requirements for Eol submissions and evaluation.

Aspect	Criteria	Compliance requirement
Consortium	The consortium leader is duly authorised by all other consortium members to act on their behalf	Pass/fail (if applicable)
No bankruptcy	No bidder or a member of the consortium shall be subject to bankruptcy or liquidation proceedings in Romania or elsewhere	Pass/fail
No criminal conviction	No bidder or a member of the consortium or any of their directors shall be convicted of any crime involving fraud, corruption or conspiracy or money laundering	Pass/fail

The proposed purpose behind the below financial and technical capacity questionnaires is to assess whether a Bidder is of sufficient size and financial strength, and is technically able, to take on obligations under the Project, and any associated requirements to raise funding and efficiently construct and operate the Project. The primary objective is to assess the risk these applicants pose if the Grantor were to enter into a contract with them.

The bidder shall therefore demonstrate that s/he has access to, or has available, liquid assets, unencumbered assets, lines of credit, and other financial means sufficient to meet the construction cash flow for the contract for the duration of the Project, and that it has the relevant experience in delivering projects of scale similar to the Project.

The qualification criteria will therefore include bidder's prior experience, financial stability and value of proposed investments. If passed the qualification criteria, bidders will be invited to submit their bids. Once shortlisted, the invitation to bid will contain the following:

- The general information to bidders (such as explanation of the projects, essential minimum requirements, service specification, payment mechanism, including the minimum levels of entry ticket fee and the fixed concession fee paid by the Concessionaire to the Grantor);
- Instruction to bidders (proposal documents, bid bonds requirements, insurance requirements, technical and financial bid submission forms, instructions on preparation of the financial model, bid validity)
- Draft Concession Agreement
- Other information including specific legal requirement.

Table 7: Bidders' qualification criteria

Aspect	Criteria	Compliance
Financial Performance	<p>Financial situation: Submission of the audited financial statements for the last three years to demonstrate the current soundness and long-term profitability of the bidder's financial position.</p> <p>As a minimum, the net assets for the last year, calculated as the difference between total assets and total liabilities, should be greater than Euro 20 m. If the bidder is a consortium, the aggregate net assets of its members shall be at least Euro 30m at the end of the most recent three full financial years.</p> <p>For the avoidance of doubt, statements are required to be in English from 2020, in accordance with IFRS and duly signed by the financial controller. Statements must include balance sheet, profit & loss account and cash flow statement.</p>	Pass/fail
	<p>Average annual turnover: minimum average annual turnover of EUR 20 M, calculated as total certified payments received for contracts in progress or completed in the three years (for the avoidance of doubt, from 2020).</p>	Pass/fail
	<p>Contracts of a similar size and nature (construction and re-construction): Participation in at least two contracts that has been successfully or are substantially completed within the last ten years that are similar to the proposed works, where the value of the Bidder's participation exceeds euro 10 m.</p> <p>The similarity of the Bidder's participation shall be based on:</p> <ul style="list-style-type: none"> - nature of works, - complexity, - methods; and - technology. 	Pass/fail as a single entity, or two partners must each demonstrate one successfully or substantially completed contract of similar size and nature
Operation & Management experience	<p>Contracts of a similar size and nature (exceeds a defined throughput of per year for a period of three consecutive years which include:</p> <ul style="list-style-type: none"> - management and operations of bulk port terminals, warehousing, and other facilities, - management of cargo handling operations - interaction with statutory authorities, port operators, cargo owners, logistics management and other relevant parties. <p>Operation of at least one contract for the operation of a sea port or an inland port, terminal or logistics centre/warehousing where the CAPEX value of the project exceeds euro 10 million. The bidder's participation shall be based on:</p> <ul style="list-style-type: none"> - the nature of the asset (maritime port, dry ports, inland ports, bulk terminals), - contracted versus delivered availability of the asset. <p>Development of land for commercial purposes in ports/logistic parks/industrial/free zones</p>	Pass/fail as a single entity, or two partners must each demonstrate one successfully or substantially completed contract of similar size and nature

4.2.5. Bid Evaluation Criteria

The bid evaluation criteria are precisely defined in the HG 1998/2004 Decision. However, due to the fact that the Decision has been published several years ago, before Romania became the EU Member State, they are either very general or specific to free zone offerings, thus not fully relevant, to the SGP Project, nor compliant with the best international practice for similar projects.

Table 8: Criteria of technical nature

Criteria as per HG 1998/2004	interpretation	Compliance/scoring
The specificity of the activities foreseen to be carried out in the free area	The bidder will provide a detailed business plan, including the financing structure. The Technical Specifications must include plans for the construction, operation and maintenance of the Sulina Green Port along with schedules for their implementation. The Bidder must demonstrate that the plans comply with local and international environmental, labour and construction standards. The Bidder must demonstrate that its plan for the financing of the Project is reasonably likely to achieve financial close within the deadline set out in the Tender book including the equity and debt financing ratios	Lack thereof will result in bid rejection. Weighting, according to criteria set out in the tender book 20%
The volume of investments planned to be carried out in the free zone.	The investment outlays to be provided by the bidders in both Perimeter I and Perimeter II	Scored jointly as part of the business plan
The share of foreign investment in total investment	For statistical information purpose	Pass/fail
Duration of the project and investment	Proposed duration of the construction phase and operation phase for Perimeter II. Timeline for commencing investment for Perimeter I	Construction phase < 24 months 1% Operation phase (the longest evaluated max 2%
The value of exports from the free zone	The criterion treated jointly – consisting in volume of port operations (transshipment	Scored jointly as part of the business plan
The value of imports for carrying out activities		
The number of new jobs created	The number of new jobs during construction and operations phase	Total, maximum number of new jobs score 2%
The activity carried out by the bidders in other free zones	Description of activity carried out in the port/logistics sector as concession/lease.	Activity in excess of 2 similar port projects 1% each, not to exceed 5%
Other specific activities established by each free zones administration	Description of activities other than port activities in other locations/free zones	For information purposes only
The economic profitability of bidders	The bidders will be required to submit a financial model prepared according to instructions included in the Tender Book	Lack of financial model will result in rejection of the bid.

In Table 8 above, the Consultant provides proposed interpretation of the criteria, along with the scoring to best meet the Project aim from the Grantor's perspective. Since the bidders will be required to submit the technical and financial offers in separate envelopes and periods (only bidders who successfully will pass the technical evaluation will be asked for financial offers, therefore the technical criteria are provided separately from the financial ones.

At this stage the Grantor will assess the compliance of the submitted offers in terms of formal compliance with requirements set out in the instructions to bidders. If the breaches are minor, the bidders will be required to supplement missing documents or provide explanations. Failure to comply with this request will result in rejection of the bids.

As the next step the Grantor will evaluate the bids according to the set out methodology and will assign scores obtained by individual bids. All bidders which have attained the minimum score will be invited to submit the financial bid. The maximum score will be 30 % out of 100.

Table 9: Criteria of financial nature

Criteria as per HG 1998/2004	interpretation	compliance scoring
The financial offer	<p>The financial offer must include the estimated costs of investments, annual capital expenditure plan and an investment benefit analysis setting out, among other things, the net present value of the planned investments, internal rate of return on the Project and Project payback period. In general, the submitted financial specifications must show that the Project, if carried out according to those Financial Specifications, is a bankable project which may realistically secure the required financing.</p> <p>The bidders will be required to provide the details of the proposed concession payments (, entry ticket, fixed and variable). The entry ticket fixed concession payments must be higher than the minimum concession payments level set out in the tender book.</p> <p>The fixed concession fees will be due after a grace period and will diminish with the increase of volume of port activities realized by the bidder. The variable fees will be due after achieving a particularly high volume of operations.</p>	<p>The offer failing to provide credible information on financial data will be rejected, should the bidder fail to provide the required clarifications. The weighting of the entry ticket is 45%, the weighting of the fixed fee is 20%, and the weighting of the variable fee is 5%</p>

The most economically advantageous bid will be selected by applying the evaluation methods: determined according to the weight of the technical and financial offers. The value calculation formula will to be set out in the Tender book, however the basic mechanism is likely to include:

$$\left(\frac{\text{Total technical points for the Tender under evaluation}}{\text{Total technical evaluation points}} \right) \times \text{Relative weight of technical offer} \\ + \left(\frac{\text{Net present value of least acceptable offer}}{\text{Net present value of Tender under evaluation}} \right) \\ \times \text{Relative weight of financial offer}$$

4.2.6. Selection of Best Offer and Negotiations with he Selected Bidder

The Evaluation Committed of the Grantor, according to the presented methodology, will select the best offer and if needed will conduct negotiations to finalize the concession agreement. The negotiation can deal with only minor issues, which do not change the main features of the bid submitted.

5. Legal Review and Analysis

5.1. Review of SFZA and Applicable Legislation

The SFZA is an autonomous enterprise (in Romania, *regie autonoma*) set-up by the Romanian Government in 1993 as a free zone administration and initially functioning under the coordination of the Ministry of Transportation. Initially, the patrimony (land and other assets) allocated under the management of SFZA was the ownership of the Romanian State. Subsequently, the land and other assets managed by SFZA have been transferred from the public domain of the Romanian State to the public domain of Tulcea County, and, as consequence thereof SFZA has been from thereon functioning under the coordination of the Tulcea County Council.

Conclusion: the project and the corelative tendering procedures must be organized by the SFZA, as autonomous enterprise, which should in turn seek final approval for the project from the Tulcea County Council, as coordinating authority.

SFZA status is regulated by Law no. 84/1992 regarding the regime of free zone, Government Decision no. 156/1993 regarding the set-up of Sulina free zone and the Sulina free zone administration, and the subsequent normative acts.

5.2. Legal Regime of Sulina Port Land and Assets

Initially, upon the creation of the SFZA, the assets it managed were in the public ownership of the Romanian State, who exercised its ownership right via the Ministry of Transportation. Subsequently, the assets were transferred from the Romanian State into the public ownership of the Tulcea County (in Romanian, *domeniul public al Judetului Tulcea*), who exercises its ownership right via the Tulcea County Council. SFZA has an administration right (in Romanian, *dare in administrare*) thereupon. According to SFZA, port land and assets are free and clear of any encumbrances, which is confirmed by the registration in the land book. Accordingly, these assets can be exploited by SFZA in accordance with the applicable legal framework.

Further on, initially the assets had a free zone status in the sense of the Romanian legislation. In 2011, the free zone status of part of the assets, namely Perimeter II was withdrawn, this currently being open to any type of commercial or industrial activities, save for free-zone specific activities.

Conclusion: the assets are in the public domain of Tulcea County and can be subjected to the tendering procedures to be organized by SFZA in view of the project. The concessionaire will be free to carry out on the assets a large spectrum of activities, and as regards Perimeter II except for free-zone specific activities.

From an environmental perspective the assets are located in the Danube Delta Biosphere Reserve (in Romania, *Rezervația Biosferei Delta Dunării*).

From an urbanism and construction perspective, the assets are located in the perimeter of Sulina UAT and the construction regime thereof is regulated under the newly approved zoning plan (in Romanian, plan urbanistic zonal/PUZ) which is fully in force.

The activities intended to be carried out in Perimeter II as part of the project have been in principle approved from an environmental perspective as part of the environmental approval procedure carried out by Sulina County Council within the frameworks of the approval of the new PUZ. Further on, the obtaining of the construction permit by the investor for the investment undertaken as part of the Project will be streamlined by the fact that the purported activities and investments have been anticipated in Sulina PUZ. Moreover, as part of the procurement process, the SFZA will have to provide the bidders with an urbanism certificate regarding the target assets.

5.3. Assessment of Project's Legal and Tendering Options

Exploitation of public domain real estate assets in Romania can be done by the central or local public authorities through the following mechanisms: giving in administration (in Romanian, *darea in administrare*) – this is employed only in the relation between central or local authorities and State controlled institutions, like autonomous enterprises, public-private partnership, concession of goods, concession of works and services, public procurement of works and services, and lease.

(i) *concession agreements* → through a concession or sub-concession agreement the concessionaire obtains an *in rem* right on the assets conceded to it, for a long period of time;

(ii) *concession of works and services* → tool whereby a contracting authority entrusts an operator with the execution of works or the provision of services, the consideration granted to that operator being either the exclusive right to exploit the outcome of the respective works/services or that right together with payments collected by the operator as manager of that respective work or service;

(iii) *public private partnership (PPP) contracts* → designed to be employed for the development of certain projects/assets in common by the public and the private partners or the rehabilitation and/or extension of existing assets that belong to the public partner and/or the operation of a public service.

(iv) *lease agreements* → contract whereby an authority is either the owner of the assets, or has an administration or concession right thereupon leases to an operator the assets in exchange for a rent;

(v) *acquisition of works and services* → contracts whereby the authority acquires goods or services needed in respect of certain assets or needs.

Below, we have summarized the main characteristics of concession of goods, concession of works and services and public private partnership (PPP) contracts. We have not taken into account lease

agreement – which we understand would not be a preferred option for the SFZA and as well for the potential investor – and the public procurement for acquisition of works and services – simply because it cannot be applicable to the project, the paradigm in the latter case being completely different.

5.3.1. Public-private partnerships

Public-private partnership (PPP) is regulated by GEO 39/2018 on public-private partnership, which aimed at stimulating private investment and the collaboration of the public and private sectors.

According to GEO 39/2018, a PPP may be carried out for the execution or the rehabilitation and/or extension of an asset owned by the public partner, and/or the operation of a public service¹. PPP contracts may also be concluded for the purpose of carrying out a relevant activity in the public utility sectors², as well as for the purpose of providing public community utility services³. Through the PPP contract, the public partner may transfer/set up in favour of the private investor the right to collect and use for the project the fees and tariffs charged by it from the beneficiaries of the public goods/services carried out through the PPP project. A PPP project is set up for relatively long durations of the contractual relationship, *i.e.*, more than 5 years (legal *de minimis* threshold), to allow the private partner to recover the investment and make a reasonable profit.

PPP projects can be implemented either as: (x) contractual PPP - carried out under a contract between the public partner, the private partner and a new company whose share capital is wholly owned by the private partner and that will act as the project company, or (y) institutional PPP - - carried out under a contract between the public partner and the private partner, whereby a new company is set up by the public partner and the private partner to act as the project company, which, after incorporation, becomes a party to the initial contract.

PPP projects can be financed as follows: (a) entirely, from financial resources provided by the private partner from its own sources/raised from financiers, and/or (b) jointly by the private partner together with the public partner, provided that the public partner is not permitted to inject more than 25% of the overall investment need⁴, (c) from financial resources provided by sovereign wealth and investment funds, privately managed pension funds, as well as investment funds and investment companies.

The public partner may contribute to the implementation of the PPP project either *via*: creation, without having to undergo separate tender procedures, of certain rights in favour of the project

¹ The concept of public service is defined by the Administrative Code, in Article 5, paragraph 39, letter kk): "*public service - activity or set of activities organized by a public administration authority or by a public institution or authorized/authorized or delegated by it, in order to satisfy a general need or a public interest, on a regular and continuous basis*".

² Provided for in Law no. 99/2016.

³ Provided for in Law no. 51/2008.

⁴ As regards the public partner's financing contribution, it may contribute to the financing of the investment with public financial resources, including from non-reimbursable EU funds and the national contribution related to them.

company or the private partner; cash contributions to the share capital of the project company; assumption of payment obligations towards the private partner or the project company or of payment obligations related to the realisation of the investment; the provision of guarantees in favour of the financiers of the PPP project.

To conclude a PPP contract, the following procedure must be carried out:

- the public partner must have the initiative for the project (as opposite to the case of concession, where the initiative can come also from the private sector);
- the public partner must carry out a study to substantiate the project and have it approved by the Government for central government projects or, where appropriate, by the deliberative authorities for local government projects;
- carrying out of the PPP contract award procedure and its approval (after completion of negotiations) -- PPP contracts are awarded according to the public procurement legislation⁵.

Upon termination of the PPP contract, the assets developed or acquired by the project company under the scope of the PPP contract shall be returned to the public partner, free of liens, either free of charge, or with the payment of a compensation, depending on the termination cause.

We do not consider that the PPP could be an option for implementing the project for the following reasons:

- a) based on the PPP legislation it results this tool can only be employed for providing a public services. While the PPP law is vague as regards the perimeter of the *public service* concept, and in general as regards the spectrum of applicability of PPP contracts, *i.e.* in which types of projects and for which types of services this contractual instrument can be employed, still considering the legal definition (even if vague) of *public service* the project would not satisfy this criterion;
- b) there is a high degree of unclarity as regards the award procedure for a PPP contract. The PPP law indicates that the award procedure is that applicable for public procurement projects. Nonetheless, the foregoing law is dedicated to public procurement projects only and does not accommodate smooth adaptation for application also in case of PPP contracts (containing far too detailed provisions at secondary legislation level), that could make it incompatible with the PPP concept. In parallel, the lack of successful pilot PPP projects that could serve as a model for the project is also a reason for which this legal tool is not appropriate.

⁵ Namely: Law no. 98/2016 (public procurement), Law no. 99/2016 (sectorial procurement) or Law no. 100/2016 (procurement of concession for works and services).

5.3.2. Concession of works and services

The normative acts regulating the concession of works and services are:

- Law no. 100/2016 on works and services concessions.
- Government Decision no. 867/2016 approving the Methodological Rules for the application of the provisions on the award of works and services concession contracts provided in Law no. 100/2016.

A works or services concession is a contract whereby a contracting authority entrusts to a private operator the execution of certain works and/or the provision and management of certain services, with the authority owing the operator the consideration which consists of the exclusive right to exploit the result of the works/services performed under the contract, or the foregoing right together with a payment.

The works or services concession can be employed only in certain sectors, amongst which water, transport, ports, and fuels are included *inter alia*.

In order to qualify as a works/services concession, the project must meet several conditions:

- The works or services concession must always involve, as a first essential condition, the transfer to the concessionaire of a significant part of the operating risk in connection with the operation of the works/services concerned. Therefore, if a significant part of the operating risk is not transferred to the economic operator, then the contract will be considered as a public procurement contract or sectorial procurement contract and the provisions of Law 100/2016 will no longer be applicable to it. The operating risk must, cumulatively, be generated by events beyond the control of the parties to the concession contract, involve exposure to market fluctuations and not guarantee the economic operator, under normal operating conditions, the recovery of the costs of investments made and the costs of operating the works or services. In order for a significant part of this operating risk to be considered to be transferred to the economic operator, the estimated potential loss borne by the economic operator as concessionaire must not be negligible.
- If the subject matter of the contract is the provision, management and operation of services, the services must be of general interest and of economic nature.
- The contract must have as its main object the works concession or the services concession. In the case of mixed concessions, the main purpose of the contract shall be determined according to the highest of the estimated values of those services. In case of contracts which have as subject matter both elements of work/services concession and elements of public procurement, the mixed contract shall be awarded in accordance with the provisions of the public procurement law, respectively the

sectorial procurement law. In case of contracts having as subject-matter both elements of works/services concessions and other elements to which the provisions of other legal acts apply, and the different parts of the contract are not objectively separable, the contract shall be awarded in accordance with the legal act applicable to the main subject-matter of the contract.

The duration of the works/services concession contract must be limited to avoid distortion of competition. The duration is estimated by the contracting authority/entity according to the works or services required by the contract. For concessions with an estimated duration of more than 5 years, the maximum duration of the concession may not exceed the time reasonably estimated to be necessary for the concessionaire to obtain a minimum income allowing the recovery of the costs of the investments made, the costs of operating the works or services and a reasonable profit.

The value of the concession project must be equal to or greater than RON 26,093,012 (equivalent to circa EUR 5.3 million). If the value of the works/services concession is lower than the threshold, it will be awarded according to a simplified procedure, but in compliance with the award principles and criteria laid down by Law 100/2016.

Before commencing the procedure for the award of works/services concession contract, the contracting authority must prepare a substantiating study thereby demonstrating the necessity and opportunity of carrying out the project employing this legal tool.

Further on, the award of the works/services concession contract by the contracting authority is done *via* either of the following procedures:

- open tender → the procedure is carried out by publishing the documentation drawn up for the concession in the Electronic Public Procurement System (SEAP), and interested economic operators submit bids, which may be negotiated for improvement, one of which is declared the winner by an evaluation committee;
- competitive dialogue → following the publication of the tender documentation in SEAP, operators submit requests to participate, which are analysed in a phase of individual dialogue with each selected candidate, ending with the submission of final offers by all selected candidates. Of these, the evaluation committee selects a winner, on the basis of the best financial offer criteria;
- negotiation without publication of a concession notice → contracting authorities are not obligated to publish a concession notice if the works/services in question can only be provided by a specific economic operator, or if competition is lacking for technical reasons, or if there is an exclusive right of the operator or where the aim is to protect intellectual property rights and other exclusive rights. Contracting authorities are also not obligated to publish a new concession notice if, in an initial award procedure, no bids/requests for

participation were submitted or only non-compliant bids/requests for participation were submitted, provided that the original terms of the works/services concession are not substantially altered.

5.3.3. Concession of assets/goods

The general regulatory framework for the **concession of public property** is regulated by the following normative acts:

- Civil Code⁶ - Articles 871-873 on the right of concession;
- Administrative Code⁷ - Articles 302-331 - regulates the concession of public property and expressly repeals the former GEO no. 54/2006 on the regime of concession contracts for public property and its implementing rules.

The concession of assets under the administration of ports, as well as the concession of assets under the administration of free zones, there are additional legal provisions applicable as follows:

- Government Ordinance no. 22/1999 on the management of ports and inland waterways, the use of shipping facilities belonging to the public domain and the conduct of shipping activities in ports and on inland waterways;
- Law no. 84/1992 on the regime of free zones;
- Government Decision no. 1998/2004 approving the methodological rules for the concession of public or private property of the State or of administrative-territorial units, as well as public activities/services of national or local interest, under the administration of free zones.

According to Romanian law, the concession represents an indirect means of exercising a public property right, under a concession contract, whereby a public authority, the grantor, transfers, for a determined period, to an entity, the concessionaire, acting at his own risk and liability, the right and obligation to exploit a publicly owned asset and/or to make an investment on a publicly owned asset, in exchange for a concession fee.

Under the concession agreement, the concessionaire acquires an *in rem* right over the conceded assets, together with the right and obligation to exploit that asset, for a maximum duration of 49 years, and typically also with the obligation to implement an investment program. At the end of the concession agreement, the conceded assets return, together with the assets resulting from investment programs implemented under the concession agreement, to the conceding authority, free of charge and of any liens.

⁶ Law no. 287/2009.

⁷ Government Emergency Ordinance no. 57/2019.

Procedure for conclusion of a concession agreement, according to the Administrative Codes:

- The concession starts at the initiative of the grantor or any interested person and is based on an opportunity study. Based on this opportunity study, the public authority approves the concession and draws up the concession tender book.
- Assets which are the public domain of the State may be concessioned by the State through the Government, ministries or other specialised bodies of the central public administration, and assets which are the public domain of administrative-territorial units may be concessioned by the deliberative authorities of such UATs.
- The concession must be awarded through a competitive tendering procedure, in which each interested party may submit a bid compliant with the concession tender book and with the requirements set out in the tender documents.
- Bids are evaluated by an evaluation committee which selects the winning bid, based on the principles of transparency, equal treatment, proportionality, non-discrimination, and free competition. The bid with the highest score is the winning bid.

5.4. Comparative analysis of concession of goods vs concession of works & services

Given the overlap of designation of the two legal tools, namely concession of goods and concession of works and services, as well as some similarities (particularly as regards award procedure) between the two, we have assessed and presented herein below a comparative analysis between the two legal tools.

Before going forward with that analysis, as general observation we note that:

- while concession of goods has as object the granting of the in rem concession right to a concessionaire with a view for that concessionaire to exploit those goods, the concession of works and services has as object the granting of a right and obligation to execute certain works and / or perform certain services;
- while in the case of the concession of goods the concessionaire is obligated to make a payment to the granting authority (i.e., the royalty), in case of the concession of works or services, the granting authority entrust the concessionaire with the right to exploit the works or services object of the contract, as payment for the concessionaire's obligation to execute those works and/or to perform those services;
- while the concession of goods is more similar in content to a longer term lease, the concession of works and services is similar to public procurement (acquisition) of works and services with the main different from the latter that the concessionaire does not obtain upfront payment from the authority for the concede works/services but, as payment, received the right to exploit works or services object of the contract;

- while in the case of concession of works and services it is accepted, the granting thereof must be motivated by a general interest, the latter is not a condition for granting of a concession of goods.

In the [table 10](#) below, we have summarized the main differences and similarities (where existing) between the two legal tools, with the mention that when making such comparison we have referred to the general legal regime of concession of goods, as regulated under the Administrative Code.

Considering our analysis, we appreciate that the only valid legal option for implementing the project, according to Romanian law, is the concession of goods/assets.

Table 10: Comparative analysis between concession of goods and concession of works/services

Concession of goods/assets	Concession of works/services
<p>A concession is a contract for pecuniary interest whereby a public authority, called the grantor, transfers, for a specified period, to a person, called the concessionaire, who acts at his own risk and responsibility, the right and obligation to exploit a publicly owned asset in return for a fee.</p>	<p>A works/services concession is a contract for pecuniary interest whereby one or more contracting authorities/entities entrust the execution of works or the provision and management of services other than the execution of works to one or more economic operators for a specified period, the consideration being either the exclusive right to exploit the results of the works/services covered by the contract or the right to exploit the results of the works/services for a consideration.</p>
Object of the contract	
<p>Public property assets in the public domain of the State or in the public domain of administrative-territorial units which, by their nature or by law, can be exploited for the harvesting of natural, civil or industrial fruits and products.</p>	<p>Execution of works, i.e., the provision and management of services of public interest.</p> <p>The activity to be concessioned must be carried out in one of the fields expressly provided for by law such as: gas and thermal energy, electricity, water, transport, ports and airports, post, oil, gas, coal or other solid fuels.</p> <p>Ancillary to entrusting the concessionaire with performance of work or services, the contracting authority/entity may make available to the concessionaire certain assets provided that they are necessary for the execution of the works or the provision of the services.</p>
Scope of application	
<p>In the case of mixed contracts, the concession of goods does not apply to contracts where works and/or services are also concessioned.</p> <p>In the case of a public works/services procurement contract or in the case of a works/services concession contract for the execution of which the exploitation of a publicly owned asset is necessary, the right to exploit the asset is transferred according to the rules for the award of the contract.</p> <p>The provisions on public procurement or concession of works/services will therefore apply.</p>	<p>In the case of mixed contracts, if the aim is to grant a concession for both works and services, then the type of concession that characterises the main purpose of the contract will be applicable.</p> <p>The concession of works/services must always involve the transfer to the concessionaire of a significant part of the operating risk of an economic nature in connection with the operation of the works/services in question.</p> <p>If a significant part of the operating risk is not transferred to the economic operator, then the contract will be considered a public procurement contract or sector contract.</p>

If the object of the contract is the provision, management and operation of services, the services must be of general interest and economic nature.

Contract value

The law does not stipulate a minimum contract value threshold for the concession of goods.

The value of the concession must be equal to or greater, excluding VAT, than the value threshold of RON 26,093,012 (equivalent to EUR 5,273,766).

If the value of the works/services concession is lower than the threshold imposed by law, it will be awarded according to a simplified procedure.

Contract value

The concessionaire must pay to the granting authority a royalty for the right to exploit the conceded goods.

The granting authority give to the concessionaire, as payment for undertaking the works or services, as consideration, the right to exploit the services covered by the contract or this right together with a payment.

Contract duration

The concession of public property is concluded for a period not exceeding 49 years from the date of signing the contract.

The duration of the concession contract must be limited to avoid distortion of competition.

The duration is determined by the grantor on the basis of an opportunity study.

The duration is estimated by the contracting authority/entity according to the works or services required by the contract.

For concessions whose estimated duration is more than 5 years, the maximum duration of the concession may not exceed the time reasonably estimated as necessary for the concessionaire to obtain a minimum income allowing the recovery of the costs of the investments made, the costs of operating the works or services and a reasonable profit.

Granting

Goods in the public domain of the State may be concessioned by the State through the Government, ministries or other specialized bodies of the central public administration, and goods in the public domain of administrative-territorial units

A contracting authority or a contracting entity may be the grantor.

The contracting authority may be a central or local public authority or institution, a body governed by public law or any association comprising at least one of the above-mentioned authorities.

may be concessioned by the deliberative authorities of the local public administration.

The contracting entity must carry out one of the activities expressly provided for by law in the fields mentioned in the subject matter of the contract and may be a contracting authority, a public enterprise or any legal entity operating on the basis of exclusive or special rights granted for the exercise of a particular activity.

Concession decision

The concession starts at the initiative of the grantor or any interested person and is based on an opportunity study.

The contracting entity, when it intends to carry out a project by awarding a long-term concession contract, is obliged to prepare a **study to substantiate** the concession decision.

On the basis of the opportunity study, the public authority approves the concession by a decision and also draws up a specification which provides both general information on the subject of the concession and the conditions under which interested persons may acquire the right of concession on the property.

If the contracting entity intends to award a concession contract for a period of less than 5 years, the preparation of the opportunity study is no longer mandatory.

Once the concession is considered appropriate, the grantor draws up the award documentation and the specifications necessary to carry out the award procedure of the concession contract, but which must contain different mentions specific to the concession of goods and the concession of works/services.

Award of contract

The concession must be awarded by tender procedure. By exception, the concession may also be awarded directly to certain entities established by law.

The concession is awarded through one of the procedures provided by law: open tender, competitive dialogue or negotiation without publication of a concession notice.

Auction

It is a competitive procedure, in which each interested person submits a tender which must comply with the requirements set out in the tender specifications and tender documentation. Bids are evaluated by an evaluation committee which selects the bid with the highest score as the winning bid.

Open tender

The procedure is carried out by publishing the documentation prepared for the concession by the grantor in the Electronic Public Procurement System (SEAP), and then interested economic operators submit bids, which may be negotiated to be improved, and one of them being declared successful by an **evaluation committee**.

The law does not provide for the mandatory publication of the tender procedure in the Electronic Public Procurement System (SEAP) for the concession of goods.

Competitive dialogue

After the publication of the tender documentation in SEAP, operators submit requests to participate, which will be analysed in a phase of individual dialogue with each selected candidate and which ends with the submission of final offers. Of these, **the evaluation committee** will declare the winning bid on the basis of which the concession contract will be concluded.

Direct award

As an exception to the obligation to award by tender procedure, public property assets may be awarded by direct award to national companies, national companies or companies subordinated to, under the authority or under the coordination of central or local public authorities which have been established by reorganisation of autonomous companies and whose main activity is the management, maintenance, repair and development of such assets, but only until their privatisation is completed.

In this case, it is not necessary to draw up the opportunity study or the specifications.

The concession by direct award is approved by decision of the Government, the local or county councils or the General Council of the Municipality of Bucharest, as the case may be, depending on the public domain to which the concessioned asset belongs.

Negotiation without publication of a concession notice

Contracting authorities/entities are not obliged to publish a concession notice if the works/services in question can only be provided by a specific economic operator, for the purpose of creating or acquiring a unique work of art or artistic performance, when competition is lacking for technical reasons, when there is an exclusive right of the operator or when intellectual property rights and other exclusive rights are to be protected.

Also, the grantor is not required to publish a new concession notice if, in an initial award procedure, no or only non-compliant bids/tenders were submitted, provided that the original terms of the works/services concession are not substantially altered.

Award principles

1. Transparent
2. Equal treatment
3. Proportionality
4. Non-discrimination

1. Transparent
2. Equal treatment
3. Proportionality
4. Non-discrimination

5. Free competition

5. Mutual recognition

6. Taking responsibility

Conclusion of contract

The concession contract for public property shall be concluded in writing, under penalty of nullity, with the bidder whose bid has been established as the winner.

The contracting entity has the obligation to conclude the works/services concession contract with the bidder whose bid has been established as the winner.

Rights and obligations of the concessionaire

The right to exploit, at his own risk and responsibility, the assets covered by the concession contract, according to the objectives set by the grantor.

The right to exploit, in whole or in part, the result of the works or to provide the services covered by the contract.

The right to use and harvest the fruits and produce of the goods covered by the concession.

The right to use and harvest the fruits of the goods subject to the concession.

The obligation to pay royalties at the amount and in the manner set out in the contract by the licensor.

The obligation to ensure the effective, continuous and permanent operation of the works and services covered by the concession.

The obligation, at the end of the contract, to return the concessioned good, on the basis of a report, in full ownership and free of any burden.

Subcontracting/Subcontracting

Currently, the Administrative Code expressly states that sub-concessioning is prohibited, without mentioning any exceptions to this provision.

With regard to **subcontracting**, the contracting entity is obliged to establish binding contractual clauses on the assignment of claims related to the part of the contract that is or can be performed by the subcontractors after the start of operation of the concession contract.

5.5. Concession of goods under the administration of free zone authorities

Concession of assets under the administration of free zones in Romania is regulated under Government Decision no. 1998/2004 regarding the procedure for the concession of public property under the administration of free zones (“**Free Zones Concession Regulation**”), which provides for a similar procedure in the award of the concession contract and comparable contractual coordinates as those regulated under the Administrative Code (presented above), with the advantage that it must be approval by the local authorities and not the Government which in turn should translate into a speedier and less complex approval process.

Henceforth, the concession of goods under the administration of free zones has a special (derogatory) regime by reference to the general concession of goods regime in Romania which is regulated under the Administrative Code. However, after the entry into force of the Administrative Code in 2019, there has been uncertainty and debate as regards the applicability of the historic free zone legislation regarding concession in the context of the new concession provisions in that code.

The Administrative Code (in force since 30.07.2019), as main law inter alia in terms of management of public property, provides the general legal regime of concession of goods. The Administrative Code has repealed expressly a number of previous normative acts (such as GEO 54/2006) but has not repealed the Free Zones Concession Regulation (i.e., HG 1998/2004). This raises the question of conflict of laws in time between the provisions of the Administrative Code and those of HG 1998/2004. Our assessment is that based on the applicable legal provisions⁸ and supreme court case law in a comparable situation, it is clear the provisions of HG 1998/2004 should prevail and that concession of goods under management of free zones should be done as per the Free Zones Concession Regulation.

More specifically, as per Article 65 of Law 24/2000 on the rules of legislative technique, in order for a new law to repeal previous legal provisions, the legal provisions concerned must be expressly determined; per a contrario, what is not expressly determined, is not repealed.

Moreover, according to basic legal interpretation principles applicable under Romanian law, a general law applies in all matters and in all cases, except in those case where the legislator has established a special and derogatory regime, instituting in certain matters special regulations, which have priority over the general rule. The priority nature of the special rule derives from the very purpose of its adoption, demonstrating the legislator's intention to derogate from the general rule by means of provisions of strict interpretation and application in a certain special domain/area. A special rule, being derogatory from the general rule, applies with priority, even when it precedes/ predates the general rule, whenever a hypothesis is covered by its provisions, and the special rule cannot be amended or repealed by a subsequent general rule

⁸ Law 24/2000 on the rules of legislative technique for the drafting of normative acts stipulates that, in order to be repealed, the legal provisions concerned must be expressly determined, with all the identification data of the normative acts mentioned. In the present case, however, the Administrative Code has not made any reference to the provisions of OG 22/1999 in relation to sub-concession.

except only if it is expressly repealed.

To this end, the Romanian Supreme Court decision no. 28/2021 acknowledges, when assessing the priority of applicability between the predating Companies Law 31/1990 versus the new Civil Code (as of 2011), that indeed the referring court retains that in the competition between the general and the special rule, the special rule will be effective, according to the principle *specialia generalibus derogant*.

Thus, in view of the above, HG 1998/2004 is a special rule compared to the Administrative Code, a general rule, and the general rule has not expressly abrogated the special rule, so we can conclude that HG 1998/2004 is still in force and currently applicable as regards its perimeter of application.

While we do appreciate that the above assessment and interpretation is the only correct and coherent one by reference to the reasons detailed above, we cannot exclude that a court of law or State authority could view things differently – this is a risk deriving from the unsynchronized and unclear legislation regarding the legal regime of concession of goods which we cannot anticipate and hedge for fully. However, we do appreciate that the foregoing risks is limited also given that the practice of other free zone authorities after the entry into force of the Administrative Code was to continue their concessioning activity based on the Free Zones Concession Regulation and, as per our assessment, there was not successful challenging of the employment of the special procedure up to the date of this report.

Further on, we must assess the extent to which the Free Zones Concession Regulation is applicable to both Perimeter I and Perimeter II, given the fact that the latter has lost its free zone status in 2011. In order to do so, we have analysed the object of regulation respectively the perimeter of application of the Free Zones Concession Regulation.

Thus, the Free Zones Concession Regulation was passed in 2004 and has replaced the previous legislative act regulating the concessioning of goods in free zones, namely Government Decision 682/1994. However, while the former expressly regulated the concession procedure for goods located in free zones, the Free Zones Concession Regulation regulates the concession procedure for goods under the administration of free zones. This syntagm is utilized both in the title as well as in the content of the Free Zones Concession Regulation, indicating that the object of this regulation is concession of goods for all assets under the administration of free zone authorities, indirectly resulting that it is not important if these assets are (still) part of the free zone or not. Also, there is no express provision in the Free Zones Concession Regulation which expressly indicated that the regulation applies only to assets which have the free zone status.

However, when analysing the historic context of the Free Zones Concession Regulation, we can state that the underlying rationale of this legislative act was to regulate the regime of concession for assets in free zones, with the lawmaker at that time not anticipating that throughout time some of those assets could lose their free zone status. To this end, we refer to certain indirect mentions from the Free Zones Concession Regulation on the basis of which we can infer that the intended purpose of the lawmaker with the Free Zones Concession

Regulation was to regulate the regime of concessioning for free zones. On the other hand, it is also true that the legislator did not employ the denomination of previous law (i.e., HG 682/1994) which was specifically stating that it regulates concession of goods in free zones, but switched to a wording denoting that it could have intended to create a unitary concession framework for all assets under the management of free zone authorities.

Nonetheless, all the above represent our trusted interpretations of a legal framework which is unfortunately unclear, and ambiguous. When making this analysis and interpretation we did not identify any benchmark given that, as per our analysis, there are no other assets previously deemed free zone and further requalified which have been subject to a concession procedure further to losing their initial free zone status.

The question hence arises if concession of goods in both Perimeter I and Perimeter II may be tendered according to the Free Zones Concession Regulation, or rather that concession of goods in Perimeter I is tendered according to the Free Zones Concession Regulation, while concession of goods in Perimeter II is tendered according to the Administrative Code.

While there are arguments (as shown hereinabove) for both options to be considered equally applicable, we do believe that there are reasonable arguments to maintain the application of the Free Zones Concession Regulation for the concessioning of goods in both perimeters. Nonetheless, given the very interpretable character of the Free Zones Concession Regulation (as described herein above) we consider that there is not an insignificant risk of challenging the procedure by interested bidders. A potential palliative to this end could be to seek guidance on the interpretation of the Free Zones Concession Regulation from the Government (as lawmaker) via the Ministry of Transportation/Ministry of Finance. Even so, if a court dispute would be initiated by a bidder, an interpretation issued by the Government could be instrumental, but would not automatically trigger rejected of the claim.

5.6. Optimal Tendering Procedure

Given the above considerations, we can state with certainty that the concession of goods is in our assessment the correct legal choice for the project. On the other hand, however, we cannot state with the same certainty if concession of both perimeters should be done under the Free Zones Concession Regulation, or rather Perimeter I should be conceded under the Free Zones Concession Regulation, while Perimeter II should be conceded under the Administrative Code.

As we incline to consider that the Free Zones Concession Regulation should be applicable to both perimeters, we will summarize below the concessioning procedure under the said piece of legislation.

- (i) *Object of the concession* - any public or private property of the State or of the administrative-territorial units, as well as any public activity/service of national or local interest, which are under the administration of free zones.
- (ii) *Method by which the concession is carried out* - public tender followed by the conclusion of a contract whereby the Administration of the Free Zone (grantor) transfers for a period of

up to 49 years to the operator (concessionaire) the right and obligation to exploit an asset or a public activity/service of national or local interest, in return for a fee which constitutes the administration's own revenue.

(iii) *Payment* - the payment of royalties related to the concession contract is made in freely convertible currency accepted by the National Bank of Romania.

(iv) *Pre-concession procedures:*

Concession initiation:

- Concession initiative: free zone administrations ("**AZL**") and any investor, natural or legal person, Romanian or foreign, who justifies an interest,
- method of initiation: the grantor by drawing up and approving the specifications and publishing the invitation to tender; the investor by submitting a written proposal for the concession (containing at least the investor's identification data, a firm statement of intent, the subject of the concession),

Approval of documents required for the tender procedure:

- AZL sets the minimum starting value of the tender, the documentation fee, and the participation fee (all approved by AZL's Board of Directors),
- The tender documentation comprises: the rules for the organisation and conduct of the tendering procedure; the rules for the conduct of activities in the free zone area; the questionnaire for participation in the concession tender (the framework content is set out in Annex No 1 to the Free Zones Concession Regulation); the specifications of the tender book (the minimum content of which is set out in Annex No 2 to the Free Zones Concession Regulation); the tender dossier for the concession tender; the evaluation criteria; the form of the price offer; details of the minimum starting price for the concession, the participation fee and the amount of the tender guarantee, and any other instructions AZL deems necessary,
- AZL must obtain the urban planning certificate for the area in question prior to the tender.

Publication of the tender notice:

- by AZL in the Official Gazette (Part IV), in a national and a local daily newspaper and in a widely circulated international newspaper at least 30 calendar days before the date set for the auction date,
- the notice shall include at least: details of the subject of the concession, the date, time and place of the concession and the deadline for the submission of applications.

(v) *The procedure for conducting the auction:*

- the call for tenders is carried out in two stages - the first stage is the pre-selection of the applications submitted and the second stage is the actual evaluation.

Pre-selection stage:

- within 21 calendar days from the date of publication of the tender notice, applicants shall submit to AZL's offices applications containing the following information: name

of the applicant, address, the object they wish to obtain concession on, the activities they wish to carry out and the target duration of the concession,

- applications for participation in the tendering procedure shall be examined by the general manager of AZL within two working days of the date set as the last day for receipt of such applications. The general manager of AZL shall designate the successful bidders on the basis of the following pre-selection criteria: the surface area of the public or private property of the State or of the administrative-territorial units, the activity for which the surface area is intended and the duration of the concession,
- Rejected candidates will be given the reason for rejection,
- AZL shall make available to applicants, against payment, within two working days from the date of notification of acceptance of applications, the full tender documentation consisting of the documents referred to above.

Submission and evaluation of tenders:

- each successful applicant shall complete the technical bid accordingly and submit it in a sealed envelope to AZL's head office at least two working days before the date of the concession tender,
- the technical bid must include all the documents requested in the tender questionnaire and all the conditions laid down in the specifications, as well as other obligations that the bidder undertakes to fulfil if he wins the tender,
- each bidder shall submit with the technical bid the following minimum documents: copy of the proof of deposit of the guarantee of participation in the tender, at the bank where AZL has an account; copy of the proof of deposit of the participation fee; copy of the invoice for the payment of the tender documentation for each objective,
- the tendering guarantee is of minimum 5 % of the minimum starting price. If a tenderer wishes to tender for more than one objective, he must set-up either a guarantee of 5% of the value of each objective or a single guarantee of 5% of the total value of the objectives he wishes to award (in the event of rejection, the tender guarantee will be returned, and in the event of winning the tender, the amount of this guarantee will be increased by direct negotiation, but will not be less than the value of 3 monthly royalties, becoming a contractual performance guarantee),
- during the two working days remaining before the date of the tender, the evaluation committee shall meet to examine and evaluate each technical tender submitted on the basis of the evaluation criteria included in the content of the tender documents. The opening of the technical offers for analysis and evaluation will only take place if at least two offers for the subject of the tender are submitted.
- if there is only one bidder: if only one bidder has submitted an offer in due time, the tender is postponed for two working days. If only one bidder still submits an offer after this deadline, the evaluation of the technical offer submitted will proceed. If the technical and financial bids meet the requirements of the specifications, the

concession contract can be negotiated and signed. If no bids are submitted after the postponement, the tender procedure is cancelled),

- where more than one bidder submitted offers: the successful bidder is determined on the basis of the score obtained according to the evaluation criteria,

Evaluation criteria: specificity of the activities planned to be carried out in the free zone; volume of investments planned to be carried out in the free zone; share of foreign investment in the total investment; duration of the project and investment; value of exports from the free zone as indicated in the project; number of new jobs created; value of imports from Romania for carrying out the activities; economic profitability of the bidders; activity carried out by the bidders in other free zones; other specific activities established by each AZL; financial offer; the weighting of the criteria is established by the AZL,

- after the evaluation, an evaluation report is drawn up to determine the winner; the result will be communicated within 24 hours of the conclusion of the report.

(vi) *Disputes*

- Claims/objections may be submitted by bidders at AZL's head office within 24 hours from the date of notification of the outcome of the procedure; the committee will examine each objection within 24 hours from the date of submission and will formulate and submit its reply to AZL, with the obligation to notify all bidders,
- if the filed objections are ungrounded - the committee will draw-up the minutes validating the result of the tender and will submit them to AZL, which may start negotiating and signing the concession contract with the winning bidder within a maximum of 10 working days calculated from the day immediately following the date on which the minutes of validation were sent,
- if the filed objections are grounded – the tender procedure is cancelled, and all bidders are notified in respect thereof.

(vii) *Post-granting procedures:*

- upon signature of the concession contract, the winning bidder must provide proof of good performance guarantee,
- in the event of failure to sign the contract within 10 working days from the day immediately following the date of communication of the validation notice, for the sole fault of the bidder, the tender guarantee shall be retained and AZL may claim damages.

6. Project Options and Structures

A project option, often referred to as project structure, has at least five components:

- The institutional structure which defines and delineates the roles of the various stakeholders in the project, most notable the role of the Grantor/Authority vis-à-vis that of the investor/operator.
- The commercial structure which outlines the business case of the project in terms of project site(s), services offered, types of operations, and concession or lease terms.
- The financial structure of the project which outlines the project's costs and revenues, funding and financing structure(s), and payment flows and mechanisms.
- The legal structure which narrows down the legal (contracting) delivery options for the project among the various types of concession, lease, and PPP arrangements.
- The planning / zoning structure which delineates different planning and operating zones of the project and proposes whether the project can be concessioned/tender under a bundled or unbundled structure.

The choice of option depends not only on the trade-off between various sources and types of project risks (financial, commercial, legal, political; interface, etc.) but also on a trade-off between the willingness and ability of the Grantor to finance and deliver the Project infrastructure, superstructure, or part thereof, and the market's (i.e. investors') willingness and to finance, deliver then operate the same infrastructure, superstructure, or part thereof.

Such trade-offs have further been investigated in view of the Grantor's/Authority's feedback, and initial market sounding during and after the investor's conference of 15/11/2023.

6.1. Institutional Structure

Traditionally, ports have been owned, operated and regulated by state-controlled public organisations. However, both the introduction of Private Sector Participation (PSP) in ports and the emergence of new forms of port administration have led to the adoption of new models of port ownership and institutional structuring.

The main components for which ownership varies between the public and private sector in these models can be broken down to:

- The ownership of port facilities,
- The management of port facilities, which can be split into (i) port infrastructure, such as waterways, channels, utilities, breakwaters, quay walls, etc. and (ii) port superstructure, which are the fixed assets built on the port infrastructure, such as terminal pavements, cranes and equipment, storage sheds and warehouses, IT platforms and operating systems, etc.),
- The affiliation of the port's workforce (between public and private); and
- The regulation of port management and operations.

There are a number of institutional models for ports across the globe, with the ownership and operation of various functions and assets divided between the public and private sectors to varying degrees. The table below is a simplified illustration of how this division can look.

Table 11: Generic Port Institutional Models (Bichou, 2010)

	Infrastructure	Superstructure	Workforce	Regulation
Landlord	Public	Private	Private	Public
Tool	Public	Public (Private)	Private (Public)	Public/Private
Service Public	Public	Public	Public	Public
Service Private	Private	Private	Private	Private/Public

Since the deregulation of Romania's ports sector in the early 1990s, there has been a major shift towards the landlord port model. Under a typical landlord structure, the private sector owns and operates the superstructure and workforce, while the main role of port authority (or port administration) is to:

- provide and manage basic infrastructure facilities such as waterway infrastructure, utilities and road/rail access,
- manage and regulate port and terminal leases and concessions; and
- plan, promote, and implement the development of port facilities and services.

The Grantor / Authority in this Project is the Sulina Free Zone Administration (SFZA) which has a different status to port administrations in Romania. SFZA was established in accordance with the provisions of HGR (Romanian Government Decision) no. 156/22.04.1993 as a legal entity with autonomous management status, operating under the coordination of the Ministry of Transport through the Free Zones Agency.

As such, SFZA manages the entire infrastructure of the Sulina Free Port, the territories declared free zones and the assets under its ownership. In accordance with Art. 6 of Annex 3 of HGR (Romanian Government Decision) no. 156/1993, SFZA has, among others, the following attributions:

- Administration of the entire infrastructure of the Sulina Free Port and the territories declared free zone and the superstructure from its own endowment,
- Repair and maintenance of administration buildings,
- Maintaining in working order the facilities for water supply, heating agent and electricity,
- Maintenance of access roads,
- Sanitization and depollution of port basins, buildings and constructions located in the Sulina Free Zone, including petroleum, domestic and industrial residues,
- Establishing the minimum annual rates for all activities that take place in the territory of the Sulina Free Zone and subjecting them to the approval of the Ministry of Transport,
- Launching studies and programmes regarding the proportions, levels and paces of development of the immediate and perspective exploitation activities for the development, modernization and systematization of the Sulina Free Port,

- Ensuring the signalling and marking of access channels, basins and quays, in accordance with navigation safety rules,
- Ensuring pilotage, towing and manoeuvring in Sulina Free Port and in its radius,
- The development of technical rules regarding the construction, modernization, maintenance and exploitation of the port infrastructure and superstructure provided,
- Ensuring the maintenance of the depths at the berths, in the basins and on the signal, of the signalling and marking of the access channels,
- Organizing and ensuring control and security at the access gates and in the fenced perimeter, so that access to people and goods is not allowed except under the conditions of special regulations.

From the above, it is clear that SFZA's roles and functions are aligned with that of a landlord port model with the difference that some of its infrastructure and assets are under the free zone regime, therefore benefiting from certain tax and customs incentives. In this respect, five options are theoretically possible. Note that under all options, SFZA, or an associated public authority, will still be responsible for waterway dredging for safe navigation from the mouth of the Sulina Canal to the port perimeters. Similarly, SFZA shall also be responsible for utility connections and good road access to the port (perimeter) gates.

- Option 1 involves the Grantor bidding out, directly or through government funding, all capital investments in both infrastructure and superstructure namely (i) the dredging of the basin and quay vicinity, (ii) the rehabilitation and upgrade of quay walls, (iii) the surfacing and strengthening of port yards, (iv) the provision of port equipment, machinery, sheds and warehouses, and (v) the extension of utility connections and supply beyond port gates into terminal areas. Option 1 removes most risk-sharing elements of the Project as the Grantor/Authority bears little or no project risk. This option is referred to as the basic landlord model.
- Option 2a involves the Grantor investing in the basic infrastructure of the port, both nautical infrastructure (dredging and waterways) and terminal infrastructure (rehabilitation of quay walls and resurfacing of yards); whilst bidding out the superstructure, workforce and operations to the private sector. This option is referred to as the advanced landlord model.
- Option 2b is similar to Option 2a with the difference that the Grantor only provides capital investment for nautical infrastructure (dredging and waterways) while both the rehabilitation of terminal infrastructure and the investment of the port superstructure are the responsibility of the private sector. This option is referred to as the varied advanced landlord model.
- Option 3 involves the Grantor issuing a Capital Grant as an equivalent to implementing the basic infrastructure works. Option 3 replaces Options 2a or 2b with payment of a Capital Grant to the private investor, who will then develop the infrastructure (the main feature of Options 2a or 2b). One of the major benefits to Option 3 is the reduced interface risks resulting from public sector involvement, whilst also signalling Grantor's commitment to the private sector. This is referred to as the capital grant landlord model.

- Option 4 involves the creation of a joint venture between SFZA and the private sector. Under this option, SFZA would need to provide some minimum capital investment of the total equity investment as well as management and operational support to the Project. The feasibility of this option is subject to legal and regulatory clearance (to be checked further) and the viability of having SFZA involved in operational and management support of the project. This option is referred to as the joint venture port model.

From the above, and given the financial, legal and institutional capacity of SFZA, **Option 1** (basic landlord structure) is the only feasible institutional structure of the project, which will also have implications on the commercial and financial structures of the SGP project.

6.2. Legal Structure

In Romania, port administrations and free zone authorities can manage and develop the waterborne transport infrastructure which they have been entrusted with via one of the following contractual tools: concession agreements or sub-concession agreements, lease agreements, concession of works and services, Public Private Partnership (PPP) contracts, and contracts for works and services.

As detailed in Chapter 5 above, the only feasible and attractive legal option for the SGP project is that of the concession of goods or assets.

6.3. Commercial Structure

Regardless of whether the project is bundled into one lot or unbundled into separate lots (planning structure as discussed below), the business plan and service activities under the scope of the project will cover the followings:

- Ship services such as pilotage, mooring/unmooring, berthing, ship handling, bunkering and supply, etc.
- Cargo services such as stevedoring, cargo loading and unloading, truck loading/unloading, cargo storage and warehousing, cargo dispatch and delivery, and other ship and cargo related services and value added logistics,
- Other ancillary services to be identified and further promoted, e.g. small craft berthing and repair, small green production facility, etc.

As for concession terms, the duration of the concession or lease is provisionally set at 30 years following the results of the initial feasibility study. Varying durations of concession terms will be further investigated in line with the planning structure with a view to assess the feasibility of shorter concessions and establish whether the Project will generate sufficient cash flow to service the required amount of debt, whilst providing bot investor and authority with a reasonable rate of return over time.

The business model makes a distinction between the public “landlord” authority and the private port operator. The following diagram depicts the generic cash flows across the possible project structures.

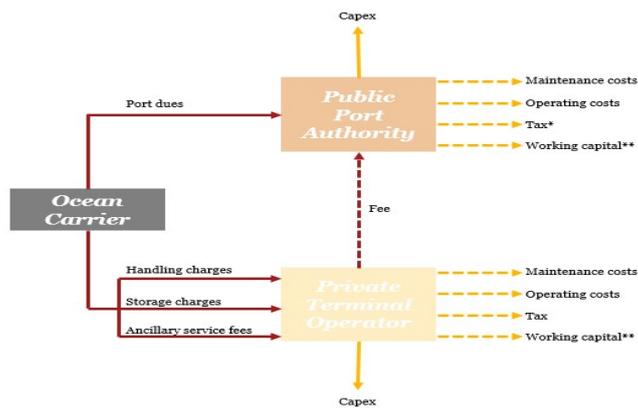


Figure 23 : Generic overall cash flows across project structures

The revenue of the Project stream will be primarily based on end users’ payments, in return for services rendered. The revenue will not be generated until the facility is commissioned and fully operational. This way, the operator will be assuming all of the revenue risk. It is, however, possible for the Grantor to provide the operator the right to generate revenues from any existing and functioning infrastructure (e.g. EU funded area), which could allow the Grantor to receive more favourable terms from the private sector participant.

Table 12 SGP revenue streams

Revenue stream	Description
Handling revenues	For (loading/unloading) ship’s cargo passing through the port, including ship-to-ship and ship-to-barge transfer
Storage revenues	For basic storage and/or stockpiling of cargo through the port
Transport revenues	For services related to cargo transportation, receipt and delivery
Lease and rental income	From third party companies that would need to lease, rent or hire equipment, commercial facilities, and/or land plots in the port area
Warehousing revenues	Revenues received from additional or long-term storage required by users beyond the basic storage outlined above.
Cargo processing revenues	Revenues received from cargo processing, consolidation and break bulk, cargo examination, bagging / packaging, cleaning, etc.
Ancillary revenues	Revenues from a broad spectrum of extra services in ports including but not limited to (green) energy production, electricity and water supply, telephone and internet services, garbage and waste disposal, security and safety services, etc.

In either case, the port operator builds up its revenues over time which will be generally variable depending on the handled volumes of traffic. The business case of the operator computing the return on investment will be therefore greatly dependent on throughput (traffic) volume, the extent of services offered, the port tariffs and charges (prices), and the capital expenditures (amount and timing) to develop the necessary capacity.

The business case of the port operator is linked to the business case of the authority by means of a payment mechanism such as rents or concession fees. The port authority can therefore influence the financial attractiveness of the port operator in a positive or negative way. Too high fees charged by the authorities to the operator may be detrimental to the economic feasibility of the terminal which needs to exceed a minimum return for bearing risk, as well as requiring sufficient annual cash flow to repay its lenders.

The revenue of the authority is also influenced by the customers attracted by the operator. Shipping customers are charged harbour dues by the authority for using the general public port infrastructure.

6.4. Financing and Funding Structure

The financial structure of the Project will be derived from the institutional and commercial structures, as well as on the risk profile of the project and legal framework governing the concession or lease contract. In international best practice, it is less common for the concessionaire to invest in basic infrastructure, at least for dredging and waterway infrastructure, as it is difficult to price the use of the same in a manner that permits the concessionaire to realize a reasonable return on the investment, and also because these assets are largely immovable and have no comparable alternative use. However, it may be possible to offset this against longer concession terms, or in the case of this Project, by the existence of quay and land infrastructure, albeit in need of major upgrading and rehabilitation

For illustration, Figures 24 and 25 provides a general financial structure of the two options.

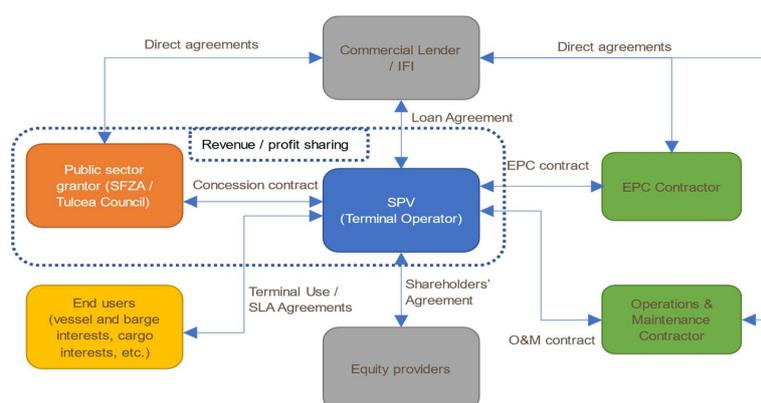


Figure 24: Financial structure of the basic landlord model

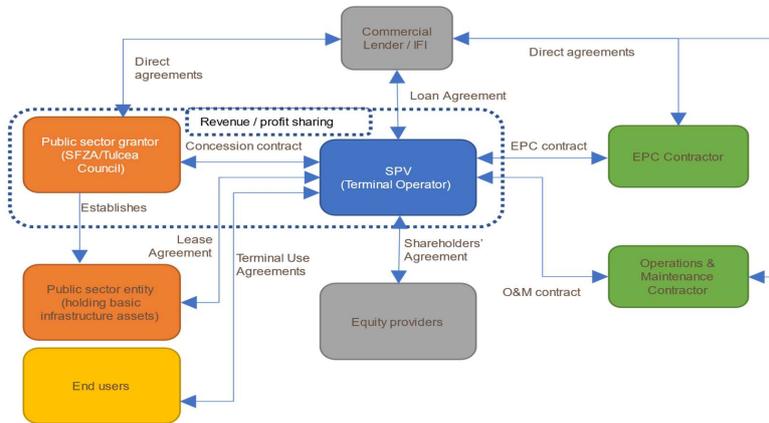


Figure 25 : Financial structure of the advanced landlord model

6.5. Concession Fees and Payment Mechanisms

As for concession fee structures, the type and structure of the payment mechanism can vary from simple fixed rents to variable fee structures, or a combination of many structures as shown in the table below.

Table 13: Payment mechanism options

Payment structure	Description
Fixed rents	Fixed rents generate a steady cash flow to the authorities. The rents can be further segmented in function of the activity, the location in the port, the type of land, the surface type (paved/non-paved), the available depth. Some authorities further split the rents in 'land rents' (per sqm.) and 'quay rents' (per m).
Lump sum	The fixed rents may be converted into one upfront lump sum payment. The upfront payment can be used by the public authorities to fund other (related) investments.
Royalties	Royalty implies a charge per ton or passenger handled. The royalty can be combined with the fixed rents.
Variable throughput charges	The payment mechanism can be fully or partly variable allowing throughput risk sharing. Typically, a fee per ton or passenger is charged. The price level can be segmented per product category. The pricing levels of the variable fees can be adjusted using sliding scales in order to incentivize throughput optimization.
Revenue/Profit share	Revenue and profit shares are dependent on the financial performance of the terminal and imply a risk sharing mechanism when volumes are uncertain or at risk. In case they are combined with a fixed rents system, they rather aim at skimming extra profits.
Performance driven payments	More authorities start steering on their policy goals by including a bonus/malus system. Performance targets are set and penalties or rewards are given in function of measurable KPI's related to the utilization of the assets, the sustainable use of the assets, volume growth, etc, for example.

Minimum guarantees and obligations of operator	Minimum guarantees can be added to manage risk. Most common are minimum throughput guarantees. A penalty is included in case the minimum throughput level over a certain period is not met. The authorities can include the right to stop the contract when the performance is under the defined threshold.
Entry tickets	Entry tickets are a type of lump sum payment in addition to the rents (or variable payment mechanism). It can be used as an add-on allowing skimming the intrinsic value of the project. Possibly, operators have to bid on the entry ticket.

Since the SGP project entails significant rehabilitation costs with most risks being borne by the Concessionaire, especially under the preferred basic landlord delivery option. In addition, SFZA is expected to retain harbour and ship dues and other mooring charges for funding basic administrative costs as well as some management costs related to their role as landlord and regulatory authority of the Project.

To balance risks and allow for attractive options for potential investors, we recommend the structuring of the concession fees for SGP project to use a mini-max revenue sharing mechanism tied up to throughput bands or thresholds. Figure 26 below shows the methods used to implement variable payment elements, including our recommended mini-max structure.

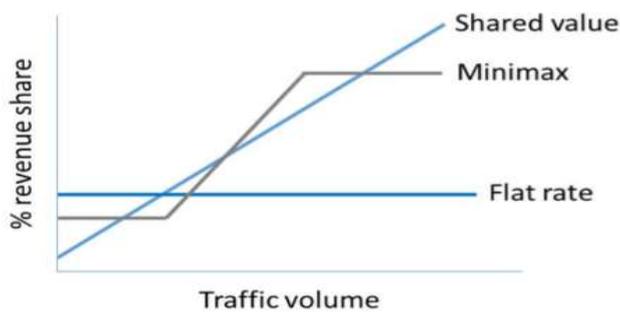


Figure 26 Variable Element Payment Mechanism Types
(Flat, Fixed Rate Shown for Illustration Only) Source: Bichou, 2015

Under a mini-max structure, the terminal operator would be required to pay a minimum flat (fixed) annual fee to the authority (SFZA) regardless of revenue and/or traffic volumes. The minimum fee could be assimilated to an entry ticket fee and is used to provide a guaranteed income to the authority, which could be used to cover administrative, management and regulatory costs related to the project. The maximum fee corresponds to the ceiling for the maximum or the capped fee to be paid by the operator. It is usually structured to correspond to a desired maximum throughput capacity or derived revenue.

In other words, the maximum concession fee that the operator is expected to pay would be equal to the unit variable fee multiplied by the desired maximum capacity. Should the operator achieve higher throughput than the desired capacity, those would not attract any concession fee payments. Between the fixed floor (minimum) and ceiling (maximum) payments, a variable

fee structure is applied commensurate with the level of traffic/throughput. To encourage the operator to increase throughput, the latter is usually divided into 4 or 5 volume thresholds with the variable rate decreasing as the throughput increases from a threshold to another.

Note that whilst, in very few instances, the conceding party has pre-defined the level of one of the concession fee components in the bidding documents, in most cases initial fee rates are included as a bidding-criteria in the financial offer as is the case of the concession of goods recommended as the legal structure for this project. For the SGP project, we suggest implementing the latter approach so that the shared revenue bands and formulae are proposed by investors in their bids, then negotiated with SFZA during the bid management process.

6.6. Planning/Zoning Structure

In view of the structures outlined above and taking into consideration the market structure of this Project and initial feedback from both the Grantor and potential investors; three bundling/unbundling options in line with the Sulina PUZ and development plans. Note that in all the 3 options, the Southern quay wall and backyard land of Perimeter II is put outside the scope of concession. Planning-wise, this zone is more for recreational purposes which the SFZA would like to retain and manage for small boat berthing and recreational activities.

1. **Option 1:** Single bid for all project site(s) as one bundled lot.
2. **Option 2:** Single or Combined bids for either Perimeter I and/or Perimeter II.
3. **Option 3:** Single or Combined bids for one or a combination of three sites:
 - 3.1. *Perimeter I (zone A)*
 - 3.2. *L-shape Northern and Western basin and backyard land of Perimeter II (zone B1)*
 - 3.3. *Eastern basin and backyard land (Zone B2). If needed, this zone can be further split into two sub-zones.*

Figure 27 below illustrates the proposed planning/zoning structure of the SGP project in Perimeter I (Zone A) and Perimeter II (Zones B1 and B2) under Option 3. Further description of each option with attached advantages and disadvantages is provided in Table 15.

SFZA and its board are presented with these options for them to select the most optimum option. This will then trigger the preparatory work for the tender documentation and launch.

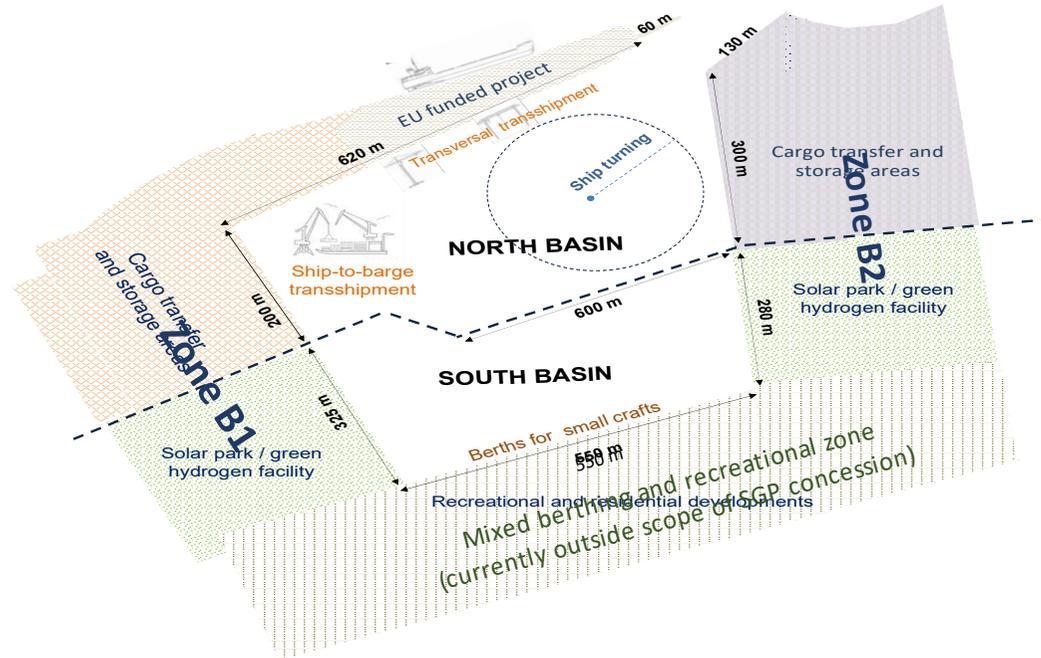


Figure 27 Proposed planning structure for Perimeter I and II under Option 3

Table 14: Initial assessment of the advantages and disadvantages of planning options for SGP project

Options	Advantages	Disadvantages
Option 1 (Single bid for one bundled lot)	<ul style="list-style-type: none"> - One bid, single procedure. No necessity to prepare different tender packages and go through evaluation of numerous bids. - The selected bidder likely to be a bigger company, able to generate more traffic and activity, potentially more experienced in conducting the business, hence less likely to go bankrupt. - Smaller, local operators could participate as subcontractors and gain experience. - More manageable during the operational phase - Could be attractive to single SPV/bidder who could manage its operations in a very diversified way. - Possibility to single bidder to operate also smaller ships (up to 6,000 dwt- 8,000 dwt) in Perimeter I, without any interference with operations of bigger ships in Perimeter II 	<ul style="list-style-type: none"> - Big operators might be put off by the fact that they have to takeover also Perimeter I, which is small and has a different business proposition. - Risk of no bid as terminals already operational could be bought in Constanta Port with lesser risk. - Risk of excluding smaller operators since the use of SPV and joint cooperation options are not well entrenched in the local business community. - Threat that SFZA will be marginalized (generally not an issue as regards port development, but SFZA less likely to approve such solution) - May be more difficult to reach financial close due to bigger CAPEX.
Option 2 (Single or Combined bid for Perimeter I and/or Perimeter II)	<ul style="list-style-type: none"> - More bidders could attend the concession procedure. - Could be a favourable option for big players who seek the right to fully exploit independently as per their needs or could simply decide to subcontract certain designated areas to third parties (a model widely used by big players in Galati and Constanta Ports). - Option may introduce competition between operators if bidders are not allowed or permitted to bid for both sites - Easier for obtaining financing and closing the project 	<ul style="list-style-type: none"> - If only Perimeter I will be concessionned (due to smaller costs needed in order to have it operational), the scope of concession will not be achieved. - Risk of no medium or small size operator bidding for Perimeter II, as it is difficult for them to raise the required finance and also due to lack of technical and managerial capacity. - More administrative work with tenders - More work to monitor project during operational period - May be competing businesses, cannibalizing each other
Option 3 (Single or Combined bid for Perimeter I, Zone B1 of Perimeter II, and/or Zone B2 of Perimeter II.	<ul style="list-style-type: none"> - Golden option for small businesses and local interests - May spur co-opetition between operators - Single variant bid - Advantageous split of responsibilities of individual operators - Provide flexibility 	<ul style="list-style-type: none"> - May put off big bidders, especially if they are not permitted to bid and win all sites. - Less likely to have really big companies to attend the tender and to bring significant volumes of traffic - Operationally difficult to manage and regulate with different construction and operation timelines. - May breach competition rules if one bidder is allowed to win and operate all sites - More complex to contract manage and regulate during operational phase. - State aid issue may need to be addressed (for the SPM EU project)

6.7. High-level Economic and Financial Assessment

Given the scope and time framework of this Study, it is not possible to carry out a structured economic or financial analysis of the project in a detailed or comprehensive way. Financial appraisal and analysis of the project requires detailed financial modelling including specific information and alternative assumptions about project timeline, financing mechanisms and debt service, tax arrangements and treatment of dividends and returns, etc., all of which are beyond the scope of this Study and cannot simply be carried out within its timeline. Similarly, in addition to project financials, economic analysis requires the economic conversion of project's incremental costs, value added of incremental production, the quantification of externalities using standardised CBA (cost-benefit analysis) rules and advanced I/O (input/output) models, etc.; all of which is equally outside the scope of this Study.

Despite the above, based on some reasonable assumptions a high-level assessment can be attempted to provide some initial indications on project's feasibility from both economic and financial perspectives.

Given the scope and time framework of the Opportunity Study, a high-level assessment of the economic and financial benefits of the SGP project was carried out.

From an economic perspective, key benefits generated by the project are summarised below:

- Incremental economic output through jobs. Based on similar port projects, it is expected that the SGP will create 200 direct jobs during construction, around 60 direct jobs during operations, and up to 150 indirect jobs (in pilotage, ship and port agency, bunkering, ship repair, chandlery and supply, cargo warehousing, etc.) based on the industry's 2.5 multiplier factor. Each job created generates taxes but also livelihood and economic growth in the project area (Sulina town and vicinity) which have been suffering from long-term trends of depopulation and spatial deprivation. If properly structured, operated and managed, the SGP and the businesses directly depending on it will be the major employer and economic engine of Sulina town and communities.
- Incremental economic output through taxation. In addition to taxes generated from direct and indirect jobs, additional tax revenues would be generated from the project's activity. Both the operator(s) of the SGP and the businesses around it would be liable to pay corporation, local and other business taxes on their profits, thus generating further revenues to local authorities and the national Government.
- Reduction in freight cost: The SGP project will establish new alternative transport routes for cargo routing and logistics arrangements. Compared with existing sea-river traffic, river transport via the Black Sea canal, rail and more disadvantageously road, are far cheaper and cost-efficient. This is particularly important for cargo bound to Sulina town which can benefit from a reduction of at least 20% of the cost of transportation.
- Reduction in transport journeys: The transport distance to hinterland and even some foreland markets can be reduced by up to a 1/3rd when using the SGP Sulina route

compared with the Black Sea canal route, even assuming similar speed. For instance goods bound to Tulcea via the Black sea canal would travel 220 km from Cernavoda against 75 km from Sulina. The reduction in transport distance and travelled journey translates into cost and time savings benefits for both ship and cargo interests.

- Reduction of vessel operating costs: Along the reduction in transport journeys, the SGP project will offer transshipment services through the combined used of handysize ships and barge-convoys thus resulting in scale economies and the reduction of unit-ton fuel, crew and operating costs. Furthermore as ship/barge utilisation is expected to increase significantly with the SGP, compared with current half or part-full ship, it is expected that fuel cost per unit transported may be halved on ship/barge journeys across the maritime Danube.
- Environmental benefits derived from reduction of noise and emissions. The SGP project environmental benefits manifest themselves not only in the reduction of fuel consumption due to the reduction in distance travelled but also in the reduced amount of emissions from barge convoys compared with ship only or ship-road transport combinations. As an indication, using the same amount of fuel, a ship-barge combination will carry 10,000 tons over 375km, compared with 1,500 tons over 300 km by rail, and only 20 tons over 100 km by trucks.
- Additional induced economic benefits due to sector multipliers and linkages: The SGP project will not only generate jobs and taxes and reduce vessel operating and freight costs, but most importantly it will increase connectivity and accessibility and attract investments and economic growth and support other sectors such as cruise shipping and tourism.

From a financial perspective, the core function of forecasting project costs and revenues is simplified in this Opportunity Study by assuming 3 project development phases starting at years 1, 3 and 17, respectively, then aggregating presumed costs and revenues for each phase, and deriving project financials after concession fees but before taxes and interests. The high-level calculations shown below do not include financing costs or escalation rates and are not modelled annually, but they still provide a high-level overview about project financials:

- The timeline of the Project phases is divided into 3 phases: Phase 1 is dredging and rehabilitation phase over 2 years, Phase 2 is initial operation phase (including investment made in Perimeter I and II under the SPM EU-funded project), and Phase 3 is the expansion of the Project which includes further development and operation.
- The project initial costs are categorised as CAPEX, taking place at Phase 1 and Phase 2 of the project, and includes renewal of equipment and transshipment systems in Phase 2. Fixed OPEX, which is independent from port activity and traffic volumes, includes costs for basic port management, (fixed) labour, utility and insurance costs, IT systems, security, etc. is estimated at €300,000 per year and calculated based on similar cargo and operational configuration and timeline of the project. Variable OPEX relating to equipment and system's maintenance, is a function of the volume of activity and is estimated at €0.12 per ton handled. Fixed maintenance OPEX mostly relates to large

maintenance dredging and usually occurs every 10 to 12 years, i.e. twice during this project concession period. It is estimated at an annual flat rate of €250,000 throughout the project's timeline but this rate may vary depending on the results of technical studies regarding the basin's soil and sediments characteristics as well as dredging conditions. It should be noted again that the capital and operating expenditure are high-level estimates based on our proposed configuration which may differ from that of the prospective investors.

- Project revenues are a function of port throughput (tons handled and/or activity generated) and prices (tariff and service charges). Port throughput is based on median traffic forecasts (scenario 2) and is further averaged in this analysis over each phase.
- Port prices are estimated using market-based tariff charges currently applied in Tulcea. We also add a conservative factor of 65% over handling charges per ton to account for revenues from cargo storage and warehousing, value added services and other ancillary activities. On the other hand, as with project costs, the applied handling and service prices were not escalated, thus the figures shown may actually fall within the mid or lower range of revenue estimates.
- Because traffic forecast estimate that the SGP cargo port reaches its capacity in year 25 (based on scenario 2), we carried out the same level of traffic and throughput estimates till year 30 marking the end of the concession period.
- Based on the above, initial project costs for all phases totalised €47.3 million against an estimated cumulative gross revenue of €400 million to €500 million (in current prices) over a period of 30 years as shown in [Table 15](#) below. Nevertheless, actual project costs are likely to be 30% to 35% higher once financing, escalation, marketing, regulatory and other costs are considered. Similarly, net project revenues are likely to be 40% to 50% of lower once taxes, dues and other charges are considered. Even with those adjustments, the initial project financials seem healthy and sustainable with a gross profit of over 35-40% which is well beyond industry benchmarks.
- Project revenues should not be confused with the Grantor's (SFZA) revenues, the latter include revenues both from concession fee payments (anything between 10% to 30% of project net revenues) and from port dues and mooring charges (usually set at market or regulatory rates). However, when forecasting project revenues, the grantor must also consider project benefits using evaluation tools such as value-for-money and public-sector-comparator benchmarks, which are not part of this Opportunity Study.
- Even without considering revenues from concession fees and port dues, SFZA's net gain from the project will be at least equivalent to the project's base costs, estimated above at €63.8 million inclusive of financing, preparation and escalation. Simply put, the initial intrinsic value of the project would be at least equal to the cost of investment by the concessionaire, as without concessioning the SGP project, existing port assets will only further deteriorate (beyond their already depilated state) and will cost more to rehabilitate and upgrade in the future.

- In addition, the grantor may also need to consider that part of the competitive advantage of the SGP driven by the current favourable regional context might be diminished once regional risks and uncertainties are settled or restored.

Table 15: High Level Estimates of Project Costs and Revenues

Phase	Construction commences	Operation commences	Operation ends	Cost (Euro)	Throughput (tons)	Revenue (Euro)
Phase 1	Year 1	N/A	N/A	CAPEX: 20,000,000 Fixed OPEX: 400,000 Fixed Maint. OPEX: 0 Variable OPEX:0	0	0
Phase 2	N/A	Year 3	Year 30	CAPEX: 0 Fixed OPEX: 6,000,000 Fixed Maint. OPEX: 3,000,000 Variable OPEX:1,800,000	23,000,000	300,000,000-350,000.000
Phase 3	Year 16	Year 17	Year 30	CAPEX: 10,000,000 Fixed OPEX: 3,600,000 Fixed Maint. OPEX: 1,500,000 Variable OPEX: 1,000,000	8,500,000	100,000,000-150,000.000

7. Risk Analysis

7.1. Overview of Project Risks

7.1.1. Legal and Regulatory Risk

Legal and regulatory uncertainty is a risk that must be addressed and mitigated for any successful project financing. Such risk may stem from unclear legal provisions for project financing and concessioning, uncertain or unstable legal framework, and frequent changes in law. To mitigate against this risk, the concessionaire may seek legal clarification, a guarantee of legal stability and/or a contract revision clause so avoid any change in law that could materially affect the financial viability of the project.

7.1.2. Political Risk

Political risk may stem from extreme changes in the political framework that governs the country or due to other political events in neighbouring countries, e.g., the Ukraine war, which could disrupt port operations and affect port traffic, costs and revenues. Ports also face the risk of potential policy change that may arise as a result of changed agendas of successive governments and political parties.

7.1.3. Interface Risk

Interface risks in port projects stem from the overlap between regulatory and jurisdictional roles of various public sector agencies such as port authorities, transport ministries, maritime agencies, environmental authorities, and local councils and administrative authorities. Often an extensive array of government agencies can assert legitimate, and sometimes conflicting, jurisdictional oversight of port-related issues. Transaction parties are well-advised to ascertain whether conflicts, and therefore potential problems, may arise in the course of project preparation, concessioning and operation. Sometimes, investors may request an interface agreement or similar MoU type agreement between the various agencies to be incorporated into the project's agreement.

7.1.4. Design and Site Risks

The building approval for contracts or issuance of authorizations from administrative authorities may cause delays in the project – these delays usually lead to increased costs for a concessionaire or at worst, the cancellation of the project. This is a risk usually borne by the concessionaire, the government is expected to also provide some form of support or assistance. Site risks relate to the use of the project land, and consents/approvals required to utilize or lease additional land. As the land is typically leased from SFZA, SFZA would typically be expected to bear this risk.

7.1.5. Construction and Procurement Risks

Port developments often require the precise integration of land-based and maritime construction activities. Frequently, specialized engineering services may be sought to address

needs as diverse as channel dredging, the laying of pier supports and proper turning basin and quay design. Conversely, there are many straightforward civil engineering activities required for construction of many land-based port facilities, such as access roads, terminal buildings, storage facilities and others. Sponsors/owners may wish to engage local (and local currency-paid) constructors for the latter activities, while retaining highly skilled (and more expensive) foreign parties and their large capital equipment for the more complex tasks. Construction “wraps” may not be feasible because of the lack of relationship of the parties involved, or the prohibitive cost of including turnkey exposure (and associated credit support) in contract pricing. Highly structured solutions – involving financial, legal and technical components – may be required to provide adequate assurance of timely project completion.

Procurement risks relate to the unavailability or scarcity of crucial goods or services, or unforeseen rises in the cost of allocated resources for the project. This is particularly pertinent to port projects as they often depend on public monopolies to supply critical requirements such as water and electricity. This may affect the delivery and timeline of project completion.

There are several ways to deal with procurement risk, including the supply of the goods or service by the concessionaire themselves, or entering into a long-term supply contract for the goods or services. Sometimes this will require the government’s assistance if the project has a substantial public service dimension.

7.1.6. Demand and Revenue Risks

Successful transportation project structuring generally requires solid market analysis to ensure that adequate demand, whether toll road usage, aviation passenger loads, or other relevant throughput, will exist to support the service to be provided. There are a number of macroeconomic factors, such as population, consumption, production, exports, etc. that will affect the volume of trade flowing through the transport chains. Port projects, particularly in a strategic or spatially complex geographical location multiply the challenges of defining and analysing market risk.

Shipping traffic can be diverted to ports with better infrastructure, favourable tariffs, better intermodal connections or synergistic opportunities which become available as a result of competing projects “right next door.” In these circumstances, financiers uncomfortable with solely relying on macroeconomic analyses and projected traffic and volume loads may seek to bolster project economics with some level of user commitments in the form of terminal use agreements, throughput guarantees, or other contractual support for their credit exposure.

7.1.7. Operations and Management (O&M) Risks

Port operations are complex and involve multiple moving parts with many independent participants performing complicated roles that require coordination and adherence to agreed set of practice principles. Mitigation of such risks, through various methods such as careful selection of qualified concessionaires, procurement of appropriate insurance, and enforcement of adequate health and safety standards is essential.

In addition, defective maintenance of port facilities creates 3 types of risks: commercial risk for the concessionaire as a consequence of the deterioration in the level of service offered to customers, risk of default by the concessionaire with respect to its performance obligations

to the concessioning authority, and finally the risk of deterioration of the assets. The commercial risk is best borne by the concessionaire and poor service will be penalized by the market. The performance risk is usually managed in the performance obligations in the concession contract. Finally, the asset deterioration risk is usually managed by the concessioning authority by requiring repair and maintenance work standards to ensure the satisfactory preservation of the assets, particularly where the assets are handed back to the port authority after the end of the concession.

7.1.8. Performance Risks

Performance risks relate to the ability of the concessionaire/investor to provide ongoing services, meet performance standards and satisfy compliance with the relevant laws. These risks are associated with the investment in and operation and implementation of the project and are typically allocated to the concessionaire in the contract between the concessionaire and the port authority, as the concessionaire is best placed to manage the risks and assume the consequences of the same.

7.1.9. Financial and Currency Risks

The key financial risk for port projects often relates to foreign exchange, where debt incurred for port development is denominated in USD or Euros, whilst revenues tend to be denominated in local currencies. In the event of unexpectedly volatile fluctuations in the foreign exchange market, difficulties converting of the local currency into foreign currencies, or restrictions from transferring/exporting funds out of the host country, this could cause financial difficulties in servicing USD or Euro denominated debt to both Authority and concessionaire. In extreme cases, this can lead to concessionaire failure, disrupting port operations. The concessionaire may seek convertibility and/or transferability guarantees from the government or central bank.

7.1.10. Default Risk

This is separated into termination due to government and termination due to concessionaire. Typically, termination due to government default or voluntary termination by government should be a risk borne by the government. Similarly, termination for concessionaire default should be a risk borne by the concessionaire.

7.1.11. Force Majeure Risk

Force majeure is usually defined as events outside the control of the parties and events that are not reasonably foreseeable (or against which it is difficult to take preventive measures) and which prevent or hinder the performance of all or some of the obligations of the parties. In addition, a list of events of force majeure may be included upon agreement of the parties, such as acts of God or natural disasters, war or terrorist attacks, nuclear accidents, etc. In certain contracts, unilateral decisions by the government may be negotiated into the list of such events, in particular where such decisions discriminate against the concessionaire. If the risk is high, say terrorism risk due to political instability, the concessionaire may push to include such risks as force majeure events under the contract. The result is typically a suspension of

the mutual obligations of the parties, subject to an obligation to mitigate against the effects of the force majeure event; and sharing of the burden of the force majeure events.

7.2. Risk Allocation Matrix

We set out below a risk matrix which mirrors the institutional structure of SFZA and the commercial, legal, financial and planning option(s) for the project. For each identified risk, we have included a rating of 1 to 5, with 1 being a very low risk rating, 2 being low, 3 being medium, 4 being high and 5 being very high. Ratings are based on our assessment in the context of this Project.

Table 7: Risk Allocation Matrix

Risk	Implication on Project	Risk rating	Risk Allocation (Grantor, Concessionaire, Both)			Market Practice / Recommended Practice
			G	C	B	
Political / Regulatory Risk	Change in law - General - Discriminatory	2	<input checked="" type="checkbox"/>			Change in law risk that affect the viability of a project is almost always borne by the authority, which, as a public body, is regarded as being best placed to bear this risk. Discriminatory or specific (to the port or the concessionaire) changes in law should give rise to compensation to the Concessionaire. The Concessionaire may request for a guarantee of legal stability or to include a contract revision clause so as to avoid a scenario where a change in law materially affects the financial viability of the project. Changes in law will also almost always entitle the Concessionaire to a right of variation of obligations if it becomes illegal or impossible to perform the obligation.
Political / Regulatory Risk	Change in taxation - General - Discriminatory	2			<input checked="" type="checkbox"/>	There are two key scenarios, namely general taxation change and a specific taxation change. Specific changes that discriminate against the port or that are not general in nature are usually a Government risk. Otherwise, general taxation change would be a Concessionaire risk. This is generally considered a very serious risk as it affects the financial viability of the project.
Political / Regulatory Risk	Constraints on Foreign Investors after investment	1	<input checked="" type="checkbox"/>			If introduced after the concession agreement is signed and the change in law has retrospective effect, then risk is usually assumed by Authority and should appear as discriminatory change of law.
Political / Regulatory Risk	Insufficient precision in applicable laws and regulations, or misinterpretations and disputes in relation to interpretation.	2		<input checked="" type="checkbox"/>		The risk of noncompliance with laws by the Concessionaire is almost always exclusively carried by the Concessionaire, who will need to conduct a thorough legal analysis prior to its commitment to the project.
Design Risk	Detailed design and building approvals and consents from regulatory authority	2		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Usually Concessionaire's risk as the detailed design will be prepared by the Concessionaire or its contractors. However, Authority may be required to provide assistance.
Design Risk	All other necessary Government feasibility approvals and consents (e.g. environmental, archaeological, utilities)	3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Usually Concessionaire's risk, but Authority may be required to provide assistance.

Risk	Implication on Project	Risk rating	Risk Allocation (Grantor, Concessionaire, Both)			Market Practice / Recommended Practice
			G	C	B	
Design Risk	Third party approvals/consents (i.e. from unrelated parties)	1		<input checked="" type="checkbox"/>		Usually depends upon the type of approvals/consents required. This includes things like rights to run pipes and other utility lines over privately owned land, etc., although as far as we are aware, this does not seem likely.
Design Risk	Risk that the project has not been designed adequately for the required purposes	2		<input checked="" type="checkbox"/>		The Authority will often stipulate the design requirements broadly so as to allow room for the concessionaire to innovate and obtain efficiency gains. The Concessionaire will then be responsible for the adequacy of the design of the project and its compliance with the relevant performance or output specifications. However, to the extent the Authority has prescribed certain design requirements to meet the output specifications, the Authority would be responsible for such design risk. It is not uncommon for a design review process to be incorporated, which would allow for dialogue and cooperation between the Authority and Concessionaire (however, the Authority should ensure that this process does not work to reduce/limit the Concessionaire's liability for design risk).
Design Risk	Changes in design and construction standards	4			<input checked="" type="checkbox"/>	Usually depends upon the reason for the change. If the original design was deficient then Concessionaire's risk. If required by Authority where no default by Concessionaire then the Authority will bear the risk.
Site Risk	Land use rights/ lease (eventually right-of-way)	2	<input checked="" type="checkbox"/>			Usually Authority risk as it is best placed to select, acquire and provide land use rights for the project. In particular, where there are historic encroachment issues, indigenous land rights issues, or relocation issues, the Authority cannot expect the Concessionaire to manage this. However, given that the land surrounding the proposed site is owned by the Authority, we think the risk here is low.
Site Risk	Consent to use/ lease additional land	2	<input checked="" type="checkbox"/>			May not be practicable because of delay caused in obtaining additional consents but, if required for the Project, usually Authority risk.
Site Risk	Access to the Project site from local roads, railways or worksites	2	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Access risk relates to the existing connecting roads and railways to the Project site. Ensuring access and providing upgrades to roads is usually Authority risk (until specifically indicated in the tendering contract), as the surrounding infrastructure required to support the project is particularly important to the success of the port. There usually also is a risk of damage to the access roads and/or railways. Excessive load is usually Concessionaire's risk. Normal loads should be Authority's risk.
Site Risk	Environmental –pre-existing conditions	3	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	The Authority should conduct detailed ground, marine and environmental due diligence and should disclose the results to the bidders as part of the bidding process. Pre-existing conditions that are disclosed to the Concessionaire will usually be Concessionaire's risk. The site will normally be handed over in an "as-is" condition, and the Concessionaire would need to manage the environmental strategy across the project and obtain all relevant licences and permits. Where it is not possible to fully survey prior to award, risk will be allocated to the Authority or shared. With respect to unforeseeable adverse conditions revealed by surveys, generally this will be allocated to the Authority.
Construction Risk	Quality assurance and quality control	3		<input checked="" type="checkbox"/>		Almost always the responsibility of the Concessionaire. Independent Consulting Engineering will ensure this is done accordingly.

Risk	Implication on Project	Risk rating	Risk Allocation (Grantor, Concessionaire, Both)			Market Practice / Recommended Practice
			G	C	B	
Construction Risk	Achieving construction standards and specifications	3		<input checked="" type="checkbox"/>		Usually an Concessionaire's risk and specified in the contract. However, Authority to ensure it does not inadvertently delay the project in the course of the inspection, testing and commissioning process.
Construction Risk	Completed development not suitable for the purpose for which it was constructed / unable to achieve require performance levels	2		<input checked="" type="checkbox"/>		Usually responsibility of the Concessionaire and should be mitigated at the design stage.
Construction Risk	Fit for purpose manuals, approvals and statutory certificates	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk who will typically mitigate by appropriate selection of EPC contractor.
Construction Risk	Cost overrun and delay not caused by a relief or compensation event	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk who will typically mitigate by appropriate selection of EPC contractor.
Construction Risk	Delays caused by agencies other than Government (e.g. utilities)	5		<input checked="" type="checkbox"/>		This assumes that permits and authorisations have already been awarded. This is an Concessionaire risk as long as the delay could have been managed and was under the control of the Concessionaire. Otherwise, this would be a relief event.
Construction Risk	Delays caused by Government	3	<input checked="" type="checkbox"/>			Mechanism required to both allow extensions of time to the Concessionaire to complete its construction obligations and grant compensation to the Concessionaire. In extreme cases, may give rise to termination.
Construction Risk	Delays due to Government's changes	3	<input checked="" type="checkbox"/>			Any change initiated by Authority as defined in the relevant contract. This may have capital cost implication but could also affect revenue and O&M costs. Concessionaire usually has right of veto if safety or design warranties would be affected by the change. In some cases the Authority should not assume that Concessionaire will be able to raise additional funding for the change so may agree to make capital payment during construction.
Construction Risk	Delays due to Concessionaire changes	2		<input checked="" type="checkbox"/>		Change in requirements initiated by the Concessionaire. Authority should be able to veto if changes would mean that its requirements as stipulated in the tender will not be met.
Construction Risk	Labour disputes	2		<input checked="" type="checkbox"/>		Concessionaire risk unless political/nationwide.
Construction Risk	Availability of labour (e.g. due to visa or immigration issues)	2			<input checked="" type="checkbox"/>	If there are skilled labour shortages, Authority may provide visas if Concessionaire can prove that there are no similarly capable local labour.
Construction Risk	Import licences/ customs clearances (e.g. materials for construction)	1			<input checked="" type="checkbox"/>	Typically risk of Concessionaire as owner of construction site but Government also takes risk if there is delay in import clearance.

Risk	Implication on Project	Risk rating	Risk Allocation (Grantor, Concessionaire, Both)			Market Practice / Recommended Practice
			G	C	B	
Construction Risk	Project management/integration/delay	2		<input checked="" type="checkbox"/>		Assumes project management by the Concessionaire. May be shared risk if the new structure is dependent upon work being completed by the public sector. However, generally, Concessionaire has more experience, knowledge and control over the variables that influence construction cost and control over construction process (i.e. schedule, equipment, materials and technology, etc.), and is also best placed to manage the delivery and commissioning of rolling stock and operations and maintenance scheduling to ensure that the project is completed smoothly. The Authority may implement a completion timeline that allows the Concessionaire to start receiving payment for significant milestones in the project construction – this will assist with cash flow and incentivise the Concessionaire to ensure that the project is completed on time. The concession may also include incentive payments and liquidated damages to encourage timely completion.
Construction Risk	Time and costs to satisfy commissioning	2		<input checked="" type="checkbox"/>		If there is a dispute between the parties on the construction completion and readiness for commissioning, an independent engineer agreed by the parties should certify the completion of construction.
Construction Risk	Damage to works	2			<input checked="" type="checkbox"/>	Broadly insurable and therefore taken by the Concessionaire. Concessionaire to seek damages from liable party. Authority would take risk of damage caused by war, nuclear radiation/contamination, or supersonic boom, since these risks are generally not insurable.
Construction Risk	Damage/injury to third parties	1		<input checked="" type="checkbox"/>		Should be covered by insurance and will be at risk of Concessionaire unless caused by Authority or other government agency.
Construction Cost	Adequacy of insurance	2		<input checked="" type="checkbox"/>		Where insurance is not available at commercial rates or certain risks become uninsurable, the Concessionaire will typically take on the risk, although it may need an exit route (e.g. termination) if it cannot reinstate the project.
Construction Risk	Adequacy of arrangements entered into with any contractor, sub-contractor and consultant	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk.
Construction Risk	Contractor, sub-contractor and consultant default and insolvency	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk. Concessionaire would commonly transfer these risks to the construction company or equipment supplier.
Construction Risk	Latent defects (New infrastructure and disclosed defects with existing infrastructure)	2		<input checked="" type="checkbox"/>		Concessionaire should be liable and should remove defects, save that to the extent the latent defects are in the basic infrastructure, the Authority may need to retain such latent defect risk
Construction Risk	Patent/intellectual property infringement	1		<input checked="" type="checkbox"/>		Usually a Concessionaire risk for infringements by the Concessionaire, although this is not a common risk for port projects.

Risk	Implication on Project	Risk rating	Risk Allocation (Grantor, Concessionaire, Both)			Market Practice / Recommended Practice
			G	C	B	
Construction Risk	Defective materials	2		<input checked="" type="checkbox"/>		Responsibility of Concessionaire.
Construction Risk	Injunctions against construction	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk.
Construction Risk	Workplace Health and Safety	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk as it may be mitigated by the appointment of a competent and experienced EPC and/or O&M contractor.
Procurement Risk	Availability of utilities	2	<input checked="" type="checkbox"/>			Usually an Authority risk, provided the Concessionaire can demonstrate all actions undertaken to solicit utility remedy.
Procurement Risk	Labour and material availability	2		<input checked="" type="checkbox"/>		Mainly an Concessionaire risk to ensure uninterrupted supply of the resources required for the project. If market is not developed or if supply is not consistent, Concessionaire should seek to provide these themselves or enter into a long-term supply contract to secure these resources.
Revenue Risk	Volume risk	4		<input checked="" type="checkbox"/>		Concessionaire should conduct extensive studies and will usually assume the risk. Authority may provide protection from increased competition by not issuing licences for new competing concessions/expansions where volumes are below an agreed volume. Alternatively, the Authority may grant the Concessionaire a noncompetition guarantee to compensate for the imposition of strict regulation, if such regulation may deprive the concessionaire of the normal means available to a company for positioning itself in a competitive market. This type of guarantee is generally limited in time and terminates at a specific date, or when the level of traffic reaches a predefined threshold.
O&M Risk	Increased maintenance due to traffic volume	3			<input checked="" type="checkbox"/>	Risk usually shared if there will be some element of performance payment which provides a partial hedge.
O&M Risk	Incorrect estimates and cost overruns	2		<input checked="" type="checkbox"/>		Concessionaire should have based its proposals on properly budgeted estimates.
O&M Risk	Actual operating and maintenance costs higher than anticipated	4		<input checked="" type="checkbox"/>		If inflation is higher than expected then recovery through indexation should be allowed. Otherwise at risk of Concessionaire, save that to the extent there is integration with the existing basic infrastructure, the Authority may need to retain the maintenance risk of the existing basic infrastructure.
Performance Risk	Meeting the output specification metrics	4		<input checked="" type="checkbox"/>		The Concessionaire is responsible for meeting the performance specifications, which performance specifications in turn should be determined reasonably during the contract negotiation process. However, to the extent the Concessionaire's performance standards are affected by the Authority's provision of certain marine services as port authority (e.g. maintenance dredging, pilotage, traffic control), Authority may sometimes take on the risk, or guarantee the adequate provision of such supporting services.
Performance Risk	Compliance with approvals	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk.
Performance Risk	Compliance with laws	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk.

Risk	Implication on Project	Risk rating	Risk Allocation (Grantor, Concessionaire, Both)			Market Practice / Recommended Practice
			G	C	B	
Performance Risk	Equipment used becomes prematurely obsolescent	2		<input checked="" type="checkbox"/>		If changes required to make systems compatible with upgraded/changed systems of Authority then Authority's risk. Otherwise, Concessionaire risk.
Performance Risk	Interface with contractors and sub-contractors	2		<input checked="" type="checkbox"/>		Usually an Concessionaire risk.
Performance Risk	Change in scope of service specifications by public sector	2	<input checked="" type="checkbox"/>			Losses in income or increased expenditure should be borne by Authority.
Performance Risk	Damage/injury to third parties	2		<input checked="" type="checkbox"/>		Usually a Concessionaire risk unless caused by Authority or other government agency.
Performance Risk	Meeting hand-back standards	3	<input checked="" type="checkbox"/>			Contract should set out hand back provisions. Provision for income to Concessionaire usually put into an escrow account or a bond is issued. The Authority should mitigate against this risk by (i) ensuring that the output specifications clearly specifies the maintenance obligations of the Concessionaire to ensure the project infrastructure remains in good condition, and (ii) specifying requirements that will need to be met by the Concessionaire upon hand back.
Performance Risk	Workplace Health and Safety	2		<input checked="" type="checkbox"/>		Usually a Concessionaire risk.
Performance Risk	Obtaining and maintaining licences to comply with regulatory requirements	1		<input checked="" type="checkbox"/>		Responsibility of Concessionaire unless improper refusal to grant or renew.
Performance Risk	Labour disputes	3		<input checked="" type="checkbox"/>		Usually a Concessionaire risk unless disputes are political.
Market Risks/ Financial Risks	Currency fluctuations	3		<input checked="" type="checkbox"/>		If debt is denominated in local currency and earnings are in local currency then no exchange risk. However, if the debt incurred in this project will be denominated in USD or Euros, with revenues denominated in local currencies, a risk arises. The Concessionaire may seek for the right to charge in USD or Euros instead of local currency. The Concessionaire could also mitigate the foreign exchange risk through hedging arrangements, or even pass on some risk on to port users through adjustments to the tariffs (subject to restrictions to tariff rates).
Market Risks/ Financial Risks	Currency conversion or export difficulties	2	<input checked="" type="checkbox"/>			The concessionaire may sometimes seek convertibility and/or transferability guarantees from the government or central bank.
Market Risks / Financial Risks	Inflation on Operation, Maintenance, Rehabilitation	3		<input checked="" type="checkbox"/>		Where performance payments are used, they will usually be adjusted by CPI. Where direct charging is used, the Concessionaire should be able to adjust the charges to account for CPI. In addition, Concessionaire may need the ability (and support from the Authority) to increase the port tariffs, although this risk may be reduced if the Concessionaire has the right to collect tariffs in USD or Euros.
Default Risk	Termination due to breach by Government/ Voluntary termination by Government	2	<input checked="" type="checkbox"/>			Termination for Authority default or voluntary termination by Authority should be an Authority risk and the Concessionaire will usually expect to be fully compensated for senior debt, junior debt, equity and a level of equity return.

Risk	Implication on Project	Risk rating	Risk Allocation (Grantor, Concessionaire, Both)			Market Practice / Recommended Practice
			G	C	B	
Default Risk	Termination due to breach by Concessionaire	2		<input checked="" type="checkbox"/>		Termination for Concessionaire default should be a Concessionaire risk.
Force Majeure Risk	Natural disaster, terrorism, war	4			<input checked="" type="checkbox"/>	This risk typically borne by both parties unless otherwise agreed by the parties in the concession contract. Concessionaire should be entitled to relief from obligations during the Force Majeure, which for port projects specifically may include additional events such as pressure waves caused by devices traveling at supersonic speeds or discovery of fossils, or historic or archaeological artefacts that affect the port project.
Force Majeure Risk	Uninsurable risks (throughout the concession)	5			<input checked="" type="checkbox"/>	International guidance is that the Authority retains risk that insurance is not available at commercial rates or that certain risks become uninsurable.
Force majeure Risk	Intensive or extended event leading to termination	5			<input checked="" type="checkbox"/>	Again turns on extent of insurance. Payment by Authority to off-set the outstanding debt obligations to the lenders would be off-set by amount of insurance received.

7.3. Contingent Liability

The appropriate allocation of risk between the Authority and the concessionaire, and the proper management of fiscal costs and contingent liabilities will ensure fiscal prudence for the Authority and will enable the Authority or government to better manage the risks they assume in concession projects. This will allow the Authority to minimise its exposure to fiscal costs while concurrently attracting investors with realistic risk-to-return ratios, as well as maintaining adequate competitive tension and “bankable” projects.

The management of contingent liabilities may be handled in the form of specific national concession legislation or by accession to international legislation. More practically speaking, contingent liabilities are managed through the implementing agencies and approval procedures that require consideration and mitigation of appropriations and liquidity risks for contingent liabilities that may materialise.

For the Sulina port concession project, we do not foresee major contingent liabilities partly due to the user-fee revenue structure of the project. Even though, we provided further discussion on the contingent liabilities or risks that have been identified in the risk matrix above to be commonly or best allocated to the Authority.

The general principles applied in allocating these contingent liabilities is the respective abilities of each party to influence the risk factor, to respond to the risk factor, and finally, to absorb the risk. As such, it may be noted that operating and business risks have, to the extent possible, been allocated to the concessionaire as they are much better placed to manage these risks.

7.3.1. Political/Regulatory Risk

The concessionaire may push for the contract to provide some form of remedy to the concessionaire in the event of changes in law. This may take the form of compensation, contract revision or some form of relief in the concessionaire’s obligations under the contract. However, changes in government and political agendas are an inevitable part of operating in any country. As such, a reasonable way for the Authority to manage this risk is to take on only those risks that are discriminatory to the concessionaire. Should there be risks that apply generally across the board or are non-discriminatory in nature, e.g. changes in law that decrease the project company’s value (e.g. increase in corporate tax rate), there would typically be no compensation granted to the concessionaire under the contract.

7.3.2. Demand / Revenue Risk

A key way to mitigate against demand / revenue risk would be through trade and economic policy. From a macroeconomic perspective, trade in the region and the project will be influenced by government policies such as the use of special incentives, trade agreements and policies, appropriate setting of tariffs. Careful due diligence and market analysis to determine the projected demand or other relevant throughput for the port services, as well as the consideration of strategic and competitive factors would help the Authority make the project attractive to investors as well as to customers.

In some cases, the Authority may contractually take on some of these demand risks – especially for some specific types of trades and cargoes or for cargo/trade where the Government or

Authority are the main users (e.g. exporters and importers). However, the general practice in ports is such that demand and revenue risk is borne by the Concessionaire who, along with the financiers, may seek to bolster project economics with some level of user commitments in the form of terminal use agreements, throughput guarantees, or other contractual support for their credit exposure.

7.3.3. Performance risk

This is generally mitigated through performance and bid bonds, good project monitoring and proper due diligence on bidders' financial conditions and their technical experience against the requirements of the project. As such, the tendering process is a critical part of managing this risk, because a transparent and competitive tendering process will ensure that the concessionaire is best placed to handle the risks and requirements of the project. The port authority may also set minimum throughput and/or performance levels to be guaranteed by the concessionaire, and where these targets are not met, a penalty may be payable under the concession agreement, or a termination right may arise on the part of the port authority. In principle, at least, throughput and/or performance guarantees will help to secure a reasonable level of productivity and utilisation rates. However, this is of course to be balanced against providing the concessionaire with sufficient flexibility to manage its own performance risks without being burdened by short-term or short-visioned targets set under the concession agreement.

7.3.4. Default Risk

The events of default leading to termination payments as well as the calculation of termination payments are a key part of risk allocation in, and bankability of, the contract, while also constituting a contingent liability to be assessed for fiscal risk management purposes. There are a few permutations that are usually considered, including (i) termination by the concessionaire in the event of default by the authority; (ii) termination by the authority in the event of default of the concessionaire; and (iii) termination due to no fault of either party (e.g. prolonged force majeure). The calculation of potential termination payments payable by the authority to the concessionaire in each permutation should be carefully negotiated. In particular, for prolonged force majeure, the principles of risk sharing should apply (see further below) to ensure that the authority assumes only such risk as is necessary to service debt.

7.3.5. Force Majeure Risk

The typical assumption when negotiating force majeure provisions is that the risk of a force majeure event is shared by both parties because the occurrence of force majeure events is beyond the control of both parties. Hence, the concessionaire is typically provided relief from its obligations during the duration of a force majeure event. The government / authority may sometimes offer a guarantee to make good on liabilities in the event of force majeure. A way to mitigate this liability is to classify force majeure into events that are insurable or uninsurable, and for the government to only bear such risks that are uninsurable and for the concessionaire to insure against the insurable risks. This approach should be constructed carefully as the insurance market may fluctuate during the term of the contract and insurable risks at the time of execution of the contract may thereafter become uninsurable.

APPENDICES

Appendix I: Review of Romanian Maritime Danube Ports

Galati Port [<https://apdmgalati.ro/en/>]: Is the largest river and seaport on the Danube and the second largest port in Romania.

Position

The port of Galati is located on the left bank of the Danube River between km 157+600 and Mm 78+1300. The city of Galati is one of the biggest economic centres in Romania and the economic environment has developed around the shipyard, the steel plant complex (since 2019 belonging to the British company Liberty House Group) and the port.

The port of Galati is located close to the border with Moldova and Ukraine. The road distance between Galati and the RO – MD/ UA border is 18 km.

The port of Galati is situated on the Maritime Sector of the Danube because the access of maritime ships up to 25,000 dwt is allowed by the natural depths.

The geographic coordinates for indicating the position of Port of Galati are: Latitude: 45° 25' N and Longitude: 28° 05' E



Port of Galati (Aerial view)



Port of Galati [<https://www.danubecommission.org/dcl/en/>]

Overview of basic port's features are given in the below table.

Parameters	Explanation / Value
Port land owner (State, Region, Municipality, Private, Other)	State, Ministry of Transport and Infrastructure
Port authority name	National Company Maritime Danube Ports Administration (APDM)
Number of operators (concessionaires, lessors)	10
Total port area (ha)	86
Maximum draught (m) - natural or dredged	7
Total number of terminals	4
Heavy lift and out-of-gauge handling capacity (Yes/No)	Yes
Ability to handle full block train along the quay (Yes/No)	Yes
Ability to handle full block train in the port area (Yes/No)	Yes
Transshipment equipment for intermodal transport (Yes/No)	Yes
Total quay length (vertical + sloped) (m)	7177
Vertical quay length (m)	4675
Sloped quay length (m)	2390
Undeveloped quay length (m)	
Max number of vessels handled at the same time	
Max capacity of anchorage or waiting area for barges (number)	15
Storage capacity (m2)	
Storage capacity for liquid cargos (m3)	49000

Parameters	Explanation / Value
Storage capacity (TEU)	700
Storage capacity (CEU - car equivalent unit, for Ro-Ro terminals)	
Bunkering facilities within the port area (Yes/No)	Yes
Shore-side power supply for vessels (Yes/No)	Yes
Road connection (Yes/No)	Yes
Rail connection (Yes/No)	Yes
Number of quay cranes of lifting capacity $Q < 10$ tons	10
Number of quay cranes of lifting capacity $10 < Q < 16$ tons	5
Number of quay cranes of lifting capacity $16 < Q < 50$ tons	20
Number of quay cranes of lifting capacity $Q > 50$ tons	4
Total number of quay cranes	39

Ownership, administration (governance) and operation

Port infrastructure is state public property being granted to the National Company Maritime Danube Ports Administration (APDM), through concession contract signed in 2008. Ministry of Transport is the owner of 80% shares of the Company, the balance of 20% being owned by Fondul Proprietatea. APDM fulfils the function of Port Authority and the quality of Port Administrator in the sea – river ports located on the Romanian Maritime stretch of the Danube.

The port operations are performed by port operators which are entirely private companies.

Hinterland connections

The port of Galati, located on the left bank of the Danube, 80 Km away from the Danube Delta, has 4 sectors, one for passenger transport and three for cargo transport. The port of Galati has direct connection with the Black Sea through the Danube and Sulina Canal.

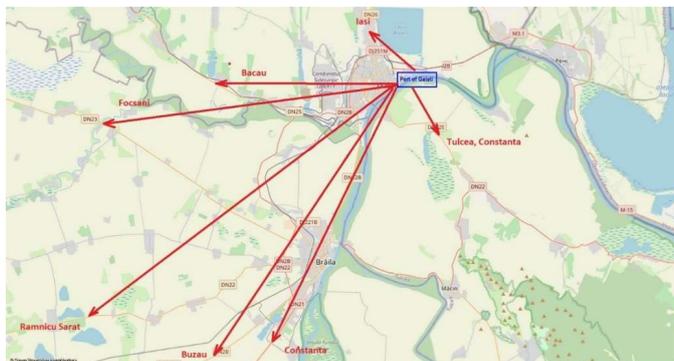
The port of Galati is connected to the European road E87, a North–South road on the coast of Black Sea, running from Odessa (Ukraine), Galati, Tulcea (Romania), Constanța (Romania), Varna (Bulgaria), Burgas (Bulgaria), via Çanakkale to Antalya (Turkey).



Road E87

Galati city is situated on the national roads DN 25 and DN 26, connecting the port / city with the Northern part of Romania (Moldova region).

DN 22B makes the connection with the city and port of Braila and further the connections with the West side of Romania and other regions.



Port Galati: Road connections with its hinterland

The access to the Port of Constanta will be enhanced by the new bridge over the Danube in Braila. All national roads are with 2 lanes, thus the speed and capacity are under the motorway performance.

The port of Galati is the only port in Europe where is available European and large gauge (specific for former soviet countries) and can operate trains coming from Moldova or Ukraine. The length of the rail connection within the port is 12.348,00 m (European gauge).

The wide-gauge line connects the port of Galati with the port of Giurgiulesti (MD) border crossing point in the Republic of Moldova. In 2022 the national railway company conducted important maintenance works on this line, on a length of 4,7 km and extended this line up to the port of Galati. Railway connection of the Port of Galati make possible the access to the Romanian national rail network at the European standard gauge, and also to the large gauge standard of Ukraine and Republic of Moldova, facilitating rail interconnection between Russia and the European Union via Ukraine by integrating two types of gauges (1435 and 1520 mm) into the terminal's operations. This is of strategic importance and can initiate new multimodal services between Europe and Russia, Ukraine and the Republic of Moldova.

By water, the port of Galati is situated on the Danube River (Rhine – Danube Corridor) and has direct connections with the Black Sea and maritime transport as well as with the West side of Europe by barges/ convoys.

Port infrastructure

Port infrastructure is developed and can handle all types of cargo and provide all kinds of services needed in the port area: cargo storing facilities (open and covered storing areas), port equipment for vessel operation, cereal silos, waste collection from the ships: garbage, used and bilge water, bunkering facilities, ship maintenance facilities, Free Zone, custom office, shipyard, cereal terminal, container terminal, oil terminal, parking places for trucks, security standards according to the ISPS code, assistance services for the transshipment of oil products in the specialized berth, winter area.

The port has 56 berths

Port of Galati consist of 4 terminals / sectors / locations, as follows:

1. Mineral Terminal: Km 155,40 ÷ Km 157,60
2. Commercial Terminal: Km 149,35 ÷ Km 151,00
3. Docks Terminal: Mm 80,00 ÷ Km 149,35
4. New Basin Terminal: Mm 78+1300 ÷ Mm 79+700

1. Mineral Terminal is specialized in loading and discharge of bulk cargos and also steel rolled products.



Mineral Terminal

The location has 16 operational berths situated along the Danube River. The depths to the berths vary between 3.5 m and 6.5m. The area has port platforms of 16,380 sqm and storage areas of 41,565 sqm. Railways ensure the transfer from the European standard gauge to the broad gauge used in the former URSS countries,

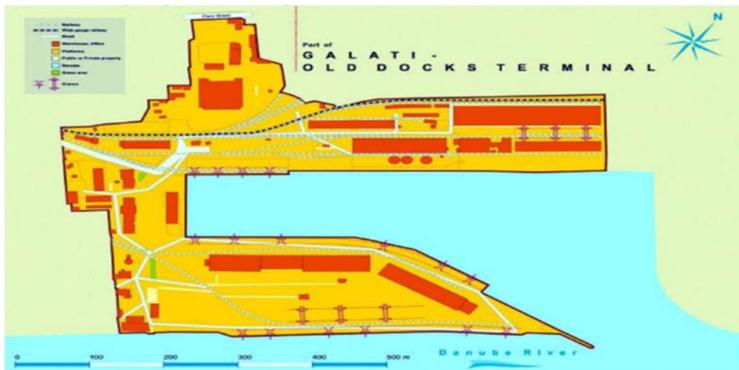
2. Commercial Terminal – Located on the left bank of the Danube, between km.151 – Nm 80,5.



Commercial Terminal

The sector is not used for operations with cargoes. The sector is situated in the heart of the city and it is used for restaurants, historical vessels, technical vessels.

3. Docks Terminal – Located between Nm. 80 and Nm. 80,5 on the left bank of the river. General cargo is operated in the port. The maximum capacity of ships that have access into the port: river and sea-going vessels of up to 4500 dwt.

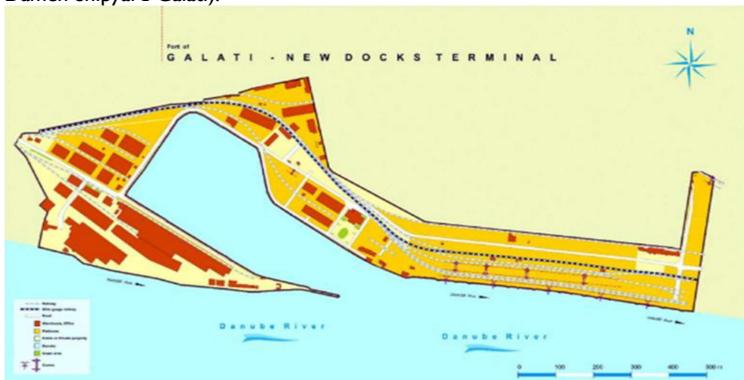


Docks Terminal

The Docks Area has berths with a length of 1,616 m, out of which 500 m are on the Danube. The terminal handle metal products, bulk cargoes, general cargoes and containers. It has 131.105,00 sqm open storage platforms and covered storage areas of 46.303,00 sqm.

The quays are old and needs improvements. Recently it was rehabilitated the berth no. 31 and currently is under rehabilitation the berth no. 32, both of them being used mainly for cereals. All berths have rail infrastructure. The railway line has a length of 2,619 m, out of which 1,313 m rail for the reception/delivery of cargo, 1,206 m for loading / discharging along the berths and 100 m for wagons with large gauge.

4. New Basin Terminal – Located between NM. 79,4 and NM. 78+1300 (the area downstream from Damen Shipyard Galati).



New Basin Terminal

The railway line has a length of 6,474 m, out of which 1,717 m rail for the reception/delivery of cargo, 4,257 m for loading / discharging along the berths and 500 m for wagons with large gauge.

In the area is under construction the new intermodal terminal using EU financing (CEF, CF - Operational Sectorial Program for Transport, private funds).

Port's storage facilities

- Silo for 25,000 t in Docks area. The cells have different capacities - 50 tons, 60 tons, 90 tons and 100 tons and allow the storage of several types of agricultural products at the same time.
- Silo for 10,000 to in Docks area.
- Capacities of tanks in the New Basin:

- Storing tanks for light oil products with a total volume 11.200³
- Heavy oil products tanks with a capacity of 33.000³
- Tanks of processing fuels for ships, capacity of 1.500³
- Chemical products tanks with a capacity of 3.300³

Infrastructure & Superstructure projects

The most important is the on-going project: Galati Multimodal Platform aims the development of a multimodal platform with a capacity of 150,000 TEU/year in the New Basin Terminal.

Currently, the port infrastructure and its facilities are in an inadequate technical state. The substantial upgrading of existing infrastructure will eliminate bottlenecks in two ways.

Firstly, the port infrastructure will be upgraded, contributing to: (1) the increase of the efficiency of handling modern ships with higher capacities and the increase of the safety and security conditions; and (2) facilitating rail interconnection between Russia and the European Union via Ukraine by integrating two types of gauges (1435 and 1520 mm) into the terminal's operations. This is of strategic importance and can initiate new multimodal services between Europe and Russia, Ukraine and the Republic of Moldova.

The access in the port platform is performed directly from the European road E87 (on the road) and from CFR triage through a railway line. The upgrade of the existing public road infrastructure (by building a highway passage and a roundabout) is performed in order to streamline road traffic on the E87.

The implementation of the intermodal and IT & C facilities will enhance the capacity, efficiency, safety and security of the port operations. The upgrade of the terminal will provide a sustainable alternative to the road transport between the Central Europe and the Black Sea region, especially Turkey and Greece.

Currently, most freight transport on these routes is made by road. The efficient combination of the modes of shipping, river, rail and road will open up new possibilities for the multimodal services

Considering the draught limitations, it was taken into account the optimum scenario with a ship of 300 TEU, respectively of 8,000-9,000 dwt, considering all the containers loaded at capacity (an average of 28-30 tons/TEU).

In practice, the port-container ships transport both loaded and empty containers, generating an average of approximately 15 tons/TEU that would conduct to the possibility of the transportation of a higher number of TEU/ship. Depending on the proportion of empty and loaded TEU, the ships that will enter within the terminal can have a transportation capacity between 300 and 500 TEU, the proportion empty/loaded being determined by the container line considering the weight and the maximum accepted draught mentioned above.

From the Traffic Study, the estimated potential of this project is as follows:

Potential	2024	2032	2037	2042
TEU's international OD relations	47871	144513	178429	216133
TEU's Moldavia Region (RO), Republic of Moldova, Ukraine	29409	88780	109615	132778
Total TEU's	77280	233293	288044	348911

The port of Galati has:

- 30 operational berths (all operators – this includes metallurgical operations);
- Two grain operators: (i) TTS [<https://www.tts-group.ro/>]; and (ii) MetalTrade [<https://metaltrade.ro/>].
 - ✓ TTS currently only handles grain.
 - ✓ MetalTrade handles other forms of cargo (scrap, fertilizer, building materials, fabricated steel components);
- In 2021 approximately 0.2-0.25 million tonnes of grain were handled.

Basic Information on TTS grain terminal:

- TTS has 25,000 tonnes of storage capacity and can load two grain barges at one time. Loading a barge takes about 8-12 hours (approximately 300 tonnes per hour)

- TTS is able handle maximum 6,000 tonne vessels when water levels are high enough. When water levels are particularly low it may be necessary to transload a final 1,000-2,000 tonnes from barge to ship in the Danube itself;
- The TTS facility has access to a broad-gauge railway line from Girgulesti that is not currently used due to dilapidated condition. All inland traffic into / out of TTS is via road transport. The entire process of weighing, sampling, and unloading a truck into the grain silos can be done in 30 minutes. During harvest months, 1,000+ trucks cycle through the facility each day;
- 4.2 km of broad-gauge railway line into the port need urgent maintenance. CFR is currently working on this and crews were observed in the field. The scope of works appears to be routine maintenance, replacement of damage sleepers, and limited rebalasting where required;



Maintenance works along the broad-gauge railway line leading into Docks Terminal

- 820 meters of broad-gauge railway line within the TTS facility (private) require maintenance. This has been contracted to CFR by TTS and is expected to complete in mid-July. The cost of this work is RON 120,000;
- When the broad-gauge line is operational it will be able to take trains with approximately 30 wagons. Trains will need to be broken into seven wagon blocks which would be shunted into the grain terminal for unloading;
- Construction is underway to extend the grain terminal pier by 60 meters to accommodate two maritime vessels or more barge vessels. This work is expected to complete by mid-July 2022;
- Customs happens in Galati / Braila depending on the final destination of cargo;
- Operations entirely dependent on weather. Rain or high winds prevent operations;
- Free zone exists on paper 25 hectares on a map but it has not been developed. It was originally designed as a petrochemical facility;
- 95 long 25 meter wide floating dock available (for barge repairs);
- Near the TTS grain terminal there are two additional warehouse facility offering 2,200 square meters of space that can hold 15,000 tonnes of corn or 10,000 tonnes of sunflower oil;
- TTS is planning a new terminal for oils derived from grains (sunflower oil, rapeseed oil, etc.) that will use three 1,000 tonne flexi-tanks (3,000 tonnes total capacity). This new terminal would be established on quayside on the river Danube.



Port Docuri grain terminals; Corrugated iron silos are operated by Metal Trade; concrete silos by TTS

Metal Trade

- MetalTrade has possession of a 25 hectares site behind its current scrap metal and fabricated metal component operations. This site is at a particularly advantageous location relative to an existing broad-gauge turning loop which, if / when rehabilitated, could offer capabilities to avoid braking trains / shunting when unloading;
- At present, the site owned by Metal Trade is undeveloped and contains the ruins of a former communist-era iron ore handing facility (i.e. no useable infrastructure on site). The company is planning to develop this site with 25,000 tonne silo capacity and a conveyor system that would allow for quayside loading of 6,000 tonne ships docked at its Danube peers;
- MetalTrade has 7 loading cranes, including: 3 @ 32 tonne; 3 @ 16 tonnes; and 1 @ 10 tonnes capacity and a drier to speed up operations or dry grain if stored for >1 week.



Potential site for redevelopment as new grain terminal at Galati port adjacent to existing births and 1520 line

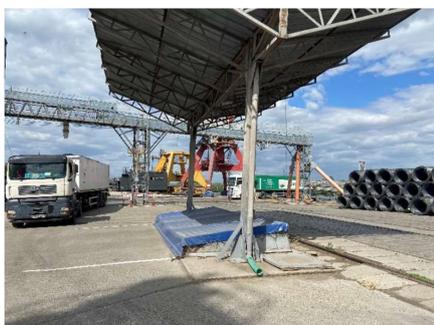
Braila Port [<https://apdmgalati.ro/en/>]: is situated only 20 km upstream of Galati, is the 2nd largest port on the Maritime Danube covering an area of around 415,000 m².

Braila is mainly a city port with around 25 operating berths and other piers and mooring structures stretching on both banks of the Danube.

However, the main operations are concentrated in the Braila docks basin and the old riverbank port area with a combined quay length of 330 m and drafts up to 7 m. The main cargo traffics in Braila port are mineral products, cereals, wood products and fertilizers, but the port has lost large chunks of its cargo activity to Constanta and Galati as evidenced by the decline of its maritime cargo traffic which almost halved in the past decade from the peak volumes in 2010/2011.

- Braila has 4 silos which each have storage capacity for 1,000 tonnes (i.e. 4,000 tonnes total storage). The estimated maximum grain handling capacity is approximately 200,000 tonnes per year through these silos (50 turnovers per year of the storage capacity);
- Braila can currently handle barges as well as 6,000 tonne “coaster” vessels;

- The port currently has 5 loading cranes as follows: (i) two cranes from the 1980s which can handle 5 tonnes each; (ii) two cranes from the 1990s that can handle 5 tonnes each; and (iii) one crane from the 1990s which is being rehabilitated to handle 20-25 tonnes;
- During its “best” year, Braila handled 290,000 tonnes of cargo, of which 70% was chemical fertilizer in that year. In the first 5 months of 2022, Braila handled approximately 98,000 tonnes of cargo. Note: grain comprised very little of this cargo due to seasonality (winter and spring months which precede harvest);
- Grain is currently comprising 40-50% of Braila’s volume with other cargos including coal, fertilizer, and aggregates;
- At present almost all inland cargo at Braila is handled by truck. Approximately 35 trucks can be loaded / unloaded per 8 hour shift when handling bulk goods. An estimated 5% of grain comes via standard gauge rail. Packed cargo (e.g. bagged fertilizer) is reportedly faster. The flow of transport can be: (i) truck→silo→barge bound for Black Sea Danube Canal; (ii) truck→silo→ coaster bound for Sulina Channel; or (iii) barge from Izmil / Reni→silo→truck bound for Constanta port or inland storage facilities;
- There are plans to expand the port by 60 meters upstream and downstream to provide for additional berths and an unloading facility for grain trucks. These plans are currently in the approval stage and would most likely be deliverable over a 2+ year time horizon;
- The port is operated on two shifts 07:00 to 15:00 and from 15:00 to 23:00. During exceptionally busy times, this can be expanded to three shifts;
- The port has been looking to procure additional 20 tonne cranes which can accelerate loading / unloading operations. These are believed to cost between EUR 3-4 million each. Prices for used cranes have increased dramatically. A 1980’s crane in need of complete rehabilitation recently sold for somewhere between EUR 300,000 and 500,000;
- A key constraint that the port faces relates to EU funds and the need to pre-finance investments that are later partially reimbursed by the EU. In the context of uncertain future demand (e.g. due to Ukraine’s victory and access to the Black Sea) it is not possible to secure commercial financing for investments needed to trigger release of EU funds.



Grain conveyor and loading point at Braila



Barges are used to support missing silo storage

Tulcea Port [<https://apdmgalati.ro/en/>]: is the smallest maritime port in the Danube in terms of cargo volumes despite the port and city of Tulcea covering several structures stretching on both sides of the riverbank.

Operationally,

Tulcea port can be divided into three main port areas:

- the waterfront area with several mooring points for passenger and pleasure ships
- the commercial port for general cargo handling, and
- the industrial port for bulks and raw materials.

Much of Tulcea's port volumes are drawn from steel, raw and construction materials, but the port's traffic has been on a down trend pattern exacerbated by the steep decline and near-loss of maritime traffic since 2007.

Sulina Port: the port has not capitalized yet on its strategic location and its membership of the TEN-T network.

However, the approved EU-funded investment in the port's perimeters I and II and the proposed Sulina Green Port PPP project for dredging and operating the maritime basin may well revive the Sulina free port and its maritime traffic along the Danube.

According to the Romania's **General Transport Master Plan** and its **Investment Program 2021 – 2030**, the primary network includes the ports of Constanța, Sulina, Tulcea, Galați, Brăila, Cernavodă, Călărași, Oltenița, Giurgiu, Corabia, Calafat, Drobeta Turnu-Severin, Orșova, and Moldova Nouă, whereas the ports in the secondary network are: Bechet, Turnu Măgurele, Zimnicea, Fetești, Medgidia, Basarabi area of the Constanța port, Ovidiu, Luminița, Măcin, Hârșova, Isaccea, Mahmudia, and Chilia Veche.

The development of the infrastructure and services of ports in the primary and secondary network is supported in accordance with state aid rules.

The infrastructure projects – **completed** and **ongoing** – could have a significant influence to the traffic of cargo on the Maritime Sector of the Danube River.

An overview of **completed projects** related to the Romanian Maritime Danube Ports comprise the following:

Title	Description	Period	Budget (M Eur)	Source funding	of
Galati Port					
Development Strategic Planning	Preparation of a Strategic Development Programme related to Galati Port to increase the attractiveness of the port area and the facilities offered to customers.	2014 – 2015	0.29	EU (SOP-T 2007-2013) State budget	
Multimodal platform	Galati Multimodal Platform: Stage I – Upgrade of the waterside infrastructure (improving the port's road and inland waterway connections, upgrading the port basic infrastructure, and providing new waterside terminal facilities).	2016 – 2020	1.95	EU (LIOP 2014-2020) State budget	
Braila Port					
	Rehabilitation and modernization of port infrastructure	2011 – 2015	17.42	EU (SOP-T 2007-2013) State budget	
Isaccea Port					
	Rehabilitation and modernization of the port infrastructure.		4.48	EU & State budget	

An overview of **ongoing projects** related to the Romanian Maritime Danube Ports comprise the following:

Title	Description	Period	Budget (M Eur)	Source funding	of
Galati & Braila & Tulcea Ports					
	Reducing infrastructure clogging in the Maritime Danube Ports: analyzing the current situation related to the colmation process within maritime Danube sector area and elaborating an action plan to decelerate this process (including by port infrastructure works / investments) in order to offer better operating and navigation conditions for sea-going and inland vessels.	2016 – 2020	2.50	EU (LIOP 2014-2020) State budget	
Galati Port					
Pier 31 / Grain Terminal	Upgrading the Pier 31 infrastructure in order to increase the operational efficiency of the existing grain terminal (works).	2011 – 2018	9.28	State budget	
Pier 32 / Grain Terminal	Upgrade of the Pier 32 infrastructure in order to increase the operational efficiency of the existing grain terminal (works).	2017 – 2023	5.15	EU (LIOP 2014-2020) State budget	

Ro-Ro Terminal	Upgrading the basic port infrastructure, construction of supporting facilities in the port and establishment of intermodal facilities (works).	2018 – 2024	23.51	EU (CF) State budget
New Basin Terminal	Arrangement of Ro-Ro platforms in the port (platform, access road).	– 2023	7.53	EU (CF) State budget
Multimodal Platform	Development of the multimodal platform – Stage II (improvement of the port's road and railway infrastructure) (works).	– 2024	22.22	EU (LIOP 2014-2020) State budget
Multimodal Platform	Development of the multimodal platform – Stage III (development of multimodal handling and storage facilities) (works).	– 2024	46.71	EU (LIOP 2014-2020) State budget
Mineral Terminal	Modernization and development of the mineral terminal (works).	– 2024	47.62	EU (CF) State budget
Multimodal Platform	Modernization of the port infrastructure (vertical quay made of metal piles).	– 2026	70.77	EU (CF) State budget
Braila Port				
Port Development Planning	Preparation of a Strategic Development Programme related to Braila Port in order to increase the attractiveness of the port area, support further investments (including in infra- and super-structure) and add more facilities offered to the customers.	2016 – 2020	0.72	EU (LIOP 2014-2020) State budget
Port Accessibility Improvement	Unblocking works of the navigable channel and the operational maritime berths in the port by removing the "Găiesti" shipwreck and other materials deposited in the respective area.	– 2023	1.05	State budget
Basin Area	Infrastructure works.	– 2023	24.73	EU State budget
Operation front at the Danube, adjacent to the pier	Infrastructure works.	2023 – 2024	25.88	EU State budget
Tulcea Port				
Port Development (Phases I and II)	Preparation of a Strategic Development Programme related to Tulcea Port to increase the attractiveness of the port area and implement further identified investments (including in infra- and suprastructure), planned to add more facilities offered to the customers. Port modernization (mm 38+153 – mm 38+800).	2016 – 2023	49.26	EU (LIOP 2014-2020) State budget
Squalus Pontoon Refloating		– 2023	0.25	Own funds
Sulina Port				
Port Perimeter I – Free Zone	Port Perimeter I - Free Zone modernization (construction of vertical quay, platform).	– 2025	19.00	EU State budget
Cap Mol Port - Maritime Basin - Perimeter II	Cap Mol Port - Maritime Basin - Perimeter II modernization – Stage I (construction of platform, quay, access road).	– 2023	19.50	EU State budget

An overview of **planned projects** related to the Romanian Maritime Danube Ports comprise the following:

Title	Description	Period	Budget (M Eur)	Source of funding
Galati Port				
Pier 31 / Grain Terminal	Upgrading the Pier 31 infrastructure in order to increase the operational efficiency of the existing grain terminal (works).	– 2026	2.06	EU State budget
Pier 32 / Grain Terminal	Upgrade of the Pier 32 infrastructure in order to increase the operational efficiency of the existing grain terminal (works).	– 2026	1.51	EU State budget
Ro-Ro Terminal	Upgrading the basic port infrastructure, construction of supporting facilities in the port and establishment of intermodal facilities (works).	– 2026	23.92	EU State budget
Braila Port				
	Rehabilitation and modernization of the port infrastructure (works).		25.60	
Tulcea Port				
	Port modernization and development – Stage I (construction works)		58.50	
Isaccea Port				

	Rehabilitation and modernization of the port infrastructure (works).		3.90	
Sulina Port				
	Rehabilitation and modernization of the port infrastructure (works).		32.70	

The contribution of river-sea ports (Galați, Tulcea, Brăila, Isaccea, Sulina) to IVT is 25%, based on their throughput in tonnes and tonne-kilometres. Based on figures in t-km, their contributions is 29%. The Port of Galați has a 18.5% share (in tonnes) and 25% (in t-km), on average. The shares of international and national transport in this port are 20.5% (of which 6% export and 14.5% import) and 33.5%, respectively, while over 45% of the volume pertains to transit.

Traffic of Galati Port, 2017 – 2021 (kt).

Inc1 + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	6.343	95,7	223	906	1.129	17,8	519	1.502	2.021	31,9	3.193	50,3
2018	6.400	100,9	344	639	983	15,4	507	1.541	2.048	32,0	3.369	52,6
2019	5.919	92,5	385	717	1.102	18,6	266	1.709	1.975	33,4	2.842	48,0
2020	4.526	76,5	381	860	1.241	27,4	122	1.468	1.590	35,1	1.695	37,5
2021	5.398	119,3	411	1.007	1.418	26,3	272	1.660	1.932	35,8	2.048	37,9
Media	5.717		349	826	1.175	21,1	337	1.576	1.913	33,6	2.629	45,3

Traffic of Galati Port, 2017 – 2021 (kt-km).

Inc1 + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	3.770.481	98,2	151.038	127.411	278.449	7,4	106.425	282.892	389.317	10,3	3.102.715	82,3
2018	4.090.711	108,5	230.281	118.337	348.618	8,5	107.454	295.836	403.290	9,9	3.338.803	81,6
2019	3.609.755	88,2	265.129	193.673	458.802	12,7	54.370	317.892	372.262	10,3	2.778.691	77,0
2020	2.396.091	66,4	266.609	154.974	421.583	17,6	25.956	269.621	295.577	12,3	1.678.931	70,1
2021	2.791.096	116,5	280.117	179.510	459.627	16,5	56.864	299.733	356.597	12,8	1.974.872	70,8
Media	3.331.627		238.635	154.781	393.416	12,5	70.214	293.195	363.409	11,1		76,3

The Port of Tulcea has the share of 4.7% (in tonnes) and 3.5% (in t-km). This port dominantly serves the domestic transport – 98% on average.

Traffic of Tulcea Port, 2017 – 2021 (kt).

Inc1 + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	1.331	86,2	7	27	34	2,6	4	1.293	1.297	97,4	0	0,0
2018	1.748	131,3	4	7	11	0,6	0	1.737	1.737	99,4	0	0,0
2019	1.660	95,0	6	15	21	1,3	0	1.639	1.639	98,7	0	0,0
2020	1.213	73,0	2	23	25	2,1	3	1.185	1.188	97,9	0	0,0
2021	1.329	109,6	13	10	23	1,7	0	1.306	1.306	98,3	0	0,0
Media	1.456		6	16	23	1,6	1	1.432	1.433	98,4	0	0,0

Traffic of Tulcea Port, 2017 – 2021 (kt-km).

Inc1 + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	389.162	86,9	6.959	7.746	14.705	3,8	998	373.459	374.457	96,2	0	0,0
2018	507.442	130,4	618	2.779	3.397	0,7	0	504.045	504.045	99,3	0	0,0

2019	486.450	95,9	4.498	5.871	10.369	2,1	0	476.081	476.081	97,9	0	0,0
2020	357.351	73,5	1.588	9.227	10.815	3,0	870	345.666	346.536	97,0	0	0,0
2021	381.867	106,9	1.535	1.311	2.846	0,7	0	379.021	379.021	99,3	0	0,0
Media	424.454		3.040	5.387	8.426	2,1	374	415.654	416.028	97,9		0,0

The Port of Braila serves the domestic transport – 74% on average.

Traffic of Braila Port, 2017 – 2021 (kt)

Inc1 + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	355	100,9	16	20	36	10,1	175	144	319	89,9	0	0,0
2.018	476	134,1	7	50	57	12,0	198	221	419	88,0	0	0,0
2.019	397	83,4	30	5	35	8,8	140	222	362	91,2	0	0,0
2.020	281	71,0	14	15	29	10,3	25	227	252	89,7	0	0,0
2.021	512	182,2	36	86	122	23,8	194	196	390	76,2	0	0,0
Media	404		21	35	56	13,0	146	202	348	87,0	0	0,0

Traffic of Braila Port, 2017 – 2021 (kt-km).

Inc1 + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	56.900	98,4	13.769	4.680	18.449	32,4	33.428	5.023	38.451	67,6	0	0,0
2.018	62.724	110,2	4.333	9.779	14.112	22,5	37.704	10.908	48.612	77,5	0	0,0
2.019	61.324	97,8	21.292	1.511	22.803	37,2	27.258	11.263	38.521	62,8	0	0,0
2.020	35.881	58,5	8.275	10.935	19.210	53,5	5.138	11.533	16.671	46,5	0	0,0
2.021	95.598	266,4	27.990	21.466	49.456	51,7	37.320	8.822	46.142	48,3	0	0,0
Media	62.485		15.132	9.674	24.806	39,5	28.170	9.510	37.679	60,5	0	0,0

The Port of Isaccea serves the domestic transport – 82% on average.

Traffic of Isaccea Port, 2017 – 2021 (kt)

Inc1 + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	137	50,0	24	0	24	17,5	113	0	113	82,5	0	0,0
2.018	137	100,0	39	0	39	28,5	98	0	98	71,5	0	0,0
2.019	88	64,2	26	0	26	29,5	62	0	62	70,5	0	0,0
2.020	96	108,3	25	0	25	26,0	71	0	71	74,0	0	0,0
2.021	29	30,2	4	0	4	13,8	25	0	25	86,2	0	0,0
Media	97,4		23,6	0,0	23,6	23,1	73,8	0,0	73,8	76,9	0	0,0

Traffic of Isaccea Port, 2017 – 2021 (kt-km).

Inc1 + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	38.308	40,7	3.425	0	3.425	8,9	34.883	0	34.883	91,1	0	0,0
2.018	11.668	30,5	1.643	0	1.643	14,1	10.025	0	10.025	85,9	0	0,0
2.019	8.481	72,7	1.393	0	1.393	16,4	7.088	0	7.088	83,6	0	0,0
2.020	6.421	75,7	1.031	0	1.031	16,1	5.390	0	5.390	83,9	0	0,0
2.021	1.662	25,9	130	0	130	7,8	1.532	0	1.532	92,2	0	0,0
Media	13.308		1.524	0	1.524	12,7	11.784	0	11.784	87,3	0	0,0

The Port of Sulina serves the domestic transport – 100% on average.

Traffic of Sulina Port, 2017 – 2021 (kt)

Incl + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	16	200,0	0	0	0	0,0	0	16	16	100,0	0	0,0
2018												
2019												
2020												
2021												
Media	16,0		0,0	0,0	0,0	0,0	0,0	16,0	16,0	100,0	0	0,0

Traffic of Sulina Port, 2017 – 2021 (kt-km).

Incl + Intern + Tranzit			Internațional				Intern				Tranzit	
Anul	Total	Schimbare (%)	Încărcat	Descărcat	Total	Pondere %	Încărcat	Descărcat	Total	Pondere %	Total	Pondere %
2017	1.652	114,9	0	0	0	0,0	0	1.652	1.652	100,0	0	0,0
2018												
2019												
2020												
2021												
Media	1.652		0	0	0	0,0	0	1.652	1.652	100,0	0	0,0

Appendix 2: Review of the Ports of Reni, Izmail and GIPF

Reni Port [<http://www.portreni.com.ua>]: is an important transport hub in Ukraine, which closely connects sea, river, rail and auto roads. The optimal route from the Danube European countries to the Caucasus, Iran, the short route of delivery of goods from Turkey, Greece to the Baltic countries, Russia, Scandinavia passes through the port of Reni.

Navigation takes place throughout the entire calendar year. The maximum depths at the berths are 3,5 – 12,0 m (7.5 m on average), which allows handling any type of cargo operating on the Danube. The total length of the berths is 3.611,00 m. The design capacity of the port of Reni is 14.5 Mtons.



Port of Reni



Port of Reni [<https://www.danubecommission.org/dcl/en/>]

The port of Reni Port is located within the strip from 123.8 to 128.4 km of the left bank of the Danube River.

Overview of basic port's features are given in the below table.

Parameters	Explanation / Value
Port land owner (State, Region, Municipality, Private, Other)	State
Port authority name	Reni Branch of USPA (Ukrainian Sea Ports Administration)
Number of operators (concessionaires, lessors)	11
Total port area (ha)	94.36
Maximum draught (m) - natural or dredged	12
Total number of terminals	37
Heavy lift and out-of-gauge handling capacity (Yes/No)	Yes
Ability to handle full block train along the quay (Yes/No)	Yes
Ability to handle full block train in the port area (Yes/No)	Yes
Transshipment equipment for intermodal transport (Yes/No)	Yes
Total quay length (vertical + sloped) (m)	3936
Vertical quay length (m)	2876
Sloped quay length (m)	1060
Undeveloped quay length (m)	800
Max number of vessels handled at the same time	11
Max capacity of anchorage or waiting area for barges (number)	42
Storage capacity (m ²)	204900
Storage capacity for liquid cargos (m ³)	100000
Storage capacity (TEU)	250
Storage capacity (CEU - car equivalent unit, for Ro-Ro terminals)	120
Bunkering facilities within the port area (Yes/No)	Yes
Shore-side power supply for vessels (Yes/No)	Yes

Parameters	Explanation / Value
Road connection (Yes/No)	Yes
Rail connection (Yes/No)	Yes
Number of quay cranes of lifting capacity $Q < 10$ tons	-
Number of quay cranes of lifting capacity $10 < Q < 16$ tons	25
Number of quay cranes of lifting capacity $16 < Q < 50$ tons	5
Number of quay cranes of lifting capacity $Q > 50$ tons	1
Total number of quay cranes	31

Ownership, administration (governance) and operation

All land in the port of Reni belongs to the State Enterprise Reni Commercial Sea Port, which was founded by Ukraine, represented by the Ministry of Infrastructure of Ukraine. The infrastructure and superstructures located in the port of Reni are owned by private and state-owned companies. Administrative and economic activities in the Reni seaport are carried out by the State Enterprise "Administration of the Seaports of Ukraine" [<https://www.uspa.gov.ua/en/homepage-en>].

Hinterland connections

The Reni seaport has an extensive road/rail network. The length of the railways is 13.4 km, and the road is 6.2 km. Port's roads are connected with the Bucharest – Reni – Odessa highway, as well as the Reni - Chisinau highway. The Reni port's railway tracks are connected with the railway tracks of the Reni station and have a railway connection Reni – Galati, Reni – Chisinau, Reni – railway stations of Ukraine.



Deep Water Fairway (DWF) Danube - Black Sea is one of the elements of the program for the development of a national network of international transport corridors and its integration into the transport system of the countries of Europe, Asia, the Baltic and the Black Sea pool. The total length is 172.2 km.



Deep Water Fairway (DWF) Danube – Black Sea

The DWF route along natural Danube's water fairway:

Port Reni – Izmail Chatal (44.1 km)

Izmail Chatal – Vilkovo Port (98 km)

Port Vilkovo – Black Sea (through Starostambul and Bystre Danubes mouth: 17 km)

The artificial part of the DWF route: the Black Sea approach channel through the sea bar in the area of the Bystry branch (3.4 km).

The first stage of construction of DWF was completed, before the Russian – Ukraine war.

The implementation of the second stage was postponed due to the war and will ensure round-the-clock, two-way regulated ship traffic.

The resumption of navigation along the Ukrainian section of the Danube may become one of the most effective measures of the European integration course declared by Ukraine. The full-fledged development of the DWF opens up opportunities for unlimited expansion of logistics schemes for freight flows along the East-West vector.

Infrastructure

The port infrastructure consists of three cargo areas, a ferry complex and an oil station.

The port has 37 specialized berths, 31 of which are cargo ones, for handling general, liquid, timber, heavy, container, packaged cargo, bulk cargo, wheeled vehicles and passenger ships.

The total length of berths in the port is 3,927 m.

The berths are located along the left bank of the Danube, as well as in the backwater of the port.

The port also has 2 specialized terminals.

The first terminal is in the backwater. Berth No. 22 is equipped with a crane with a lifting capacity of 250 tons and is used for heavy and oversized cargo. The length of the berth is 125 m and the depth at the wall is 3.5 m.

The second terminal can handle Ro-Ro vessels up to 80 m long with a depth of 3.5 m at the berth. The Ro-Ro terminal and the adjacent outdoor parking area of 19.150 m² have not been used since the Ruse line (Bulgaria)-Reni has stopped her work.

Utility infrastructure (electricity, water, sewerage) as part of the port infrastructure belongs to the State Enterprise USPA. The technical condition of the infrastructure networks, equipment and facilities corresponds to their service life.

Transshipment of oil products (diesel fuel and gasoline) is possible in export, transit and import modes. Transshipment of oil products is carried out at 3 port terminals - by 4 port operators, the total volume of one-time storage is 110.000 tons. The work is ensured according to the standards of modern technology of overloading in accordance with the requirements of environmental, technogenic and technical safety. The capacity for transshipment of oil products is up to 500 tons / hour.

Storage facilities

Total storage capacity of the port of Reni is 204900 m².

Storage capacity for liquid cargos: 100.000 m³

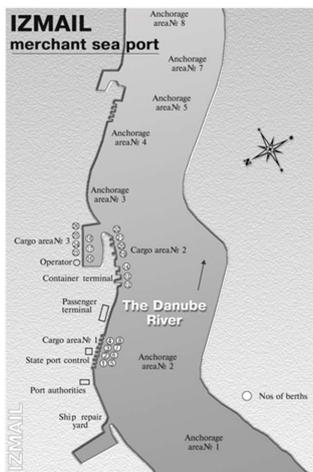
Storage capacity for 250 containers.

Ro-Ro terminal has an adjoining outdoor parking area of 19.150 m² and guarded parking lot for cars with an area of 12.000 m²

Izmail Port [<https://www.izmpport.com.ua/>]: is an important transport hub in Ukraine, which closely links sea, river, rail and motor roads. The optimal route from the Danube European countries to the Caucasus, Iran, the short route of delivery of goods from Turkey, Greece to the Baltic countries, Russia, Scandinavia passes through the port of Izmail.



Port of Izmail [<https://www.danubecommission.org/dc/en/>]



Port of Izmail map

The Izmail seaport has the capacity to carry out cargo operations, including dangerous cargoes of Classes 3, 4.3, 5.2, 7, 9 of IMO hazards, fumigation, boarding and disembarkation of passengers, replenishment of food, sewage and oil intake, all categories of garbage, as well as the repair of equipment and diving inspection of ships.

Cargo operations in the port are carried out around the clock, seven days a week, all year round.

The port of Izmail is located on the left bank of the Kiliysky mouth of the river Danube within the boundaries of 84.6 – 85.6 and 90.0 – 94.0 km from the entrance to the deep-water navigation channel from the Black Sea and towards the territory of the city by 500 m.

Overview of basic port's features are given in the below table.

Parameters	Explanation / Value
Port land owner (State, Region, Municipality, Private, Other)	State
Port authority name	Izmail branch of USPA
Number of operators (concessionaires, lessors)	6
Total port area (ha)	81,99
Maximum draught (m) - natural or dredged	7
Total number of terminals	3
Heavy lift and out-of-gauge handling capacity (Yes/No)	Yes
Ability to handle full block train along the quay (Yes/No)	Yes
Ability to handle full block train in the port area (Yes/No)	Yes
Transshipment equipment for intermodal transport (Yes/No)	No
Total quay length (vertical + sloped) (m)	4086
Vertical quay length (m)	2619
Sloped quay length (m)	1467
Undeveloped quay length (m)	-
Max number of vessels handled at the same time	25
Max capacity of anchorage or waiting area for barges (number)	Up to 40
Storage capacity (m ²)	233 000 m ²
Storage capacity for liquid cargos (m ³)	-
Storage capacity (TEU)	816
Storage capacity (CEU - car equivalent unit, for Ro-Ro terminals)	-
Bunkering facilities within the port area (Yes/No)	No
Shore-side power supply for vessels (Yes/No)	Yes
Road connection (Yes/No)	Yes
Rail connection (Yes/No)	Yes
Number of quay cranes of lifting capacity Q < 10 tons	12
Number of quay cranes of lifting capacity 10 < Q < 16 tons	13
Number of quay cranes of lifting capacity 16 < Q < 50 tons	8
Number of quay cranes of lifting capacity Q > 50 tons	-
Total number of quay cranes	33

Ownership, administration (governance) and operation

The total area of the Izmail seaport is 81.99 hectares, and belongs to the State Enterprise "Izmail Commercial Sea Port", the founder of which is Ukraine, represented by the Ministry of Infrastructure of Ukraine, with the exception of 40.2 hectares legally registered for the Izmail branch of the State Enterprise USPA.

Administrative and economic activities in the Izmail seaport are carried out by the State Enterprise "Administration of the seaports of Ukraine".

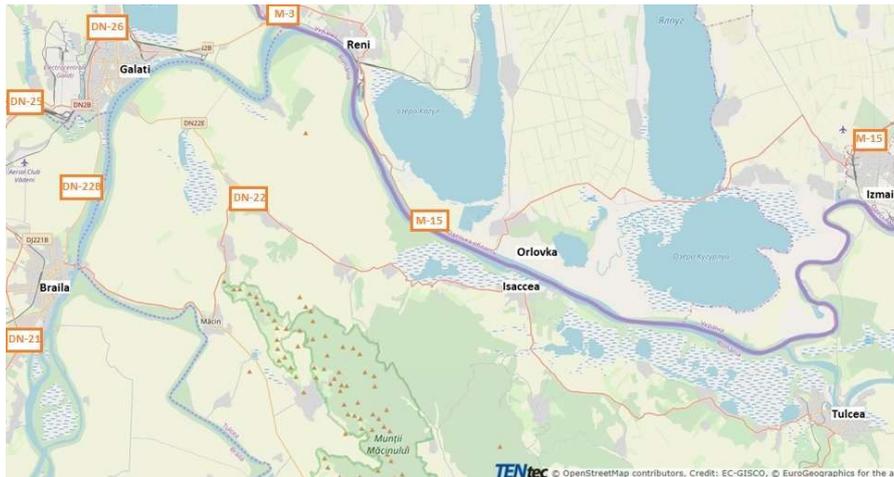
There are six enterprises operating in the seaport of Izmail. Four of them are port operators. The main specialization is stevedoring companies.

Hinterland connections

Izmail is a large transport junction see where sea, river, railway, road routes converge, and is located at the junction of the borders of Ukraine, Romania and Moldova and at the intersection of Pan-European transport corridors VII and IX.

The seaport is served by one railway station with three railway entrances and communicates with the Izmail – Odessa railway.

The port is adjoined by highways leading to the international highway M-15 Odessa – Reni – Bucharest.



Infrastructure

The seaport of Izmail has 24 berths and 5 coastal areas with an adjacent territory for storing cargo at 85 km of the Danube River. Depths at berths range from 0.4 to 7.5 meters. The main cargo flow of the Izmail seaport is export and transit of bulk cargo (coal, ore cargo), bulk (grain and food) and bulk (oil products, gases).

The total length of berths in the port is 3860.25 m. The berths are located along the left bank of the river Danube, as well as in the backwater of the port. Three cargo areas of the port specialize in transshipment of general cargo, containers and bulk cargo.

Storage facilities

The open storage area is 20,100 m².

The total area of covered cargo warehouses is about 25,200 m².

The covered warehouse of the port consists of 8 multi-purpose warehouses located in the rear zone of cargo berths No. 1, 4 – 8 of the port's Cargo area – 1 and berths No. 25 – 26 of the port's Cargo area – 3.

Multimodal terminals outside of UA ports

Multimodal terminal Orlovka – Isaccea (RO) ferry crossing.

The Orlovka ferry complex is located on the left bank of the Danube, 4 km from Orlovka town, Reni district (22km from Reni), Odessa region, 2 km from the international highway M-15 (E 87), 40 km from Izmail.

Located on an area of about 6 hectares, and has a unique in the Ukrainian part of the Danube, a universal berth structure for all types of river ferries and sea and river vessels.



Ferry crossing: Orlovka – Isaccea (RO)

Ferry "Orlovka-Isakcha" is a public-private partnership project, built by private investors and opened by the order of the Cabinet of Ministers of Ukraine No. 229-r dated 04/10/2019. The ferry has an international checkpoint across the state border for ferry, passenger and freight traffic between the settlements Orlovka (Ukraine) – Isaccea (Romania) with a capacity of about 200 units of trucks, 500 units of light transport and a passenger traffic of about 1500 people.

Additionally, four ferries will operate here for passengers without a car.

The distance between the Ukrainian and Romanian banks of the Danube in the Orlovka area is about 900 meters and will be covered by a ferry in 10 - 15 minutes.

Terminal infrastructure characteristics	Value	Unit/ Description	Notes
Total area	60000	(m2)	
Handling capacity	200/ 500/	Units/day	Trucks Light transport people
	1500		
Storage area	9000	(m2)	
Depot (base) storage capacity	120	TEU	
Capacity to handle block-trains	No	(Yes/No)	
Maximum length of complete block-train	-	(m)	
Number of rail sidings for loading/unloading	-	(n)	
Total length of rail sidings for loading/unloading	-	(m)	
Electrified train accessibility	No	(Yes/No)	
Number of road lanes for truck traffic	2	(n)	
Number of road lanes for truck loading/unloading	2	(n)	
Parking space for trucks / semitrailers	60	(n)	

The Ukrainian crisis had a twofold impact on Romanian cargo IWT. In 2022, the Ukrainian crisis affected the IWT market by causing higher prices of commodities (oil, gas, coal, all kinds of cereals) and raw materials such as steel (necessary for building new vessels), lower demand for the transport of oil and higher fuel costs, supply disruptions and bottlenecks in grain export from the Black Sea region, and the overall uncertainty of future economic growth.

However, the crisis also caused the redirection of an important flow of goods to Romanian waterways and ports. This resulted in significant quantities of extra cargo occurring in the Port of Constanta (primarily grains transported from Ukraine via that port, as a maritime transport, though), but also in a doubled upstream transport along the Sulina canal, thus showing that, overall, the impact of the crisis on IWT was lower than on road and rail transport.

Moreover, while the increased demand created a challenge of handling and transporting this extra cargo, it is also seen as an opportunity for Romanian IWT, given that the higher interest for Romanian ports may remain in the future (as the already established transport route will not change for a part of the cargo) and that, in the post-war period, Romanian ports can well serve the purpose of the recovery of Ukraine.

Giurgiulesti International Free Port [<https://gifp.md/en/>]: is situated at 133.8 km / 72.2 nautical miles from the Black Sea on the maritime section of the river Danube, with available water depths of up to 7m.

GIFP benefits from its strategic location in close proximity to Moldova's borders with Romania and Ukraine. Due to its easy access to the Black Sea with maritime vessels, to countries located along the Danube with river barges as well as inland rail connections to both the CIS and EU countries, GIFP is developing into a major logistics hub not only for Moldova, but for the entire region.

GIFP is capable of receiving both inland and sea going vessels.

GIFP serves its client as a regional logistics hub on the border of the EU with access to road, standard-gauge railway and broad-gauge railway, as well as to river and sea vessels. It is the only direct sea/river-borne transshipments and distribution point to and from the Republic of Moldova and due to its strategic location and excellent location for business development with a unique customs and tax regime.



Position of the Giurgiulesti Free International Port



Geographical location of the Giurgiulesti Free International Port

At the moment, the exit for the Republic of Moldova, the exit to the bank of the Danube River is the only exit to the river with a full-fledged navigation mode.

Despite the rather modest length of the coastline on the Danube (River-km 133.59 – 134.14), as well as at the mouth of the Prut River, the port handles the cargo flows generated by the national economy.

Overview of basic port's features are given in the below table.

Parameters	Explanation / Value
Port land owner (State, Region, Municipality, Private, Other)	State
Port authority name	Giurgiulesti International Free Port
Number of operators (concessionaires, lessors)	C.S. "Danube Logistics" SRL
Total port area (ha)	120
Maximum draught (m) - natural or dredged	7
Total number of terminals	4
Heavy lift and out-of-gauge handling capacity (Yes/No)	Yes
Ability to handle full block train along the quay (Yes/No)	No
Ability to handle full block train in the port area (Yes/No)	Yes
Transshipment equipment for intermodal transport (Yes/No)	Yes
Total quay length (vertical + sloped) (m)	780
Vertical quay length (m)	780
Sloped quay length (m)	0
Undeveloped quay length (m)	220
Max number of vessels handled at the same time	4
Max capacity of anchorage or waiting area for barges (number)	2
Storage capacity (m2)	20000
Storage capacity for liquid cargos (m3)	63600 (petroleum products); 6000 (vegetable oils)
Storage capacity (TEU)	210
Storage capacity (CEU - car equivalent unit, for Ro-Ro terminals)	-
Bunkering facilities within the port area (Yes/No)	Yes
Shore-side power supply for vessels (Yes/No)	Yes
Road connection (Yes/No)	Yes
Rail connection (Yes/No)	Yes
Number of quay cranes of lifting capacity $Q < 10$ tons	0
Number of quay cranes of lifting capacity $10 < Q < 16$ tons	1
Number of quay cranes of lifting capacity $16 < Q < 50$ tons	0
Number of quay cranes of lifting capacity $Q > 50$ tons	1
Total number of quay cranes	2

Ownership, administration (governance) and operation

The legislative framework that regulates the port's activities is established in the Investment Agreement "On the Free International Port of Giurgiulesti", approved by Law no. 7-XV of February 17, 2005, Law on the Giurgiulesti International Free Port no. 8-XV of 17 February 2005 and the Agreement between the Government of the Republic of Moldova and ICS "Danube Logistics" SRL of 21 April 2005 - the general investor and the port operator. The Investment Agreement signed with the Ministry of Economy in December 2004 leases the land for a period of 25 years and confers the status of "free economic zone" on the entire territory of the port until 2030.

ICS Danube Logistics SRL, a limited liability company, is the general investor and operator of the Giurgulesti International Free Port. In December 2004 Danube Logistics signed an investment agreement with the Government of the Republic of Moldova for the construction of the Giurgulesti International Free Port.



Port of Giurgulesti [<https://www.danubecommission.org/dc/en/>]

Giurgulesti International Free Port offers its customers:

- port services
- multimodal logistics services (transshipment and transportation of goods by sea, river, rail and car)
- office space rental services, warehouses, production spaces within the Business Park with the status of Free Economic Zone
- long-term land lease services within the Business Park with the status of Free Economic Zone.

Hinterland connections

Giurgulesti International Free Port (GIFP) is located in the southernmost geographical point of the Republic of Moldova. This creates some problems for organizing sustainable links with the hinterland of the country. It should be borne in mind that before the opening of the port in 2005, the settlement of Giurgulesti was not a cargo-forming centre.



GIFP connection with Danube ports

Giurgiulesti International Free Port is the only three modal (Road, Rail, IWW) transport hub in the country.

Near the port there is a railway junction (station Giurgiulesti) of the state enterprise "Moldovan Railway".

Through this station, external communications with Romania are provided (for this there is a mixed track from 1520 mm to 1435 mm) and with Ukraine through the nearest station Reni.

In connection with the growth in traffic through GIFP and in order to reduce the transit time for trains through Ukraine, the Cahul – Giurgiulesti railway line was opened in 2008.

Currently, the port of Giurgiulesti has a direct connection with all the main internal railway stations: Chişinău, Basarabasca, Ungheni, Balti, Ocniţa.

The M3 highway of international importance (Chişinău – Giurgiulesti) is the only road connecting the port with the hinterland of the country and with the Danube region of the European Union. With the growth in the volume of cargo transportation from the port by road transport, the amount in its restructuring has sharply increased.

With the opening of the Giurgiulesti International Free Port and the growth of the country's economic potential, interest has increased in the rehabilitation of navigation along the Prut River along the entire Giurgiulesti – Ungheni section. Currently, there are only local sections with local navigation on the Prut River.

Infrastructure

The GIFP infrastructure is located compactly and well thought out, based on the transportation needs specific to the region's economy and maritime transport. The port berths are located directly on the bank of the Danube River (360 m) and along the bank at the mouth of the Prut River (640 m).

Due to the strong impact of the water flow, the berths require massive coastal fortifications, as well as annual bottom dredging works.

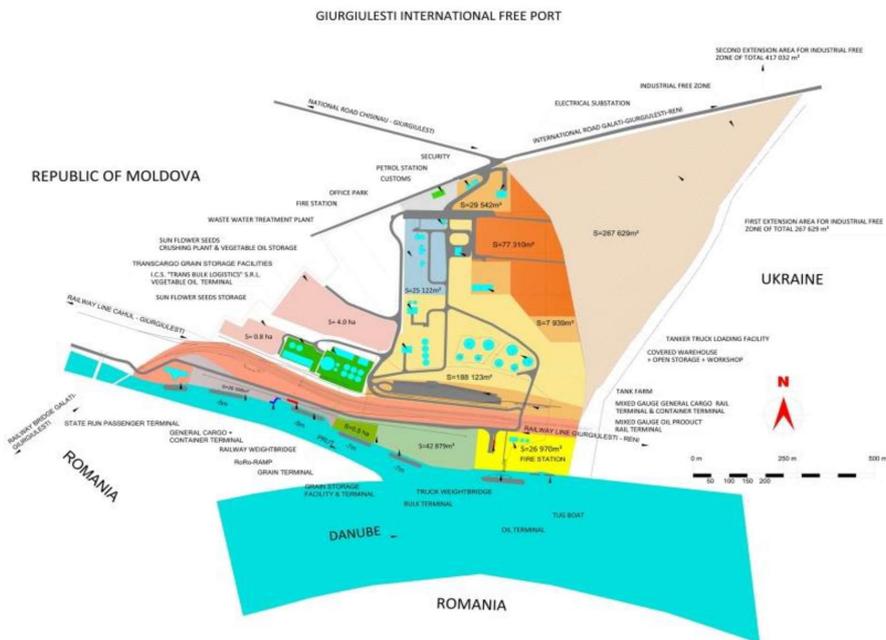
The vertical design of berths with a depth of up to 7 m on the Danube River and up to 5 m on the Prut River allows direct mooring of river-sea class vessels.

The berths are specialized. One berth serves the oil terminal, two berths are intended for a grain terminal and loading vegetable oil, and another one for containers and general cargo.

To carry out transshipment operations, the port is equipped with modern handling and transport equipment with high productivity. Electricity is supplied to the pier especially for storing containers of refrigerators.

The direct rail connection of the berth can significantly increase work productivity.

At the moment, the port has about 220 m of the coastline that is not adequately fortified. The work on the construction of a berth on this section is planned in the long-term plans.



The map of Giurgiulesti International Free Port

The oil terminal: is owned and operated by Danube Logistics.

The terminal consists of a wharf on the Danube River, a tank farm consisting of eight tanks, truck loading facilities and, since mid-2012, loading/unloading facilities with mixed rail.

The depth of the water at the hood of the oil terminal is at least 7 m and can therefore be accessed by both sea vessels and river barges.

Up to three different types of petroleum products can be loaded or unloaded simultaneously from ships.



Infrastructure elements of the petroleum terminal GIFF

Technical parameters:

- Trimodal transport infrastructure;
- Total storage capacity of 63,600 m³ provided by 8 tanks with a capacity ranging from 4,200 to 12,600 m³. Four of the eight tanks were equipped with floating roofs for the storage of gasoline and other easily flammable products;
- Maximum transshipment capacity of more than 2 million tonnes per year.
- Total loading/unloading capacity - maximum three different types of petroleum products simultaneously.

The cereal terminal: has been operating since July 2009 by Trans Cargo Terminals SRL, a subsidiary company of the Trans Oil Group of Companies, has built and manages the cereal terminal together with Danube Logistics.

The cereal terminal, with a storage capacity of more than 50,000 metric tons, can receive up to 3000 metric tons of grain per day by means of car and rail transport.

At the same time, vessels with a capacity of up to 7,000 metric tons can be loaded at a speed of up to 800 tonnes per hour through the two dans.



Infrastructure elements of the cereal terminal GIFF

The Vegetable Oil Terminal: has been operating since November 2011. "Trans Bulk Logistics" SRL, a subsidiary company of the Trans Oil Group of Companies, has built and managed the vegetable oil terminal with Danube Logistics.

The terminal has a storage capacity of 6,000 metric tons and can receive vessels with a gross carrying capacity of up to 10,000 tons.



Vegetable oil terminal

The bulk goods terminal: is located on the banks of the Prut River, on an area of 4 hectares.

The Bulk Goods Terminal of GIFF is owned and managed by Danube Logistics. Through the terminal are transhipped mostly products of the type cox oil, crushed stone, coal and quarry aggregates. Transshipment shall be carried out, using the mobile port crane or floating crane, from ships directly into trucks, railway wagons or open warehouses.

Technical parameters:

- • Trimodal transport infrastructure, consists of maximum 3 landings, with access to the road and railway systems of Russian and European standards;
- Open bulk cargo storage area: 160m x 35m = 5,600m²

General Goods and Containers Terminal has been in operation since January 2012 by Danube Logistics. The terminal has an open storage space with an area of 2 hectares, direct connection to the railway and has 48 sockets for refrigerated containers. The terminal equipment consists of a Senebogen mobile port crane with a maximum lifting capacity of 70 tonnes, a forklift with an extensive Kalmar crane arm and two front forklifts.

The minimum water depth at the terminal is 5 meters. Danube Logistics operates the weekly feeder service with the Container Terminal in the South Constanta Port of Romania.

Storage capacity: Open storage area of general cargo and containers: 60m x 45m = 2,700m².



Bulk goods terminal

Terminal infrastructure characteristics

Terminal infrastructure characteristics	Value	Unit/ Description	Notes
Multipurpose terminal	Yes	(Yes/No)	The terminal operates both containers and general cargo / bulk cargo
Specialized intermodal terminal	Yes	(Yes/No)	The terminal can conduct direct transshipment of cargo from ship, rail and trucks (in and out)
Total area	12650	(m2)	
Storage area	8000	(m2)	Both storage areas
Handling area	4650	(m2)	
Interim (transit) storage capacity	300	TEU	
Depot (base) storage capacity	900	TEU	
Quay length at the terminal	160	(m)	
Rail length along the quay	100	(m)	
Capacity to handle block-trains	YES	(Yes/No)	
Maximum length of complete block-train	275	(m)	For direct transshipment 7 platforms, other in shunting line
Number of rail sidings for loading/unloading	1	(n)	For long-term storage area
Total length of rail sidings for loading/unloading	400	(m)	For long-term storage area
Number of road lanes for truck traffic	2	(n)	
Number of road lanes for truck loading/unloading	1	(n)	
Parking space for trucks / semitrailers	5	(n)	Inside the port area, more space outside
Number of fixed ramps (Ro-Ro)	1	(n)	90% finished Ro-Ro, finished at demand



General Goods and Containers Terminal



General Goods and Containers Terminal

The Railway Terminal for the transferring of Liquid Products in Bulk is put into service by Danube Logistics in September 2014, being the first combined gauge railway terminal. The installation allows the transportation of liquid goods, dry and containerized goods on wide and narrow gauges railways.



Wide and narrow gauges rail terminal

Storage facilities

Giurgiulesti International Free Port has the following storage facilities:

- Grain storage terminals with railway connection
- Grain warehouses

- Petroleum oil storage tank farm
- Ethanol/wine storage facilities
- Vegetable oil storage tank farm
- multi-purpose warehouse

Open storage areas for: aggregates, coal, scrap metal, container.

Multimodal terminals outside of ports

Multi-modal container transportation to / from the Republic of Moldova is carried out mainly through the foreign ports of Ilyichevsk (Ukraine) or Constanta (Romania) or Giurgiulesti International Free Port. Thus, at present, the Republic of Moldova has the only port with three modal terminals, specializing in container transport.

In the period (2016 – 2019) before the crisis years, TEU traffic through the port of Giurgiulesti was 8 – 9 thousand containers per year.

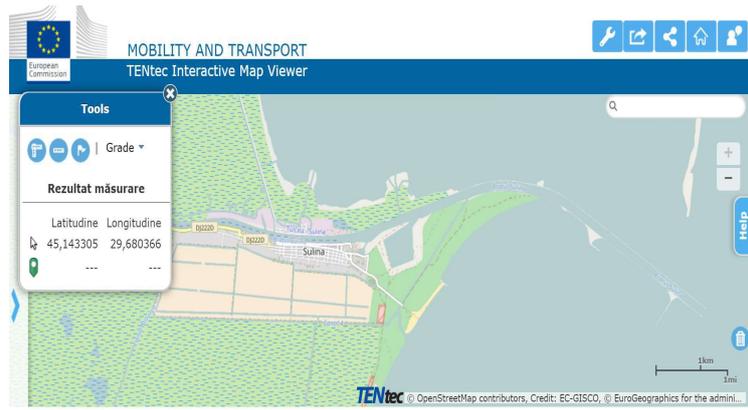
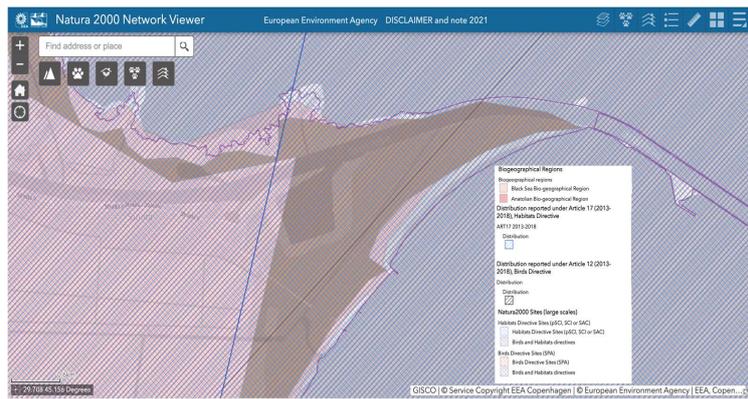
Transportation of containers from the ports of Odessa and Constanta, as a rule, is carried out by road transport directly to the consignee.

Delivery of containers to customers from the port of Giurgiulesti is carried out by road or rail. Both transportation options face certain challenges. In the case of road transport of containers, the problem is associated with high loads on the axle of the vehicle and the weak bearing capacity of the road in some sections. In this situation, it would be necessary to prohibit the transportation of containers by road and administratively oblige their transportation only by rail. However, the main problem of the railway is an unreasonably large loss of time for transportation, as well as an unacceptable service for the client in terms of quality / cost.

From the port of Giurgiulesti, containers are transported along the railway line: Giurgiulesti – Reni – Etulia – Basarabasca – Kishinev and further along the western or northern railway corridor to the destination station.

On the section of the southern railway corridor, which is directly connected to the Giurgiulesti International Free Port, it is strategically important for the normal functioning of the Basarabasca junction station located on the border with the Republic of Ukraine. It is through the Basarabasca station that it is possible to carry out a railway connection between Odessa and Kishinau with the capitals of the European countries of Romania and Bulgaria.

Appendix 3: Desktop Environmental Status



Appendix 4: Preliminary Information Memorandum



Sulina Free Zone Authority (AR Sulina)

PROJECT INFORMATION MEMORANDUM

SULINA GREEN PORT PROJECT, ROMANIA

November 2023



Ports & Logistics
Consultants Ltd.

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This Project Information Memorandum (PIM) is provided to the recipients solely for information purposes in order to assist them and their advisers in assessing whether they wish to consider participating in the competitive tender for a concession of goods tender involving the financing, rehabilitation, management and maintenance of the Sulina Green Port (SGP) Project.

The PIM is issued by the SFZA, solely for the prospective service providers and its advisers in considering the Project. The PIM has been prepared with the assistance of SFZA advisers (Ports and Logistics Consultants Ltd.).

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The recipient will keep this PIM and all information subsequently supplied or given to it or its agents or advisers in connection with the Project safe and secure so as to prevent any unauthorised person having access to it and agrees that the information is proprietary to SFZA and it has no rights to it except as set out in this notice.

The SFZA reserves the right: (i) to modify any of the rules or procedures set forth herein or any other rules or procedures without giving prior notice or assigning any reason therefor and/or (ii) to take any action which they deem necessary or prudent in their sole discretion in connection with the Project (including cancelling the Project and/or the bidding process).

The SFZA may amend, supplement, or replace any information contained in this PIM at any time, without giving prior notice or providing any reason.

The PIM does not constitute a solicitation to invest, or otherwise participate, in the Project.

Unless otherwise expressly defined in this PIM, capitalised terms have the meaning given to them in the glossary section.

Glossary

AFDJ	Lower Danube River Administration
CAPEX	Capital Expenditures
EBRD	European Bank for Reconstruction and Development
EOI	Expression of Interest
EU	European Union
EUR	Euro, the official currency of the Eurozone
IFI	International Financial Institution,
Interested Party	Party to which the PIM has been issued
Invitation to Prequalification	Invitation to prequalification stage of the tender
MTI	Ministry of Transport and Infrastructure
NAPP	National Agency for Public Procurement
O&M	Operations & Maintenance
NRA	Romania Naval Authority
PIM	Preliminary Project Information Memorandum
Project	The Sulina Green Port / SGP Project
SFZA	Sulina Free Zone Authority (Grantor), also referred to as AR Sulina
SGP	Sulina Green Port (Project)
SPM	EU-Funded Sulina Port Modernisation Project
SPV	Special Purpose Vehicle
Tender	Bids submitted by Qualified Applicants
Tendering Authority	SFZA
VAT	Value Added Tax

Background

Sulina Green Port (SGP) Project

The Project is a concession of goods/assets for the Sulina Green Port Project in Romania (SGP, the Project) for the rehabilitation, upgrade, operations and maintenance of its infrastructure and superstructure facilities.

The Project Grantor is the Sulina Free Zone Authority (SFZA). SFZA is seeking to enter a competitive procurement process with a view to awarding the Project to a single bidder or a consortium for a period of up to 30 years once the Project enters operation. The Project will be tendered and implemented in accordance with the provisions of Romanian Government Decision no. 1998/2004 regarding the Concessioning of Goods under the Administration of Free Zone Authorities (HG 1998/2004).

The SGP Project includes the rehabilitation, modernisation and operation of two Perimeters. Both perimeters are brownfield sites with existing port and inland infrastructure and utility connections such as water and electricity. However, infrastructure in both sites requires various levels of rehabilitation and upgrade as well as new superstructure and equipment for modern port operations:

- Perimeter I, which is located in Sulina town, covers a free zone area of 3.46 ha including a vertical wharf of 150 m long and -2.5 m draft. Perimeter I as a free zone status and is currently used for ship berthing, supply and chandlery.
- Perimeter II, located further east outside the city, is a non-free zone area covering approximately 170 ha comprised of a 620 m front quay wall on the Danube side, a 30 ha maritime basin with 4 inner-quay walls of a combined length of 2,250 m and average draft of -7m, a surrounding land area of around 100 ha, and river basin of 5 ha. The river basin, currently used as a berthing place by fishing boats and other small crafts, is not under the subject of this Project and concession.



Figure I: Sulina port sites and perimeters

Purpose of this Information Memorandum

The Grantor, SFZA, wishes to procure the Project in a way that is commercially attractive to the market, whilst meeting port and urban development plans and considering broad socio-economic objectives for the Sulina town and the region. This PIM forms part of an ongoing process of market sounding and interaction between the Grantor and Interested Parties including potential concessionaires and lenders. It has been prepared to inform the Interested Parties of the project's scope and characteristics and provide preliminary assumptions of the proposed concession prior to official tender launch.

Indicative timetable

The table below outlines the Grantor's envisaged timetable.

Activity	Date
Tender announcement (Publication).....	Week 1 (Expected mid or end Jan 2024)
Deadline for receipt of Eols.....	Week 8
Short list of qualified bidders.....	Week 9
Retrieval of documentation package.....	Week 9
Deadline for request for clarifications.....	Week 11
Response to request for clarifications.....	Week 13
Deadline for submission of technical offers.....	Week 18
Submission of financial offers / Auction date.....	Week 20
Negotiations with selected bidder.....	Within 2 weeks from auction date
Commercial close / Contract signing.....	Within 4 weeks from auction date

Table 1: SGP Project Procurement Milestones

Contact details

Zona Libera Sulina (SFZA / AR Sulina)

Address: Sulina, Str I, Nr. 202, Jud. Tulcea, Postal Code 825400, Romania

Tel: +40787-710631

Fax: +40240 – 543650

E-mail: sulinagreenport@azlsulina.ro

Key Parties and Partners

SFZA

The SFZA is an autonomous enterprise established in 1993 as a free zone administration. It is regulated by Law no. 84/1992 on free zones, Government Decision no. 156/1993 on the set-up of Sulina free zone and the Sulina free zone administration, and subsequent normative acts. The SFZA manages the entire infrastructure of the Sulina Free Port, the territories declared free zone and the superstructure under its ownership.

Tulcea County Council

Tulcea County Council is the 4th largest in Romania and covers an area of around 8,500 km² including the town of Sulina. The County Council competence is primarily related to the socio-economic development including the development and monitoring of spatial and urban plans and the development and management of county transport and utility infrastructure including those related to ports. Currently, SFZA functions under the coordination of the Tulcea County Council whereby the strategic development of Sulina port is integrated in the urban development of Sulina town.

Ministry of Transport and Infrastructure (MTI)

The MTI is the state authority in the field of ship transport, which develops, coordinates and implements sector policies and strategies including for waterborne transport and ports.

Lower Danube River Administration - AFDJ

The Lower Danube River Administration (AFDJ), a unit of the MTI, fulfils the position of waterway authority on the Romanian Danube sector. In particular it is entrusted with fairway and maintenance dredging, river training works, and navigational services and safety across the Sulina canal.

Romanian Naval Authority- RNA

Romania Naval Authority (RNA) is the central authority under MTI in charge of the safety and security of maritime and inland navigation and the prevention of pollution from navigation.

National Agency for Public Procurement- NAPP

The National Agency for Public Procurement (NAPP) is a public institution subordinated to the General Secretariat of the Government of Romania and in charge of elaborating and implementing public policy in the field of public procurement while ensuring a coherent and harmonized legal framework in line with EU laws and Directives.

European Bank for Reconstruction and Development- EBRD

The EBRD provides technical assistance to SFZA in the process of preparation and tendering of this Project and Concession.

Project Description

Project Background and Strategic Objectives

Strategically located on the right bank of the Sulina canal; approximately 7.5 km downstream from the mouth of the Danube on the Black Sea, Sulina port (UNLO Code ROSUL) was built in 1967, then expanded in 1978 by adding a 140 ha maritime basin (40 ha water basin and 100 ha surrounding land) with a draft of -11 m capable of accommodating seagoing ships of up to 35,000 dead weight tonnage (dwt). The port was also assigned a 'Free Port' status which has boosted its competitiveness and led to many years of thriving traffic and high-volume growth.

However, the impacts of the Romanian revolution and subsequent period of transition has translated into lesser or irregular maintenance of the maritime basin and the 7 km stretch to the mouth of the canal, leading to the clogging of several sections. This in turn restricted the size of vessels calling the port, thereby reducing the port's attractiveness and activity.

Over recent years, the establishment of the Sulina Free Zone Administration (SFZA), the public commitment of the Romanian Government to dredge the clogged sections of the canal stretch leading the maritime basin, and the relaxation of the regulations on night navigation and barge convoys at the Sulina canal, have rejuvenated the prospects of Sulina port. In parallel, the emergence of new patterns of waterborne trade and transport logistics within the Black Sea and the Lower Danube, coupled with regional port capacity constraints and congestion, have created a new dynamic of market demand and logistics and port competition. Most recently, the war on the Ukraine and blockade of its Black Sea ports have put further emphasis on the need of alternative shipping routes and long-term modern port capacity in the region.

By developing the Sulina Green Port (SGP) project, Sulina port can become an important distribution hub whereby scale and cost-efficient handysize class vessels (up to 35,000 dwt) can ship large volumes of goods to/from Sulina port for transshipment and further delivery via cost-effective barge convoys along the Danube. The development of hub-and-spoke ship-to-barge transshipment system will significantly reduce ship voyage and operating costs, increase barge traffic and load capacity, and lower cargo-carrying and total logistics costs, especially given the scale and cost efficiency advantages of barge and pushed convoy configurations allowed along the Sulina Canal and Romanian section of the maritime Danube.

The development of Sulina port and basin will also help ease growing demand and capacity constraints on Black Sea canal and ports and provide alternative choices to both transport (ship/barge) and cargo interests. As well as offering toll and lock free access and transit passage, the Sulina branch has a shorter distance to markets and offers higher load capacity and convoy combinations.

The SGP project will also have socio-economic benefits to Sulina town and surrounding communities by creating jobs and generating direct and indirect economic multiplier effects. The proposed ship-barge transshipment and cargo logistics arrangements will markedly reduce the negative environmental externalities of inland waterways transport through the Danube compared with direct transport via river-maritime ships.

Scope of the SGP Project and Concession

The scope of the SGP Project is two folds:

- Rehabilitate, Finance, Maintain and Operate Perimeter II. This entails the dredging and maintenance of relevant sections of the maritime basin to -11 m, the rehabilitation of its inner quay walls, and the development of its superstructure and surrounding land areas. The objective is to rehabilitate the maritime basin and modernise Perimeter II in order to operate handysize ships and take advantage of favourable market and demand conditions.
- Equip, Operate, and Maintain Perimeter I. This entails the development of the Perimeter I land areas and the provision and/or renewal of its superstructure. The objective is to modernise and equip Perimeter I so as to fully take advantage of its free zone status.

Conceptual Design and Proposed Development Plan

Figure 2 below outlines the proposed SGP development plans and concession zones opened for combined bids to prospective concessionaires:

- For Zone A (Perimeter I), the development plan is broadly set on equipping quay and land areas with handling and storage facilities to take advantage of the free zone status.
- For Zone B1 (L-shape Northern and Western basin and backyard land of Perimeter II), the development plan is set on dredging the upper part (North Basin) to -11 m water draft, rehabilitation of the inner quay walls and adjacent aprons, the resurfacing and systematisation of yards and aprons, the installation of an integrated system for ship-to-barge and/or ship-to-shore cargo transfer, and the provision of a modern set of handling and warehousing superstructure.
- For zone B2 (Eastern basin and backyard land of Perimeter II), the development plan is set on rehabilitating inner quay walls for barge and small ship berthing and handling, resurfacing and systematisation of land and yard areas, and the provision of storage superstructure. If needed, Zone B2 can be further split into two sub-zones.

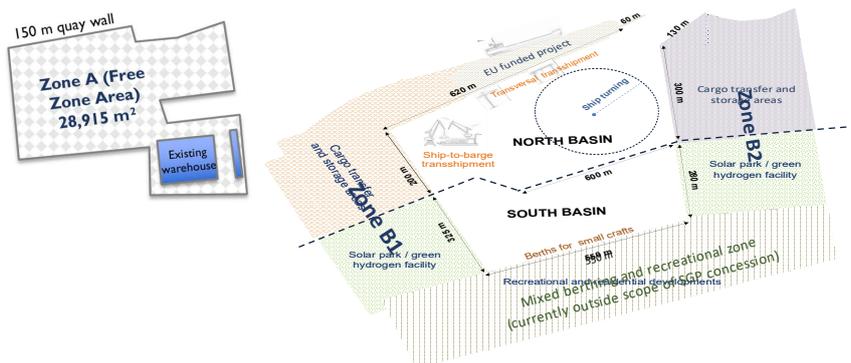


Figure 2: Proposed conceptual development plans and zones of the SGP project.

Related Projects and Developments

In October 2020, the SFZA and Tulcea Council secured EU funding in the amount of €17.5 million for the Sulina Port Modernisation (SPM) Project through the EU's Danube Delta ITI Mechanism (Large Infrastructure Operational Program 2014-2020). Much of the funding is targeted at the dredging and modernisation of the front quay wall (on the Danube side) and immediate general platform of Perimeter II, as well as the rehabilitation of the quayside infrastructure of Perimeter I.

The Sulina Port Modernisation (SPM) Project was recently tendered and work on the project is expected to start in the 1st quarter of 2024. The successful concessionaire of the SGP project will be able to start exploiting the sites developed under the EU-funded SPM project even during the rehabilitation and development phases of the SGP project. The concessionaire is however required to coordinate with and submit its development and work plan to SFZA for approval and monitoring.

The concession and development of the SGP project will also trigger the commitment made by the Romanian Ministry of Transport and Infrastructure (MTI) to dredge the clogged sections of the canal stretch between the mouth of the Danube on the Black Sea and the entrance of the maritime basin. In parallel, new navigations rules are currently being drafted by the Lower Danube River Administration (AFDJ) to regulate large ship and barge convoy navigation including on navigation conditions at night.

Project Milestones

The SGP Project concession will be for up to 30 years as per the tentative timeline shown in Table 2. The project zones are expected to undergo an initial rehabilitation/construction period of up to 24 months, followed by an operating period of up to 28 years. Depending on the status of implementation of the SPM project, and in concertation with SFZA, the concessionaire(s) may be able to operate completed work sections under the EU-funded SPM Project even during the rehabilitation/construction period.

Site/Zone	Stage	Starts	Ends
Perimeter I (Zone A)	Rehabilitation/ Construction	From Q4 2024	By Q4 2026
	Operation	From Q4 2024	By Q4 2054
Perimeter II Zone B1	Rehabilitation/ Construction	From Q4 2024	By Q4 2026
	Operation	From Q4 2026	By Q4 2054
Perimeter II Zone B2	Rehabilitation/ Construction	From Q4 2024	By Q4 2026
	Operation	From Q4 2026	By Q4 2054

Table 2: Tentative Timeline for SGP project implementation

As part of their bid, prospective concessionaires are expected to submit their business and development plans for the SGP project zones bided for, including potentially developing the project zones in phases throughout the concession period.

Commercial Matters

Project Structure

Institutional and Commercial Structure

The SGP Project is institutionally structured as a basic landlord model whereby SFZA, acting as the project's grantor and landlord port authority, bids out the port's infrastructure, superstructure, workforce and operations to a single or consortium of a group of concessionaires. The latter are expected to rehabilitate, modernise, equip and operate the port sites or zones conceded to them. Detailed information on technical specifications of the Project will be incorporated in the Technical Package for Bidders.

The selected concessionaire, or its SPV, will enter into a Concession of Goods Agreement with SFZA (as grantor), which will specify in detail the rights and obligations of the parties, in particular the obligation of the concessionaire(s) to rehabilitate, equip, operate, and maintain port infrastructure and superstructure facilities. The concession agreement will also detail the right of the concessionaire(s) to collect revenues from end-users and enter into subcontracts with contractors, specialized operators and other parties.

Financing structure

The selected concessionaire(s) will be responsible for securing the project financing and will be responsible for the repayment of any borrowed loans under finance agreements. It is envisaged that equity will be provided by the Project sponsor(s), debt will be provided by a commercial lender or an IFI, with a debt to equity ratio in the range of (70 - 80%) / (30 - 20%). Debt service will be provided from the project's gross profits while investor returns will be covered by net profit generated. Debt lenders may enter into direct agreements with the Grantor and the Concessionaire. Figure 3 below shows the anticipated institutional and financial structure of the SGP project.

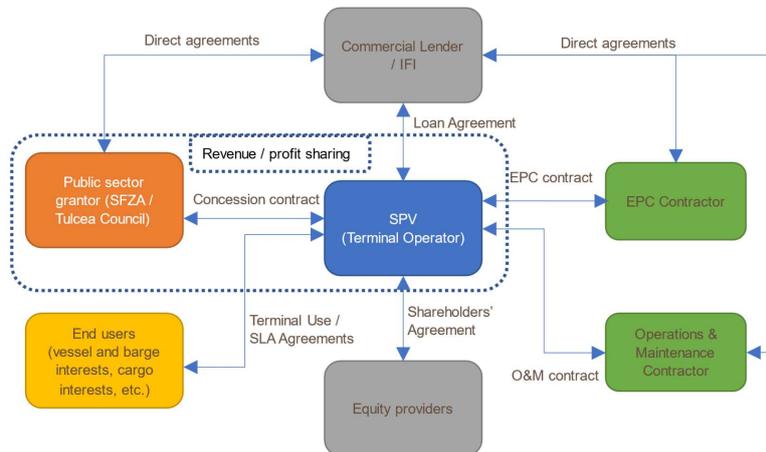


Figure 3 Anticipated institutional and financial structure of the SGP

In addition to debt and equity financing, the selected Concessionaire(s) may be eligible to apply with the SFZA for EU grant funding to be used for part rehabilitation or modernisation of the project. Concessionaire(s) may also consider other blending or complementary financing instruments. However, in no case should any of these arrangements exonerate the concessionaire(s) from their financial and contractual obligations towards the project.

Project Business Case

Business Case

The traffic forecasts for the SGP were estimated based on 3-tier scenarios as follows:

- Traffic derived from trade projections based on existing economic and industrial conditions in Sulina town and free zone extended to the hinterland up to and including Tulcea’s city.
- Traffic derived from the attractiveness of the SGP transshipment, logistics, and capacity offerings compared with existing direct shipments to downstream Danube ports.
- Traffic derived from competition with the foreland, including with the Black-Sea canal route and a small proportion of Ukraine-bound traffic.

Assuming the SGP project is starting in 2026 and developed in phases, the cumulative traffic forecast for the project is estimated to range between a low of 2 million tons in the 2026-2031 period and a high of 10.68 million tons in the 2044-2050 period (Figure 4).

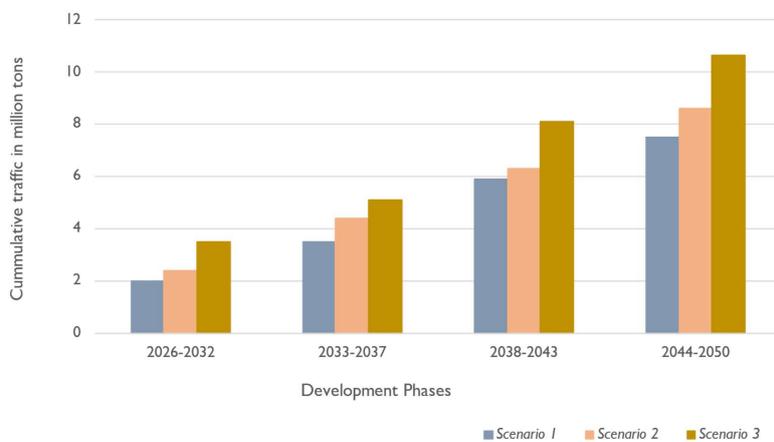


Figure 28 : Projections for cumulative traffic at SGP project (all phases till 2050)

Note that the estimated traffic forecasts provided are for indication only! Interested parties and prospective concessionaires shall carry out their own due diligence and derive their own traffic estimates and revenue forecasts to be included their business plans and bid proposals.

Investment Plan

The investment needed for the SGP project includes everything within the project zones including, inter-alia, sites' survey and preparatory work, basin dredging, rehabilitation and upgrade of quay wall structures, resurfacing and pavement of wharves and land areas, internal roads and fencing, storage areas and warehouses, commercial and administrative buildings, handling equipment and vehicles, utility connections and electrical installations, waste water and drainage, fire-fighting and anti-pollution systems. The required investment under the proposed concession(s) do not include investments outside the SGP project perimeters, for instance access roads or utility connections to the perimeters' gates.

Based on the above, initial project CAPEX estimates are illustrated in Table 3 below (at 2023 prices). Note that in the cost estimates, no import tax, duty or VAT was considered, pending confirmation on the tax status of the Project. Equally, CAPEX estimates do not include transaction costs (due diligence, bidding costs) and soft investment costs (marketing, training, etc.). Furthermore and since this is a long-term concession, it is expected that CAPEX be prorated to the capacity needed to satisfy future demand and service activity to include equipment renewal or asset upgrade.

Category	Lower Estimates (€)	Higher Estimates
Preparatory, dredging and excavation	8,000,000.00	9,000,000.00
Quay walls and Infrastructure upgrade	6,000,000.00	7,500,000.00
Superstructure buildings, equipment and vehicles	4,500,000.00	5,500,000.00
Contingency	1,500,000.00	2,000,000.00
Total (excluding Tax and VAT)	20,000,000.00	24,000,000.00

Table 3: High level CAPEX estimates for the SGP Project

As with traffic forecasts, the CAPEX estimates in Table 3 above are for illustration only! Prospective concessionaire(s) may incur higher or lower CAPEX expenditures depending on their design, procurement and project management options. In any case, Interested parties and prospective concessionaires shall carry out their own due diligence and derive their own CAPEX estimates to be included their business plans and bid proposals.

Tariffs and Revenue Streams

The revenue stream for the project will be primarily based on end users' payments, in return for activities and services rendered. The Project is envisaged to have 8 main revenue streams (handling, storage, transport, lease & rental, warehousing and storage, cargo processing, ancillary and miscellaneous) as described in Table 4 below.

Note that ship dues, navigation dues and other statutory charges are levied and collected by SFZA and other public agencies and are therefore part of the project revenue streams. End user charges shall be defined in the Concession Agreement, along with principles for review in line with the SFZA and Romanian regulations for port tariff setting and review.

Revenue stream	Description
Handling revenues	For handling (loading/unloading) ship and cargo passing through the port, including ship-to-ship and ship-to-barge transfer.
Storage revenues	For basic storage and/or stockpiling of cargo through the port
Transport revenues	For services related to cargo transportation, receipt and delivery.
Lease and rental income	From third party companies that would need to lease, rent or hire equipment, commercial facilities, and/or land plots in the port area.
Warehousing and storage revenues	Revenues received from additional or long-term storage required by users beyond the basic storage outlined above.
Cargo processing revenues	Revenues received from cargo processing, consolidation and break bulk, cargo examination, bagging / packaging, cleaning, etc.
Ancillary and miscellaneous revenues	Revenues from a broad spectrum of extra services in ports including but not limited to electricity and water supply, telephone and internet services, garbage and waste disposal, security and safety services, etc.

Table 4: SGP Project main revenue streams

Concession Fees and Revenue Sharing

Royalties / concession fees paid to the Grantor/SFZA are envisaged to comprise fixed and variable components. Bidders are expected to propose their payment structures comprising a fixed minimum fee plus a variable fee based on a revenue sharing mechanism. Proposed structures will be evaluated and scored along other evaluation criteria.

Risk Allocation

In view of the recommended project structure and delivery option, the main project risks were broadly identified as in Table 5 below, rated from low (1) to high (5) and allocated to various project parties: SFZA / Authority (A), Investor / Concessionaire (C), or both (B).

Risk	Implication on Project	Rating	Allocation		
			A	C	B
Interface Risk	Project hindered or postponed to non-cooperating agencies	2	<input checked="" type="checkbox"/>		
Political / Regulatory	Change in law (general or discriminatory)	1	<input checked="" type="checkbox"/>		
Political /Regulatory	Change in taxation (general or discriminatory)	2			<input checked="" type="checkbox"/>
Design	Project not designed adequately for the required purposes	1		<input checked="" type="checkbox"/>	
Site	Land use rights/ lease (eventually right-of-way)	1	<input checked="" type="checkbox"/>		
Site	Consent to use/ lease additional land	2	<input checked="" type="checkbox"/>		
Construction	Quality assurance and quality control	1			<input checked="" type="checkbox"/>
Construction	Cost overrun	2			<input checked="" type="checkbox"/>
Construction	Delays caused by Authority or Government entities	2	<input checked="" type="checkbox"/>		
Construction	Delays due to Operator changes	2		<input checked="" type="checkbox"/>	
Revenue	Volume risk	3		<input checked="" type="checkbox"/>	
O&M	Increased maintenance due to traffic	2			<input checked="" type="checkbox"/>
Performance	Meeting output KPIs	3		<input checked="" type="checkbox"/>	
Performance	Compliance with laws	2		<input checked="" type="checkbox"/>	
Market / Financial	Currency fluctuations	1		<input checked="" type="checkbox"/>	
Default	Termination due to breach by Government	1	<input checked="" type="checkbox"/>		
Default	Termination due to breach by Operator	1		<input checked="" type="checkbox"/>	
Force Majeure	Natural disasters, epidemics and acts of God	1			<input checked="" type="checkbox"/>
Force Majeure	Political force majeure	1	<input checked="" type="checkbox"/>		
Force Majeure	Uninsurable risks (during concession)	1			<input checked="" type="checkbox"/>
Environmental	Environmental –pre-existing conditions	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Table 5: Key Risks and Allocation Matrix for the SGP port project

Legal and Procurement Matters

Grantor

The Grantor to the Project will be SFZA which will also be a signatory of the concession agreement, direct agreements and interface agreement.

Concession Agreement

The concession contract will imply the following main elements:

- For the Operator, the concession right on the infrastructure and superstructure assets part of the Project, with the correlative obligations to make the investments works described in this PIM and to operate (directly or indirectly via subcontracting) the SGP, in exchange for payment of the royalty (in Romanian, redevență) to SFZA, and
- For the Grantor, the obligation to ensure adequate road access and utility connections are brought to the project sites and that regular maintenance dredging of the downstream stretch between the maritime basin and the mouth of the canal is carried out to allow ships of up to 35,000 dwt to enter the basin. The foregoing obligation will be secured by the SFZA via an interface agreement to be issued by the MTI and AFDJ.

Procurement Process

The tendering of SGP concession(s) will be done under HG 1998/2004 using a straightforward procurement process with the milestones shown in Table 1 and reproduced below.

Activity	Date
Tender announcement (Publication).....	Week 1 (tentatively end Jan 2024)
Deadline for receipt of Expression of Interest (Eoi).....	Week 8
Short list of qualified bidders.....	Week 9
Retrieval of documentation package.....	Week 9
Deadline for request for clarifications.....	Week 11
Response to request for clarifications.....	Week 13
Deadline for submission of technical offers.....	Week 18
Submission of financial offers / Auction date.....	Week 20
Negotiations with selected bidder.....	Within 2 weeks from auction date
Commercial close / Contract signing.....	Within 4 weeks from auction date

Table 6: SGP Project Procurement Milestones

For further information about the SGP Project, please contact SFZA at:

Zona Libera Sulina (SFZA / AR Sulina)

Address: Sulina, Str I, Nr. 202, Jud. Tulcea, Postal Code 825400, Romania

Tel: +40787-710631 ; Fax: +40240 – 543650

E-mail: sulinagreenport@azsulina.ro

Appendix 5: Market Sounding Questionnaire for Private Investors

Sulina Free Zone Administration (“SFZA”), a statutory free zone and port authority in Romania, is currently preparing for the concession of Sulina Green Port Project (the Project) which comprises the development and upgrade of two zones or Perimeters. The main features and information about the Project are outlined in the Preliminary Information Memorandum (PIM) enclosed to this Questionnaire.

This Questionnaire is being administered as part of the market sounding of the Project with a view to gauging the interest and feedback of potential concessionaires with experience in port, transport and infrastructure concessions. The information contained and feedback received from this Questionnaire are strictly used for the purpose of the Project’s market sounding and shall not be made public.

The target companies to whom the questionnaire is addressed are port and terminal operators, logistics providers, ship and barge operators, shippers and cargo interests, commodity traders, infrastructure managers, industrial real estate developers, and other companies with interest in ports and logistics.

Experience

1. Please describe your company’s profile and general activity

2. Please indicate your experience in implementing projects in the ports, transport and logistics sectors including those in concession scheme. Where possible, please provide information related to:
 - Sample/example projects,

 - the role of your company in the project,

 - the amount of investment outlays,

 - other consortium members and their role in the project.

Scope of the Project

3. Which of the commercial options described in the PIM would you prefer?

4. Please evaluate the concept and scope of the Concession Project presented in the Project Information Memorandum. In case of a negative assessment (e.g. one of the elements), please indicate an alternative thereto.

-
5. What are your assessment criteria when considering to bid for similar scale concession projects?
 6. Should the EU funded Port infrastructure restoration project in Perimeters I and II be implemented, would you be interested in including this infrastructure in your operation plan?
 7. Is the estimated timeline for finalizing the construction phase in line with your industry and project experience?
 8. What types of documents or additional information you consider should be made available by the SFZA?

Funding

9. If you were to bid for the project, what would be the financing structure of your contribution to the Concession?
10. What securities / guarantees would you expect from the Grantor/Promoter?
11. What securities would expect the financial institutions for ex. Direct Agreement?

Payment Mechanism

13. SFZA presupposes that the Concessionaire's remuneration shall be the right to commercially use and conduct business based on upgraded and modernized port facilities. SFZA also assumes that the Concessionaire shall pay a concession fee in the general method proposed in the PIM, i.e. a fixed fee plus a variable fee linked to a revenue share mechanism, both paid annually and with minimum and maximum thresholds.

14. Please provide your opinion on the payment mechanism and options presented in the PIM.

15. What kind of settlement model do you think is optimal (e.g. in what time cycles should concession fees be settled)?

17. What other forms of remuneration or income derived from the Concession Project would be interesting for you?

Proposal for risk-sharing

18. Is the allocation of tasks and risks as presented in the PIM acceptable to you? If not, please indicate the desired changes.

19. Do you perceive any additional risks not indicated in the PIM?

20. Please indicate any provisions that would have to be included in the Concession Agreement to mitigate financing and operations risks.

Other

21. If you were to bid for the Project, what would be your preferred duration of the Concession? What would be, in your view, the factors that affect the duration of the Concession?

22. What are your recommendations concerning the optimal schedule for the implementation of the Concession Project which should be adopted in the Agreement (design, obtaining administrative permits, construction and operation decisions)?

23. Would the implementation of the Project in the form presented in the Information Memorandum be interesting for you to the extent that it would allow you to submit a tender in the Concessionaire selecting procedure? Please, provide your reservations and suggestions.

24. Please provide any other comments and suggestions on the Concession Project that you consider relevant in its context.

Appendix 6: Investment Conference Agenda



SULINA GREEN PORT PROJECT



INVESTOR CONFERENCE

Bucharest, 15 November 2023

Venue: Ministry of Transport and infrastructure
38, Dinicu Golescu Av. RO-010873 Bucarest, Romania

Conference Agenda

8.30 am - 9.00 am: Registration of Delegates

9.30 am – 9.45 am: Opening Key Note- State Transport Secretary

9.45 am -10.10 am: Opening Presentation- Director of Sulina Free Zone Authority

10.10 am -10.45 am: Project Information and Structure- Ports Logistics Consultants Ltd.

10.45 am -11.30: Q&A Session

11.30 am - 12.30 pm: One-to-One Sessions

12.30-1.30 pm: Conference Refreshments and Networking

2 pm: Conference Close.

Appendix 7: List of Potential Investors

Organization	Name	Position	Email
Transport Trade Services TTS	Petru Stefanut	General Manager	office@tts-g
NAVROM	Catalin Tiganus	General Manager	c.tiganus@ni
BELOR SA	Florin Radu	General Manager	florin.radu@
TRADING LINE	Paul Ivanov	General Manager	paul.ivanov@
ROMNAV	Gheorghe Antistescu	General Manager	antistescu@
UPTON ROMANIA SRL	Eduard Grama	General Manager	e.grama@up
KORB-Stahl AS	Jens Christian Herold	General Manager	Jens-Chr.He
Bristol Logistics S.A.,	Tudor Coroian	General Manager	T.Coroian@
Febania GmbH and Sulina Logistics	Thomas Moser	Director	t.moser@fel
COFCO Brăila	Soenke Drebing	Director	SoenkeDreb
Port Romanel SRL	Silvia Albu	Director	silvia.albu@r
DP World Constanta	Cosmin Carstea	Director	Cosmin.Car
Yilport Holdings	R. Cem GOKTAS	General Manager Global Logistics	info@yilport
Advantis	Daham Weeasigne	Head of Strategy and	daham.weer
Q Terminals	Charles Meaby	Group business development	cmeaby@qt
UMG Investments	Nadiya Kaznacheyeva	Business Development Director	pr@umgi.ua
TIS	Andrey Stavnitser	CEO	info@tis.ua
Kernel Agro Holidng	Mykola	Director Logistics	ir@kernel.u
SE IZM MT (Izamil Port)	Vitaly Oleksandrovych	Director	iscp-secret@
UMEX	Cristian Țăranu	Director general	umex@ume
Varna EAD	Julian Stefanov	CEO	office@plcv.
MAE	Anton Manolov	Executive Director	manolov@pr
Actis	A Rodrigo	Manager	arodrigo@ar
Bulk Cargo	Bohdan Chomic	COO	biuro@bulkc
Danube Logistics SRL	Mathias von Tucher	Director	m.vtucher@
ICTSI	Hans-Ole Madsen	VP Europe	info@ictsi.cc
EuroPorts	patrick biesdorf	Corporate Development	contact@eu
Euroterminal LLC	Ludmila Varavva	Director	office@euro
Niboulon	Andriy Vadaturskyy	CEO	sekretar-sk@
Agria Port Holding	Teodora Ivanova	Investor Relations Director	t.ivanova@e
CHS Romania	Damoc Alexandru	Manager	ConstantaSil
Agropolychim AD	ISKAR ISKROV	Director	office@agro
Romcargio Maritim S.R.L.	Ionuț Monu	Director	office@rom
Frial S.A.	Marcel Barna	Director	office@frial.
SOCEP	Dorinel Cazacu	General Manager	socep@soce
Copenhagen Merchants	Patrick Kongsbak-Dahl	Head of Business Development	patrick.kong
Bulmarket EAD	Valerii Petrov	Manager	valerii.petrov
Mondry	Judyta Szuksztul	Logistics Manager	judyta.szuksz
Viterra (Glencore)	Nick Williams	Executive Manager Europe	Nick.William
Risoil S.A. Terminal	Oleg Fotchenko	CEO	evgeniy.sado
ADM	Sammy Biggs	Director, ADM Terminal	Sammy.Biggs

Appendix 8: Summary of Investors' Conference

Date: 15 Nov 2023, 9:30 am-12 am.

Location: Ministry of Transport and Infrastructure, Bucharest

Purpose / subject of the event: Presentation of the Sulina Green Port Project Concession Proposal to potential investors by the Advisors to the Grantor (SFZA), validation of the project by the EBRD and the Ministry of Transport and Infrastructure, responses to queries of the investors and possibility for them to voice their opinions.

Arranged by: Sulina Free Zone Authority (SFZA)

Participants:

SFZA	Position	Contact Info.
Dragos Ionita	General Director	M: +40 754 200300
Alina Picu	Fundraising Manager	M: +40 744 353935
Rodica Colesnicov	Commercial Inspector, SFZA	M: +40 745 031709
Ciprian Picu	Head of Port Administration, Tulcea Council	M: +40 743 338244

Advisors Ports and Logistics Consultants Ltd.	Position	Contact Info.
Khalid Bichou	Team Leader	M: +44 7939 057398 E: khalid.bichou@ports-logistics.com
Silviu Meterna	Ports Expert	M: +40 744 618623 E: silviu.meterna@gmail.com
Andreea Hulub	Legal Expert	M: +40 752 172992 E: andreea.hulub@dha.ro
Alina Sarnacka	Procurement Expert	M: +48 502 184082 E: alina.sarnacka@gazeta.pl

Name	Position
The Ministry of Transport and Infrastructure	
Bogdan Mindrescu	State Secretary
Claudiu Staicu	General Director [General Directorate of Transport Intermediary Body]
Monica Patrichi	Counsellor [Naval Transport Directorate]

EBRD	Position	Contact Info.
Daniela Ionescu	Senior Specialist	M: +40 732 731585 E: ionescud@ebrd.com
Venera Vlad	Associate Director	M: +40 732 731598 E: vladv@ebrd.com

Participating Investors	Company / Position	Contact Info.
Thomas Moser	Febania GmbH and Sulina Logistics SRL	M: +40 740 020130 E: t.moser@sulinalog.com
Alexandru Craciun	DP World Constanta	M: +40 723 176385 E: alexandru.craciun@dpworld.com
Paul Invanov	Trading Line	
Cristian Taranu	Umex S.A.	
Eduard Grama	UPTON	M: +40 725 524974
Igor Iusko	UPTON	

Items Discussed:

Item	Description
1.	Khalid Bichou gave a presentation of the Sulina Green Port (SGP) Project, including its background, description, results of preliminary analyses, project risks, proposed project options and expected timeline for project implementation.
2.	The Secretary of State gave a brief address. He stated that given the geopolitical situation, the project is very important for the Romanian State, hence a request to SFZA to proceed with the implementation of this project without any delays. Moreover the State Secretary made a public commitment that the Government/ public sector will perform the dredging of the Danube's fairway from the Black Sea to the maritime basin of SFZA. He also confirmed that the necessary documents to start the dredging procedures are ready. The Secretary of State indicated that he will further oversee the progress of the project and is open to suggestions for its fast implementation.
3.	<p>Participants potential investors raised the following issues:</p> <ul style="list-style-type: none"> • Implementing the project as bundled vs. unbundled facility – one participating investor expressed preference for an all-out bundled project excluding Perimeter II, while another participant favours concessioning the project into several lots given the size of local investors. <ul style="list-style-type: none"> ○ The Consultant responded that the objective of the conference is to gauge feedback from investors on the best option and that all options are still open. • The expectation for the investor to provide a minimum traffic guarantee <ul style="list-style-type: none"> ○ The Consultant responded that the investor will be bound by investment, traffic, traffic and performance requirements according to the legal obligations of the applicable concession law, the proposed business plan from the investor, and in line with international best practice for port concessions. • Applicable regulations concerning the size of barges / convoys of barges including night traffic. <ul style="list-style-type: none"> ○ Consultant responded that in accordance with the Belgrade convention, up to 8-barge push configurations can be used in the maritime Danube section; albeit it operationally around 6-barge push configuration seems to be more appropriate. ○ Consultant indicates that the allowed structure and size of barge convoys shall however be decided by Romanian authorities, mainly AFDJ and the MTI, including on the conditions and restrictions on night navigation. ○ The representative of the MTI further indicated that the Ministry is about to publish relevant regulations on the subject including updates on how digital VTS systems will be used to lift / ease some restrictions currently in place. • Existing fee tariff structure applied by the appropriate RO organizations (AFDJ, SFZA, ANR) on that specific area and if further modifications are planned during subsequent years. <ul style="list-style-type: none"> ○ Consultant replied that as far as the investor is concerned, his/her revenue stream is broadly defined as shown in the presentation. The investor is therefore free to set up its own tariff levels as per market and competition conditions. ○ Consultant further indicated that SFZA will levy tariff charges on port/ship dues as well as mooring charges, in line with their tariff structures currently in place. ○ AFDJ and ANR charge separate fees for ship pilotage, navigation, etc. which are also published. The extent to which these fees, in both structure and level, will be applicable to large (handysize ships) is yet to be determined; and is a matter to be clarified to the investor prior to tendering. • The dredging activities (areas) that will be supported by the RO authorities, respectively AFDJ and SFZA (Danube's fairway, the entrance area to the maritime basin, the North part of the maritime basin)

- Consultant indicated that those investments are indeed part of the obligations of the public authorities and will be clarified further in the tender book.
- Fee structure of the concession
 - Consultant replied that a fixed minimum fee similar to an entry ticket (in line with the concession regulation) will be applied along a variable fee (most likely a share of revenue to be proposed by the investors as part of their bids)
- On what premises the traffic scenarios (projections) were elaborated? Quite optimistic, considering the current situation. Hinterland & Foreland impact
 - Consultant responded that each investor is expected to prepare its own Business Plan, considering traffic, logistics and supply chain drivers of the project. The projections made by the Consultant are therefore indicative and takes into consideration both existing and future demand, the latter is driven by a new logistics and shipping network configuration which has not been offered in the past.
- The customs regime for Perimeter II, especially the bonded warehouses; potential special cargo regime
 - Consultant responded that Perimeter I is a free zone area, for which the applicable law and regulations are published under SFZA and free zone regulations of Romania.
 - As for Perimeter II, it does not have a free zone status, but is possible for the concessionaire/operator to set up a bonded warehouse as per the requirements of the RO Customs authorities similar of what is currently in place in Constanta port.
- The size of allowed storage area in Perimeter II
 - Consultant replied that there are no specific size specifications or conditions other than the constraints imposed by the general Sulina urban plan.
- Will Sulina Port be a common access port? Or a dedicated port?
 - Consultant replied that the port / concessionaire should provide open access to all ships / cargoes without discrimination as part of a common-user port model. SFZA as the grantor and regulator of the concession shall make sure this is well respected and regulated.
- Stated preference to start with a smaller capex and expand
 - Consultant responded that the project can indeed be developed in phases, especially given the duration of the concession. Bidders are indeed requested to submit their business plans in ways that fit their expansion throughout the life of the concession.
- The attractiveness of Perimeter I compared with Perimeter II, in terms of operational procedures and customs regulations applied (free zone regime impact)
 - Consultant responded by referring the investor(s) to the legal and customs regime applicable to SFZA's Perimeter I and free zone areas in RO.
- The possibility for investors to apply in partnership with SFZA for EU funds for performing the dredging works inside of the maritime basin.
 - Consultant replied that indeed as per the MTI communication, it is possible for the investor to partner with SFZA to apply for EU funding to part or full dredging of the basin. Consultant however reminded that dredging of the basin shall take place within the construction period (1 to 2 years) following the start of the project.
- The rehabilitation of the quay walls / possibility of phasing
 - Consultant replied that it is up to the investors and their Business Plans, but phasing is possible (North side / South side), and flexibility to phase the project (investment) is given to the investors.
- One single investor or partnership of 2 – 3 (or more) investors?
 - Consultant responded that all options are possible, including the use of an SPV. Investors should make their own due diligence and decide accordingly.

Key conclusions / actions to be taken:

- The Conference presentation and additional documentations will be sent to the conference participants.
- The Ministry of Transport is ready in principle to change the navigation regulation on the Danube, particularly as regard the Sulina Canal. SFZA will confirm in due course the regulations related to the navigation of barges / convoys.
- SFZA will establish the Data Warehouse and will send the appropriate link to investors. Available (public) documents will be uploaded there, based on the consultation with the Consultant and with EBRD.
- The Consultant will draft a letter for SFZA to use as a follow up with potential investors in the list drawn up for this purpose.
- Consultant will add a new Section to the Opportunity Study regarding the possible engineering/bundling options, along their corresponding associated benefits and risks. SFZA (Board of Administrators) should selected an option by 20 December 2023, at the latest (the sooner the better).
- SFZA will indicate to other potential investors the possibility to hold one-to-one online meetings with SFZA and their advisors.
- SFZA will add the e-mail address of the Consultant: admin@ports-logistics.com to their correspondence with the potential investors, allowing the Consultant to be updated in real time about the status of this communication process.
- SFZA will inform potential investors about their availability to organize on-site visit(s) to Sulina.

Appendix 9: Summary of Online Meetings with Investors

Meeting I – EurpoPorts

Date: 23 November 2023, 14:30 pm-15.30 pm GMT, by video conference.

Euroports is one of the largest port and logistics infrastructure companies in Europe with 45 terminals handling over 65 million tonnes of liquid, bulk, breakbulk and containerised goods.

Items Discussed:

Item	Description
1.	Representative of EuroPorts introduced the company, its scope of activities and general development plans.
2.	Khalid Bichou gave a brief verbal presentation of the Sulina Green Port (SGP) Project, description, proposed project options and expected timeline for project implementation. He mentioned that a revised/updated PIM will be available soon and shared by SFZA with potential investors.
3.	<p>The EuroPort representative raised the following questions:</p> <ul style="list-style-type: none"> • Update about quality of existing infrastructure. <ul style="list-style-type: none"> ○ The Consultant responded that the project infra requires major dredging and rehabilitation to meet the project's objectives. • Quality and involvement of Grantor in project structure. <ul style="list-style-type: none"> ○ Consultant responded that Grantor will be involved as a 'passive' port authority and regulator in the project. • Potential Exclusivity. <ul style="list-style-type: none"> ○ Consultant responded that the project shall be structured as common user facility providing access to all users. However, it is possible to arrange for time, space or quantity exclusivity of no other port project in the vicinity. The Consultant view is that may not be required anyway given the spatial market and competition for the project. • Arrangements of navigation in the canal <ul style="list-style-type: none"> ○ Consultant replied that currently, barge convoys are limited to 2 or 3 push-convoy configuration and that night navigation is not allowed across the canal. From his understanding, those restrictions are mostly administrative in nature (e.g. availability of pilots, lack of VTS, etc.) but ongoing projects are likely to resolve these prior to the start of operations. In any case, these issues shall be updated by the time the tender documentation is published. • What is the target date of closing the project. <ul style="list-style-type: none"> ○ The Consultant responded that he has been pushing the authority for a quick response and project delivery with a view of having an EOI published beginning of Feb. However, those decisions are entirely in the gift of the Grantor and may also be marred by slow administrative processes.

The EuroPorts representative thanked the Consultant and indicated that further information, especially about the project structure and navigation/dredging issues, would need to be confirmed prior to them considering proper consideration and due diligence for this project. Consultant responded that he fully understands EuroPorts view and he will update them accordingly where such information is confirmed.

Meeting II – Kernel Logistics

Date: 5 December 2023, 9:30 am-10.30 am EET, by video conference.

Kernel is the largest producer and exporter of sunflower oil. Kernel Logistics owns and/or operates a fleet of vessels, transportation and logistics assets, export terminals, and grain storage facilities.

Items Discussed:

Item	Description
1.	Representative of Kernel Logistics introduced the company, its scope of activities and regional and global reach.
2.	Khalid Bichou gave a brief presentation of the Sulina Green Port (SGP) Project based on the PIM and presentation made during the investors' conference. He indicated that finalised project option and structure of the project will be communicated to potential investors most probably around mid or end Jan 2024.
3.	<p>The Kernel Logistics representative asked the following questions:</p> <ul style="list-style-type: none">• Status of EU-funded project.<ul style="list-style-type: none">○ The Consultant responded that latest information received from SFZA is that the SPM EU project would start construction phase beginning (Jan/Feb) of 2024.• Responsibility over and status of dredging of Sulina Fairway.<ul style="list-style-type: none">○ Consultant responded that this is responsibility of AFDJ (under Transport Ministry and Government of RO). MTI State Secretary already publicly committed to carrying out the dredging as soon as an investor is selected. These issues will however be addressed contractually as part of the concession either through interface agreements and/or CPs.• Long-term concessioning.<ul style="list-style-type: none">○ Consultant responded that the project is structured as a concession of up to 30 years. It would be however possible to request long-term concessioning either through a concession renewal or as a stand-alone request.• Barge navigation<ul style="list-style-type: none">○ Consultant replied that according to UNECE up to 9 barge convoys can be deployed in the maritime Danube, though a more operationally practical solution will limit these to 6. However, currently only 2-3 barge convoys are allowed by RNA but this can be changed following requests from investor (supported by SFZA).• Expected date of tender.<ul style="list-style-type: none">○ Consultant replied this is expected in the 1st Quarter of 2024. He will update on the expected date for EOI and tender publication once a formal decision is made by the Grantor.

Kernel Logistics representative indicated that they may be interested in the project given the current and long-term situation in the Ukraine, potentially for a small hub transit facility, but they will need further assurances on dredging, navigation and other interface issues. But they would not at this stage start any due diligence given the early stages of the project. They would request us (consultant) to communicate with them again once those issues are resolved and finalised.

Meeting III – Hayleys Advantis

Date: 11 December 2023, 10:15 am-12 am GMT, by video conference.

Hayleys Advantis is one of the largest logistics companies in Sri Lanka, present across South-East Asia, the Indian Subcontinent and most recently Central and East Europe. The main activities comprise third party logistics, warehousing, free zone logistics, terminal operations, project logistics, e-commerce, logistics related engineering solutions, oil & gas logistics, shipping, freight forwarding, ship operations, marine services and aviation.

Items Discussed:

Item	Description
1.	Representatives of Hayleys Advantis introduced the company, its scope of activities and general development plans.
2.	Khalid Bichou gave a presentation of the Sulina Green Port (SGP) Project, including its background, description, results of preliminary analyses, project risks, proposed project options and expected timeline for project implementation. It was stressed that it is expected that investors to come with own business plan.
3.	<p>The Hayleys Advantis representatives raised the following issues:</p> <ul style="list-style-type: none">• Competition of other neighbouring Danube ports.<ul style="list-style-type: none">○ The Consultant responded that there are no other major ports in the vicinity.• Are there any regulations concerning the size of barges / convoys of barges/night traffic regulations that may jeopardise attainment of the business goals related to bulk transshipment.<ul style="list-style-type: none">○ Consultant responded that the Ministry of Transport will shortly publish updated regulations which will ease some restrictions currently in place.• Is there a considerable interest on part of competitive investors in the Sulina port concession.<ul style="list-style-type: none">○ Consultant replied that the investor conference was very successful and the companies we targeted participated.• What is the responsibility of public authorities concerning the access, port services including pilotage.<ul style="list-style-type: none">○ Consultant indicated that dredging of Danube's fairway, the entrance area to the maritime basin, the North part of the maritime basin are the obligations of the public authorities and will be clarified further in the tender book. Similarly the port services will not be responsibility of the concessionaire.• What will be the concession fee structure<ul style="list-style-type: none">○ Consultant replied that a fixed minimum fee similar to an entry ticket (in line with the concession regulation) will be applied along a variable fee (most likely a share of revenue to be proposed by the investors as part of their bids)• What is the target date of closing the project.<ul style="list-style-type: none">○ The Consultant responded that at the end of 2024.• Will the Sulina port will allow the container traffic?<ul style="list-style-type: none">○ Consultant replied that the Sulina port is intended as a bulk port, but no options are excluded.

The Hayleys Advantis representative requested that the Consultants send the presentation and updates of the developments in the project preparation and procurement process. From their point of view, SGP could be a potential gateway to Romania and the region. The management team is planning to undertake due diligence studies on this opportunity.