

BSB- LOGINET

SUSTAINABLE LOGISTICS NEEDS ANALYSIS AND SECTORAL ROAD MAP

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PART I: INTRODUCTION, SCOPE AND METHODOLOGY

1.1. Background of the Project and Logistics Master Plan Vision

1.2. Research Methodology and Data Collection Framework

Qualitative/Quantitative analyses field interviews, constraints

1.3. Cross-border Cooperation and Black Sea Basin Macro-Strategy

PART II: REGIONAL LOGISTICS PROFILE AND NEEDS ANALYSIS

According to the prepared format, this section will be filled with field data separately by expert companies in Samsun, Varna and Adjara . It is very important that the information given under each heading is supported by all kinds of data possible to be accessed, provided that the directives under each heading are adhered to the highest possible level.

SECTION 2: REGIONAL SOCIO-ECONOMIC STRUCTURE AND SPATIAL DEVELOPMENT

2.1. Macroeconomic and Demographic Indicators

2.1.1. Demographic Structure and Employment Pool

This part should not be passed only by giving the general population of the region and standard unemployment rates. Qualified labor potential of the logistics sector should be analyzed. The current employment size should be given on a sectoral basis (warehouse, customs, transportation); In line with the specific objectives of the project, young and female employment figures and possible sector entry barrier should be analyzed with their underlying root causes.

2.1.2. Macroeconomic indicators

Relevant economic data, especially regional GDP and per capita income, and the general situation of the region should be explained, and an overview of the foreign trade of the region should be drawn. The importance of the agricultural, industrial and service sectors in the regional economy and the degree to which they are compatible with the logistics infrastructure should be emphasized.

2.1.3. Industrial and Agricultural Production Capacity

Production data should not be passed over purely financial value (Dollar/Euro). Foreign trade volumes of specific industrial branches such as iron and steel, automotive, medical or bulk

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agricultural products and how much "tonnage pressure" these volumes create in ports, warehouses and roads should be measured. It should be analyzed how fluctuations in the capacity utilization rates of industrial facilities shape the demand for logistics transportation.

2.2. Spatial Distribution of Logistics Infrastructure and Its Impact on the Cities

2.2.1. Positional Integration of Logistics Centres and Industrial Clusters

Rather than merely stating their existence, the physical distances and integration levels of OIZs, Free Zones, and warehouses with main transportation arteries and customs gates should be evaluated from the perspective of operational efficiency. The general structure of logistics villages and centers should be explained in detail the level of integration between modes.

2.2.2. Physical Expansion Bottlenecks of Port and Logistics Facilities

The location of the ports should not be presented as a general geographic information. Ports constrained by urban sprawl, the flow of cargo coming to the port and the effect of heavy vehicle (TIR) traffic on civilian city life (with Blue Economy areas) should be examined. The extent of possible obstacles (emissions, noise restrictions, driving bans, etc.) faced by other elements related to logistics infrastructure in cities and their impact on supply chains should be investigated.

2.2.3. Spatial Reserve Areas and Infrastructure Projections for the Next Period

In order to overcome bottlenecks and reduce the negative effects of urban logistics mobility on people and the environment, the presence or absence of the next 5-10 years of projection areas allocated for new truck parks, dry ports or logistics bases included in the city and zoning plans should be questioned.

SECTION 3: FOREIGN TRADE, FREIGHT FLOWS AND BOTTLENECK ANALYSIS

3.1. Current Foreign Trade Volume (Country and regional basis)

This section should not be created only with tables showing general country exports/imports and calculated on financial value (Dollar/Euro). Logistics operations should be examined based on the volume and weight they cause. A trade volume that seems too large financially can be an air cargo load of just a few pallets in terms of logistics operations, while a low-financial agricultural trade can

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create a huge tonnage pressure that locks in ports and roads. Operational focus should be prepared from this perspective and address the following main topics.

- *Regional Breakdown* : Immediately after the macro data is given, the statistics should be reduced to the city axis.
- *Physical Operation Metrics*: Foreign trade data should be presented with statistics on **the basis of tonnage and TEU (container)**, which are absolutely physical equivalents.
- *Mode Split*: In order to see which infrastructure the trade is mainly using, the data should be broken proportionally according to the modes of transport (sea, road, railway).
- *Trade Imbalance Analysis*: The tonnage or TEU differences between import and export volumes (for example, when the region exports 5,000 tons and imports only 1,000 tons) are the main cause of freight imbalance and equipment shortage in logistics. This data should be explained by establishing a causality link as statistical proof of the **possible "empty backhaul" problem to be processed in the following sections (Chapter 3.4.2).**

3.2. Cross Border Load Flows (O-D Matrices) and Transport Modes

Freight distribution according to transport modes, transit transport volumes, transitions between modes (port-railway, etc.) and current structure of the transit "Hub" function of the regions

The focus should not be solely on commercial financial balance sheets; the statistics should be given on the axis of proportional distributions (modal splits) according to TEU, tonnage and transport modes. The role that the city assumes, or may assume in the future, as a transit "Hub" for other countries should be embodied in the direction of freight flows (Origin-Destination).

3.3. Operational Bottlenecks at Customs and Border Crossings

Numbers of heavy vehicles (TIRs) entering and leaving the border gates on an annual/monthly basis and statistics of declarations traded. Comparing the theoretical vehicle transition capacities of the gates with the actual volumes (Capacity utilization rates) and the average customs waiting / processing times on a statistical basis should be included.

3.3.1. Physical Infrastructure and Capacity Restrictions

Employees at border gates; Customs officer, customs inspection officer numbers and platform numbers should be included in the quantitative metrics.. X-ray scanning speeds / capacities and the

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adequacy of heavy vehicle physical waiting (buffer) areas inside / outside the customs area should be questioned.

3.3.2. Administrative, bureaucratic and systemic slowdowns

Delays experienced by administrations on both sides of the border (e.g. Turkey-Bulgaria or Turkey-Georgia) in processes such as document processing speeds, physical examination, sampling and so on should be explained. If any, instant interruptions in customs information systems and shift / workday incompatibilities, situations in which border customs can handle the transaction volume and problems encountered on both sides of the border should be addressed.

3.3.3. Regulatory Asymmetries and Trade Facilitation Deficiencies

Current status of statuses facilitating trade such as differences in axle load and vehicle clearance limits differences between the two countries, transit document (dozvola) quotas and Authorized Economic Operator (AEO) should be explained.

3.4. Regional B2B Collaboration Potential and Supply Chain Intersections

3.4.1. Complementary Sectors and Bilateral Trade Opportunities

The "complementary" industry and agricultural branches, where regional industries can mutually supply raw materials/semi-finished products or export finished products, should be evaluated over regional export and import items.

3.4.2. Potential of Joint Logistics Operations

In order to bypass the chronic bottlenecks experienced at highway border crossings (Sarp, Kapitan Andreevo); the potential for establishing direct **Ro-Ro lines or regular short-distance** container (feeder) services between Samsun, Varna and Adjara (Batum) ports should be analyzed. The advantages of a physical sea bridge to be established between these three regions for freight costs and transit times should be clarified with the opinions of freight owners and shipowners in the field. The appetite of the parties to use each other's **infrastructures should be measured in order to solve the "empty backhaul" problem** that increases transportation costs and to increase efficiency. The

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potential of companies to consolidate partial (LCL/LTL) loads (common freight) and to jointly use warehouse/storage areas in each other's regions should be examined.

The AI-powered BSB-LOGINET portal, which is envisaged to be implemented, should be investigated not only with a passive information screen, but also with field data on how it can be used (matching freight for Ro-Ro lines, optimizing empty vehicle/warehouse allocation).

3.5. Impact of Global Geopolitical Crises on Regional Load Flows and Route Preferences

The effects of global maritime transition bottlenecks such as the Russia-Ukraine war or the Red Sea / Strait of Hormuz on supply chain routes in the Black Sea basin, freight costs and freight traffic of ports should be analyzed. In particular, the presence of cargo going, incoming or transiting to these regions should be investigated, and the alternative route (modal shift) or "nearshoring" strategies that enterprises can develop in the face of these crises should be examined in the context of regional advantage.

3.5.1. Reflections of the Russian-Ukrainian War on regional trade, freight costs and Black Sea ports (Samsun, Varna and Adjara)

3.5.2. Global Bottlenecks (Red Sea, Hormuz, etc.) and Alternative Route Searches

SECTION 4: LOCAL LOGISTICS INFRASTRUCTURE AND OPERATIONAL CAPACITY

4.1. Transportation Modes and Physical Infrastructure Capacity

Infrastructure elements (Port, Highways, Railway lines) should be reported and if they can be provided, usage efficiencies and bottlenecks should also be mentioned.

4.1.1. Sea and Port Infrastructure

The suitability of dock/pier lengths and harbor drafts for global ship tonnage trends (e.g. Post-Panamax) suitability, handling equipment and all port structures should be explained in detail.

4.1.2. Road Infrastructure and Hinterland Connections

The general condition and statistics of the road network should be included. In addition, "hinterland accessibility" in connecting ports and logistics centers to transit corridors should be explained. Possible problems (accidents, etc.) on the route should be explained by supporting with reports.

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4.1.3. Infrastructure of Railway

In addition to the railway lines passing through the region, their characteristics and total length, physical conditions that directly affect the operational speed and tonnage of freight trains; line electrification and signaling infrastructure of the lines and track gauge incompatibilities (if any) especially at border crossings should be examined. The adequacy of the maneuver areas and ramp/crane capacities in the cargo terminals should be questioned; the flexibility of the railway transportation in the region to serve the industrial clusters should be reported.

4.1.4. Airline and Air Cargo Infrastructure

In addition to the cargo and passenger statistics of the airports, the cargo terminal areas at the airports, bonded / unbonded warehouse and warehouse volumes should be included. The connectivity opportunities offered by the airport on a global and regional scale should be explained *in detail*.

4.1.5. Multi-Mode Transportation Systems

The possibilities of using mods integrated with each other should be explained in depth. Sea-rail and sea-road ports, physical deficiencies in load transfer terminals (handling), and infrastructural problems that slow down the transition between modes should be analyzed. Infrastructural **"missing links" that slow down or make the transition between modes impossible should be identified**. For example, a railway line that does not enter the port or the OIZs, or insufficient road connections at the port exit, if any, should be identified and reported.

4.2. Storage Infrastructure, Capacity Distribution and Value Added Services

Warehouse and storage capacities of the region should be explained in the following basic subjects.
Facility Classification: How much of the warehouses in the region is A-Class (modern, high-shelf, suitable for automation) and how much is traditional (B/C class) should be analyzed over capacity utilization efficiency.
In-house (Own-account) vs. Commercial (2PL/3PL): Information should be given about the general condition of storage capacity in the region. How much of the capacity is self-owned warehouses owned by businesses? How many of them are commercial warehouses owned by companies?
Existence and volumes of special product warehouses (Cold Chain, Garment-on-Hanger (GOH), active pharmaceutical ingredients , etc.)

4.2.1. Facility Classification and Physical Capacities

Total indoor/outdoor space and volume (m³) capacities of A-Class (modern, high shelf, suitable for automation) and B/C-Class (traditional) warehouses in the region. General occupancy rates of facilities and periodic capacity utilization efficiency.

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4.2.2. Warehouses by Business Model and Ownership Structure

Regional weight and capacities of "in-house" warehouses belonging to manufacturer/exporter companies and "rent/commercial" warehouses belonging to logistics service providers (3PL/4PL) State of warehouses in public (port area, etc.) ownership.
Distribution of bonded warehouses and free (unbonded) warehouses and capacity adequacy according to import/export volume.

4.2.3. Specific Types of Storage Infrastructure

Temperature controlled storage (-18°C, +4°C, etc.) capacities for perishable products (agriculture, aquaculture, medical)
Reefer (refrigerated container) plug/socket infrastructure and uninterrupted cold chain operation competence in port and logistics centers.
The current state of hazardous goods (ADR/IMDG) storage areas, silos for bulk cargo and liquid tank terminals.

4.2.4. Value Added Logistics Services (VAS)

General status of services offered in warehouse and logistics centers such as order preparation (picking/packing), palletizing, stretching, labeling, assembly and quality control.

4.3. Digitalization in Logistics Operations, Transportation Technologies and Artificial Intelligence Readiness Level

Intersystem Integration: The capacity and usage possibilities of Electronic Data Exchange (EDI/API) vehicles between customs, port and private sector should be investigated. In addition, it should be explained how integrated public and private sector software works with each other. The existence and maturity levels of Single Window or Port Single Window systems in the respective countries (similar to implementations in Turkey) should be detailed.
Facility and Vehicle Automation: WMS (Warehouse Management System) and TMS (Transport Management System) penetration in the region and in-terminal automation use cases such as barcode / RFID should be explained.
AI Portal Adaptation: Firms' technical infrastructure competencies and cyber security/commercial secrecy reservations should be questioned in providing data to the "Artificial Intelligence Supported Cross Border Logistics Information Portal", which is the heart of the project.

4.3.1. Customs/Port Digital Infrastructures and Inter-System Integration

The existence and maturity levels of systems such as Single Window and Port Single Window in countries should be explained. Electronic Data Interchange (EDI/API) integration between customs, port management and private sector (agency, forwarder) systems and the current situation in paperless trade applications should be analyzed.

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4.3.2. Transport Management and Network Traceability

Rates of use of software such as Transport Management System (TMS) and digital freight platforms by transportation and logistics companies in the region. The possibilities of using telematic systems, GPS and mobile applications that provide instant traceability in vehicle and load tracking (container / truck) should be investigated.

4.3.3. Warehouse and Terminal Automation Systems

Warehouse Management System (WMS) usage levels in logistics facilities should be investigated. Sectoral penetration of barcode, RFID, IoT-based stock/vehicle tracking systems and in-terminal automation (AS/RS, AGV) technologies should be examined.

4.3.4. Cross-Border Data Sharing and Artificial Intelligence (AI) Adaptation Potential

The approaches of companies to provide data to common databases such as the artificial intelligence-supported Cross Border Logistics Information Portal to be established in the Black Sea basin and to integrate these systems into their operations should be investigated.

4.4. Environmental Sustainability and Green Logistics

The level of readiness of the European Union against the additional costs that the Carbon Border Adjustment Mechanism (CBAM) will bring to the exporters and logisticians of the region (Scope 1-2-3 emission follow-up) should be explained. Methods that have been or will be implemented according to transport modes should be explained.

Green Port and Warehouse Investments: The presence of investments that reduce operational energy costs such as powering ships from land (cold ironing), on-site Solar Energy (GES), use of lithium-ion battery equipment and rainwater harvesting should be analyzed in a technical dimension.

Green Transportation: The "modal shift" trends of heavy vehicle fleets that reduce their carbon footprint with Euro 6 or LNG / electric conversion speeds should be examined.

4.4.1. Corporate Carbon Footprint, Emission Tracking and Compliance with the EU Green Deal

The current situation of logistics service providers in measuring and reporting greenhouse gas emissions and their compliance with the Border Carbon Regulation Mechanism and corporate sustainability (ESG) standards should be explained in detail.

4.4.2. Green Port Infrastructure and Blue Economy Integration

Application status of globally accepted green port applications in regions; Topics such as providing onshore electricity to ships at the docks, electrification of in-port handling equipment (Electric RTG/RMG cranes, etc. diesel), dust suppression systems in bulk cargo (coal, grain, etc.) operations, and capacity of bilge/ballast water waste reception facilities (MARPOL) that prevent marine pollution from a Blue Economy perspective should be explained.

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4.4.3. Green Warehousing and On-Site Energy Management

Capacity of plants to generate their own energy (Rooftop Solar Power Plants - SPP use).
Energy-efficient automations: LED lighting with sensors, daylight panels and intelligent air conditioning (HVAC) systems.
Rainwater harvesting, grey water use and in-plant waste sorting (zero waste) operations.
Lithium-ion battery/electric equipment usage rates instead of fossil fuel (LPG/Diesel) in operational vehicles (forklift, reach truck).
The search for green building certification (LEED, BREEAM, etc.) in new logistics facilities.

4.4.4. Green Transport and Green Fleet Transformation

Trends in the transition of road carriers in the region to Euro 6 engines, LNG or electric heavy vehicle fleets.
Prevalence of "eco-driving" trainings for drivers.
Current state of modal shift practices from road to rail or short-sea shipping to reduce carbon footprint in shipping processes.

4.5. Capacity of Human Resources

Information should be given about the general situation of employment in the sector, the employment rates of the personnel trained in the field should be questioned, the shortage of qualified personnel, young and female employment rates and the training needs of existing personnel should be questioned.
Qualified labor "gap" should be matched to how much the training curriculum is detached from the realities of the field (automation, WMS, customs legislation). Sectoral, sociological or physical barriers (e.g. shift working conditions, facility equipment) that restrict the employment of young people and women, which are among the reasons for funding the project, should be explained by supporting them with field data.

SECTION 5: STAKEHOLDER EXPECTATIONS (Field Outputs)

Introduction and Instructions

Overview for the Researcher

These interviews are not standard "customer satisfaction surveys" or mere "statistical collection" exercises. While official reports provide data on port depths or trade volumes, this study seeks the **on-the-ground realities** not found in official documents: invisible bottlenecks blocking regional trade and the root causes of "trust" deficits within the Black Sea basin.

Critical Rule: The "Branched" Question Set

The logistics ecosystem is diverse; therefore, the questionnaire is divided into two distinct paths:

- **[Route A - Private Sector]:** For-profit commercial entities (Carriers, Forwarders, Warehouse Operators, etc.).

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- **[Route B - Public Sector & NGOs]:** Rule-makers, policymakers, or infrastructure providers (Customs, Port Authorities, Development Agencies, Municipalities, NGOs).
- **Hybrid Institutions:** For entities like state-owned commercial ports, prioritize **Route B**, but use **Route A** questions to probe operational bottlenecks.

Methodology: Probing and Coding

The interviews will be transcribed and analysed using **MAXQDA** software for "Thematic Coding". We require detailed narratives rather than "Yes/No" answers.

- **Probing Technique:** Deepen the conversation by asking for specific crisis moments (Private Sector) or the exact bureaucratic "root causes" preventing project implementation (Public Sector).
- **Proxy Data:** Where official statistics are missing (e.g., average border wait times), ask the private sector for their internal KPI data and public officials for their unofficial field observations.
- **Interview Length:** Interviews should last at least 10–15 minutes to ensure sufficient data (approx. 700–800 words) for healthy coding.

INTERVIEW QUESTIONNAIRE

INTRODUCTION: PARTICIPANT PROFILE AND DEMOGRAPHIC INFORMATION

(Note to the Researcher: This section serves as the "warm-up" phase of the interview. It is critically important for clarifying the participant's sectoral position and providing objective data for the analysis section of the report.)

- **Question A (Institutional Profile):** Before we begin our interview, could you please tell us exactly where you position your organization (or company) within the logistics chain? (e.g., Are you a Carrier/Haulier, Forwarder, Customs Broker, or Warehouse Operator? Or are you a representative of a Public Authority, NGO, or Municipality?)
- **Question B (Sectoral Experience):** How many years of experience do you have in total in the logistics and supply chain sector, and what is your current title/position within the organization?
- **Question C (Operational Scale):** In which geographical area is your organization's main operational field or jurisdiction primarily concentrated? (Is it only local/national, the Black Sea Basin, or global networks?)
- **[To be Completed by the Researcher]:** Participant Gender (Female / Male) – This data must be noted by the researcher without being asked during the interview and will be used in the social sustainability/employment analysis section of the report.

SECTION 0: GENERAL FRAMEWORK & REGIONAL SWOT ANALYSIS

Q1 (Strengths and Weaknesses):

- **[A - Private Sector]:** Compared to your competitors in the Black Sea basin, what is your strongest operational asset? Conversely, what is your most chronic internal weakness that requires urgent resolution?
- **[B - Public & NGO]:** What is the most competitive aspect of your region's logistics infrastructure? What do you identify as the most chronic structural weakness in the region?

Q2 (Opportunities and Threats - Common Question):

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- **[A & B]:** Considering recent geopolitical shifts (Russia-Ukraine war, the Middle Corridor, Suez Crisis, EU Green Deal), what is the greatest **opportunity** for increasing regional logistics volume? What is the biggest external **threat** capable of shrinking your sector?

THEME 1: SPATIAL DEVELOPMENT & PORT-CITY CONGESTION

Q3 (Infrastructure Intrusion and Capacity Monopoly):

- **[A - Private Sector]:** How do heavy vehicle restrictions and port-city congestion affect your operational speed? Do Middle Corridor transit loads or war-related grain shipments ever block capacity, leaving no room for your local cargo?
- **[B - Public & NGO]:** What are your institutional plans to resolve the friction between city and port traffic? How does the blocking of limited warehouse/port capacity by transit loads contract local trade on a macro scale?

THEME 2: BORDER CROSSINGS, BUREAUCRACY & OPERATIONAL COSTS OF WAR

Q4 (Informal Costs):

- **[A - Private Sector]:** To what extent do "invisible costs" (incurred to bypass congestion or speed up processes outside official procedures) impact your freight profitability?
- **[B - Public & NGO]:** How can customs processes be improved institutionally through digitalization to prevent "informal/acceleration" practices?

Q5 (Documentation and War Crises):

- **[A - Private Sector]:** What is the biggest "paperwork-related" deadlock you face? How much time is lost to *Dozvola* (permit) quotas, visa issues, or document mismatches (SMGS-CMR) on the Middle Corridor?
- **[B - Public & NGO]:** What bilateral steps remain untaken to resolve regulation asymmetries like permit quotas or visa crises? Do you have public support mechanisms to mitigate war risk premiums?

THEME 3: MULTIMODAL INFRASTRUCTURE & CAPACITY MANAGEMENT

Q6 (Missing Links and Capacity Monopolies):

- **[A - Private Sector]:** How do physical gaps between ports and rail/road links (missing links) affect terminal waiting times? Do you experience "slot monopolies" where large companies block Ro-Ro capacity, leaving SMEs with no space?
- **[B - Public & NGO]:** What is the primary financial or technical barrier to fixing "missing links"? Are there regulatory tools to prevent the monopolization of limited Ro-Ro lines by large firms?

THEME 4: DIGITAL PLATFORMING & DATA BEHAVIORS

Q7 (IT Systems and Blindness):

- **[A - Private Sector]:** Do you experience "status blindness" (not knowing where your cargo is stuck) due to the lack of integration between the IT systems of Samsun, Varna, and Batumi?
- **[B - Public & NGO]:** How does the inability of cross-border IT systems to communicate slow down regional trade flow?

Q8 (Data Sharing Behaviour):

- **[A - Private Sector]:** Would you hesitate to enter data into a system matching empty vehicle returns or idle warehouse space? What guarantees (regarding price undercutting or geopolitical data security) would you require to join such a portal?
- **[B - Public & NGO]:** How can legal barriers or "data sovereignty" (cybersecurity) concerns regarding shared data platforms be overcome?

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THEME 5: GREEN/BLUE ECONOMY & SOCIAL SUSTAINABILITY**Q9 (Green Logistics Financing):**

- **[A - Private Sector]:** As EU Carbon Border Adjustment Mechanism (CBAM) rules tighten, how willing are your customers to share the cost of "greening" your operations?
- **[B - Public & NGO]:** What institutional mechanisms are missing in the region to support the private sector's compliance with CBAM and Blue Economy standards?

Q10 (Social Employment Barriers):

- **[A - Private Sector]:** From a company perspective, what are the sociological or physical barriers (shifts, working conditions) preventing youth and women from working in logistics field operations?
- **[B - Public & NGO]:** What structural or regulatory steps (e.g., childcare incentives) are being taken to break the "heavy labor" stigma and increase female and youth employment in the sector?

THEME 6: B2B COOPERATION, TRUST, AND RESILIENCE**Q11 (The Two-Way Trust Crisis):**

- **[A - Private Sector]:** There is a trust crisis where carriers rely on high-commission intermediaries instead of digital platforms, while banks/customs perform "over-compliance" checks for fear of sanction violations. How does this impact your time and cost balance?
- **[B - Public & NGO]:** How do you envision managing this "institutional paranoia" and building digital trust between B2B and public entities in the region?

Q12 (Resilience):

- **[A - Private Sector]:** How resilient is your company during sudden crises (strikes, system collapses, storms)? Can you quickly access alternative networks to reroute your cargo?
- **[B - Public & NGO]:** Are there inter-state emergency action plans to increase the macro-resilience of the Black Sea supply chain during regional system failures?

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5.1. Focus Group Meetings and In-Depth Interview Findings (Public, private sector and NGO expectations)

5.2. Trends and Confidence Dimension of Private Sector's Cross-Border Networking

PART III: BLACK SEA BASIN COMMON SYNTHESIS AND SECTORAL ROAD MAP

SECTION 6: COMPARATIVE ANALYSIS AND COMMON SYNTHESIS

6.1. Logistics Competitiveness and Infrastructure Comparison of Samsun, Varna and Adjara

6.2. Operational Problems in Trade Corridors

6.3. Black Sea Basin Joint Logistics SWOT Analysis

6.4. New Strategic Position of Black Sea Basin in Changing Global Trade Corridors

The increasing importance of the Black Sea within the "Belt and Road Initiative" (BRI) and the "Trans-Caspian International Transport Route (Middle Corridor)" in the context of the axis shift in global supply chains. Transit "Hub" opportunities that risks on southern routes such as Hormuz/Red Sea can offer to port and railway integration in the Black Sea basin (Samsun-Varna-Batumi triangle).

SECTION 7: STRATEGIC ACTION PLAN AND SECTORAL ROAD MAP (Short and Long Term Targets)

7.1. Strategies for Improving Physical Infrastructure and Border Crossings (Multimodal integration, harmonization of customs procedures)

7.2. Digital Transformation Strategy (industry integration of Black Sea Cross Border Logistics Information Portal, data sharing networks with artificial intelligence)

7.3. Green and Blue Economy Action Plan (Climate neutral port operations, EU Green Deal compliance, sustainable transport incentives)

7.4. Human Resources and Capacity Building (Specific operations/management trainings for the sector, actions to increase the employment of women and young people)

7.5. Establishing Cross-Border B2B Collaboration and Common Supply Chain Networks (Short- and Medium-Term Goals)

7.5.1. Sectoral Matchmaking (B2B Matchmaking) Mechanisms

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Design of regular matching platforms and confidence-building activities that will bring regional companies together under the coordination of Chambers of Commerce.

7.5.2. Commercial Integration via Logistics Information Portal

The strategy of transforming the Artificial Intelligence supported portal, to a living digital B2B marketplace module where companies can find "empty vehicles", "common warehouse space" or "trusted partners", rather than just a place where legislation is sought.

SECTION 8: MANAGEMENT, FINANCIAL AND RISK MANAGEMENT

8.1. Cross-border Corporate Governance Model

(Sustainability of the network established between Chambers of Commerce and Industry)

8.2. Estimated Investment Needs and Funding Sources

(EU Funds etc.)

8.3. Regional Supply Chain Resilience and Operational Risk Management

8.3.1. Local operational crisis scenarios

Flexibility of regional load flow in case of sudden closures at border gates (strike, physical damage), prolonged collapses in customs information systems or extreme weather opposition in the Black Sea.

8.3.2. Crisis Communication and Digital Assistance Network

Positioning the Cross Border Logistics Information Portal to be established within the scope of the project as an instant warning mechanism between companies in ; supply chain breaks, alternative vehicle/warehouse finding and load consolidation tool at the moment of crisis.

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SECTION 9: CONCLUSION AND POLICY RECOMMENDATIONS

9.1. Operational and Strategic Recommendations by Governance Levels

9.1.1. For Decision-Makers at National Level (Ministry, Customs and Foreign Trade related institutions)

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| Policy recommendations on topics such as Border and Customs Operations, Digital Integration and Sustainability Incentives |
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9.1.2. Strategic Recommendations for Regional Decision-Makers (Development Agencies, Governorships, Port Offices)

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| Spatial Planning and Overcoming Bottlenecks and Intermodal Integration etc... |
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9.1.3. For Local Level Actors (Municipalities, Chambers of Commerce and Sectoral NGOs)

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| Operation of B2B Networks and Human Resources and Employment etc. |
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