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NEXT Black Sea Basin

Stakeholder Analysis & Regional Needs Analysis Report

Region: TR21 Trakya (Tekirdağ, Edirne, Kırklareli)

Project: DIALOGUE (BSB01104) – Interreg NEXT Black Sea Basin Programme



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1.0 Executive Summary & Introduction

1.1. Executive Summary

This report presents a comprehensive analysis of the innovation ecosystem in the TR21 Trakya Region (Tekirdağ, Edirne, Kırklareli), conducted within the scope of the **DIALOGUE** project. The analysis reveals a dynamic region characterized by a "dual economy": a highly advanced, export-oriented industrial base in Tekirdağ/Çorlu coexisting with a traditional, agriculture-focused economy in Edirne and Kırklareli.

Key Findings:

- **The "Missing Helix":** The ecosystem is currently dominated by a "Triple Helix" (Government-University-Industry). Civil society participation in innovation is notably weak and is mostly represented by business associations rather than citizen-centric NGOs.
- **Human Capital Crisis:** A severe shortage of qualified technical ("blue-collar") staff is identified as the primary barrier to innovation for the industrial sector.
- **Green & Digital Gap:** While large firms are adapting to the EU Green Deal due to global supply chain pressures, SMEs view it as a cost burden and lack the implementation capacity.
- **Mature Incubation Infrastructure:** A distinct regional strength is the advanced capacity in **techno-entrepreneurship**. The region's Technoparks (NKU and Trakya) and the Chamber-led **TEKMER** (Technology Development Center) in Çorlu serve as mature models for bridging R&D and commercialization, positioning the region as a potential "knowledge exporter" in this domain.

Strategic Opportunities:

The report identifies seven high-potential areas for cross-border cooperation with Bulgaria and Romania, specifically targeting EU Horizon Europe (WIDERA, EIE) and Interreg funding:

- **Agri-Tech:** Joint development of climate-resilient seeds (Wheat/Sunflower).
- **Gastro-Tourism:** A cross-border sustainable food corridor.
- **Green Logistics:** Utilizing the new Çorlu Logistics Base as a regional hub.
- **Social Innovation:** Scaling the Lüleburgaz youth entrepreneurship model.
- **Automotive Supply Chain:** Creating a regional LED/Lighting technology cluster.
- **Incubation Model Transfer:** Exporting the "TEKMER" and Technopark management know-how to partner regions.
- **Higher Education Innovation:** Building a cross-border alliance for university-based entrepreneurship (EIT HEI).

1.2. Project Context & Report Objective

The **DIALOGUE** project (Interreg NEXT Black Sea Basin) aims to enhance the institutional capacity of and dialogue between public and civil society actors to build mutual trust and foster a robust innovation ecosystem.

The objective of this **Regional Needs Analysis Report** is to establish a comparable baseline of the innovation ecosystem in the Trakya Region. It identifies specific needs, systemic gaps, and opportunities to inform the design of the **Black Sea Innovation Platform** and the subsequent "Actionable Policy Recommendation" report.

1.3. Methodology

This report employs a mixed-method approach:

- **Desk Research (Part 1):** A comprehensive review of national (12th Development Plan) and regional (TR21 Regional Plan 2024-2028) strategies, ERA Country Reports, and innovation scoreboards (EIS/RIS).
- **Field Research (Part 2):** Qualitative data gathered through semi-structured interviews conducted on **December 1-2, 2025**, with key stakeholders including KOSGEB, Development Agencies, Chambers of Commerce, Universities (Technoparks), Municipalities, and Research Institutes across all three provinces.

2.0 Desk Research – The Innovation Ecosystem Baseline

2.1. National and EU Innovation Policy & Programme Framework

- **2.1.1. Key EU Strategic Frameworks:**

The TR21 Region's 2024-2028 Regional Plan is strongly aligned with the European Green Deal. A primary strategic axis of the region is "Green Production" and "Clean Environment," specifically addressing the rehabilitation of the Ergene River Basin. The region is also adapting to the Digital Europe Programme through the establishment of structures like the "EDIH West Marmara" (European Digital Innovation Hub) to foster digital transformation in manufacturing SMEs. The region actively participates in Interreg IPA Bulgaria-Türkiye and Interreg NEXT Black Sea Basin programmes to drive crossborder cooperation.

- **2.1.2. National Innovation Strategy:**

The region's development is guided by Türkiye's 12th National Development Plan (2024-2028) and the 2023 Industry and Technology Strategy. Key national priorities reflected at the regional level include:

- The "National Technology Move" (Milli Teknoloji Hamlesi), focusing on high-tech manufacturing.
- Transition to high-value-added agriculture.
- Strengthening the R&D ecosystem through Technoparks and R&D Centers.

- **2.1.3. National R&I System (ERA Context):**

According to the ERA Country Report 2024, Türkiye has reinforced its alignment with European Research Area (ERA) principles, guided by the ambitious 12th National Development Plan (2024-2028). As an Associated Country to Horizon Europe, Türkiye demonstrates a strong performance track record and has prioritized the implementation of Smart Specialisation Strategies specifically through its 26 Regional Development Agencies, which directly empowers regional actors like TDA to strengthen local innovation ecosystems. While performance in areas such as gender equality and public R&D funding remains below the EU average, significant progress has been recorded in Open Science, researcher mobility, and fostering academia-industry collaboration, positioning the country as an increasingly integrated partner in the European R&I landscape.

- **2.1.4. National Governance Structure:**

- **Ministry of Industry and Technology:** The primary executive body responsible for formulating industrial and technology policies, including the "National Technology Move." It oversees the national R&D ecosystem by regulating Technology Development Zones (Technoparks) and certifying R&D/Design Centers. It also coordinates the Regional Development Agencies, ensuring national strategies are implemented at the local level.
- **TÜBİTAK (Scientific and Technological Research Council of Türkiye):** The main funding agency and policy advisor for science and research. It manages the academic (ARDEB) and industrial (TEYDEB) R&D grant programs, which are the primary source of innovation funding for universities and SMEs in the region. TÜBİTAK also serves as the National Contact Point (NCP) for **Horizon Europe**, facilitating the country's integration into the ERA. **Additionally, TÜBİTAK manages various bilateral cooperation programmes with partner countries, offering joint funding for R&D projects. These mechanisms serve as a vital tool for fostering international partnerships and can be strategically used to support the crossborder collaborations envisaged by the DIALOGUE project.**
 - **KOSGEB (Small and Medium Enterprises Development Organization of Türkiye):** The key national agency dedicated to strengthening the competitiveness of SMEs. In the innovation ecosystem, KOSGEB provides critical support for R&D, innovation, and product development (P&D) projects. It plays a vital role in the **digital and green transformation** of SMEs by administering specific grant schemes and serves as the national coordinator for the **EU Single Market Programme (SMP)**.
- **Trakya Development Agency (TDA):** The central regional governance body responsible for coordinating regional development. TDA acts as the primary interface between national policies and local implementation. It administers financial and technical support programs, drafts the Regional Plan (TR21), and operates Investment Support Offices (YDO) in each province to guide investors and facilitate local economic growth.

• 2.1.5. Performance in EU Framework Programmes:

Regional actors have increasing experience in EU funding. Trakya University and local municipalities participate in Interreg CBC projects (e.g., "Meriç Timeless Journey"). The region has secured a significant achievement with the EDIH West Marmara project (Digital Europe), led by regional actors. Furthermore, regional stakeholders collaborate through initiatives like the "Trakya Verimlilik Platformu" (Thrace Productivity Platform), which, although primarily national/regional, builds the collaborative muscle necessary for larger EU Framework Programme consortia. However, participation in Horizon Europe's core R&I calls remains lower compared to national hubs like Istanbul or Ankara, highlighting a need for WIDERA-type capacity building.

To address this and ensure wider accessibility, future project outputs (e.g., training materials, policy documents) will be translated into multiple languages and localized to fit different cultural contexts. This strategy aims to maximize relevance for diverse target groups across the Black Sea Basin.

2.2. Quantitative Baseline: Regional Innovation Performance

• 2.2.1. European Innovation Scoreboard (EIS):

The data provided by the European Innovation Scoreboard (EIS) covers Türkiye at the national level, as specific regional data for TR21 is not separately classified in this index. Türkiye is classified as an Emerging Innovator in the 2023 EIS. The country performs below the EU average but shows a rate of performance increase higher than the EU average. Strengths include firm-level innovation, while weaknesses often relate to finance and attractive research systems.

- **2.2.2. Regional Innovation Scoreboard (RIS):**

Specific data for the TR21 Trakya region is not available in the Regional Innovation Scoreboard (RIS), as Türkiye is evaluated at the national level (NUTS 1) in this index. However, based on national socio-economic development indices (SEGE 2017), Tekirdağ is ranked 9th, Edirne 18th, and Kırklareli 13th in Türkiye. The region is typically characterized as having a strong industrial and agricultural base, performing above the national average in manufacturing exports but needing further investment to reach the innovation levels of Istanbul or Ankara. The region can be conceptually aligned with the characteristics of a "Moderate Innovator" within the national context due to its established industrial zones and R&D centers.

- **2.2.3. Key Regional Metrics:**

- **Industrial Capacity:** The region hosts **13 active Organized Industrial Zones (OSBs)** and **3 Special Industrial Zones**. (Source: TR21 Trakya Region 2024-2028 Regional Plan Situation Analysis, Trakya Development Agency).
- **R&D Infrastructure:** There are **53 R&D Centers** and **13 Design Centers** in the region, predominantly in Tekirdağ (Çerkezköy/Çorlu axis). (Source: Ministry of Industry and Technology, R&D Centers Statistics).
 - **Tekirdağ:** 49 R&D Centers, 12 Design Centers (Concentration: Çerkezköy/Çorlu)
 - **Kırklareli:** 3 R&D Centers, 1 Design Center
 - **Edirne:** 1 R&D Center
- **Sectors:** The region accounts for a significant portion of Türkiye's high-tech and medium-high-tech exports, particularly in machinery, electronics, and white goods. (Source: TR21 Trakya Region 2024-2028 Regional Plan Situation Analysis, Trakya Development Agency).
- **Agriculture:** It is a national leader in sunflower and wheat production, driving a need for "Agri-tech" innovation. (Source: TR21 Trakya Region 2024-2028 Regional Plan Situation Analysis, Trakya Development Agency).

• 2.2.4. Demographic Context for Innovation:

Demography plays a critical role in the region's innovation capacity, particularly regarding labor supply and digital adoption. Tekirdağ is a magnet for young, working-age migration due to industry, while Edirne and Kırklareli face aging populations.

Indicator	Tekirdağ	Edirne	Kırklareli	TR21 Total	Source
Total Population (2023)	~1,167,000	~415,000	~377,000	~1,960,000	TÜİK / TDA Situation Analysis
Median Age	34.6 (Younger)	41.2 (Aging)	40.3 (Aging)	-	TÜİK
Net Migration Rate	Positive (Receiving)	Negative/ Stable	Stable	Positive	TDA 2024- 2028 Plan

2.3. Qualitative Analysis: The Regional Innovation Ecosystem (Quadruple Helix)

• 2.3.1. Public Authorities:

- **Trakya Development Agency (TDA):** The central coordinator/facilitator. It runs the "Thrace Foreign Trade Intelligence Centre" and various financial support programs for digital/green transformation.
- **Provincial Directorates:** Key actors include the Directorates of Industry & Technology, Agriculture, and Environment (crucial for the Ergene Basin environmental innovation).
- **Municipalities:** Tekirdağ Metropolitan Municipality and Edirne/Kırklareli Municipalities are active in infrastructure and citizen-facing services but require capacity building for deep innovation management.

- **2.3.2. Academia and Research:**

- **Namık Kemal University (Tekirdağ):** Hosts **NKÜ Teknopark** (38 firms) and **NABİLTEM** (Central Research Lab). Strong focus on agriculture and engineering.
- **Trakya University (Edirne):** Hosts **Trakya Teknopark** (72 companies), the largest in the region. Focus on health, biology, and cross-border cooperation.
- **Kırklareli University:** Hosts **KLUTEKNOKENT** (Software/Food focus). Specialized in food innovation.
- **Role:** The universities serve as the primary knowledge generators but face challenges

in commercializing research (Technology Transfer) to the local SME base. • **2.3.3.**

Business and BSOs:

- **Chambers of Commerce & Industry (CCIs):** **Çorlu CCI (Project Lead)**, Tekirdağ CCI, Çerkezköy CCI are powerful actors representing the industrial base. They provide training and lobby for infrastructure.
- **International Business Associations:** The region benefits from established crossborder business networks that can serve as bridges for the DIALOGUE project. Key active entities include **BULTİŞAD** (Bulgaria-Türkiye Chamber of Commerce and Industry), **TIAD** (Turkish Businessmen Association in Romania), and **Genç MÜSİAD** (branch in Bulgaria).
- **Industry Profile:** A dual structure exists:
 1. **Large Industry:** Global brands (white goods, textile, pharmaceuticals) with high R&D capacity.
 2. **SMEs:** A vast number of suppliers needing digital/green transformation support.
- **Collaborative Platforms:**
 - **Organized Industrial Zones (OSBs):** OSBs are the primary de-facto collaboration clusters in the region. Initiatives like the **"Green OSB" (Yeşil OSB)** certification (pioneered by zones like Çerkezköy OSB) position them as active agents of the green transition, rather than just infrastructure providers.

- **EDIH:** The **European Digital Innovation Hub (EDIH) West Marmara** consortium is a critical asset for digital transition services.
 - **Trakya Verimlilik Platformu (Thrace Productivity Platform):** A key regional initiative aimed at increasing the productivity and competitiveness of the industrial sector. It acts as a bridge between public bodies, universities, and the private sector to disseminate lean manufacturing and digital transformation practices.
 - **Clusters:** *No official governance structure for a "Cluster" (in the formal EU sense) was identified in the reviewed regional documents. However, strong sectoral concentrations exist in textile and machinery, particularly within Organized Industrial Zones (OSBs).*
- **2.3.4. Civil Society (NGOs):**
 - **Current Landscape:** The civil society ecosystem in innovation is **underdeveloped**. Active NGOs are primarily **business associations** (e.g., Tekirdağ Young Executives Association, Edirne Industrialists Association) or **tourism promotion societies** (e.g., Edirne Promotion and Tourism Association).
 - **Gap:** There is a notable lack of NGOs focused specifically on *technology policy, digital rights, or social innovation*. Environmental NGOs exist but are often reactive to pollution issues rather than proactive partners in *innovation* solutions.
 - **Role:** Currently, they act more as beneficiaries or observers rather than co-creators of innovation policy. This confirms the DIALOGUE project's premise regarding the "Low institutional capacity of civil society."
 - **Feedback Mechanism:** *To ensure continuous improvement and relevance, the project will establish formal feedback mechanisms (surveys, forms) to gather input from civil society users on project outputs. This will facilitate an iterative process to adapt resources to evolving needs.*

2.4. Identified Regional Innovation Priorities (for Benchmarking)

• 2.4.1. Priority Sectors:

- **Smart Agriculture & Food:** Seed breeding (sunflower/wheat), food processing technology, gastronomy (Edirne/Kirklareli). (Source: TR21 Trakya Region 2024-2028 Regional Plan, "Thracian Seed" & "Diversity in Tourism" Development Axes).
- **Advanced Manufacturing:** Machinery, Electrical-Electronics, Automotive Supply Industry. (Source: TR21 Trakya Region 2024-2028 Regional Plan, "Green Production" Development Axis).
- **Technical Textiles:** Moving from basic apparel to high-value technical textiles. (Source: TR21 Trakya Region 2024-2028 Regional Plan, Situation Analysis).
- **Blue Economy & Tourism:** Coastal tourism (Saros Gulf), Eco-tourism (Istranca Mountains), Cultural tourism (Edirne). (Source: TR21 Trakya Region 2024-2028 Regional Plan, "Diversity in Tourism" Development Axis).

• 2.4.2. Priority Innovation Policies:

- **Green Transformation:** Industrial symbiosis, wastewater recovery (Ergene Basin), renewable energy adoption in OSBs. The region has a strong precedent in this area, notably the **"Industrial Symbiosis Project in Thrace Region" (2014-2015)** implemented by Trakya Development Agency, which laid the foundation for current circular economy initiatives. (Source: TR21 Trakya Region 2024-2028 Regional Plan, "Clean Ergene" & "Green Production" Development Axes).
- **Digital Transformation:** Increasing the "Digital Maturity" of manufacturing SMEs (via EDIH). (Source: TR21 Trakya Region 2024-2028 Regional Plan, Strategic Objective on Digitalization).
- **Disaster Resilience:** Strengthening industrial infrastructure against earthquakes. (Source: TR21 Trakya Region 2024-2028 Regional Plan, "Resilient Cities" Development Axis).

- **2.4.3. Priority Thematic Missions:**

- **"Clean Ergene":** Developing innovative environmental technologies to restore the river basin. (Source: TR21 Trakya Region 2024-2028 Regional Plan, "Clean Ergene" Development Axis).
- **"Thrace Seed Valley":** Establishing the region as a national hub for seed R&D and production. (Source: TR21 Trakya Region 2024-2028 Regional Plan, "Thracian Seed" Development Axis).
- **"Sustainable Cross-Border Connectivity":** Leveraging the logistics position (border gates with EU) for trade innovation. (Source: TR21 Trakya Region 2024-2028 Regional Plan, Logistics Strategy).

2.5. Conclusions and Implications for the DIALOGUE Project

- **The Missing "Fourth Helix":** The desk research confirms that the region's innovation ecosystem is largely driven by a "Triple Helix" (Government-University-Industry). Civil society actors, outside of traditional business associations, are marginalized in innovation policy. This validates the DIALOGUE project's core objective to build capacity and create formal engagement mechanisms for civil society.
- **Untapped Potential for Inclusive Innovation:** The priority themes of "Green Transformation" and "Smart Agriculture" are inherently social issues that require citizen engagement for successful adoption. The absence of environmental and social NGOs in the innovation process is a critical gap that the project can address by empowering these actors to become partners in solving regional challenges (e.g., the Ergene River rehabilitation).
- **Gap in Entrepreneurship & Commercialization:** While the region possesses significant R&D infrastructure (Universities, Technoparks), there is a noticeable disconnect in the "commercialization" phase. The ecosystem needs stronger mechanisms to translate academic research into market-ready products and to support entrepreneurship (including social entrepreneurship) as a career path. This gap limits the region's ability to fully capitalize on its intellectual assets.

- **Capacity Building Needs:** The disparity between the high-tech industrial base in Tekirdağ and the agricultural/tourism focus in Edirne/Kırklareli suggests a need for tailored capacity building. For civil society, this means basic training in digital literacy, project management, and policy advocacy to enable them to interact effectively with the more advanced industrial and academic partners.
- **Strategic Sectors for Collaboration:** Based on the review of regional strategies (TR21 Regional Plan 2024-2028), the Trakya Region's strongest assets for future collaboration are "**Agri-tech**" (specifically seed breeding), "**Blue Economy**" (tourism and marine protection), and "**Green Production**" (industrial symbiosis). These sectors represent the region's most mature areas for proposing and leading joint initiatives within the Black Sea Innovation Platform.
- **Visibility and Dissemination Strategy:** *To ensure the long-term impact and recognition of the project, outputs (such as the Innovation Platform itself) will be actively showcased at relevant national and international conferences, exhibitions, and fairs. This will serve to engage a broader audience and attract potential new members to the ecosystem.*

3.0 Field Research – Stakeholder Needs Analysis

3.1. Field Research Methodology

The field research for the TR21 Trakya Region was conducted on **December 1-2, 2025**. A series of **18** in-depth, semi-structured interviews were held with key stakeholders across the three provinces (Tekirdağ, Edirne, Kırklareli) representing the Quadruple Helix model.

- **Public Authorities:** KOSGEB Tekirdağ Directorate, Lüleburgaz Municipality, Kırklareli Municipality, Trakya Agricultural Research Institute (TARGEM).
- **Academia & Research:** Namık Kemal University Technopark, Trakya Technopark (Trakya University), Kırklareli University (Vice Rectorate).
- **Business & BSOs:** Çorlu Chamber of Commerce & Industry (Lead Partner), Tekirdağ Chamber of Commerce & Industry, Çerkezköy Chamber of Commerce & Industry, Edirne Chamber of Commerce & Industry, Kırklareli Chamber of Commerce & Industry, Çerkezköy Organized Industrial Zone (COB).

- **Civil Society:** This section is largely composed of business support organizations such as chambers of commerce and industry. During the interviews, various opinions were also obtained regarding other non-profit organizations.

The objective was to validate the desk research findings, identify practical barriers to innovation, and uncover specific opportunities for the Black Sea Innovation Platform.

3.2. Key Findings: Public Authorities

- **Role & Capacity:** Public bodies like KOSGEB and Municipalities are pivotal in funding and infrastructure but face limitations in "soft" innovation support. KOSGEB emphasizes that while financial tools exist, SMEs lack the "project management capacity" to access them effectively.
- **Green & Digital Transition:** There is a high awareness of the EU Green Deal, but implementation is lagging. For example, Çerkezköy OSB has achieved "Green OSB" status, but individual firms are often lost in legislation.
- **Local Government Focus:** Municipalities (e.g., Lüleburgaz, Kırklareli) are shifting towards "social innovation" and "smart city" concepts. Lüleburgaz Municipality's "Social Innovation Center" and "Future Star Entrepreneurs" program are best practice examples of local government driving youth entrepreneurship.
- **Cross-Border Realism:** Public authorities are pragmatic. They recognize that large-scale infrastructure projects (e.g., Ergene River rehabilitation) require national/international funds (like World Bank) and are beyond the scope of this project. However, they see high potential for "**soft**" **cooperation** (e.g., joint tourism routes, digital skills training, agricultural research).

3.3. Key Findings: Academia & Research

- **The "Valley of Death" in Commercialization:** Both Namık Kemal and Trakya Technoparks report a disconnect between academic research and industrial application. Academics struggle to find time for on-site consultancy, and local SMEs are often hesitant to trust academic solutions ("Görmeden inanmama" / "Seeing is believing" culture).
- **Technopark & Entrepreneurship Expertise:** The region's Technoparks (Trakya Technopark and NKU Technopark) have developed significant expertise in managing technology-based entrepreneurship but still have options for further development through cooperation. They operate as hubs for startups, managing incubation and acceleration programs. This experience in **technology entrepreneurship** is a critical asset that can be leveraged for cross-border cooperation, particularly for calls like the **EIT Higher Education Initiative (HEI)** which focuses on boosting the innovation and entrepreneurship capacity of higher education institutions.
- **Specialization is Key:**
 - **Edirne (Trakya Univ):** Strong in **Health/Bio-tech** and **Agri-tech**. Trakya Technopark is a regional leader but lacks a strong local industrial base in Edirne center.
 - **Tekirdağ (NKU):** Strong in **Engineering/Industrial R&D**, supporting the heavy industry in Çorlu/Çerkezköy.
 - **Kırklareli (KLU):** Explicit focus on **Food Security & Gastronomy**. They have established a pilot dairy plant and are working on digital traceability in food supply chains.
- **International Ambition:** Universities are eager for Horizon Europe (WIDERA) projects but lack the administrative capacity to lead large consortia. They view the **Black Sea Innovation Platform** as a potential facilitator for finding partners in Bulgaria and Romania.

3.4. Key Findings: Business & BSOs

- **Dual Economy:** A sharp divide exists between large, export-oriented firms (mostly in Tekirdağ/Çerkezköy) and smaller, survival-oriented SMEs. Large firms are already adapting to the Green Deal due to customer pressure (e.g., H&M, IKEA), while SMEs view it as a "cost burden."
- **Human Capital Crisis:** The #1 complaint across all chambers (Çorlu, Çerkezköy, Tekirdağ) is the lack of qualified **blue-collar** and **technical** staff. There is a "white-collar illusion" among youth that alienates them from industrial jobs.
- **Best Practice in Techno-Entrepreneurship (TEKMER):** A distinct strength is the advanced capacity of Çorlu CCI in managing the **Thrace Science & Technology Development Center (TEKMER)**. Hosting ~40 startups, this initiative proves BSOs can effectively function as technology incubators.
- **Sectoral Opportunities:**
 - **Logistics:** A new **Logistics and Trade Base** is being established in Çorlu/Çerkezköy with direct rail access to Europe. This is a massive opportunity for cross-border trade facilitation.
 - **Agriculture:** Edirne and Kırklareli emphasize **Agri-tech** (drought-resistant seeds) and **Food Processing** (cheese, dairy).
 - **Health Tourism:** Edirne sees a strategic opportunity in health tourism serving the Balkans, supported by Trakya University Hospital.
- **Skepticism of "Paper" Projects:** Business leaders are tired of theoretical projects. They demand concrete, commercially viable outcomes (e.g., "Sell my product," "Fix the customs delay," "Train my welder"). The Platform must offer tangible benefits to sustain their interest.

3.5. Key Findings: Civil Society (NGOs)

- **Underrepresentation:** As noted in the desk research, the "Civil Society" helix is the weakest link. Most active "NGOs" are actually business associations (SIADs).
- **Exceptions & Models:**
 - **Lüleburgaz Social Innovation Center:** A rare and successful model of citizen engagement, focusing on youth, women, and digital skills. It proves that local government can successfully incubate civil society action.
 - **Tourism Associations:** In Edirne, tourism NGOs are active but focus primarily on promotion rather than policy or innovation.
- **Identified Need:** Civil society actors lack the digital and project management skills to participate in EU-level dialogue. They need "translation" support to understand how innovation policy affects their daily lives (e.g., how green transition affects local jobs or environment). Additionally, they have weak project writing skills, especially in R&D programmes such as Horizon Europe.

3.6. Specific Cross-Border Opportunities & Existing Links Identified

Based on the interviews, the following analysis of existing links and opportunities emerged:

Existing Cross-Border Links Identified:

- **Commercial & Logistics:**
 - **Bulgaria:** High volume of commercial interaction, particularly "suitcase trade" (bavul ticareti) where Bulgarian citizens shop in Edirne due to currency advantages. Some companies in Tekirdağ/Çorlu have branches in Bulgaria.
 - **Romania:** Tekirdağ/Çerkezköy Chamber of Commerce has signed a "Sister Chamber" protocol with Bucharest Chamber. There is mutual interest in utilizing ports (Tekirdağ/Bucharest) for logistics.

- **Antrepo/Logistics Projects:** Plans exist for a bonded warehouse (antrepo) in Çorlu/Çerkezköy to facilitate exports to the EU via rail, potentially serving as a hub for regional goods.
- **Tourism:**
 - **Shopping Tourism:** Primarily from Bulgaria to Edirne.
 - **Potential:** Interest in developing joint tourism routes (e.g., Thrace Cheese Route, Wine Routes) linking Kırklareli/Edirne with Bulgaria.
- **Institutional/Project-Based:**
 - **Agricultural Research:** Strong, long-standing cooperation between Trakya Agricultural Research Institute (TARGEM) and the Sadovo Institute in Plovdiv (Bulgaria) on seed breeding (wheat/sunflower).
 - **Chambers:** Good relations between border chambers (Edirne, Kırklareli) and their counterparts, though often limited to social/protocol visits rather than deep economic integration.
 - **Universities:** Erasmus+ exchanges and some joint projects (e.g., Trakya University with Bulgarian counterparts).
 - **Municipalities:** Lüleburgaz Municipality had a youth project with Varna Municipality (2019).

Identified Weaknesses & Barriers:

- **Weak Innovation Culture in SMEs:**
 - **Survival Mode:** Most SMEs are focused on daily survival and maintaining the status quo rather than innovation or growth. They view Green Deal compliance as a cost, not an opportunity.
 - **Lack of Vision:** A "comfort zone" exists, especially in Edirne, where easy income from cross-border shoppers discourages innovation and export development.

- **Human Capital Crisis:**

- **Blue-Collar Shortage:** Severe lack of qualified technical staff ("anahtar tutmayı bilmeyen mühendis" / engineers who can't hold a wrench). Youth prefer white-collar jobs, leading to a disconnect with industrial needs.
- **Brain Drain:** Talented youth and academic entrepreneurs often migrate to Istanbul or abroad.

- **Institutional/Structural Gaps:**

- **University-Industry Disconnect:** Academics lack time/incentive for on-site consultancy; SMEs distrust theoretical solutions.
- **Weak Civil Society:** NGOs are mostly business associations; very few focus on social innovation, digital rights, or environment. Additionally, they have weak project writing skills, especially in R&D programmes such as Horizon Europe.
- **Lack of Project Capacity in Partners:** Balkan partners (BG/RO chambers) are seen

as having weaker financial/human resource capacity for leading large EU projects compared to Turkish counterparts, requiring the Turkish side to be the "driving force."

- **Infrastructure & Logistics:**

- **Border Delays:** Long waiting times at customs are a significant barrier to efficient trade.
- **Water Scarcity:** A major long-term threat to the region's agricultural and industrial viability (Ergene Basin issues).

Strategic Opportunities for Cooperation:

- **Agri-Tech & Climate Resilience:**

- **Idea:** Joint development of **drought-resistant wheat and sunflower seeds**. Trakya Agricultural Research Institute (TARGEM) already cooperates with the Sadovo Institute in Plovdiv. This can be scaled up.
- **Partners:** TARGEM, Trakya Univ, Sadovo Inst. (BG), Agricultural Univ. Plovdiv (BG).

- **Sustainable Food & Gastronomy:**

- **Idea:** Creating a "**Thrace Cheese Route**" or "**Gastro-Tourism Corridor**" linking Kırklareli's dairy producers with Edirne's tourism and Bulgaria's wine/food routes.
- **Partners:** Kırklareli Univ, Edirne TSO, Burgas Tourism NGOs.

- **Green Logistics & Trade:**

- **Idea:** utilizing the new **Çorlu Logistics Base** as a hub for consolidating goods from the wider region (including BG/RO) for export to the EU, or vice-versa.
- **Partners:** Çorlu TSO, Çerkezköy TSO, Logistics clusters in Plovdiv/Ruse.

- **Social Innovation & Youth:**

- **Idea:** Replicating Lüleburgaz's "**Future Star Entrepreneurs**" program with partners in Varna and Galati to create a cross-border youth entrepreneurship network.
- **Partners:** Lüleburgaz Municipality, IMI (Varna), ATG (Galati).

- **Automotive Supply Chain (WIDERA Potential):**

- **Idea:** Linking Trakya's strong automotive suppliers with the Ford factory ecosystem in Craiova (RO) and suppliers in Bulgaria to create a regional **LED/Lighting technology cluster**.
- **Partners:** Çorlu TSO, Suppliers, Clusters in RO/BG.

4.0 Synthesis – Identified Gaps & Opportunities

This section synthesizes findings from the Desk Research (Part 1) and Field Research (Part 2) to identify systemic gaps within the TR21 innovation ecosystem and highlight strategic opportunities for the Black Sea Innovation Platform.

4.1. Analysis of Systemic Gaps

The analysis reveals several critical disconnects between the "policy" level (what is written in strategies) and the "practical" level (what stakeholders experience daily).



Gap 1: The "Implementation Gap" in Green & Digital Transition

- **Observation:** While regional plans and high-level strategies (S3, Regional Plan) prioritize "Green Production" and "Digital Transformation," field research shows a significant lag in implementation among SMEs.
- **Disconnect:** Large, export-oriented firms (e.g., in Çerkezköy) are adapting due to global supply chain pressure (e.g., EU Green Deal requirements), but the vast majority of SMEs view these transitions as a "cost burden" rather than an opportunity. They lack the technical know-how and financial resources to implement changes, leading to a "dual economy" where only the top tier innovates.
- **Consequence:** The region risks losing competitiveness as EU standards become stricter, potentially excluding smaller local suppliers from global value chains.

Gap 2: The "Valley of Death" in University-Industry Collaboration

- **Observation:** The region hosts strong academic institutions (Namık Kemal, Trakya, Kırklareli Universities) with specialized research centers (NABİLTEM, TARGEM, **GADOM** - Kırklareli University Food Supply Security and Digitalization Research Center) and Technoparks. However, local SMEs expressed a "seeing is believing" (*görmeden inanmama*) culture and distrust theoretical solutions.
- **Disconnect:** Academics are often incentivized by publications rather than practical consultancy, and they lack the time to embed themselves in factories to understand realworld problems. Conversely, firms demand "turnkey" commercial solutions which universities are not structured to provide.
- **Consequence:** High-potential research (e.g., in food engineering or agriculture) remains within the university walls and is not commercialized, limiting regional value creation.

Gap 3: The "Missing Helix" – Civil Society Underrepresentation

- **Observation:** The "Civil Society" helix is functionally weak. Most active non-governmental organizations are actually business associations (e.g., Industrialists' Associations) advocating for commercial interests.
- **Disconnect:** There is a distinct lack of NGOs focused on *social innovation, digital rights, or environmental protection* (from a constructive/innovation perspective). The few successful examples (e.g., Lüleburgaz Social Innovation Center) are driven by local municipalities rather than organic grassroots movements.
- **Consequence:** The "citizen voice" is missing from innovation policy. This leads to a topdown approach where social impacts (e.g., how automation affects jobs, or how industrial growth affects the Ergene river) are not adequately addressed from a community perspective.

Gap 4: Human Capital Mismatch

- **Observation:** A paradox exists where youth unemployment is a concern, yet industrialists face a severe crisis in finding qualified technical staff ("blue-collar" and "grey-collar").
- **Disconnect:** The education system and societal expectations push youth towards "white-collar" university degrees, while the regional economy desperately needs high-tech technicians.
- **Consequence:** Innovation is stalled not by a lack of ideas, but by a lack of skilled hands to execute them.

4.2. Identified Cross-Border Needs & Opportunities

Despite these gaps, the field research uncovered strong, tangible opportunities for crossborder cooperation with Bulgaria and Romania, centered on shared challenges and complementary assets.

Opportunity 1: Agri-Tech & Climate Resilience (The "Must-Have")

- **Rationale:** All three countries in the region face the same existential threat: **Drought and Climate Change**. Trakya Agricultural Research Institute (TARGEM) already has a successful model of cooperation with Bulgaria (Sadovo Institute) on seed breeding.
- **Platform Action:** The Platform can scale this up by forming a **"Black Sea ClimateResilient Agriculture Consortium."**
- **Strategic Funding Target: Horizon Europe (Cluster 6) or WIDERA (Twinning).**
 - *Concept:* Joint development and piloting of drought-resistant wheat and sunflower seeds, sharing genetic material and field trial data across TR, BG, and RO.

Opportunity 2: Sustainable Food & Gastro-Tourism (The "Quick Win")

- **Rationale:** Edirne and Kırklareli have strong tourism potential but suffer from being "transit routes." Kırklareli University's focus on **food security/gastronomy** and Edirne's tourism infrastructure can be linked with Bulgaria's wine/food routes.
- **Platform Action:** Develop a **"Cross-Border Gastro-Innovation Corridor"** (e.g., The Cheese & Wine Route).
- **Strategic Funding Target: Interreg NEXT BSB or Creative Europe.**
 - *Concept:* A digital map and certification system for sustainable local producers, combined with a "slow food" tourism route that markets the entire cross-border region as a single destination.

Opportunity 3: Green Logistics Hub (The "Strategic Asset")

- **Rationale:** The new **Logistics and Trade Base** in Çorlu/Çerkezköy (with rail access to Europe) addresses a critical bottleneck: border delays.
- **Platform Action:** Position this base as a **"Regional Consolidation Hub"** for Bulgarian and Romanian SMEs to access wider markets (Middle East/Asia) via Türkiye, and for Turkish SMEs to access the EU.

- **Strategic Funding Target: Connecting Europe Facility (CEF) or Digital Europe (for digital logistics systems).**
 - *Concept:* A joint "Green Logistics" initiative to optimize freight flows, reduce carbon footprint, and digitalize customs procedures where possible.

Opportunity 4: Social Innovation & Youth Entrepreneurship (The "Civil Society Booster")

- **Rationale:** The **Lüleburgaz Social Innovation Center** offers a proven, replicable model for engaging youth and women in innovation.
- **Platform Action:** Create a "**Black Sea Youth Innovation Network**" transferring the Lüleburgaz model to partner municipalities in Varna and Galati.
- **Strategic Funding Target: Erasmus+ (KA2) or Horizon Europe (EIE - Connect).**
 - *Concept:* A "Future Star Entrepreneurs" program run simultaneously in 3 countries, culminating in a cross-border hackathon or start-up summit.

Opportunity 5: Automotive Supply Chain Integration (The "High-Tech Shot")

- **Rationale:** Trakya's automotive suppliers, Romania's Ford production base (Craiova), and Bulgaria's growing component sector form a natural cluster.
- **Platform Action:** Facilitate B2B matchmaking to create a "**Regional LED/Lighting & Electronics Cluster.**"
- **Strategic Funding Target: Horizon Europe (WIDERA - Excellence Hubs).**
 - *Concept:* Linking innovation actors (universities + clusters) in TR, BG, and RO to jointly develop next-gen automotive lighting technologies, creating a unified R&I ecosystem for the sector.

Opportunity 6: Transfer of the "Chamber-Led Incubation Model": * **Rationale:** The field research confirmed that Çorlu CCI's TEKMER model is a mature best practice for fostering R&D at the local level. While many BSOs in the partner regions (Bulgaria and Romania) express a desire to support startups, they often lack the operational know-how to manage an incubation center. Additionally, the region's Technoparks (Trakya and NKU) have significant experience in incubation and acceleration, which complements the TEKMER model.

- **Platform Action:** The Black Sea Innovation Platform should function as a knowledge transfer vehicle to replicate these models. A **"Balkan Incubation Mentorship Programme"** can be established, where Çorlu CCI and Technopark experts provide technical assistance to partner BSOs and universities on the legal framework, business model, and sustainability strategies for setting up their own Technology Development Centers or pre-incubation programs.
- **Strategic Funding Target:** Interreg NEXT BSB (Specific Objective on Institutional Capacity) or Horizon Europe (EIE - European Innovation Ecosystems).
 - **Concept:** Sharing the "TEKMER" and Technopark blueprints to build a network of interlinked incubation centers across the Black Sea Basin, allowing startups to access soft-landing services in partner countries.

Opportunity 7: Higher Education Innovation Capacity Building:

- **Rationale:** The robust experience of Trakya and Namık Kemal Technoparks in fostering technology entrepreneurship offers a template for capacity building in partner regions.
- **Platform Action:** Initiate a **"Cross-Border Higher Education Innovation Alliance"** to mentor universities in Bulgaria and Romania on establishing and managing effective incubation and acceleration centers.

- **Strategic Funding Target: EIT Higher Education Initiative (HEI).**

- *Concept:* A joint project to unlock the innovation potential of higher education institutions (HEIs) across the BSB by transferring the knowhow of Turkish Technoparks in commercializing research and supporting student entrepreneurs.

Opportunity 8: Synergy with Parallel Black Sea Initiatives (The QUEST Project)

- **Rationale:** Field research and recent stakeholder intelligence indicate that other Turkish institutions (e.g., Karadeniz Technical University and Trabzon CCI) are implementing similar initiatives, such as the **QUEST project**, involving partners from Greece and Bulgaria. This project shares nearly identical goals regarding the establishment of Quadruple Helix structures and joint Horizon Europe proposal development.
- **Platform Action:** The Black Sea Innovation Platform should establish a formal communication channel with the QUEST project to create a "Meta-Network" within Türkiye. This will allow for the exchange of best practices and the formation of larger, more competitive consortia for EU-wide calls.
- **Concept:** Joint training modules, shared expert databases, and co-organized brokerage events to synchronize the innovation efforts of the Trakya and Eastern Black Sea regions.

4.3. Recommendations for the "Black Sea Innovation Platform" Design

Based on the feedback from stakeholders (especially Çorlu TSO), the Platform design must adhere to the following principles to be successful:

- **Flexibility over Bureaucracy:** The Platform should avoid rigid, heavy governance structures initially. It should start as a flexible, results-oriented network to build trust before formalizing.

- **Tangible Benefits:** It must offer concrete value to businesses (e.g., "Finding a partner," "Solving a customs issue," "Accessing a specific grant") rather than just high-level dialogue.
- **"Driver" Role:** Given the capacity gaps identified in some partner regions, the Turkish partners (TDA, Çorlu TSO) should be prepared to act as the "engine" or "driver" of the Platform in its early stages, providing the project management capacity for joint initiatives.

5.0 Part 4: Conclusion & Key Questions for Policy Report

5.1. Summary of Needs & Assets

The analysis concludes that the TR21 Trakya Region possesses a strong "hard" infrastructure for innovation but suffers from significant "soft" infrastructure gaps.

Identified Needs:

- **Translation of Policy to Practice:** SMEs need practical, technical implementation support to navigate "Green Deal" and "Digital Transformation" requirements, moving beyond general awareness.
- **Workforce Transformation:** A coordinated policy intervention is needed to restore the prestige of vocational education to address the critical "blue-collar" talent shortage.
- **Civic Engagement Mechanisms:** Civil society lacks the institutional capacity to participate in innovation. Intermediary structures are required to translate innovation policy into citizen-relevant terms.

Identified Strategic Assets:

- **Knowledge Export Potential:** Unlike other areas where the region seeks to learn, in the domain of **Techno-Entrepreneurship and Incubation Management**, the Trakya region is in a position to *teach* and lead. The operational models of **Çorlu TEKMER** and regional **Technoparks** are mature assets ready for transnational transfer to partners in Bulgaria and Romania.

5.2. Key Questions to Inform the "Actionable Policy Recommendation" Report

This analysis poses the following strategic questions to be addressed in the next phase of the project (The Policy Recommendation Report):

- **Governance:** *How can we design a "flexible governance model" for the Black Sea Innovation Platform that maintains momentum without becoming bureaucratically burdensome?*
- **Capacity Building:** *What specific curriculum is needed to train Civil Society Organizations (CSOs) to become effective partners in Horizon Europe consortia?*
- **Knowledge Transfer:** *How can the specific operational know-how of Çorlu TEKMER and regional Technoparks be codified and transferred to partners to jump-start startup ecosystems in the wider Black Sea Basin?*
- **Incentivization:** *What policy incentives can be recommended to encourage SMEs to view the Green Transition as a competitiveness tool rather than a cost?*
- **Cross-Border Integration:** *What legal or administrative simplifications can be proposed to facilitate the "Green Logistics Hub" concept between Türkiye, Bulgaria, and Romania?*
- **Civil Society Engagement:** *How can we build and motivate NGOs' participation in the innovation ecosystem, moving them from passive beneficiaries to active co-creators?*
- **Synergies With Other Initiatives:** *How can the DIALOGUE project synchronize its outputs with similar BSB initiatives like the QUEST project to ensure a unified and nonfragmented approach to participation in the Black Sea R&I ecosystem?*