Interreg North Sea

Co-funded by the European Union

InnoWaTr

Generic Strategy plan

Output 1.1 Generic strategy plan for FFC approach

InnoWaTr
TOGETHER WE MOVE AHEAD

Table of Contents

Executive Summary

The document outlines the strategic plans for the Innovator project, focusing on promoting inland waterway transport (IWT) as a sustainable alternative to road transport. The strategy comprises four pillars:

1. Coalition Building Strategy Plan: This section outlines how the project aims to form Freight Flow Coalitions (FFCs) by aligning diverse stakeholders around shared goals. It identifies five main challenges: overcoming mental resistance, addressing adversarial parties, identifying hidden motivators, designing effective organizational structures, and balancing competition with collaboration. To address these challenges, the strategy proposes solutions such as organizing workshops, providing policy support, mitigating risks, and promoting transparency.
2. Business Model Strategy Plan: The business model plan emphasizes the need for structured and flexible models tailored to the specific needs of each coalition. It highlights three main challenges: changing stakeholders' perceptions, securing resources and financial sustainability, and navigating complex legal frameworks. To overcome these obstacles, the strategy incorporates tools such as the Business Model Canvas (BMC) and a Self-Assessment Tool, supporting the implementation and scaling of innovative IWT solutions.
3. Data Strategy Plan: This part focuses on improving data collection, sharing, and utilization to support the adoption of IWT. The plan addresses the importance of high-quality data, leveraging data to attract stakeholders, and ensuring secure data sharing. Proposed solutions include setting data quality standards, developing tools to quantify external costs, and implementing strong privacy measures to safeguard sensitive information.
4. Communication Strategy Plan: This section aims to raise awareness and engage stakeholders at multiple levels. It uses the AIDA framework (Attention, Interest, Desire, Action) to structure messaging and outreach. The plan emphasizes tailored messaging for different stakeholder groups, including shippers, port authorities, regulators, and the public. It also outlines the use of digital platforms, conferences, media, and face-to-face interactions to spread the project's benefits.

In conclusion, the InnoWaTr project seeks to build a sustainable logistics network by addressing challenges through collaboration, business model innovation, effective data management, and a targeted communication strategy.

Part Ⅰ: Coalition Building Strategy Plan

Introduction

Coalition building is the collaborative process of aligning stakeholders around a shared goal. In the InnoWaTr project, this process enables the formation of FFCs to support sustainable IWT. Given the unique nature of each FFC, coalition building must adapt to different stakeholder dynamics. The process unfolds across three main phases (see Table 1):

Table 1 Coalition building phases

Phase	Activities	Tools & Methods
Identify coalition members & stakeholders[1]	• Stakeholder mapping • Define goals and positions of each stakeholder • Identify conflict of interests • Define the level of power of influence per stakeholder • Select most important and relevant stakeholders	• RASCI model[2] • Influence-interest matrix[3] • Multi-actor network mapping[4] • Stakeholder theory diagram[5] • Networking events, databases, workshops, test sailings
Get coalition members & stakeholders involved	• Address stakeholders in a personal & individual manner • Provide specific & precise value propositions for each stakeholder • Ensure transparent & open discussions, be honest, efficient & to the point, respecting stakeholder time • Use inspiring & interesting materials to trigger attention and enthusiasm	• Stakeholder involvement training before addressing them • Demonstrators or storytelling tools (e.g., promotion videos) • Tailored communication approaches per stakeholder
Keep coalition members & stakeholders involved	• Continuous tailored communication • Adapt engagement based on evolving needs • Appoint trusted leadership	• Regular surveys, meetings, etc. • Trust-building through neutral leadership • Contractual agreements for commitment

1. Based on the DOEN-project (Interreg Vlaanderen-Nederland), https://www.energie-makelaar.net/opleidingspakket and InnoWaTr workshop in Hamburg (02/2024).
2. https://www.rascimethode.nl/en/ and https://drive.google.com/file/d/11VjZa75OJi6n5t5kxCuI3ngnil3VpjJK/view
3. https://thinkinsights.net/strategy/stakeholder-analysis/
4. https://gephi.org/
5. https://thesocietypages.org/graphicsociology/2015/02/12/stakeholder-theory-diagram/

We identified five challenges related to the formation of coalitions. Each challenge affects multiple phases of coalition building and require a holistic, coalition-based solution. We suggest a mix of workshops, research, and experiments in the FFC to tackle these challenges.

Challenge 1: Mind shift

Problem: A key barrier to IWT adoption is the mental resistance among stakeholders, especially decision-makers who perceive IWT as slower, more expensive, or less reliable than road transport.

Solution:

- **Policy support**: Regulations like the city of Ghent's zero-emission zone underscore the need to shift toward IWT. We compiled relevant policies and will use workshops to discuss the impact of these regulations on the success of the FFCs.
- **Cost transparency**. We conduct research to compare full costs (as well as other negative externalities) of different transport modes, develop digital tools which allow a per-case comparison of costs, and disseminate results using workshops.

- **Risk reduction**. Through short-running projects such as FFCs, we limit the long-term risks such as higher costs, operational restrictions, longer travel times to short period of time. For future freight flow coalitions, some level of subsidy can further alleviate risks until stakeholders are sufficiently convinced.

Challenge 2: Convincing uninterested or adversarial parties

Problem: In multi-stakeholder settings, some parties may be indifferent or openly resistant to participation due to past negative experiences, differences in organizational culture, or misperceptions about the goals and benefits of collaborations.

Solution:

- **Proactive identification:** Detect potentially opposed actors early to anticipate and manage resistance.
- **Acknowledging and addressing underlying biases and assumptions:** Organizing exchange sessions where adversarial parties can openly share their concerns and perspectives, then working to dispel misconceptions.
- **Public legitimacy:** Showcase coalition successes through press, social media, and government endorsements to generate peer and policy pressure.
- **Educational outreach:** Use workshops and storytelling to challenge assumptions and foster a long-term mindset change.

Challenge 3: Awareness of hidden motivators

Problem: Awareness of hidden motivators among FFC members is crucial for effective collaboration. If unrecognized, these self-interests can hinder prioritization or even conflict with the coalition's goals.

Solution:

- **Contractual agreements**: Thinking about potential conflicts, also with regard to possible hidden motivators, before they arise and defining clear approaches of how to resolve potential conflicts of interests.
- **Honest and open communication**: An open, empathetic and listening-oriented communication culture should be established in FFCs, which motivates people to openly address hidden motivators and self-interests.
- **Mediation techniques**: In case of arising conflicts, mediation techniques should be applied. This includes but is not limited to: Structuring conversations and procedures, active listening, coaching, doubling, questioning techniques (including circular questions), feedback, systemic intervention.

Challenge 4: Organizational structure of FFC

Problem: FFC organizational structures are vital for addressing IWT challenges and opportunities. Since management models vary by goals and contexts, analyzing these structures is essential for identifying what works best in various circumstances.

Solution:

- **Evaluate management structures**: Analyze the strengths and weaknesses of different FFC management structures to identify the most effective models for specific goals and contexts.
- **Leadership development**: Promote leaders who enable knowledge sharing and innovation. Leaders within FFCs can foster innovation and collaboration by encouraging members to experiment with new approaches and share their insights and experiences.
- **Risk reduction**: Short-running projects can be utilized as a strategy to minimize risks associated with organizational change and decision-making.
- **Stakeholder-centered design**: Regularly gather input from FFC members and stakeholders through surveys, interviews, and workshops to understand their evolving needs, expectations, and preferences.
- **Flexible design**: Build structures that adapt over time, informed by stakeholder feedback collected through interviews, surveys, or workshops.

Challenge 5: Handling competition/collaboration

Problem: The freight transport market is highly fragmented. Competing logistics players often duplicate efforts, leading to inefficiencies such as multiple trucks delivering to the same location. While collaboration could optimize load factors and reduce ton kilometers, competitive dynamics, trust issues, and concerns over data sharing hinder joint efforts.

Solution:

- **Neutral hubs**: Facilitate collaboration among different shippers—including competitors—by using third-party distribution centers, such as the CULT project in Antwerp (https://www.cultcitylogistics.be/). In urban freight distribution, this concept involves logistics service providers dropping off goods at a neutral hub, where shipments are consolidated and delivered efficiently—potentially using inland vessels for the last mile. Further details can be found in Urban Logistics system – Vision note.
- **Policy intervention**: Policymakers can support bundling efforts through regulation or incentives, ensuring alignment with societal efficiency goals.

Conclusion

The InnoWaTr coalition building strategy addresses the complex challenges of aligning diverse stakeholders toward a common goal. Through policy support, educational outreach, transparent communication, and flexible organizational structures, these strategies aim to foster successful FFCs. The approach will be continuously refined based on stakeholder feedback and evolving needs, ensuring long-term success in promoting IWT.

Part Ⅱ: Business Model Strategy Plan

Introduction

The InnoWaTr project aims to increase the modal share of IWT through the formation of FFCs, which operate using diverse, innovative solutions ranging from digital platforms and urban logistics to hydrogen-powered vessels. Given the varied approaches, it's essential to deploy structured and versatile business models tailored to each coalition's unique operational context.

To support this, we provide two key tools: the Business Model Canvas (BMC) and a Self-Assessment Tool for Business Cases. The BMC provides a structured framework for designing, visualizing, and communicating the critical building blocks of the business model such as customer segments (e.g., freight owners), value propositions (e.g., cost savings and CO2 reduction), key resources (e.g., port infrastructure), and revenue streams (e.g., service fees or subsidies). Meanwhile, the Self-Assessment Tool enables FFCs to assess and iterate on their business models through a detailed analysis covering economic, environmental, and social feasibility.

Through brainstorming, we outline three major challenges that the InnoWaTr project must overcome to build successful and scalable business models for IWT, and we show how the BMC and Self-Assessment Tool can directly support each solution.

Challenge 1: Changing stakeholders' perceptions and preferences

Problem: Despite the environmental and capacity benefits of inland waterway transport, stakeholders (cargo owners, logistics providers, and local authorities) exhibit hesitance toward shifting from traditional road transport to IWT due to perceived flexibility, reliability, and cost barriers.

Solution:

- **Enhanced stakeholder engagement and education**
  - Utilize the BMC sections—Customer Relationships and Channels—to explicitly design continuous stakeholder education programs.
- **Self-assessment tool integration**
  - Regularly apply the self-Assessment Tool to gauge stakeholders' changing perceptions, understanding barriers through social and environmental assessments
  - Iteratively improve the value proposition by aligning with stakeholders' evolving needs and preferences, especially related to sustainability benchmarks
- **Pilot and demonstration initiatives**

- Expand demonstration activities like the French FFC8's hydrogen-powered Zulu barge, showcasing operational viability and sustainability benefits.
- Disseminate clear and relatable business case studies through the FFC community, leveraging effective communication channels and networks.

Challenge 2: Resource investment & financial sustainability

Problem: Innovative technologies such as automated mooring and low-emission propulsion systems require significant investment. For many small and medium-sized enterprises and regional ports, the cost of early adoption is prohibitive, threatening the scalability of the initiative.

Solution:

- **Pooled resource investments**
  - Explicitly define joint investment strategies in the BMC's Key Resources and Cost Structure, highlighting cooperative funding and shared infrastructure strategies.
  - Facilitate consortium-level procurement and investments to distribute initial cost burdens, thereby improving economic feasibility for small and medium-sized enterprises (SMEs).
- **Attracting co-funding and subsidies**
  - Strategically seek regional and EU-level financial support through clearly communicated economic and environmental impact metrics, as outlined in the Self-Assessment Tool.
  - Regularly perform Economic feasibility checks using the Self-Assessment Tool to prepare comprehensive, persuasive funding proposals for public and private investment sources.
- **Transparent and quantitative evaluation**
  - Systematically document performance outcomes (e.g., CO_2 emissions reduction, cost efficiency improvements) as per the Metrics component of the Self-Assessment Tool.
  - Disseminate these quantifiable results widely to maintain transparency, credibility, and attract further investment interest and stakeholder buy-in.

Challenge 3: Legal issues

Problem: Implementing innovative IWT solutions often involves complex legal and regulatory frameworks, including compliance with regional, national, and EU regulations. Diverse requirements across different jurisdictions—such as emission standards, navigation safety, cargo handling rules, and the legal implications of autonomous or hydrogen-powered vessels—pose significant obstacles to streamlined operations and scalability.

Solution:

- **Dedicated legal and regulatory analysis**
  - Conduct detailed assessments of legal and regulatory requirements using specialized expertise within the coalition.
  - Advocate collectively, through Freight Flow Coalitions (FFCs), for regulatory harmonization across regions to simplify compliance procedures.
- **Engage legal experts early in planning**
  - Establish partnerships with specialized legal advisors or regulatory authorities early in the project lifecycle, clearly reflecting these partnerships within the BMC's "Key Partners".
  - Use these partnerships proactively to identify potential legal barriers and mitigation strategies before they impact operations.
- **Capacity building and knowledge sharing**
  - Regularly organize targeted workshops and knowledge-sharing sessions to keep stakeholders informed of evolving legal frameworks and regulatory requirements.
  - Provide accessible, regularly updated documentation and guides on regulatory compliance to stakeholders to reduce uncertainty and enhance clarity.

Conclusion

The InnoWaTr business model strategy emphasizes creating financially sustainable and legally compliant business models tailored to the needs of IWT stakeholders. By addressing stakeholders' concerns, pooling resources, and navigating regulatory frameworks, the project aims to build scalable IWT solutions. This approach ensures that FFCs can operate effectively and attract the necessary investment to drive long-term success.

Part Ⅲ: Data Strategy Plan

Introduction

Data is a valuable asset for organizations, especially business companies. Effective data management enables companies to make better decisions and maintain customer confidence. In InnoWaTr project meetings in Gothenburg and Paris, we identified three critical issues regarding data: high-quality data collection, effective use of data to calculate external costs of transportation to convince customers, and secure data sharing. The data strategy plan aims to provide solutions to solve these problems.

Challenge 1: High-quality data collection

Problem: The value of analysis depends on data quality, which varies by context and user needs. Without clear standards or processes, data can lack relevance, accuracy, or completeness—limiting its usefulness.

Solution:

- **Date needs identification**: Different stakeholders have different data needs in different stages, and the collection of data should be related to the measurables goals that FFCs identified in Task 1.3 Action plan. We prepare a "data inventory and data needs" Excel (Data inventory and data needs.xlsx) where FFCs specify the data that they can collect and what analysis they want to obtain from knowledge institutes based on this data and knowledge institutes specify what data they would like to ask from FFCs to achieve what outcomes.
- **Data providers and recipients' assessment**: In the InnoWaTr project, establishing long-term partnerships has facilitated a deeper understanding and trust between FFCs and knowledge institutes, enhancing the overall data integrity. In situations involving new collaborations or external data sources, rigorous selection processes and trial periods may be necessary to ensure the reliability of data providers and data recipients.
- **Data quality criteria setting**: Although there is no single, agreed-upon set of requirements that data must meet to be considered high quality, several dimensions can be considered indicative of high-quality data, such as completeness, timeliness, validity, and accuracy. Regular workshops and training sessions should be conducted to ensure all stakeholders are aware of the data quality standards.

Challenge 2: Use of data to attract stakeholders

Problem: A major barrier to the broader adoption of IWT is the lack of awareness among stakeholders about its full benefits. Many still perceive IWT as less flexible or economically viable compared to road transport. This perception persists partly because traditional cost assessments focus on direct operational costs, ignoring wider

societal impacts. Without the tools, data, or policy context to communicate IWT's advantages, FFCs struggle to gain stakeholder support and drive modal shift.

Solution:

- **Use strategic data to attract stakeholders**: By showing cost efficiency (lower cost per ton-kilometer, energy consumption metrics), external costs (GHG Emissions, congestion, accidents reduction, noise reduction), real-world impact (successful stories), FFCs can present compelling, evidence-based benefits of IWT to engage stakeholders effectively. Some open data can also be used to help stakeholders learn about IWT, e.g., Central Commission for the Navigation of the Rhine (https://inland-navigation-market.org/?lang=en), Inland Navigation Europe (https://www.inlandnavigation.eu/), EuRIS (https://www.eurisportal.eu/?KL=en), European Inland Waterway Transport Platform (https://www.inlandwaterwaytransport.eu/).
- **Standardized tools to calculate external costs**: In the project meeting in Paris and Bremen, all partners mentioned that they need tools to calculate the external costs of IWT. Together with WP3 leaders, we propose to use GLEV framework and create a an indicator template (see Indicators Progress piloting information FFC VF) that helps FFCs identify find data needed to calculate the external costs.
- **Leverage policy and regulatory support for IWT**: For example, low emissions zones implementation in Europe and impact on transport modes usage, rules for promoting inland waterway transport in the EU (https://eur-lex.europa.eu/EN/legal-content/summary/rules-for-promoting-inland-waterway-transport-in-the-eu.html), Directive 2014/95/EU, Regulation (EC) No 718/1999, Regulation (EC) No 181/2008,Regulation (EU) No 546/2014, EU Legislation in the field of inland waterways (https://transport.ec.europa.eu/document/download/ee53f83c-7330-412c-8cc1-5dc3bdb433ce_en?filename=summary_of_eu_legislation_in_the_field_of_inland_waterways.pdf&prefLang=lt)

Challenge 3 Secure data sharing

Data sharing within the InnoWaTr project offers significant benefits to partners. These include concerns over privacy and security, ambiguity around data ownership, and a general lack of incentive or trust. The following outlines the core challenges and targeted solutions

Problem 1: Privacy and security. Ensuring that sensitive information is protected is a major concern, especially with regulations such as GDPR in Europe. Protecting sensitive information and avoiding data breaches is not only a legal requirement but also crucial to maintaining stakeholder trust and avoiding financial losses.

Solution:

- **Classify data** by sensitivity (e.g., public, internal, confidential) to guide appropriate sharing.

- **Assess data recipients** for trustworthiness and ability to handle data securely.
- **Define data needs** to share only relevant, purpose-specific information.
- **Anonymize and encrypt** personal or sensitive data before sharing.
- **Control access** through clear policies and authentication systems.
- **Select secure platforms** (e.g., SharePoint, SFTP) based on encryption and functionality.
- **Provide clear guidelines** on data access, usage, and responsibilities, supported by training.
- **Establish data sharing agreements** to formalize usage terms and IP rights.
- **Prepare for breaches** with rapid communication, post-incident reviews, and improved response plans.

Problem 2: Data ownership identification. Identifying data owners is tricky due to the following reasons: multiple stakeholders, data derivation and aggregation, AI-driven outputs, and data dynamics.

Solution:

- **Clear contractual agreements**. Define ownership, usage rights, and responsibilities in advance, especially for aggregated or AI-generated data.
- **Data provenance tools**. Use tools to log data origin, transformations, and updates to maintain transparency.
- **Stakeholder engagement and communication**. Regular dialogue reduces misunderstandings and builds mutual understanding.

Problem 3: Lack of incentive. There can be institutional reluctance to share data, driven by fears of data breaches, not aware of the value of data sharing, or lack of trust.

Solution:

- **Strengthen security**: Reassure partners through robust protective measures (see privacy/security solutions).
- **Show benefits**: Conducting workshops and presenting case studies of successful data-sharing initiatives that led to mutual benefits, underscoring how these partnerships have helped companies grow or maintain competitive advantage.
- **Cultivating trust and partnership**. Within the InnoWaTr project, we enhance the trust between partners through regular interactions and transparent communication.

Conclusion

The InnoWaTr data strategy plan focuses on ensuring that data is of high quality, utilized effectively, and shared securely. By establishing clear data standards, promoting the strategic use of data, and implementing secure data-sharing mechanisms, the project will help stakeholders make data-driven decisions that support the wider adoption of IWT. This approach is crucial for building trust and ensuring the long-term success of the InnoWaTr project.

Part Ⅳ: Communication Strategy Plan

Introduction

The InnoWaTr project aims at enhancing IWT as a sustainable alternative to road transport and to prove that it is more easily achieved by combining efforts and sharing results.

Each FFC has its target group and its challenges and therefore its own message to convey. Therefore, we need to make sure that the communication around the Innowatr project and each FFC is effective and has a lasting effect, a legacy.

To achieve its objectives, an effective communication strategy is essential to engage stakeholders, create awareness, and drive commitment. This strategy is built on two levels:

- Operational Level: Enhancing knowledge sharing and synergies among the Freight Flow Coalitions (FFCs).
- Strategic Level: Positioning the project for long-term adoption and replication across different regions.

Methodology

AIDA Framework

The chosen strategy follows the AIDA framework: Attention, Interest, Desire, and Action, ensuring that stakeholders are not only informed but also motivated to support and replicate the initiative.

Questionnaire

The FFCs were sent a questionnaire to better target their audience, tailor their message, define the best communication channels and tools and identify their challenges and solutions in order to ensure transnational impact and sustainability.

Target Audience and tailored messaging

Each FFC has distinct target groups and challenges, requiring customized messages to effectively engage stakeholders. The message has to be transparent, engaging dialogue and highlight both the advantages and the hurdles (e.g. the solution might be more expensive, but interesting from a social point of view).

There are several “layers” (types, groups) in the target audience. Some of the stakeholders will be involved in the short term, some of them will be involved in the long term.

The ones involved in the short term are the organizations/persons who are directly involved, namely the sender of the goods, the receivers of the goods and the logistics service providers. When possible, it helps to have a 3H or even a 4H approach in the composition of the stakeholder groups.

- **Shippers & Freight Owners:** The focus is on demonstrating how IWT reduces congestion, offers reliability, and aligns with sustainability goals (e.g., CO2 reduction, noise reduction).
- **Port Terminals & Public Authorities**: The messaging highlights innovation, infrastructure development, and economic benefits for local businesses.
- **Regulatory Bodies & Municipalities:** The emphasis is on aligning with EU climate targets, reducing road traffic, and improving urban logistics.
- **Retailers & End Customers:** Communication revolves around reliability, cost-effectiveness, and environmental impact.

Communication channels and tools

To effectively convey the project's benefits, multiple communication tools and platforms are utilized:

- **Digital Platforms:** LinkedIn posts, partners' websites, and newsletters serve as primary outreach channels.
- **Conferences & Events:** Participation in logistics fairs, workshops, and exhibitions (e.g., SITL, Riverdating) ensures visibility among industry players. Meeting with policy making bodies (Arbeitskreis Binnenschifffahrt Wirtschaftsverband Weser, Gesprächskreis Binnenschifffahrt der GDWS und der Senatorin für Wirtschaft und Häfen), Boards of Directors of Business initiatives and Associations.
- **Media & Publications:** Press releases in specialized publications and promotional videos help reach a wider audience.
- **Face-to-Face Engagements:** Roundtables, stakeholder meetings, and workshops facilitate direct interactions and trust-building.
- **Community Building:** Online platforms (e.g., Blueline Logistics) support knowledge sharing and stakeholder engagement.

Key challenges and Solutions

Despite the strong potential of IWT, several communication challenges have been identified:

- **Awareness & Adoption Resistance:** Many stakeholders are unfamiliar with the benefits of IWT. Solution: Clear case studies, testimonials, and pilot demonstrations.
- **Stakeholder Engagement:** Logistics actors often lack time for new initiatives. Solution: Personalised outreach and direct industry involvement.
- **Social Acceptability of H2-Powered Transport**: Public perception of hydrogen transport needs improvement. Solution: Educational campaigns and transparent cost-benefit analysis.

Ensuring Transnational Impact & Sustainability

For InnoWaTr's communication strategy to be effective beyond its initial implementation, the following measures are planned:

- **Harmonized Messaging Across Regions**: Standardized documentation and multilingual communication.
- **Replication & Scalability**: Open-source methodologies and playbooks for future adopters.
- **Collaboration with Academic & Industry Partners**: Universities and industry networks to drive research and best practice sharing.
- **Long-Term Digital Presence**: Continuous updates on social media and existing logistics platforms.

Conclusion

The InnoWaTr communication strategy is structured to maximize stakeholder engagement, facilitate adoption, and ensure long-term impact. By leveraging targeted messaging, diverse communication channels, and a proactive engagement approach, the project aims to create a lasting legacy in sustainable logistics. Next steps include developing promotional materials tailored to each stakeholder group, increasing participation in key industry events, strengthening partnerships with policymakers and academia for broader policy influence, and establishing a monitoring framework to assess the effectiveness of communication efforts.