

Workshop Report: Supply Chain Innovation for Inland Waterways

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Overview

The workshop brought together stakeholders across logistics, policy, and research to explore innovative solutions for inland waterway transport (IWT), with a strong focus on the Danube corridor.

Participants discussed how to unlock the potential of multimodal transport through practical demonstrations, smart tools, and collaborative models.

Poll Insight: The Baseline Challenge

Our opening poll confirmed what the data already suggests:

Inland waterway transport today remains largely **traditional**, defined by **one seller – one buyer – one product – one vessel**, with **minimum lots of 1,000+ tonnes**.

This model is increasingly mismatched with emerging market needs. The decline in traditional bulk cargo, combined with growing demand for **partial and flexible shipments**, urges us to rethink IWT logistics.

Key Highlights

The TTS demonstrator (Deutschkreutz–Vienna–Lom–Sofia) illustrated the viability of **containerized bulk transport**:

- **<10 minutes** first-mile loading time
- **Full weather independence**
- **97.8% storage utilization**
- **Smooth customs and documentation**
- **Transit time: 9 days 8h** – slower than road but suited for non-time-sensitive freight

Challenge noted: destination product sampling remains a bottleneck.

Digital Tools and Simulations

Smart Freight Center presented advanced freight modeling tools:

- Simulated **modal shifts** from road to IWT
- Estimated **CO₂ emissions reductions of up to 40%**
- Projected **6% lead time savings** and **1.4% cost reductions**

These models are now supporting business case development and corridor prioritization.

From Barriers to Business Models

Participants tackled persistent challenges head-on:

- **Infrastructure gaps** and limited terminal flexibility
- **Need for reliable digital tracking and real-time data**
- **Difficulty bundling cargo at scale**

Yet, inspiration came from hybrid, door-to-door solutions that can **scale through collaboration**, leveraging containers to integrate diverse product flows.

Strategic Takeaways

- Rethinking IWT requires moving beyond traditional models—containerization and digitalization are central.

- Shippers need “clef en main” and low-friction solutions; business models must reduce the complexity of decisions.
- Stakeholder alignment is critical coordination across ports, terminals, and logistics operators can turn modal shift into market opportunity.

Next Steps

- Further **pilot development and route modeling** (e.g., beyond Vienna–Lom)
- Build and test **simulation and cost-calculation tools**
- Engage shippers directly (e.g., IKEA, ZARA) in business case design
- Translate insights into **policy input** and targeted infrastructure recommendations