

# TEMPLATE

## Output factsheet: Tools

Version 1

Project index number and acronym	CE1044 TalkNET
Lead partner	North Adriatic Sea Port Authority
Output number and title	O.T2.1.1 - KNOWLEDGE TOOL IN THE FIELD OF ALTERNATIVE FUEL DEPLOYMENT IN NODES/TERMINALS
Responsible partner (PP name and number)	PP15 CODOGNOTTO POLAND
Project website	<a href="https://www.interreg-central.eu/Content.Node/TalkNET.html">https://www.interreg-central.eu/Content.Node/TalkNET.html</a>
Delivery date	AUGUST 2019

## Summary description of the key features of the tool (developed and/or implemented)

This project output is one of five knowledge tools that have been developed in order to make available a review of best practices and relevant knowledge in the two macro fields of action of the project, that is to say Multimodality and Eco-innovation. The fourth knowledge tool output is focused on the sub-topic of alternative fuels deployment, that includes both the significant experiences of the project partners and those gathered outside the partnership from other actors and operators.

The selection of the best practices has been strictly influenced by the needs of partners' stakeholders that have been detected from the project activities and the various contacts that the partners had cooperating with them.

A review of the current/up-to-date knowledge in field of alternative fuels deployment will be available as benchmark to support the preparation of the project action plans that in turn will support investment plans in the project territories in order to improve alternative fuels solutions and the related project pilot actions.

In particular the following best practices are presented:

### 1) Alternative fuel solutions - cold ironing in the Port of Koper

Port of Koper already provides shore-side electricity supply (cold ironing) for the berthed Slovenian Army vessels and tug boats. In this way on board of the Army vessels and tug boats the auxiliary power units don't use diesel fuel and would not generate emissions such a pollution and noise. The solution implemented in the port of Koper came out from the experience of the Port of Hamburg with the Siemens solution-SIHARBOUR (passenger terminal Altona), which was only the conceptual basis to start the activities in the port of Koper.

### 2) Alternative fuel solutions - wood biomass in the Port of Koper

In the port waste wood is generated during the process of handling, processing and storage of timber. This wood is used as a wood biomass (wood chips) for energy purposes, which affects economy - reducing the consumption of fossil fuels (heating oil). The result is two and a half times lower costs for heating and preparation of the sanitary water. Modern technologies for converting internal energy (wood) biomass into heat are completely automated, energy-efficient and environmentally friendly. The idea for this solution implementation came from the district heating system for wood biomass on Rogla (Pohorje - Slovenia) and it was adapted and implemented successfully to meet the needs of port of Koper.

### 3) Alternative fuel-based recharging station - VULe Partagés (Paris - France), Mol Limo (Budapest - Hungary)

The "VULe Partagés" is a system by which professionals can borrow electric cars for transporting. PSA Group offers 10 commercial electric vehicles in cooperation with the city government in Paris. Peugeot Partner and Citroën Berlingo types of Light Electric Utility Vehicles are made available to traders and craftspeople (as of July 2019). The cars have got 3 seats in the front and a fast charging, 80% within 30 minutes. The most important is that the vehicles are picked up at a station and brought back to the same station after transporting.

#### **4) Electrification of port railway facilities - Nuremberg (Bavaria, Germany)**

- The City of Nuremberg performs outstandingly in the production of electrical equipment, both compared to German and European standards
- City and Regional logistics have been optimized via inner-city micro-depots, electric vehicles as well as hybrid locomotives

#### **5) LNG deployment in the North of Italy**

- In the Central Europe area, North Italy is the most valuable example of LNG deployment
- In just three years the area goes from 1 LNG refuelling station to more than 30

#### **6) LNG+Intermodality: Corridor IT-UK**

Codognotto Italia and Electrolux has successfully tested a combination of LNG+Intermodal solution in the corridor IT-FR-IT from April till June 2019. The complex test was defined already in 2018 with the first shipment along the MED corridor including not just LNG but also the exploitation of the rail connections.

LNG is still the unique solution ready for the deployment for the heavy duty vehicles. Furthermore, the test has confirmed its good performances in terms of environmental sustainability which has been further increased combining the solution with rail.

#### **7) Decarbonisation solutions - ALICE (Logistics Innovation in Europe)**

The European Technology Platform (ETP) Alliance for Logistics Innovation in Europe (ALICE) is set-up to develop a comprehensive strategy for research, innovation and market deployment of logistics and supply chain management innovation in Europe.

According to a stakeholder consultation through a survey with more than 40 respondents and three online consensus building workshops, five solutions areas need to be further investigated and considered when designing a decarbonization strategy: 1) Sustainable, Safe and Secure Supply Chains; 2) Corridors, Hubs and Synchronicity; 3) Information Systems for Interconnected Logistics; 4) Global Supply Network Coordination and Collaboration; 5) Urban Logistics.

### NUTS region(s) where the tool has been developed and/or implemented (relevant NUTS level)

Due to its utilisation, the knowledge tool developed in the field of alternative fuels deployment will be applied to all the NUTS covered by the project and adapted to each specific regional context.

Accordingly, NUTS II involved are:

- Veneto Region (IT)
- Friuli Venezia Giulia Region (IT)
- Zahodna Slovenija (SI)
- Jadranska Hrvatska (HU)
- Közép-Magyarország (HU)
- Bratislavský kraj (SK)-
- Severozápad (CZ)
- Zachodniopomorskie (PL)
- Oberbayern (DE)
- Łódzkie (PL)

### Expected impact and benefits of the tool for the concerned territories and target groups

This output deals with solutions tested and proposed by TalkNET project partners and other selected from external operators/actors that partners have deemed to be significant for their activities and business in the field of alternative fuels deployment.

Best practices collected in the field of alternative fuels deployment have highlighted different aspects about the approach and subsequent deployment of alternative fuels solutions in the central Europe area.

Since the positive growing trend of the freight traffic, the nodes' managers understood the importance to study, test and deploy alternative fuels options in order to reduce the negative impact of the externalities related to the pollutant emissions increase.

Proposed good solutions range from “soft” to “hard”, where for “soft” is intended the re-thinking and adaptation of the procedures and processes, while for “hard” is meant the investments in upgrading or building infrastructures so as to deploy alternative fuels or the purchase and use of vehicles powered by alternative fuels.

More in detail, three main areas of best practices can be taken into consideration: LNG (and Bio-LNG), electric mobility for last mile and re-use of waste as raw materials to produce electricity.

Nowadays, this general framework is facing a growing request of reduction of pollutant emissions in road transport operations, maintaining or increasing the competitive level and being able to face the market evolution in the short-term.

### Sustainability of the tool and its transferability to other territories and stakeholders

Sustainability of the this tool is linked to the project action plans and pilot actions improving alternative fuels solutions, as supporting tool for their development. Project results will be included in operative programming plans of project partners, in particular the plans for sustainability and eco-friendly solutions, thus supporting actors operating in the nodes and along the EU Corridors.

This thematic knowledge tool will offer knowledge and best practices review that will be available to the operators acting in the field alternative fuels solutions in the central Europe area. Anyway they can be transferred to other territories and stakeholders that dealt with the goal of promoting alternative fuels solutions and the integration among ports/inland terminal and transport operators. In particular, they can be addressed to target groups such as enterprises, logistics operators and policy makers (e.g. in port/road sector).

### Lessons learned from the development/implementation process of the tool and added value of transnational cooperation

In terms of lessons learned, best practices collected in the field of alternative fuels solutions can be different in relation to the different partners/actors involved. This has shown also the variety of interventions needed to cope with the adoption of alternative fuels measures and the different stakeholders involved.

Anyway, from the process of clusterization of the project stakeholders to the development of common knowledge tools, project partners have further experienced the added value of transnational cooperation, by sharing which best solutions to promote in order to reach the project goal of improving alternative fuels solutions in the central Europe area.

In particular, the identification of specific needs and related feasible best practices (inside/outside Programme Area), for each regional context under review allows to:

- identify needs and critical issues shared together with potential innovative solutions already applied within the partnership or external to it and identified during the monitoring and mapping of best practices;
- verify the adaptability and repeatability of potential solutions previously found to be effective in comparable contexts, or, alternatively, reviewing the aforementioned solutions in light of the previously encountered and resolved criticalities.

Moreover, the development of knowledge tools has allowed to enhance the process of mutual learning.

**References to relevant deliverables and web-links**  
If applicable, pictures or images to be provided as annex

O.T2.1.1 is linked to the following deliverables:

A.T2.2 - Analysis in the nodes' regions

D.T 2.4.1 - Knowledge tool in the field of alternative fuel deployment in nodes/terminals

D.T 1.4.4 /2.4.4 - Summary report of the inputs collected from the stakeholders

D.T2.5.1 - Methodology for action plans development