The proposed initiative was developed by the Baltic Ports Organization and it is a continuation and extension of a well-established ‘LNG in the Baltic Sea Ports’ - TEN-T Motorways of the Sea Project.

- Project was developed as a result of the co-operation among the Baltic Region Ports and the action addresses one of the main challenges to maritime transport - air emission from shipping.
- The Global Project is focused on the harmonised pre-investment works and development of facilities for LNG bunkering infrastructure in Baltic Sea ports.
Project Partners:

- Several Baltic Ports expressed initial interest. Official Partners within the LNG in Baltic Sea Ports II:
  - Helsingborg (SE-Coordinator)
  - Trelleborg (SE)
  - Sundsvall (SE)
  - Rostock (DE)
  - Klaipedos Nafta (LT)

- Studies considered: design, planning location and technical studies at the ports; vessel’s design, permit and environmental impact studies

- Harmonization & LNG know-how transfer, LNG training scheme and LNG Handbook to serve as a benchmark
Main objectives of the Global Project:

- Minimise the air emission from maritime transport and support for widespread use of LNG as a marine fuel in the Baltic Sea Region.

- Encourage the development of an LNG fleet by shipping lines (decision-making tool) and creation of green maritime transport as an effective environmental and economic solution for the future.

- Keeping the competitiveness of the European Union’s economy on a global scale along with a high standard of environmental protection.

- Project aims to make LNG available as a clean and environmentally friendly alternative fuel, when compared to fuel oil, petrol or diesel, to ships, vehicles and the industry.
Project Activities:

Activity 1: Project Management & Coordination

Activity 2: LNG in Helsingborg
  - Sub-activity 2.1 – Develop a design for a multi-purpose LNG bunker ship in the area

Activity 3: LNG in Trelleborg
  - Sub-activity 3.1 – LNG Berth Project Design
  - Sub-activity 3.2 – Complete technical design of LNG storage and bunkering facility at Berth no.13

Activity 4: LNG in Sundsvall
  - Sub-activity 4.1 – Technical design of berth due to new location
  - Sub-activity 4.2 – Detailed LNG infrastructure planning

Activity 5: LNG in Rostock
  - Sub-activity 5.1 – Obtaining all permits related to the LNG bunkering procedure
  - Sub-activity 5.2 – Technical Design of LNG bunker station

Activity 6: LNG in Klaipėda
  - Sub-activity 6.1 – Technological design study
  - Sub-activity 6.2 – Front end engineering design and QRA
  - Sub-activity 6.3 – Environmental procedures and permits

Activity 7: Harmonisation, LNG 'know-how' transfer & training
  - Sub-activity 7.1 - Harmonisation
  - Sub-activity 7.2 – LNG know-how transfer
  - Sub-activity 7.3 - LNG training scheme
Project Activities:

Activity 1. Project Coordination

- Port of Helsingborg was appointed by the Project Partners to act as a Coordinator.

- The Port of Helsingborg will mainly be responsible for securing professional management of the project and to ensure that the project runs according to the agreement and is implemented according to schedule and budget.
  
    ✓ Activity 1 will also secure the maximum exchange of experiences and keep an open dialogue among the project partners

    ✓ A Steering Committee will be set up and meet regularly (in person and by phone) consisting of representatives from all participating partners.

    ✓ The close co-operation between the Steering Committees from the ongoing project: LNG in the Baltic Sea Ports and the extension LNG in BSP II, will contribute to achieve the global strategy “Development of an LNG bunkering network in the seaports of the Baltic Sea region”. 

Co-financed by the European Union
Trans-European Transport Network (TEN-T)
Project Activities:

Activity 2. LNG in Helsingborg:

- Develop a design for a multi-purpose LNG bunker ship in the area
  - The objective of this activity is to design a multifunctional bunker ship solution in south of Sweden
  - The multi-function ship will be able to provide- LNG bunkering; MGO bunkering & Other ship supply services

- LNG bunker ship study will describe the following: size, number fuel tanks, type of bunker fuel that the ship shall carry (the ship shall be running on LNG), type of other services that should be performed by the ship and crew, etc.
**Project Activities:**

**Activity 3. LNG in Trelleborg**

- **Sub-act 1** - Basic design of berth no.13
  - Technical description, drawings, and context analysis.

- **Sub-act 2** - Complete technical design of LNG storage and bunkering facility at Berth no.13
  - Storage possibilities investigation, tank design, & potential adjustment of berth
  - Assessment of risk & safety and other regulations for LNG delivering.

LNG in Trelleborg activity aims to deliver technical documentation that will allow the investment in a new berth and LNG bunker facilities in the port.
Project Activities:

Activity 4. LNG in Sundsvall

- Technical design of berth due to new location
  - Detailed location study of and technical solutions at the berth
- Detailed LNG infrastructure planning
  - Design of the LNG bunkering infrastructure facility and storage tank type.
  - LNG transhipment and transport; Risk assessment and related safety aspects and the permit process.

The final outcome of the activity is a complete technical design of a bunkering facility in the Port of Sundsvall.
Project Activities:

Activity 5. LNG in Rostock

- Obtaining all related LNG bunkering permits.
  - Technical and safety analysis of the safety situation at each berth

- Technical Design of LNG bunker station
  - Complete technical design of the LNG-import berth, LNG-bunker berth, LNG storage and road-/rail-loading facilities and risk & safety analysis.

- The activity will result in design for a small scale LNG bunkering facility and in a medium term perspective will lead to establishing a LNG storage facility that can provide a fuel for vessels and land transport.
Project Activities:

Activity 6. LNG in Klaipeda / KN

- Technological design study
  - Detailed analysis of current infrastructure and superstructure within Klaipedos Nafta premises.

- Front end engineering design (FEED) and QRA
  - Development of FEED documentation for any demolitions and construction of LNG distribution centre

- Environmental procedures and permits
  - Complete environmental study; risk assessment and safety requirements determination allowing to proceed to project; selection of proper location.

- The outcome of this activity is a set of technical documentation required for construction of bunkering facility in Klaipeda Port together with approved development permits obtained from the competent authorities.
Activity 7: Harmonisation, LNG know-how transfer & training

- Available solution and best practise identification; technical, technological and safety requirements comparison; identification of common Baltic/EU standard.
- Dialogue with stakeholders within the Baltic Sea region and the EU.
- Training structure and topics identification, pilot training occurrence, final improvement
Activity 7: Harmonisation, LNG know-how transfer & training

- The **LNG in Baltic Sea Ports II** project will continue and develop the added value activity created by the ongoing project by know-how transfer meetings and seminars.

- BPO will secure knowledge sharing and cohesion between the ongoing **LNG in Baltic Sea Ports** project and the present proposal to make sure that the Actions are based on common outcomes, best practices and recommendations.
Adding the partners of the succeeding BPO initiative, together with seven ports from the ongoing TEN-T project- *LNG in the Baltic Sea* ports; this will result in the establishment of an extensive network of ports with planned facilities for LNG bunkering in the Baltic region (in total 9 of 22 Baltic Core ports and 2 comprehensive ports).

This on its own it will be a significant achievement in meeting the future clean shipping strategy in the Baltic Sea Region and in EU.
Baltic Ports Organization has initiated the development of the LNG in Baltic Sea Ports II initiative within five ports of the Baltic Sea Region;

Project was supported by many industry organizations:
- European Community Shipowners’ Association
- European Sea Ports Organisation
- Swedish Shipowners’ Association
- Danish Maritime Authority; Danish Ports Association; Ports of Sweden;
- Lithuanian Shipowners Association; Baltic Ports Organization;
- (CLEANSHIP) Project; Green Cranes Project;
- and many other national and port organisations, regional projects and associations

LNG in Baltic Sea Ports II will aim to provide a long-term sustainable bunker solution, a usable, practical and common bunker standard should be developed in the Baltic Sea region.
NEW LNG initiatives in the Baltic

- Key Baltic Sea regions identified as areas for a possible development of a common bunkering barge projects:
  - Turku, Naantali, Pori (FI);
  - Gulf of Finland (FI & EE);
  - Gulf of Riga and Ventspils (LV);
  - Gdansk Bay & Klaipeda (PL & LT);
  - Szczecin/Swinoujście (PL)
  - Rostock & Lübeck (DE);

- Studies considered: Retrofitting or new bunker ship design, planning location and technical studies at the ports; storage tank - size & design, permit and environmental impact studies & Harmonisation.
NEW LNG initiatives in the Baltic

- The TEN-T programme is focussed on infrastructure; it dedicates financial support towards the realisation of important transport infrastructure projects.

- Projects that can get support: implementation projects, studies taking the form of pilot actions, studies, start-up aid for Motorways of the Sea (MoS) services.

Co-funding rates

- MoS under CEF- 250 million in general envelope and 100 mln for Cohesion Countries in 2014.

- Priority 2014: alternative fuels and abatement for works studies pilot actions etc.

- Publications of Calls - 1st Sep and Calls deadline 31st January 2015.
Thank you

Emil Arolski
LNG in Baltic Sea Ports
Baltic Ports Organization
Actia Forum Ltd

bpo.ea@actiaforum.pl

phone +48 58 627 21 85 | mobile +48 798 425 717