



NEWSLETTER 5

THE E-SHYIPS WORKSHOP

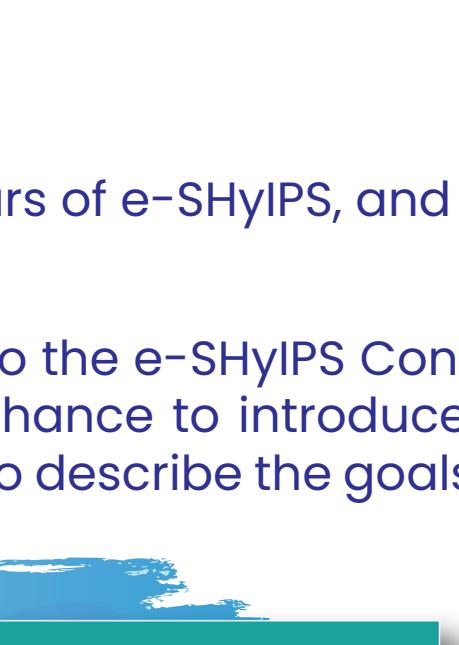
The first e-SHYIPS workshop was held on November 29th, as an online event. The workshop was aimed to promote the **sharing of knowledge** among the e-SHYIPS Consortium, the external invited speakers and the general audience. This event brought together leading experts in the field of hydrogen technologies and in the maritime transport sector, enhanced connections and promoted collaborations.

e-SHIPS ON THE WAVE OF HYDROGEN

ONLINE WORKSHOP

29th November 2022 | 9:30 - 12:30 (CEST)

Bringing together H2 and maritime experts to share the knowledge and promote collaborations for an effective introduction of hydrogen in maritime passenger transport sector



The workshop was organized into two separate, consecutive, sessions:

- Session 1: Port operations and bunkering
- Session 2: Risk assessment

The topics covered by these sessions are related to the main pillars of e-SHYIPS, and include several interconnected aspects related to the project activities.

Nine renowned speakers participated in the event, both internal to the e-SHYIPS Consortium and external. The e-SHYIPS partners presenting at the workshop had the chance to introduce and reinforce the e-SHYIPS methodology and work plan to the audience, as well as to describe the goals of the project and show some preliminary results.

Welcome and introduction		
9:30 - 9:45	Arianna Blonda Politecnico di Milano	e-SHYIPS – an ecosystemic approach to foster H2 in maritime passenger transport
Session 1 - Port operations and bunkering Chairperson: Viviana Cigolotti (ENEA, ATENA)		
9:45 - 10:00	Aki Hämäläinen Wärtsilä	Fuel delivery and bunkering solutions in e-SHYIPS
10:00 - 10:15	Laurent Allidieres Air Liquide	Hydrogen for maritime applications
10:15 - 10:30	Josep Sanz Argent Fundación Valencia Port	Role of hydrogen in the decarbonisation of the Port of Valencia
10:30 - 10:45	Coffee break	
Session 2 - Risk assessment Chairperson: Chara Georgopoulou (DNV)		
10:45 - 11:00	Marta Tome Manteiga Chenova	Risk management for hydrogen fueled vessels
11:00 - 11:15	Jari Ihonen VTT	MARANDA project - key results and experiences
11:15 - 11:30	Monica Alvarez Cardozo DNV	Hydrogen quantitative risk analysis for rule development
11:30 - 11:45	Federico Ustolin Norwegian University of Science and Technology	SH2IFT: a Norwegian project for the safe implementation of hydrogen as fuel in the maritime sector
11:45 - 12:00	Trygve Skjold University of Bergen	On the strength of knowledge in risk assessments for ships fuelled by hydrogen
12:00 - 12:30	Round Table	

WORKSHOP AGENDA

Presentations by speakers covered the following aspects: **hydrogen fuel delivery and bunkering solutions, liquid hydrogen technologies for maritime applications, use of hydrogen in ports, risk management for hydrogen fueled vessels, fuel cell powertrain in marine applications**.

After the two sessions, the workshop was concluded with a Round Table, where an open and general discussion among all interested parties took place. All relevant aspects concerning implementation of hydrogen **technologies on-board of vessels** were discussed.

The workshop was attended by **fifty participants from nine countries**: India, Italy, Finland, France, Germany, Greece, Netherlands, Norway and Spain. The audience represented companies **from marine and hydrogen industry, research institutes and universities**.



Another important objective of the workshop was to create and reinforce a link with other European projects related to the implementation of hydrogen technologies in the maritime sector, such as Maranda, SH2IFT-2, and H2Ports. Best practice and experiences were shared and discussed.



Implementing Fuel Cells and Hydrogen Technologies in Ports

Co-funded by the European Union

Reach Stacker in MSC Terminal

• 2 years / 5000 h of operation

General features

• Total Budget: 4,117,197.5 EUR

Duration: 2019-2023

SH₂IFT-2

Safe Hydrogen Fuel Handling and

Use for Efficient Implementation 2

Background

Hydrogen is becoming a critical enabler in the ongoing energy transition, and it is expected that hydrogen will be applied in many different applications and industrial sectors. The safety-related properties of hydrogen, and the characteristic operating conditions of technical systems for producing, transporting and using hydrogen, implies that fires and explosions represent a significant hazard for installations with considerable inventories of hydrogen. To this end, it is essential to develop science-based solutions for fire and explosion protection, and to disseminate state-of-the-art knowledge to relevant stakeholders.

Objectives

The overall objective of SH2IFT-2 is to develop new knowledge on critical aspects of hydrogen safety, and at the same time facilitate the competence building required for supporting widespread use of hydrogen in society. The project will work to improve solutions for safe handling of hydrogen and modelling tools, perform large-scale release, fire and explosion experiments, and provide input to guidelines for safe use of hydrogen.

Project title: Safe Hydrogen Fuel

Handling and Use for Efficient

Implementation 2 (SH2IFT-2)

Project owner: SINTEF AS

Project period: 2021 - 2025

Project type: Collaborative and

Knowledge-building Project (KPN)

Research partners: SINTEF Industry,

USN, NTNU, UIS, UiB, Gexcon, Karlsruhe

Institute of Technology (KIT), National

Center for Scientific Research

«Demokritos» and RISE Fire Research

Public funding: 14.0 MNOK (50 %)

RCN project no.: 327009

User partners: Equinor, Gassco, ENGIE,

TotalEnergies, Shell, GTRGaz, BP, Air

Liquide, Ballard Power Systems, Technip,

Akszo Nobel Coatings International, VPO, Safetec Nordic,

Greenstat, Eviny, More og Romsdal

County Municipality.

Role of UIB: Coordination of WP3 on

“Strength of knowledge”

S_H²IFT II

MARANDA - key results and experiences

e-SHYIPS | November Online Workshop

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POWERCELL

ABB

OMV

PersEE

S Y K E

B A S I S H Y D R O G E N

This event contributed to improve the project awareness at international level, and it represented a key activity to enhance the dissemination and communication of the project. Also, the great interest shown by external participants opens the path towards new collaborations.