

NEWSLETTER 7

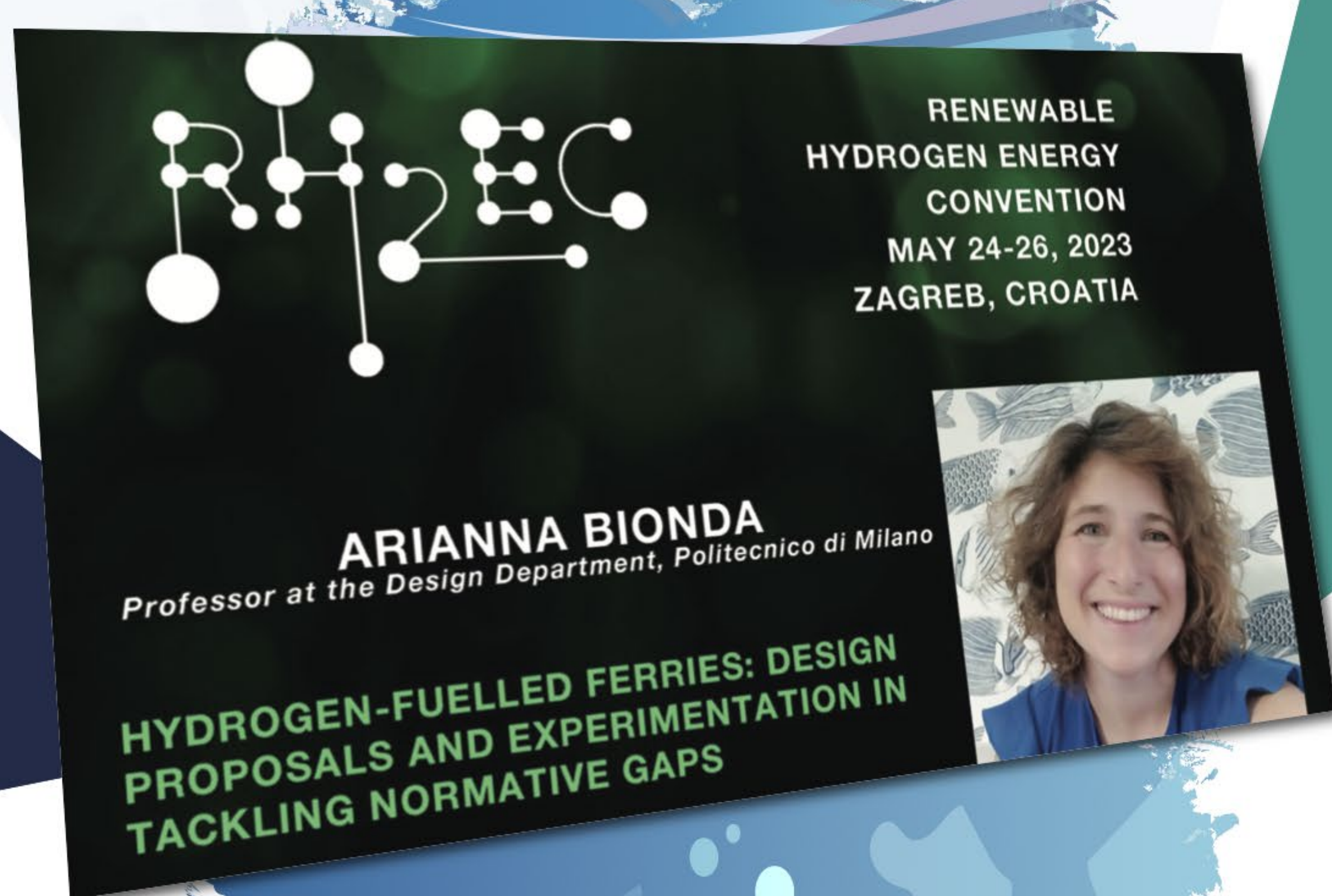
E-SHYIPS AT THE RENEWABLE HYDROGEN ENERGY CONVENTION 2023

The RH2EC conference was organized in Zagreb from May 24th to 26th, 2023, to bring together experts from industry, scientific institutions, decision-makers, and H2 technology investors and discuss the emerging needs in the sector.

Green hydrogen transition policies and financial strategies were the core themes of the first day round table. Then multiple scientific sessions focused mainly on technology and strategies for hydrogen production and distribution, life cycle assessment of hydrogen technology, and hydrogen safety for end-user technology.

e-SHYIPS took the stage on the conference's second day with a keynote speech titled **"Hydrogen-fuelled ferries: design proposals and experimentation in tackling normative gaps"**.

The presentation fostered a debate on the knowledge and standardization needed to effectively introduce hydrogen in the maritime industry. Furthermore, taking advantage of representatives from academic and policy-making sectors, a survey on the IGF code gap assessment and prioritization was proposed to the plenary audience.



DNV R&D FORUM

On June 22nd, a R&D forum, organized and hosted by DNV, an e-SHYIPS partner, has been held in Athens, Greece, to bring together stakeholders, industry and academy into a networking event around the adoption of hydrogen and alternative fuels in the maritime sector. Contributions at the event were provided by Wärtsilä, the National Technical University of Athens, and VTT, among others.

During the event, along with e-SHYIPS, several EU projects on alternative fuels in shipping, including ammonia, liquid organic hydrogen carriers, and hydrogen, and projects on autonomy and digitalization were presented:

Ammonia 2-4 – Demonstrating a 2-Stroke and 4-Stroke large scale ammonia marine engine Coordinated by: Wärtsilä
MOSES – AutoMated Vessels and Supply Chain Optimisation for Sustainable Short SEa Shipping Coordinated by: National Technical University of Athens
SHIP-AH2OY – Development and demonstration of zero-emission propulsion technology on board ships using green hydrogen from liquid organic hydrogen carrier in combination with solid oxide fuel cells at MW-scale. Coordinated by: VTT

A dedicated workshop on hydrogen, chaired by DNV and UNI, has been performed for e-SHYIPS during the event, to present the project developments and receive feedback from the market.



EFC23 – EUROPEAN FUEL CELLS AND HYDROGEN CONFERENCE

The European Fuel Cells and Hydrogen Pierolunghi Conference – EFC 2023 took place in Capri, Naples, on 13th–15th September, hosting more than 150 participants from all around the globe.

A special session of the event was dedicated to Hydrogen in Waterborne Transport, and it collected 11 contributions from research works and several EU projects, such as:

FuelSome – Multifuel SOFC system with Maritime Energy vectors (<https://fuelsome.eu>),

ShipFC – Piloting Multi MW Ammonia Ship Fuel Cells (<https://shipfc.eu>),

FLAGSHIPS – Clean waterborne transport in Europe (<https://flagships.eu>),

and ELVHYS – Enhancing safety of liquid and vaporised

hydrogen transfer technologies in public areas for mobile applications (<https://elvhs.eu>), among others.

The most recent advances of the e-SHYIPS projects were presented, with three contributions by some of the partners:

“On the use of ecosystemic knowledge approach for the definition of new guidelines for hydrogen as maritime fuel”, presented by Cristina Di Maria, UNI

“Towards the design of a hydrogen-powered ferry for zero-emissions passenger transport”, presented by Giovanni Di Ilio, ATENA & University of Naples Parthenope

“Environmental Impacts on PEM-FuelCells in Maritime Application” presented by Nils Baumann, Proton Motor Fuel Cell GmbH

The EFC 2023 provided an excellent opportunity to gather and share knowledge and experiences on the topic of hydrogen in the maritime sector, thus promoting the next steps in the process towards a hydrogen economy roadmap definition.

