

Partners:

SafePASS consortium, coordinated by the National Technical University of Athens, brings together 15 partners from the industry, academia and classification societies from all over Europe. They all share the vision of making ship evacuation and abandonment smarter, faster and safer.



Royal Caribbean Group



DNV GL



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SafePASS

Next generation of life Saving appliances and systems for safe and swift evacuation operations on high capacity Passenger ships in extreme scenarios and conditions.

Contact us

Nikolaos Uzunoglu
Project Coordinator

Professor Emeritus, Division of Information Transmission Systems and Material Technology

National Technical University of Athens (NTUA)

Email: nuzu@mail.ntua.gr
Tel: +30 210 772 3556

Lazaros Karagiannidis
Project Manager

National Technical University of Athens (NTUA)

Email: lkaragiannidis@esd.ece.ntua.gr
Tel: +30 210 775 4894

Dr. Evangelos Boulougouris
Communications Manager

Maritime Safety Research Centre (MSRC), University of Strathclyde

Email: evangelos.boulougouris@strath.ac.uk
Tel: +44(0) 141 548 3875

We are Social:

www.safepass-project.eu

info@lists.safepass-project.eu

SafePASS Horizon2020

@SafePASS_H2020

SafePASS Project

@SafePASS.H202

At a Glance

SafePASS is an EU funded H2020 project that is expected to revolutionise the emergency response onboard large passenger ships using 'smart' Personal Safety Equipment (PSE) and novel Life-Saving Appliances (LSAs).

SafePASS is developing an integrated solution that provides personalized evacuation assistance to the passengers, supports decision-making for the crew by enhancing their situational awareness and ability to handle user-friendly equipment, while incorporating fail-safe processes for the evacuation procedure.

SafePASS prototypes will be validated both in the model basins and LSA manufacturers testbeds and then in the real environment of a cruise ship.

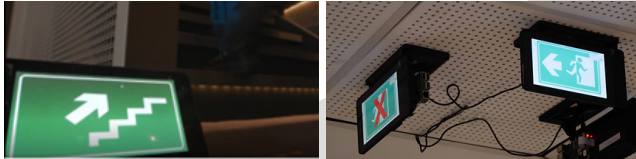
The consortium, consists of 15 partners representing all stakeholders and 8 European countries. Academic institutions, classification societies, innovative SMEs, a shipyard, LSA manufacturers, and a cruise operator teamed up in this effort. The project is going to maximise its impact by submitting a set of recommendations to IMO.

SafePASS Prototypes - Validation Campaigns and Pilot Demonstration

Passenger Mobile Application / Smart wristband / Smart Lifejacket



Dynamic Exit Signs



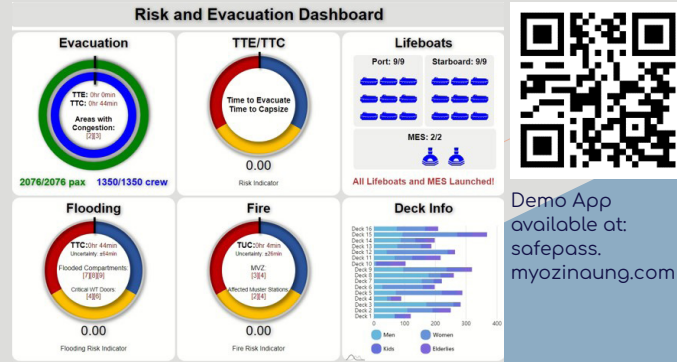
Common Operational Picture - Crowd Simulator - Core Platform



Augmented Reality Training Application



Risk Modelling Tool



SafePASS Validation

SafePASS conducted a series of testing and validation campaigns as well as a Final Pilot Demonstration, which was held on the 23rd of February 2022 at Saint Nazaire, France. The demonstration took place onboard "Celebrity Beyond" cruise ship of Royal Caribbean Group, constructed by Chantiers De L'Atlantique.



The SafePASS solutions were integrated and tested in a real ship environment. The demonstration took place in 4 decks including passenger cabin corridors, staircases and large public spaces. Five complex evacuation scenarios were executed, including fire and flooding incidents under different location, time and weather conditions. Actors performed a series of actions, including identification, assessment and response to different emergency incidents, activation of General Alarm, assembly of passengers at the muster and embarkation stations. Volunteers, relevant stakeholders and consortium members participated in the evacuation exercises, having the opportunity to gain hands-on experience of the novel technologies implemented: The real-time Common Operational Picture, the Passenger Mobile Application, the Dynamic Exit Signs, the Core Platform and Crowd Simulator, the Smart Lifejackets and Wristbands, the Indoor Localization System and the Augmented Reality applications were successfully tested under real conditions, showcasing the significant improvement of the evacuation procedure and the overall safety of people onboard. In addition, the novel LSA lifeboat designs, access arrangements and passages were presented, which have been validated in several simulations, towing tank tests and trials providing significant improvement to passenger comfort and perceived safety.



Novel Life Saving Appliances (LSAs) - Lifeboats

