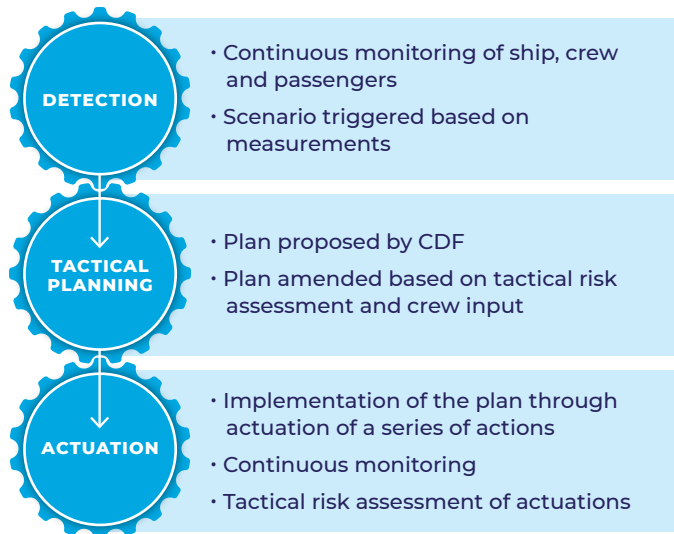


Aim of Project

The HS4U project aims to create a design for the preparedness of world-class cruise ships and large passenger vessels to “self-heal” over conditions of health crises on board.

HS4U will be based on the analysis of 4 Unique pillars (societal, environmental, technological, and legislation) and will deliver smart systems and a robot cabin. Joint action will be performed to design the “vectors” that will identify the possible pathogen transmission areas on large cruise/passenger ships.

Its evidence will be based on 2 use cases and will address the real challenges and preconditions. The interactive element of these outputs will be embedded in the HS4U big data stream handling platform that will compose the overall picture of a Healthy Ship 4U set of Operations, Management, and Replication of systems including protocol recommendations.



PARTNERS



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PROJECT ID

Project name: HS4U “Healthy Ship 4U”
Grant Agreement: 101069937
Programme: Horizon Europe
Type of action: HORIZON-RIA
Start date: 1 September 2022
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4 Unique Pillars



Societal / human factor

The HS4U project will create a collaborative digital framework for the live interaction of humans and Internet of Things edge devices by using co-robotics and Artificial Intelligence mechanisms.



Environmental factor

HS4U will conduct the current condition analysis to offer high quality environmental conditions through smart systems onboard. This will empower the conceptual design of functional elements of cruise ships and will activate the prevention, mitigation, and management of virus outbreaks.



Legislation factor

The HS4U team will develop best practices and policy recommendations to be updated according to emerging needs to tackle potential pandemics and public health outbreaks.



Technological factor

HS4U will focus on modularity for co-robotics with the aim to identify where is the virus outbreak on naval architecture and marine engineering plans. This will include the stream handling of big data on biomedical, health, behavioural and environmental modeling.

Objectives

01

Validate the proposed technology with a behavioural and environmental quality framework through the realization of use cases in a dedicated demonstrator environment.

02

Create a collaborative digital framework (CDF) for live interaction of humans and Internet of Things edge devices (sensors, measures, actuators) on the ship based on co-robotics concepts and Artificial Intelligence mechanisms.

03

HS4U provides a complete solution for crew training based on multi-player gaming and embedded realistic role-playing.

04

Develop an evidence-based passenger behavioural model based on live experiments with humans that will allow the analysis and the visualisation of passenger movement.

05

HS4U will deliver a Viral Detection Sensor (VDS) that will be developed, tested, validated, and commercialised.

06

HS4U will develop a "Robot-cabin", a real-life demonstrator to display the interactivity of evidence-based 4U technologies and models to prevent, detect, mitigate and manage virus outbreaks.

