

VRESI

Virtual Reality Environment for Ship Inspection

Latest developments

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Virtual Reality Environment for Ship Inspection (VRESI)

THE ISSUE

Organising educational visits aboard implies difficulties such as availability of ships in port contextually to the course, safety of crew and participants, disruption of the normal ship's operations, etc. . Currently, only a limited set of existing trainings include a simulated visit aboard.

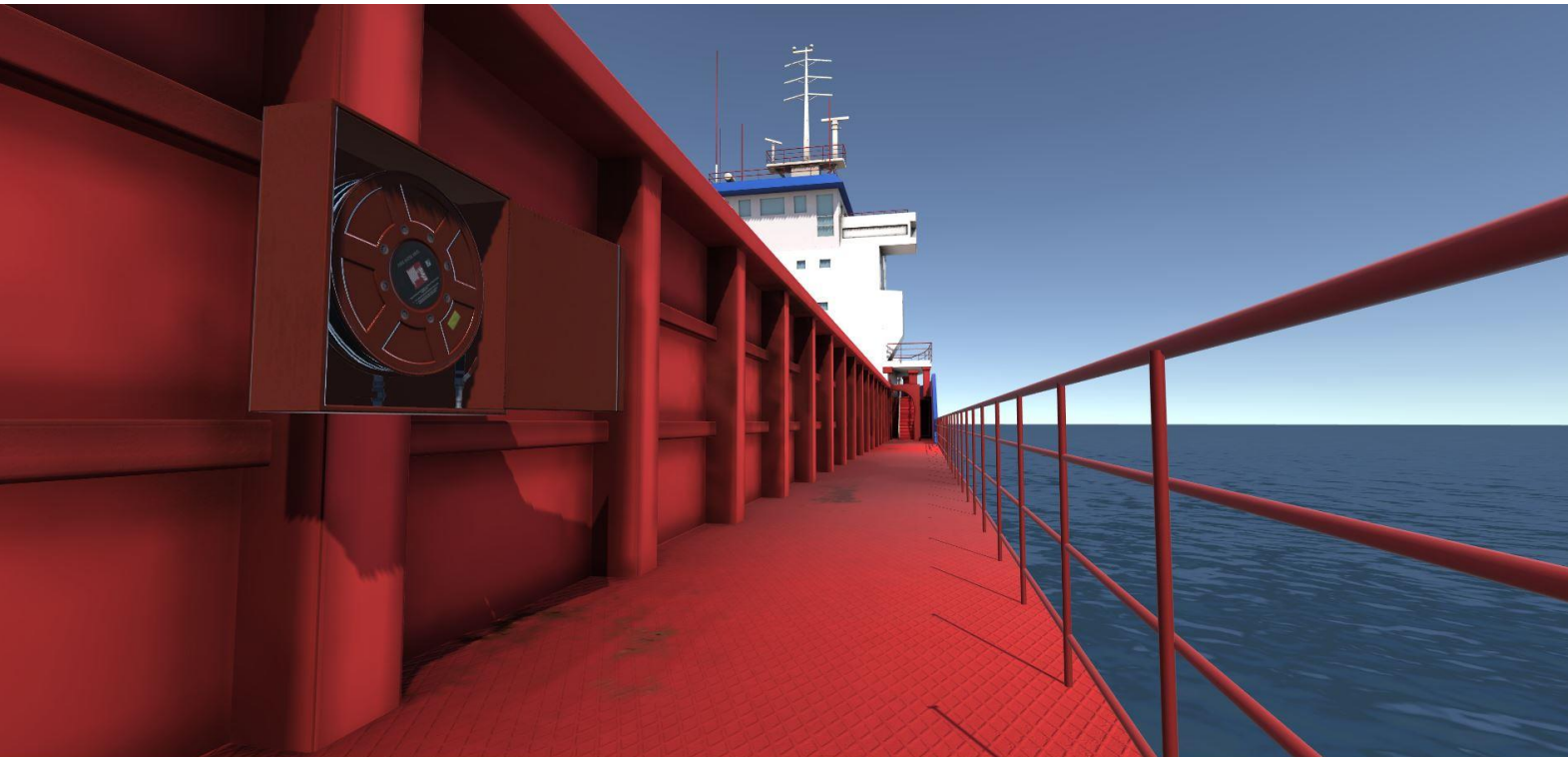
THE DRIVER

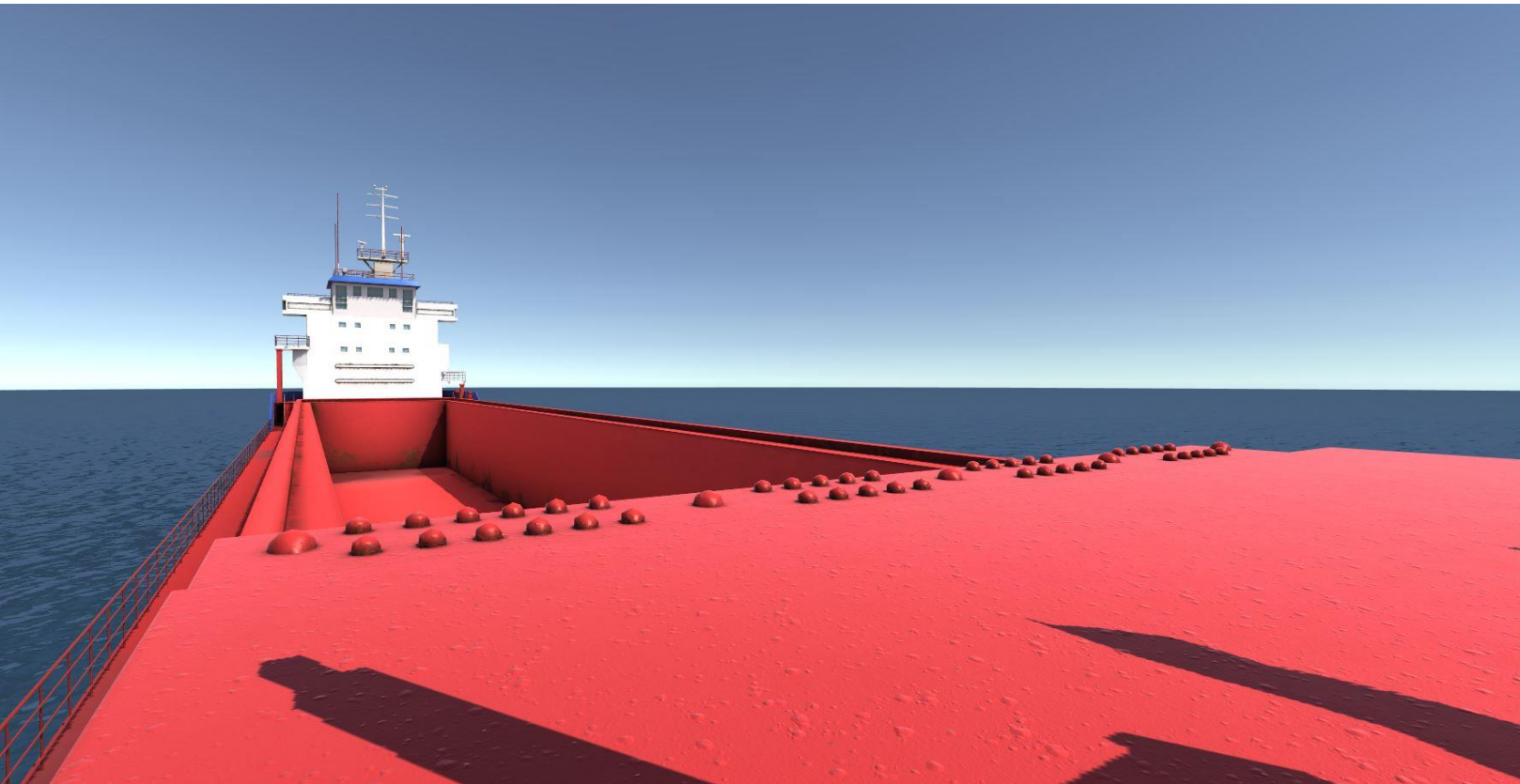
To enhance and modernise the activities and to offer a better learning experience to our stakeholders and complement existing as well as new courses with situated and more practical content

THE SOLUTION

The Virtual Reality Environment for Ship Inspections. It ensures the same kind of experience, immersion, fluidity, interaction and adherence to reality of a state-of-art, role-playing, and serious video game.

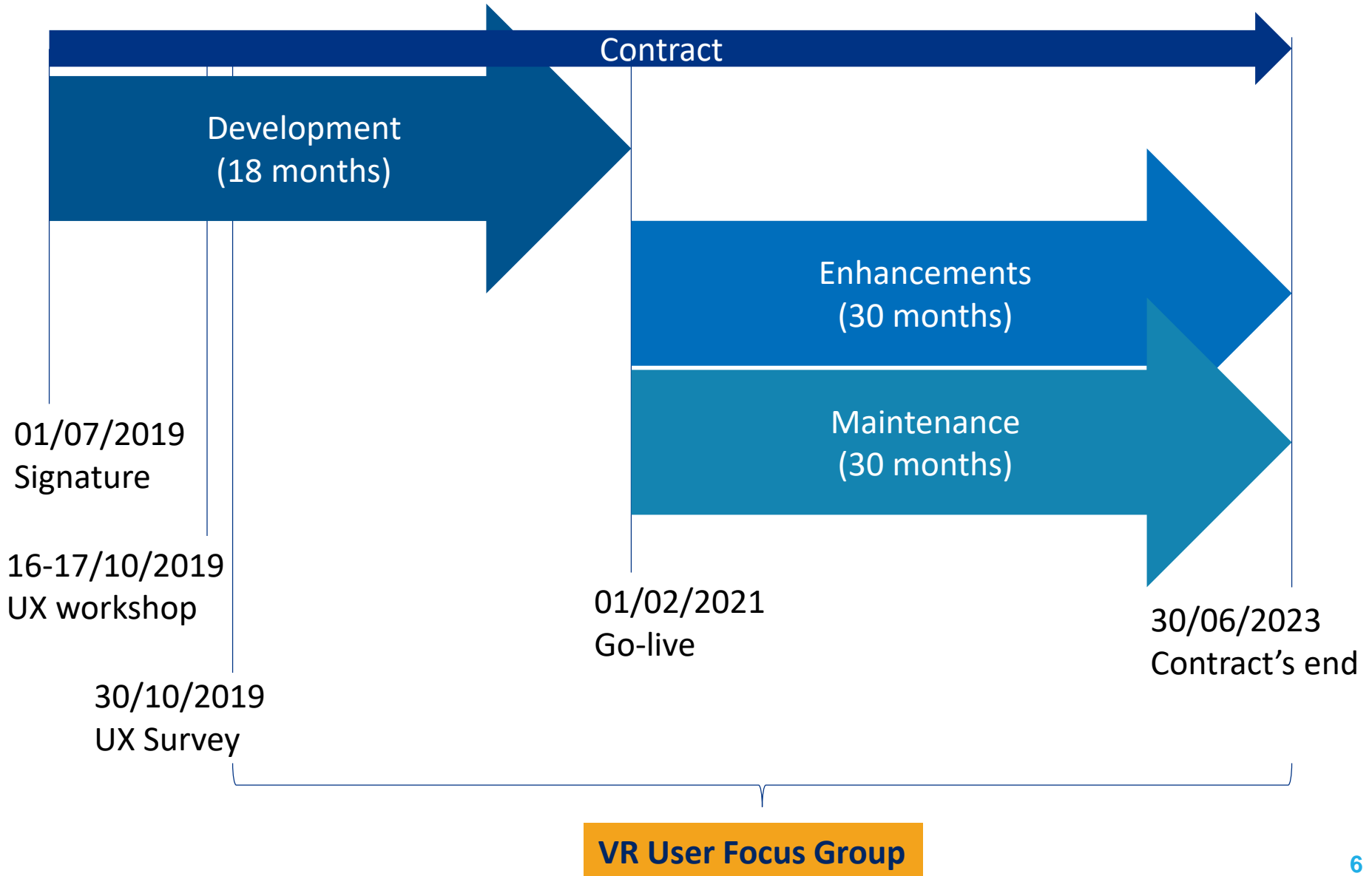






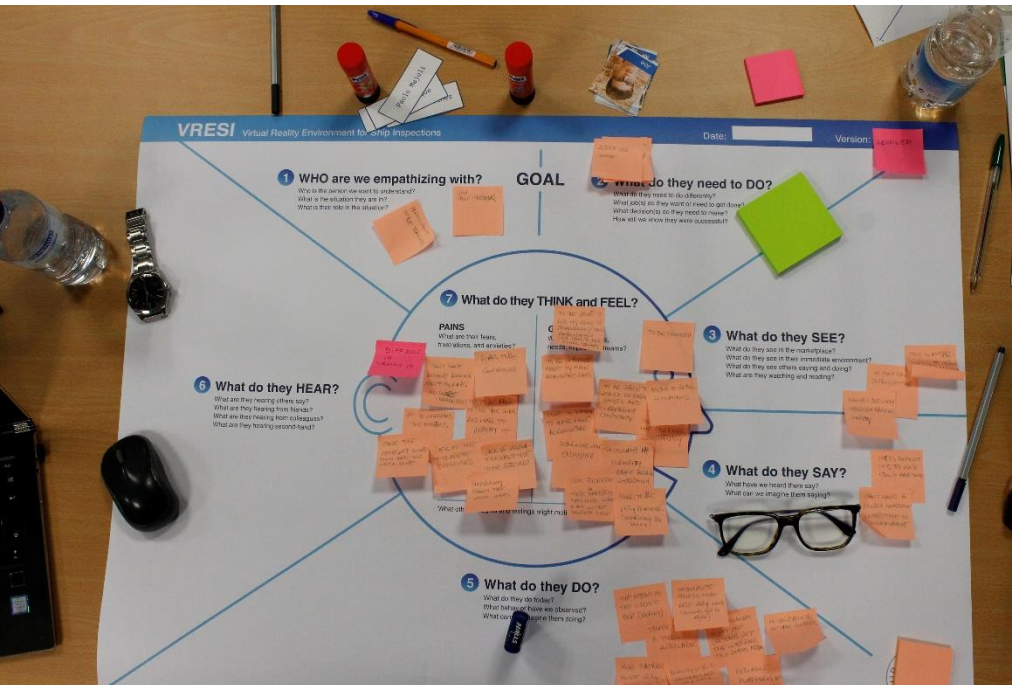
- **Active and prospective SHIP INSPECTORS**
 - PSC officers
 - Flag State inspectors
 - Environment protection officers (including MARPOL, Sulphur Directive, PRF, etc)
 - Security officers
 - MLC inspectors
 - ...
- **Member States that wish to use VR for experiential training**
- **EMSA training team, who can complement existing and new training with simulated inspections onboard**

Project Plan



- **Analysis of User Experience (UX) workshop**
- **VR UX Survey (till 30 October 2019)**
- **Drafting first use-case scenarios**
- **Modelling first ships:**
 - Coaster/Short-sea vessel <10,000 GT
 - Container Ship < 30,000 GT
 - Product/chemical tanker <20,000 GT
 - Ro-ro cargo/passenger <15,000 GT

UX workshop, 16-17 / 10 / 2019





Scenario / Model	Priority
Coaster/ short-sea vessel <10.000 GT	1.1
Container ship 30.000 GT	1.2
Product/Chemical tanker <20.000 GT	1.3
Ro-Ro cargo 15.000 GT	1.4.1
Ro-Ro - Passenger 15.000 GT	1.4.2
Car carrier 15.000 GT	1.4.3
Bulk Carrier (Panamax size) 60.000 GT	2.1
Oil Tanker <90.000 GT	2.2
Medium-size cruise ship 70.000 GT	2.3.1
Small-size cruise ship 40.000 GT	2.3.2
Cruise ship 150.000 GT	3
LNG Carrier 4.000 GT	3
VLCC over 250.000 GT	3
Domestic passenger ship 1.500 GT	3

Ship's areas (common)



Scenario / Model	Priority
Main deck	1.1
Lifeboat - stowing and lowering arrangements	1.1
Ship's office	1.2
Captain office	1.3
Bridge, radiocommunication room and chart room	1.4
Accommodation and superstructures	1.5
Galley and mess room	1.6
Engine room and auxiliary machinery spaces	1.7
Steering gear room	1.8
CO2 room	1.9
Crew cabin;	2.1
Hospital and sick bay	2.2
Provisions store room	2.3
Refrigerated chambers	2.4
Stores crane and embarkation area	2.5
Fuel tanks (eg. service tank, settling tank) room / area	2.6
Workshop and fitter room	2.7
Emergency fire pump room	2.8
Air scrubber room	2.9
Emergency generator room	2.10
Forepeak, chain locker, bosun bay and paint locker	2.11
Anchorage and mooring arrangements	2.12
Free-fall lifeboat - stowing and launching arrangements	2.13
Liferaft stowage and lowering/launching arrangements	2.14
Engine control room	3.1
Cargo control room	3.2
Ballast tank access and openings	3.3
Bottom tank access and openings	3.4
Bow-thruster room	3.5
Fast rescue boat - stowing and lowering arrangements	3.6
Antennas' deck ("monkey island")	3.7
Funnel(s) platform	3.8
Foremast and must-top platform/nest	3.9

Priority is given to areas and equipment that are common to 'all' ships

- **Cargo areas**
- **Service areas**
- **Equipment specific to:**
 - A) CONSTRUCTION, CARGO AND DECK FITTINGS
 - B) WATERTIGHT /WEATHERTIGHT
 - C) EMERGENCY SYSTEMS FITTINGS
 - D) RADIO COMMUNICATION
 - E) CARGO OPERATIONS INCLUDING EQUIPMENT
 - F) FIRE SAFETY
 - G) ALARMS
 - H) LIVING CONDITIONS
 - I) SAFETY OF NAVIGATION
 - ...

“VR User Focus Group”

Who can join:

- Volunteers
- Testers
- Curious
- Willing to use
- Early adopters
-



The way is long.... and straight!





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