

Materiel and IT Command Ministry of Defence

Automatic Frigate
Doors

Automation in effect:
Imagine the impact of having
automatic response
watertight doors

COMMIT

Directorate of Weapon Systems and Agencies | Maritime Systems Department

R.A. Hakkoer | SME General Naval Shipbuilding

24 may 2023



Topics

- Why do we need automatic doors?
- Reducing the impact of human factors in damage control
- Research into the operability of automatic doors
- What else should we be looking at within the automation field?
- Roadmap



Why do we need automatic doors?

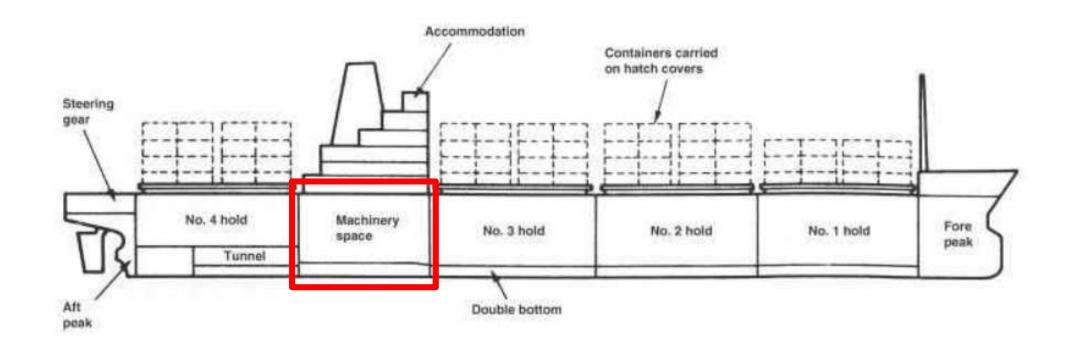






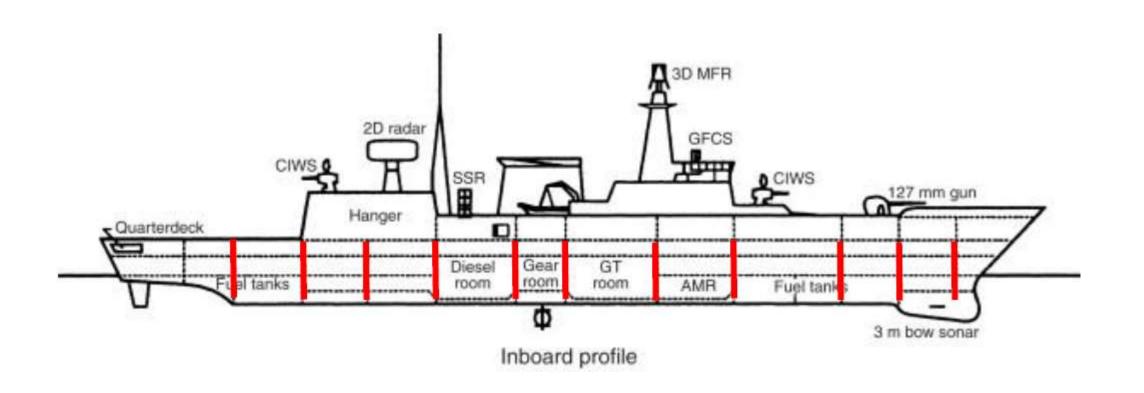


Basic cargo ship





Average Frigate





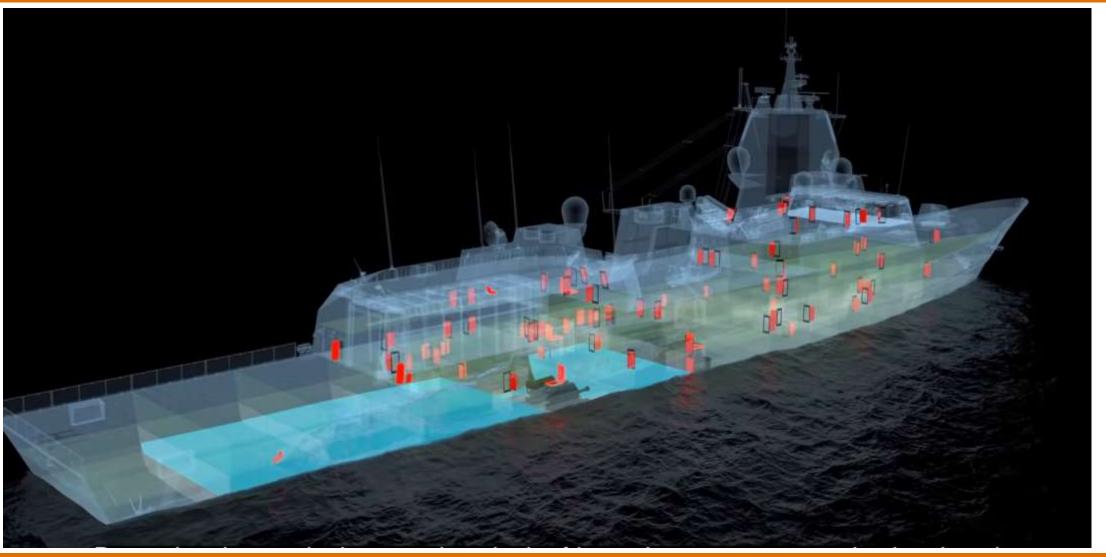
Reducing the impact of human factors in damage control













Research into the operability of automatic doors

Watertight Doors

- Same design principle for over decades
- Small improvements
- No revolutionary new design
- Shock and blast requirements

Crew for frigates

- Difficulties to recruit sufficient and skilled crew
- Training and learning takes time
- New navy ships are larger and more complex, but will be sailed with less crew



What are we planning to design

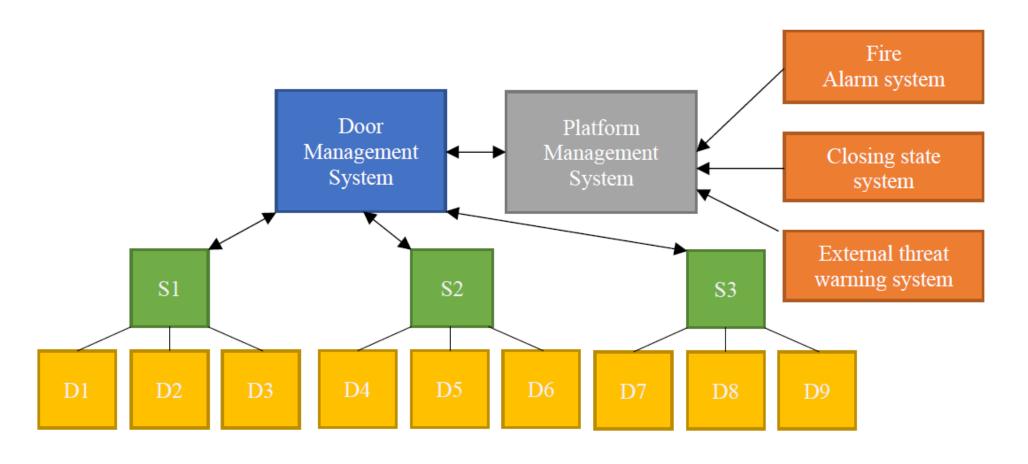








System integration





Roadmap

- To design and build a demonstrator
- Integrate a demonstrator on a navy ship
- To implement this solution in ships to build and in existing ships



