



BENL rMCM Capability Development & Challenges

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Be Navy

Content

- Quick reminder of the rMCM Project
- SITREP
- Challenges already identified
- Q&A



Quick Reminder

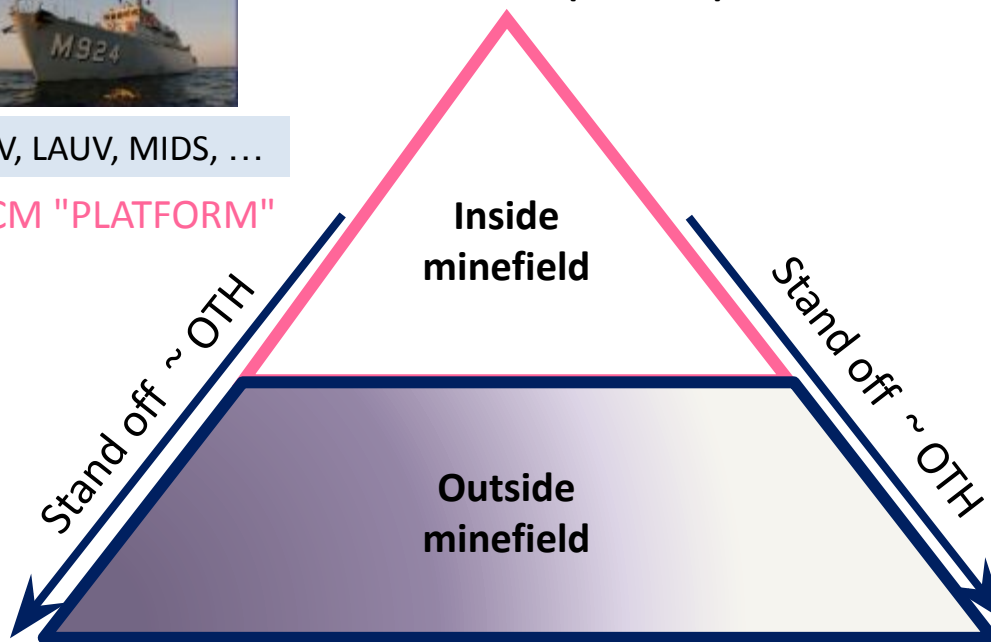
CONOPS – overcoming shortfalls



ROV, LAUV, MIDS, ...

MCM "PLATFORM"

CURRENT MCM (LEGACY)



Recognised shortfalls

- Transit speed
- Operations Time
- Covert operations
- Risk for personnel
- Limited self-defence
- Limited COMMS
- Limited endurance
- Staff facilities
- Drifting /buried mines

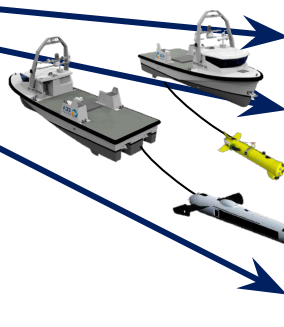
rMCM PF
System of Systems



Dedicated Platform

STAND-OFF MMCM

Platform of Opportunity
Shore based



UAV

USV

ROV, TSSS, TSAS, Sweep,
M-AUV, MIDS, divers ...

M-AUV



rMCM C2
Containerized TB

Programme Planning

MCM Platform

BE : 6
NL : 6

IOC

FOC



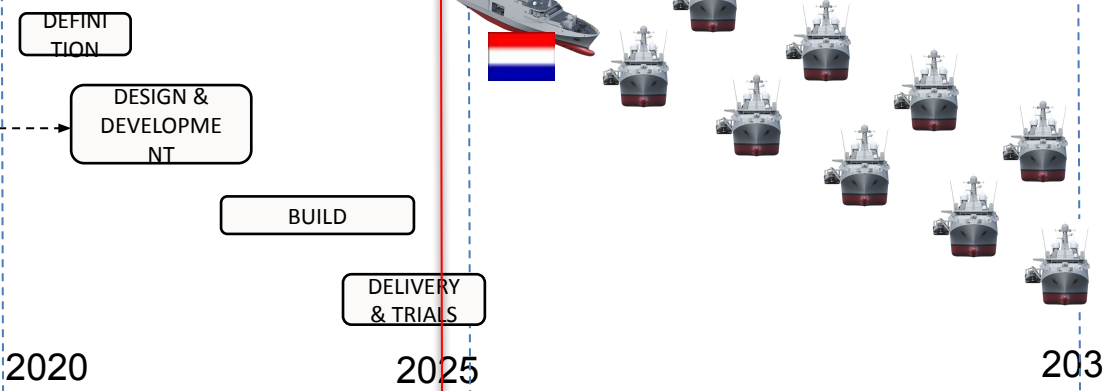
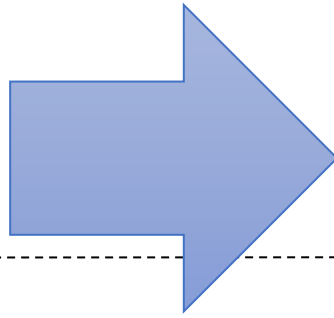
Command & Supply Vessel

BE : 1

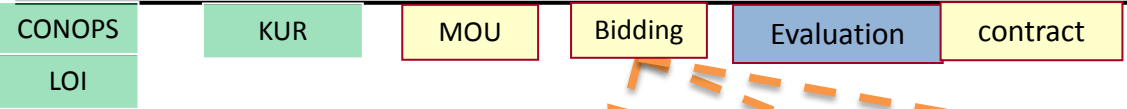


Tripartite MCMV modernised

BE : 5
NL : 6



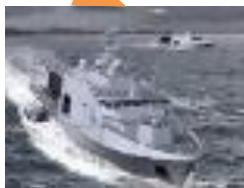
2016 2017 2018 2019 2020 2025 2030



~2250 Reqs



DAMEN
IMTECH



NAVAL GROUP
ECA



SEA NAVAL
SOLUTIONS

Scope: new Naval Mine Warfare Capability

(NMWC)

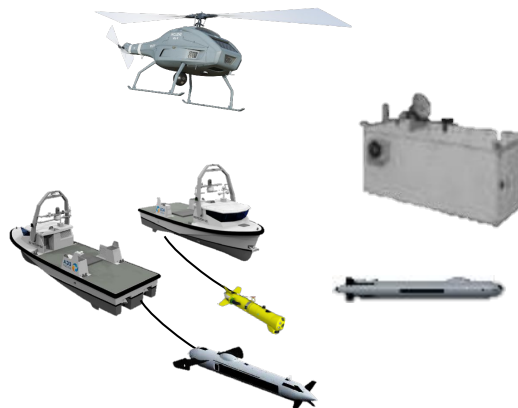


12 MCM



L (m)	W (m)	D (m)	T (T)	S (kts)	PAX
82,6	17,0	3,87	2.800	15,3	30 - 63

- Dedicated MCM PF with Military characteristics: HMS, acoustic & electromagnetic discretion, shock resistance, Cybersecurity, COMMS, FP & self-defense
- LARS for 2 USV & Helideck



MCM

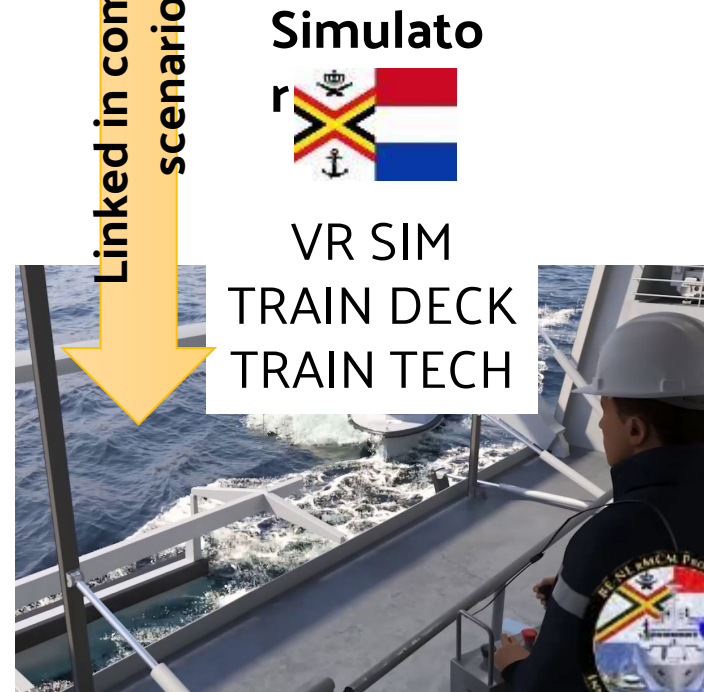


±100 Tools

- USV (unmanned & manned)
 - Divers/EOD/FP
 - TSAS
 - AUV
 - MIDS (2 type of ROVs)
 - Sweep (IMS)
- UAV (EO/IR & LiDAR)
- Containerized C2



TACT SIM
TRAIN CIC
TRAIN TECH



Simulato

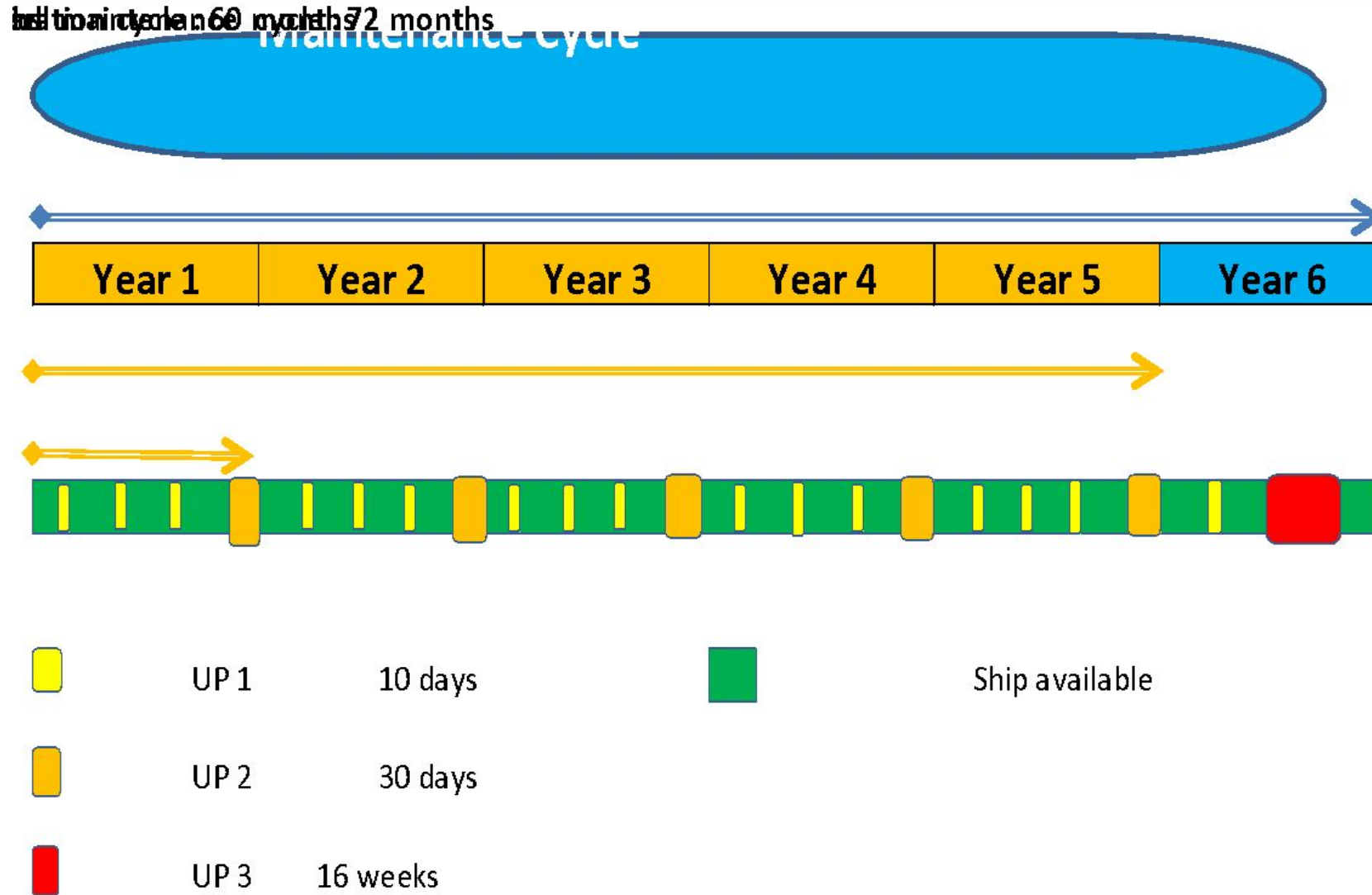


VR SIM
TRAIN DECK
TRAIN TECH

Linked in common scenario



rMCM Platform - Operational Cycle



Innovative and (R)evolutionary





SITREP

Where are we now ?

- MCMPF 1 to MCMPF 8 being built (4 already in the water)
- MCMPF 1 : sea trial ongoing
- Training
 - Crew 1 ongoing since May 24 until end of 2025 (after delivery)
 - Crew 2 started in Jan 25
 - Crew 3 to start in May 25
 - Maintenance team to start in Sept 2025 (ready for first yearly maintenance)



Challenges already identified

Langage barrier

- Belgium speaks French-Dutch-English
- The Netherlands speaks Dutch-English
- France speaks French-English
- Courses are given in English
- Company technicians (on board) speak mainly French
- Documents are in French (contractual) and translated in English
- Meetings are in English
- English...

Training

- 12 crews (Total 396 PAX) + Toolbox crew (Total 200 PAX) to OLM Level
- Naval Base technicians to ILM & DLM level
- Amount of trainings (for MCMPF 1):
 - 2024 : 52 trainings
 - 2025 : 199 Trainings
 - Between 6 & 30PAX/training
- 2025 start of training MCMPF 2 (+200 Trainings) & MCMPF 3 (+100 Trainings)
- Challenge for the industry and OEM to provide this huge amount of trainings
- Planning challenge (linked to availability of personnel or of the ship)
 - 10 updates in 2024
 - High impact on personnel (flexibility vs liquidity)

Maturity of the systems

- The rMCM program involves the creation of MCM software, the creation of new systems (i.e. USV), ...
 - Training should be given on a mature system
 - Co-activities limit the availability of system developers
- Impact on training and other activities

Amount of ships being built

- (Be) On Site Team in France
- Tasks :
 - Correct building of the ships (respect of the requirements)
 - Acceptance of the systems
 - Respect of the changes (updates after contract signature)
 - Respect of the timings
 - ...
- By 4 People supported by SME's
- As a client, get your priorities right and allow people to be available for your project

Military vs Civilian point of view

- Naval Group is an experienced ship builder experienced with FR Navy
 - Be Navy is NOT an experienced ship builder (long time since last big ship building project)
 - Point of view and priorities are sometimes contradictory
- Leads to some hard discussions
- Where to put the limit between « official requirement » and « logic »?

Infrastructure

- Update of the Navy base before (or even after) arrival of MCMPF
 - Update of quays (needed renewal), electricity (increase of power needed), fuel pipelines (needed renewal), etc.
- Update of workspaces for drones
 - New stockage areas
 - Secure workspace to work with Li-ion batteries
 - Increase workspace to meet the amount of drones to be maintained

« Why did we ask for this ? »

- The project started in the heads in 2010+, trials in 2017-2018, signature, acceptance,.....trials
- In almost 10years, a lot of personnel changes on each side
- It leads to « Who asked this? Who requested that ?Why did we think this was important ? » moments...
- Tracking of the reasons of each decision is of vital importance!

But not only

- Amount of drones to be built in a short amount of time
- Speed of MCMPF delivery (2/year)
- Drone integration with the Platform
- Trials with the drones at sea (Sea State)
- Software integration (Platform & Toolbox) & inter communication
- UAV (Specific training, certification, ...)
- ...

Conclusion

- rMCM project is in good progress
- Challenges are met and will be met in the future

We will be ready !



Q & A