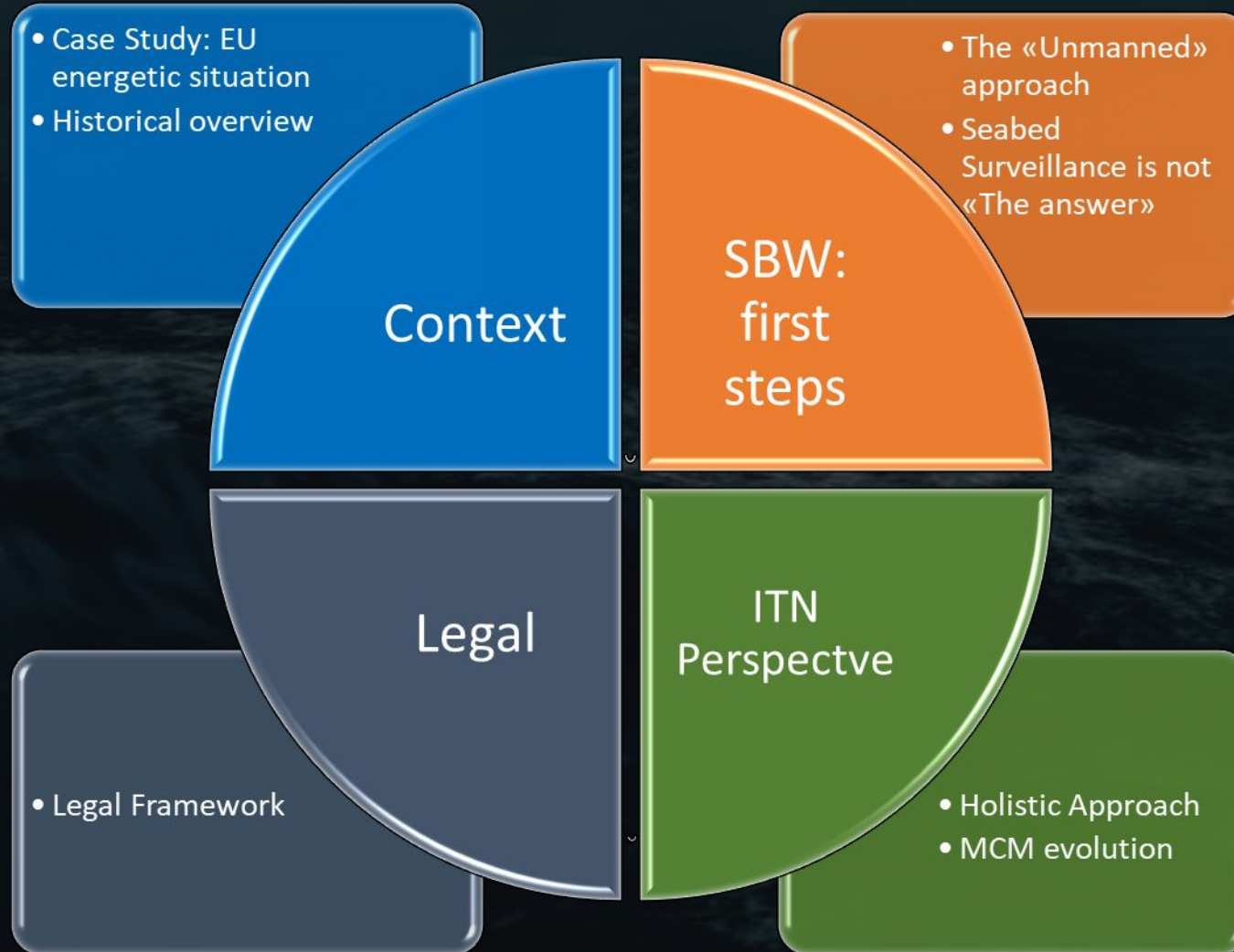


# Italian Navy General Staff

## Mine and Seabed Warfare - ITA N perspective -



# Agenda



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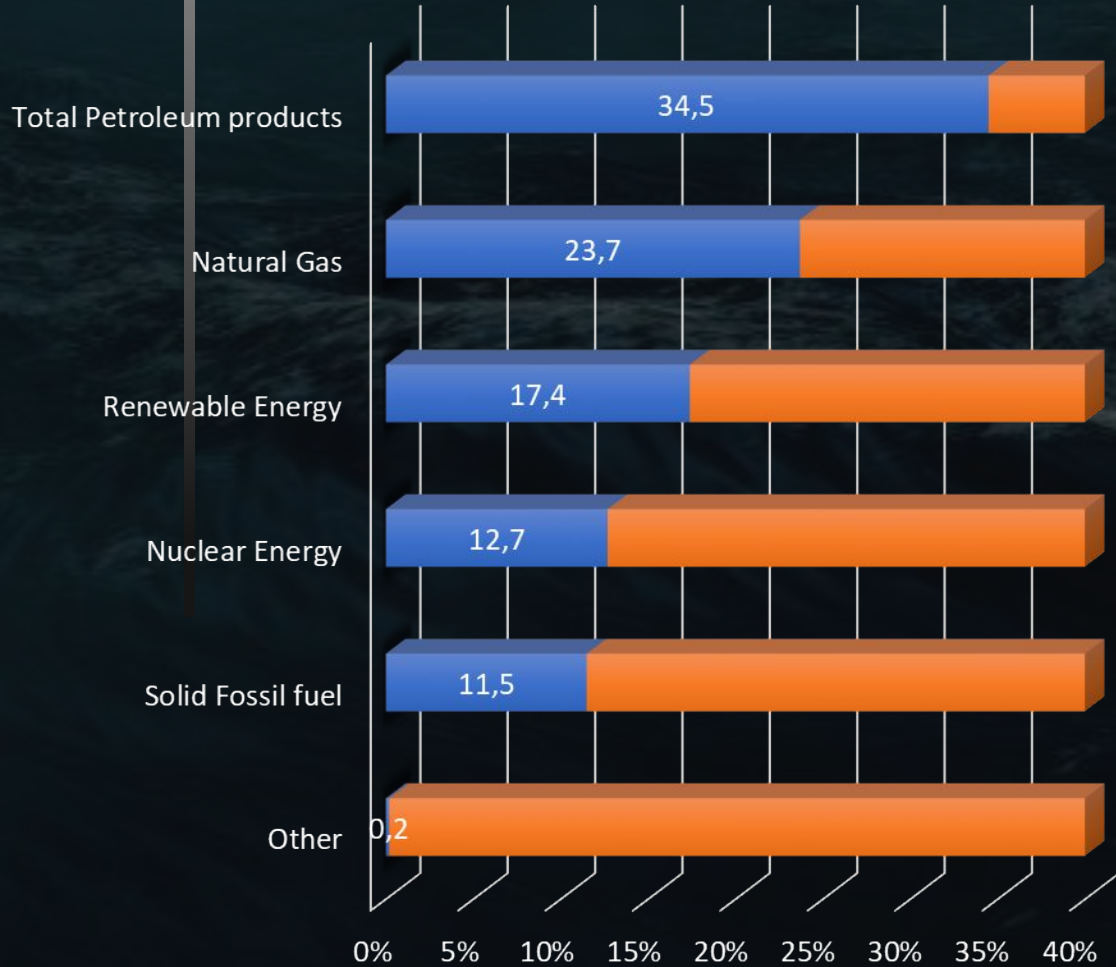




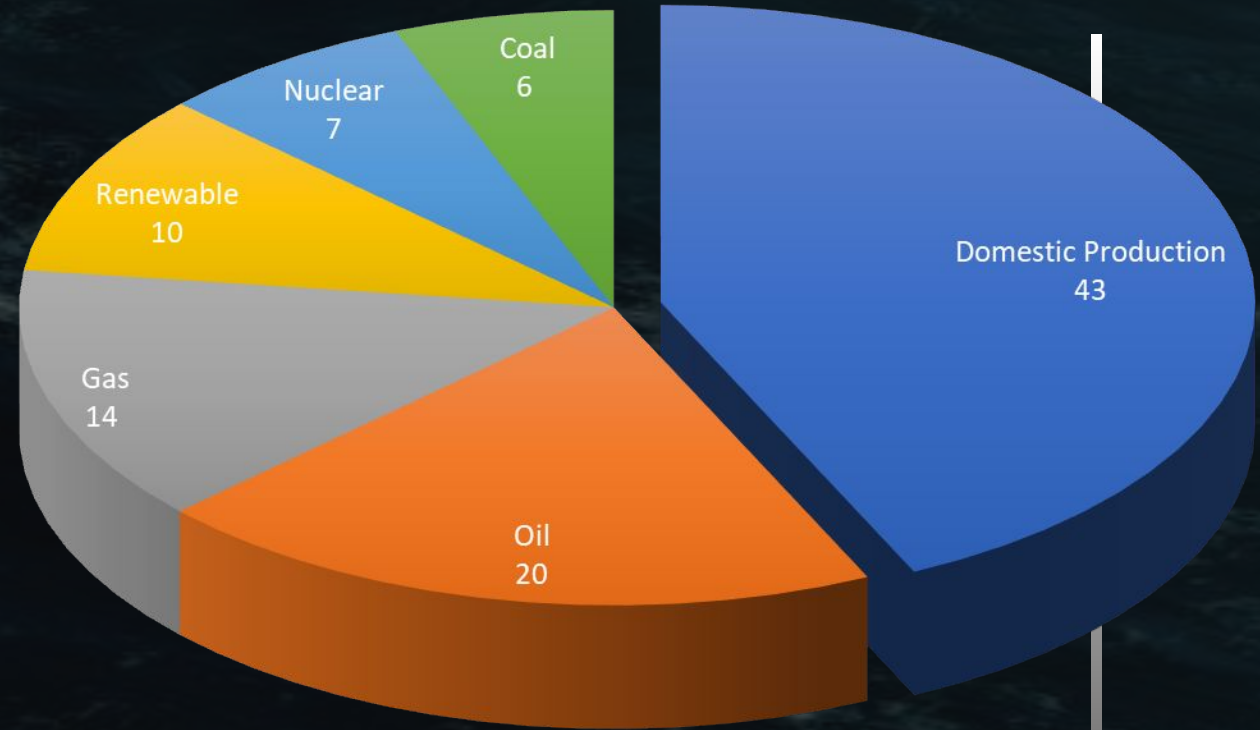
# SBW – Italian Perspective

## Case Study: EU energy situation

### EU Energy MIX



### Production and Import



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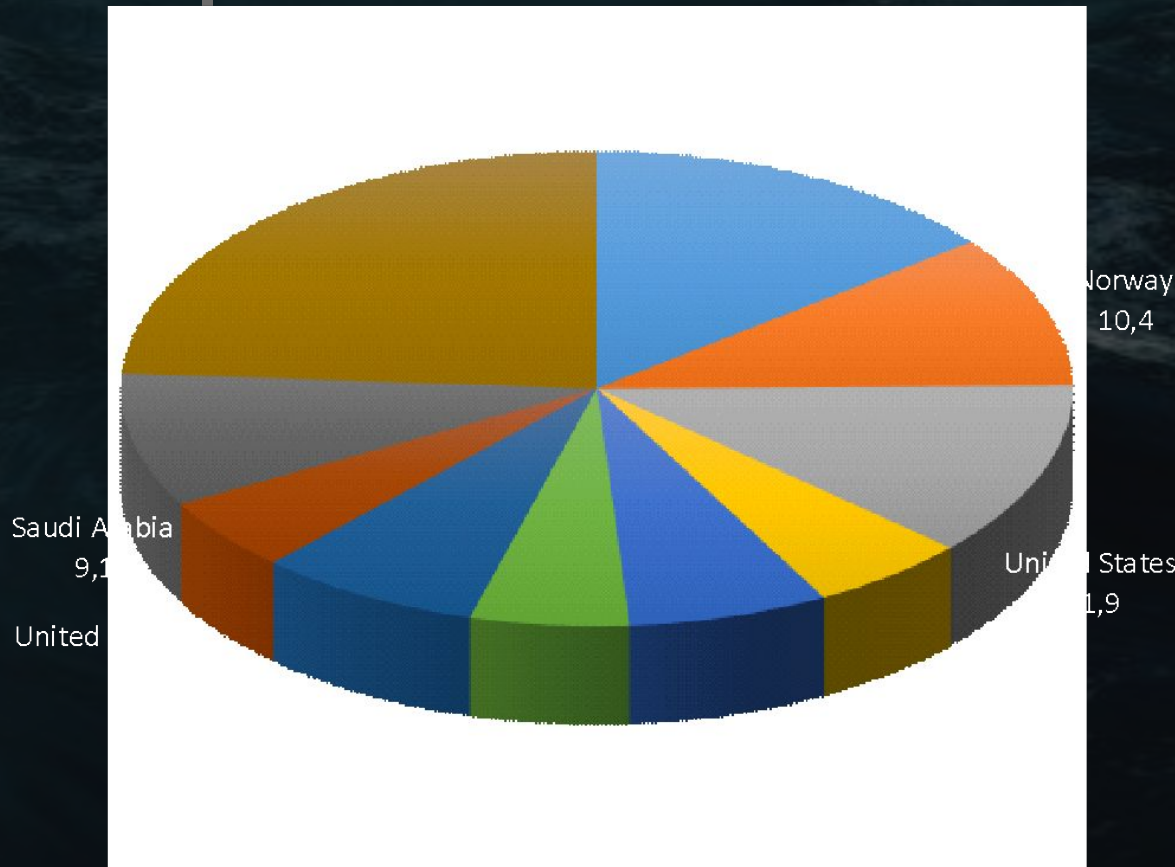
Source: EUROSTAT 2022



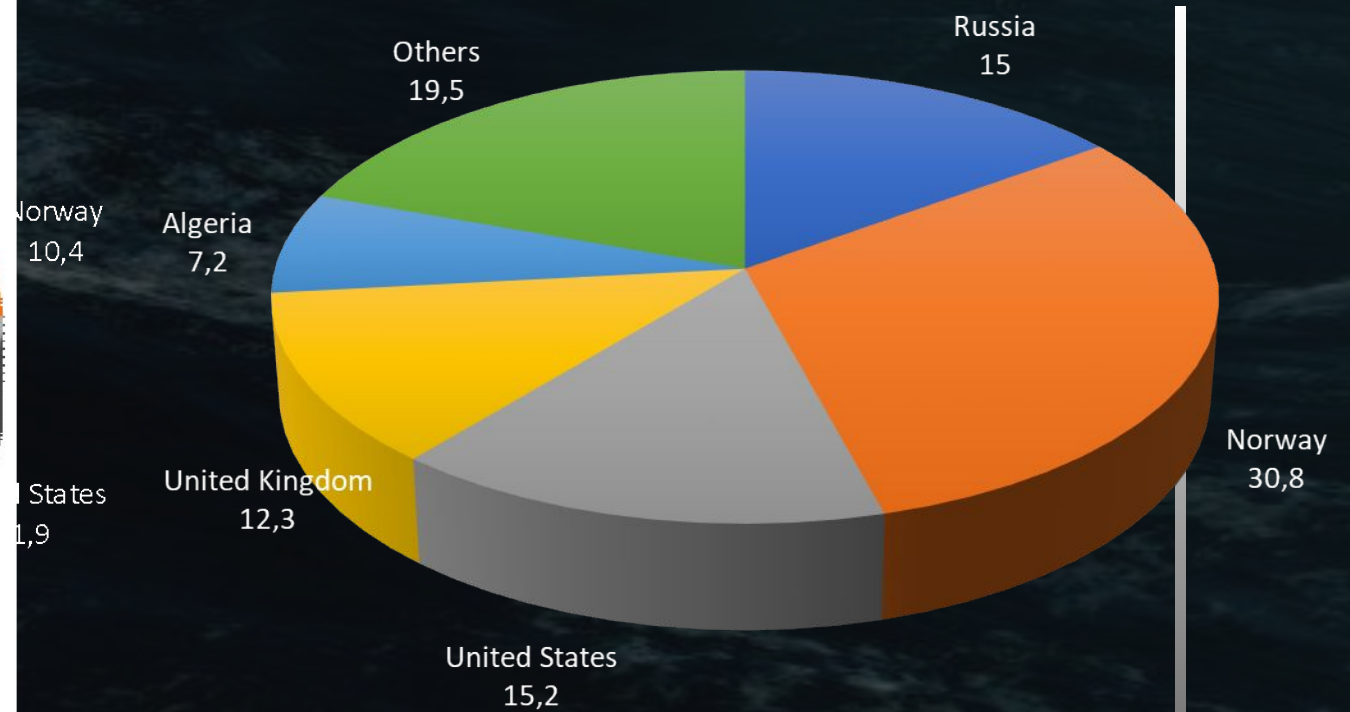
# SBW – Italian Perspective

## Case Study: EU energy situation

### Petroleum Oil Import – 3<sup>rd</sup> 2022



### Natural Gas Import – 3<sup>rd</sup> 2022



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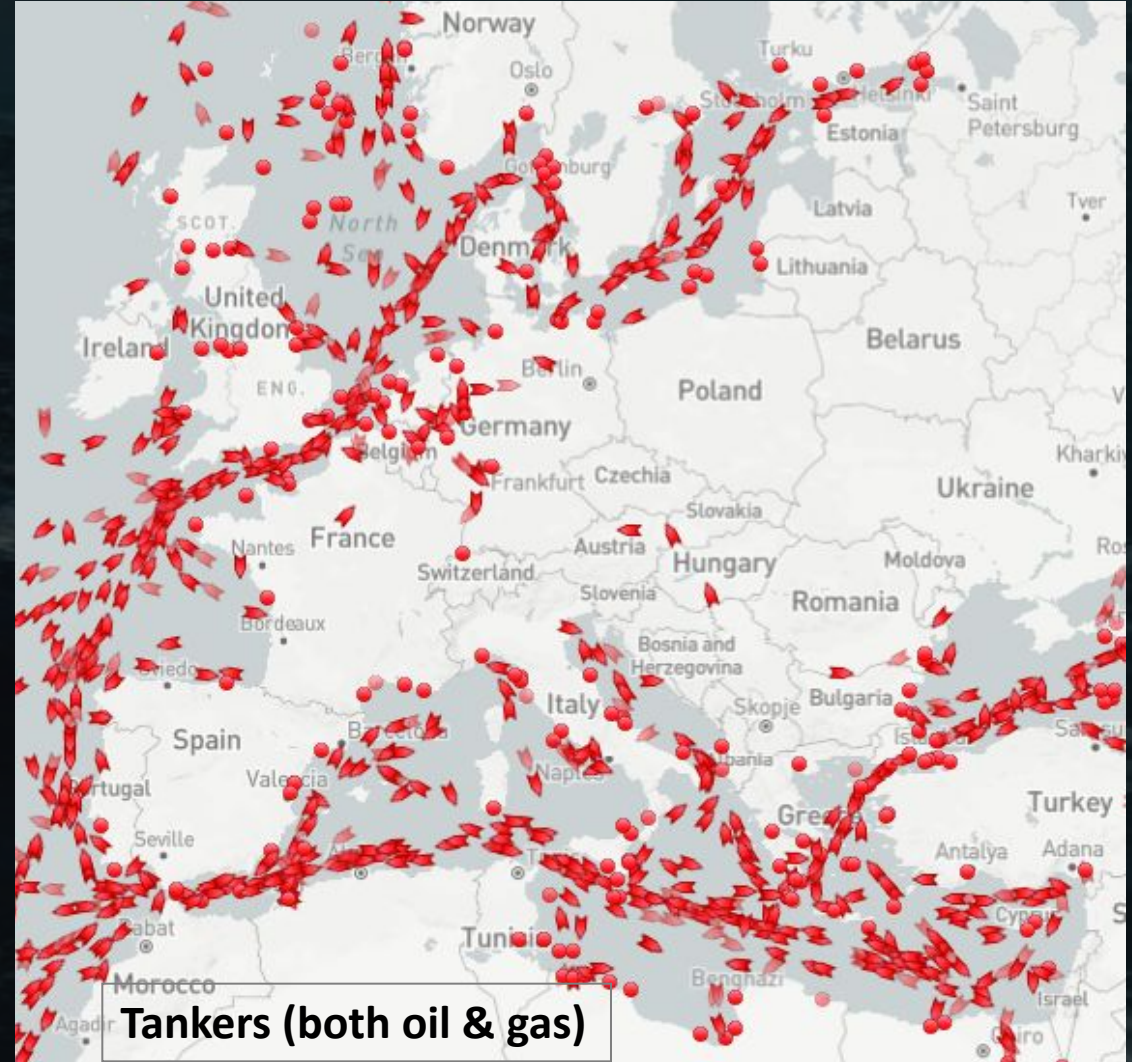
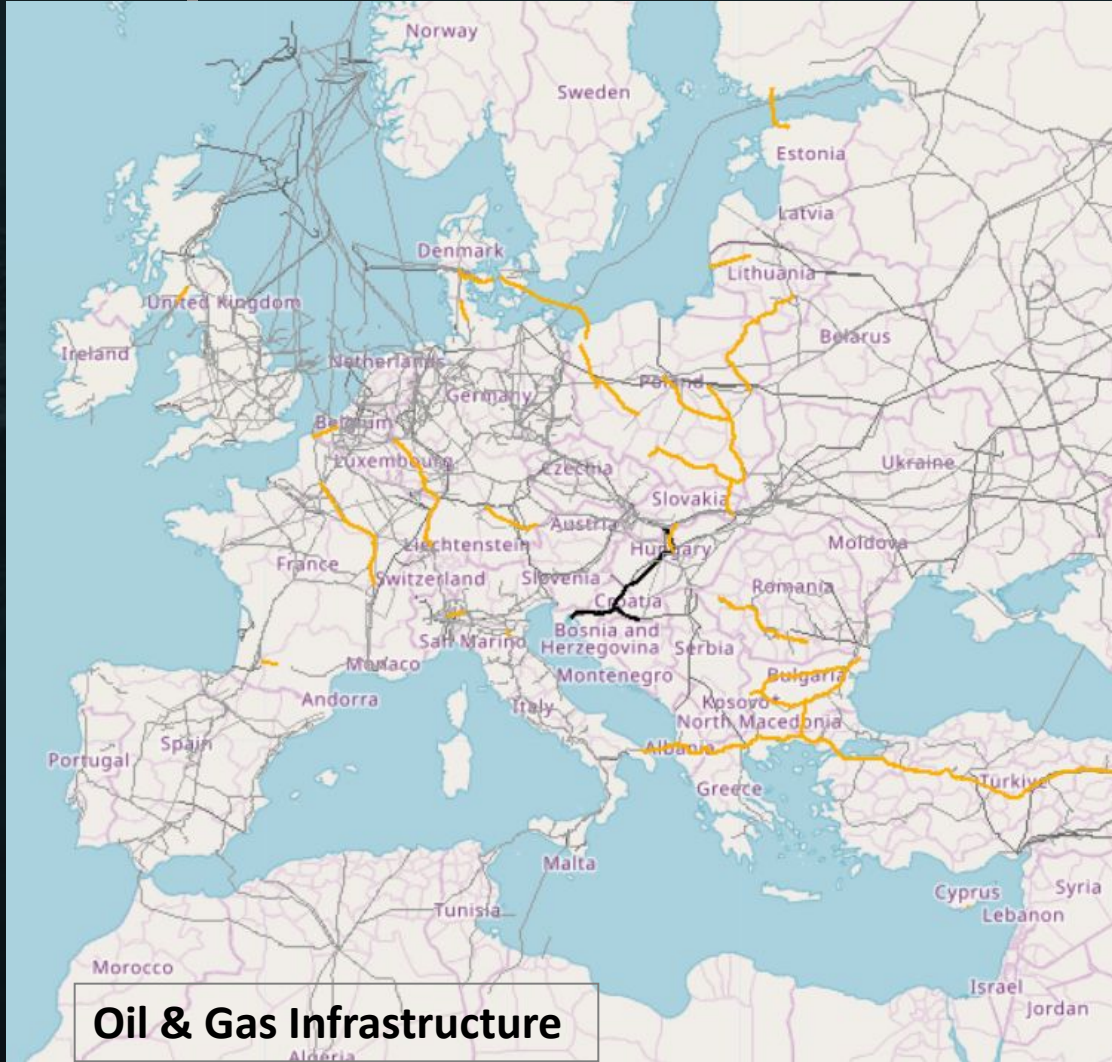
Source: EUROSTAT





# SBW – Italian Perspective

## Case Study: EU energy situation



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Source: European Commission and Vessel Finder





# SBW – Italian Perspective

## *Historical Overview*



**2008**

**Sub. Cable disruption**



**2017**

**Near miss:  
gas release from  
pipeline**

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**2019**

**Gulf of Mexico Incident**

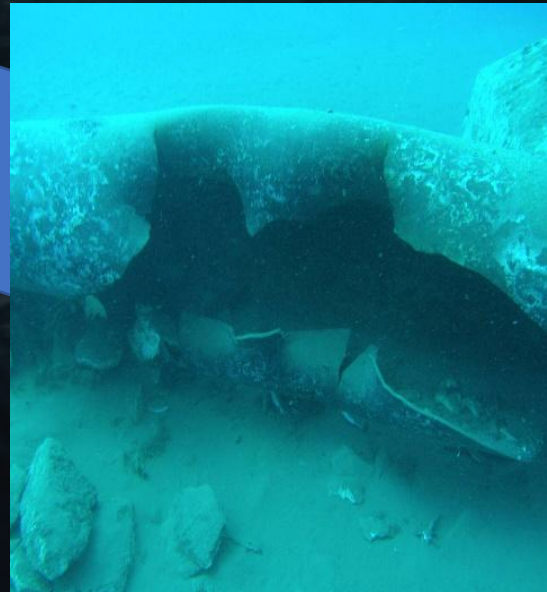


# SBW – Italian Perspective

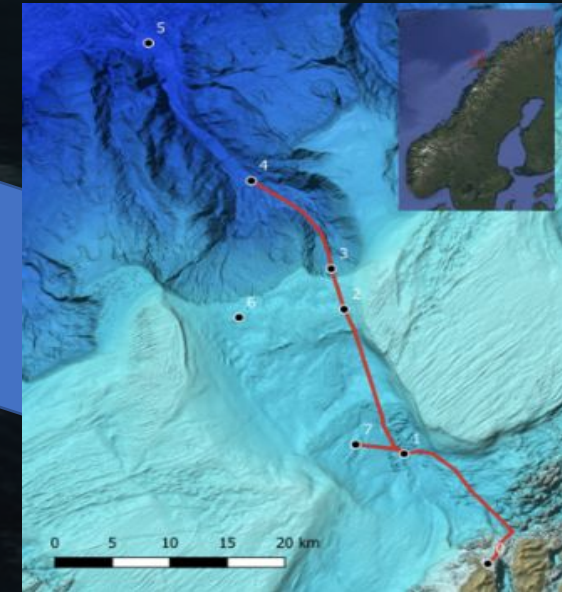
## *Historical Overview*



**1981**  
**Operation «Ivy Bells»**



**2019**  
**Syria sabotaged pipelines**



**2021**  
**Lofoten mysterious cut**

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# SBW – Italian Perspective

*Are we really surprised?*

28SEP2022  
08:44:04  
UTC+0.0

euronews.



W : LOW - DISARM

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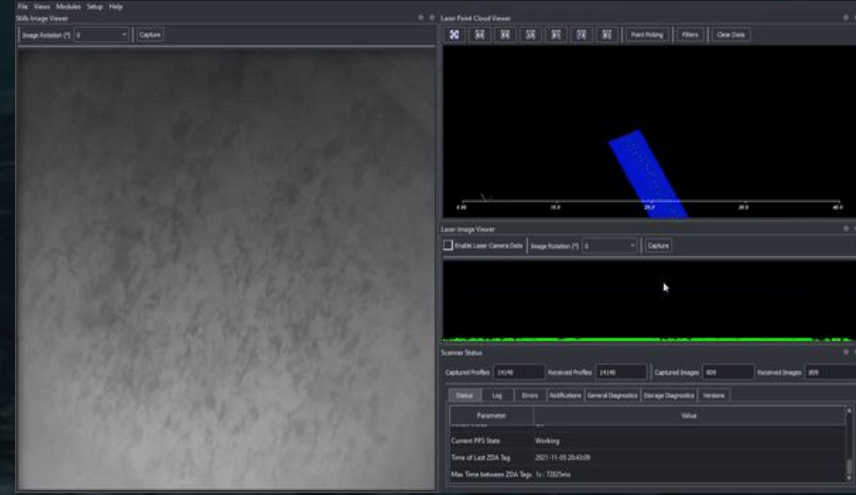
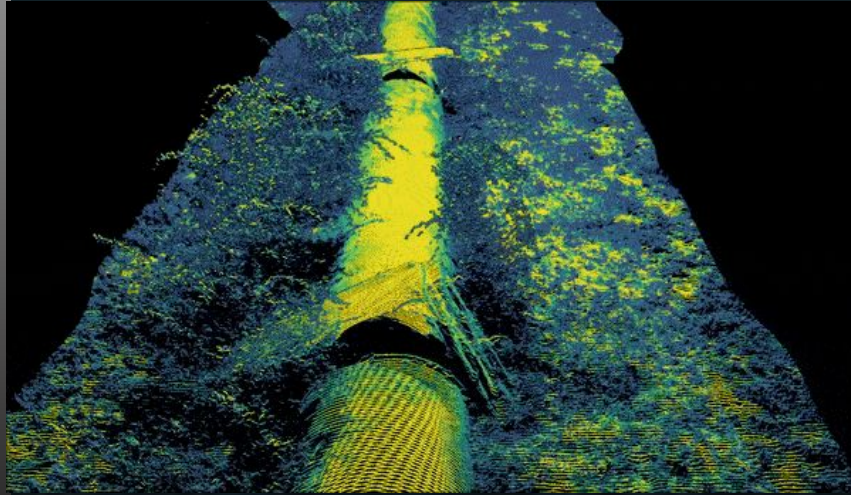
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# SBW – Italian Perspective

## *The Unmanned Approach*



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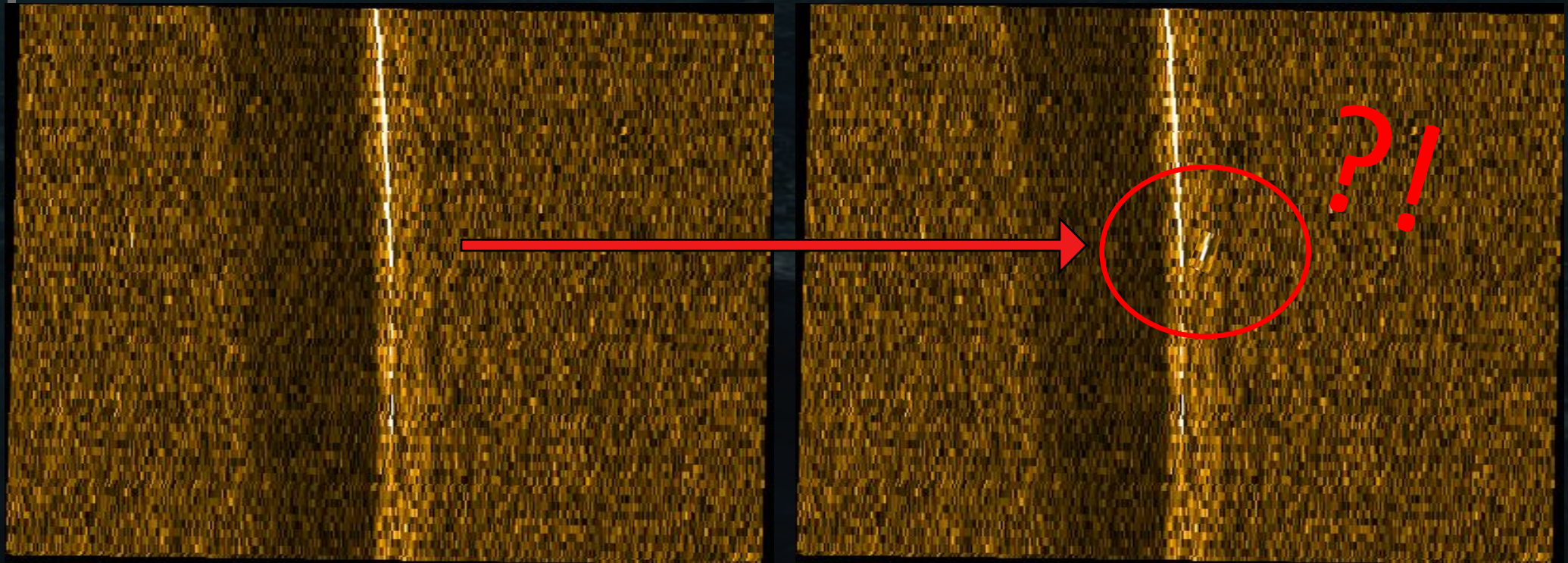
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# SBW – Italian Perspective

*Seabed Surveillance is not «The answer»*



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# SBW – Italian Perspective

*Seabed Surveillance is not «The answer»*



**ARE WE SURE THAT SEABED WARFARE IS JUST AROUND SEABED?**



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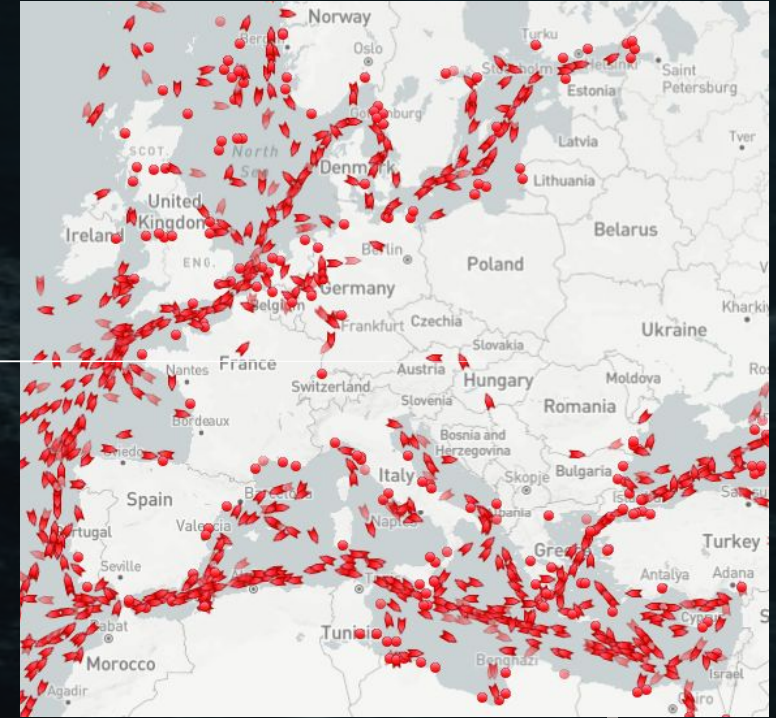
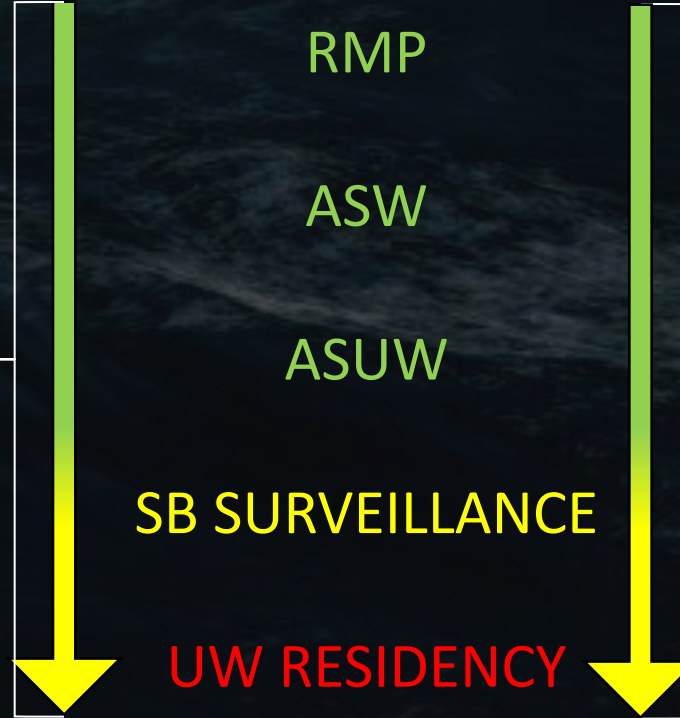




# SBW – Italian Perspective

*Holistic approach*

## SEABED WARFARE



# UNDERWATER SITUATION AWARENESS

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# MCM Evolution

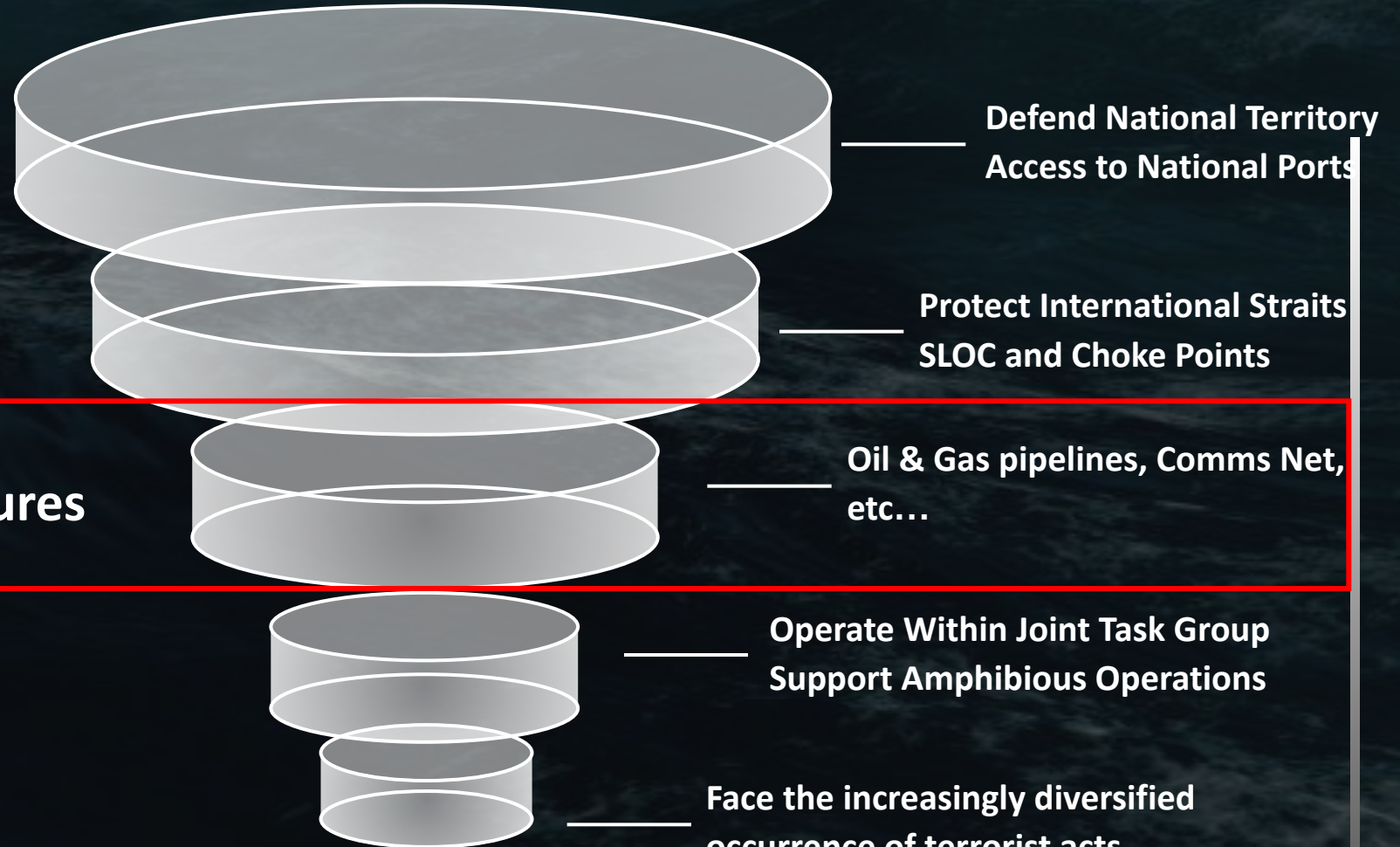
**Homeland Security**

**Outer Defence**

**Strategic Infrastructures**

**Expeditionary**

**W-IED**



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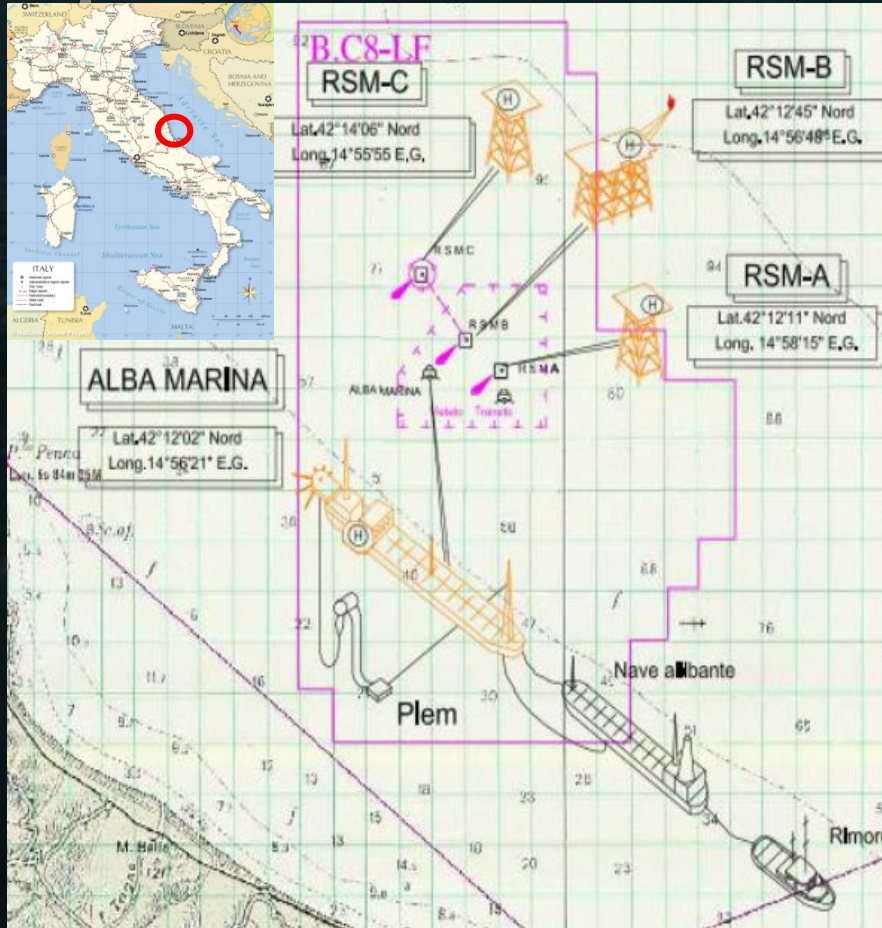
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# MCM Evolution



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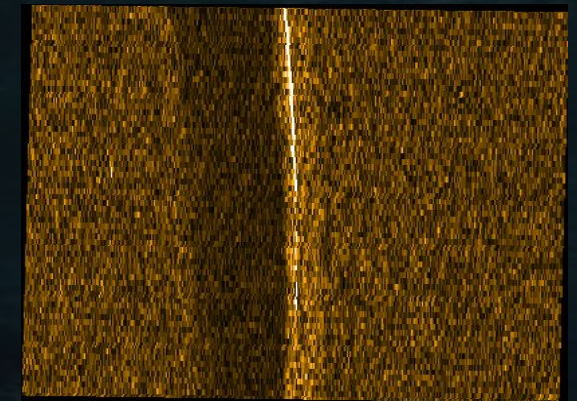
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# MCM Evolution



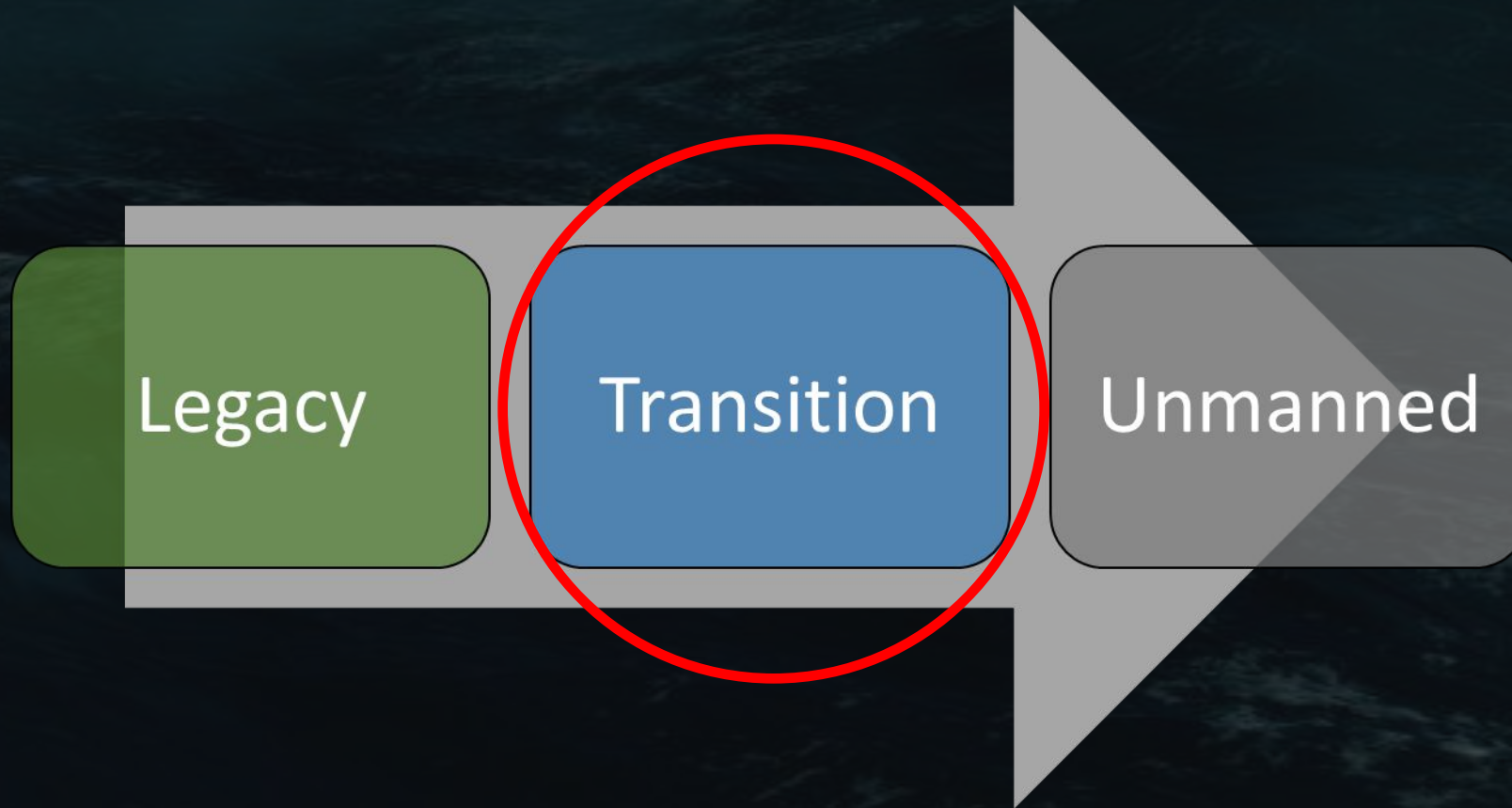
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# MCM Evolution



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# MCM Evolution

## *Why Transition?*

- **Man out of the minefield vs Intel**
- **Threat vs Countermining**
- **Bottom Type vs Automatic Target Recognition**
- **Heritage & Experience**

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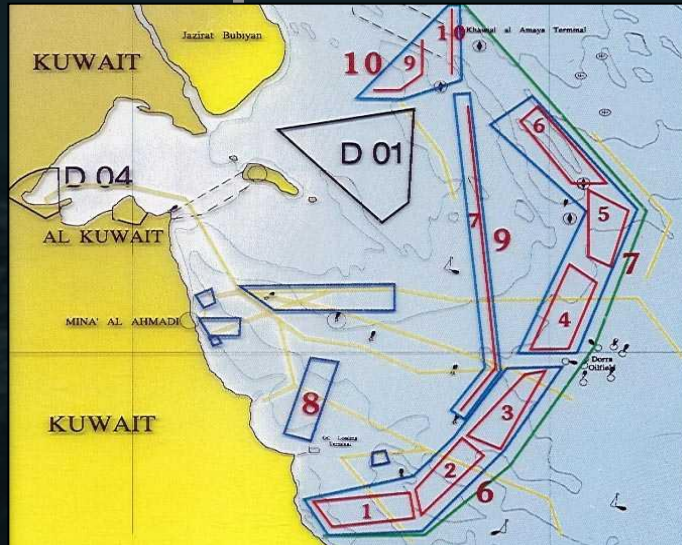
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# MCM Evolution

## Why Transition?



- Man out of the minefield vs Intel
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- Bottom Type vs Automatic Target Recognition
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# MCM Evolution

## Why Transition?

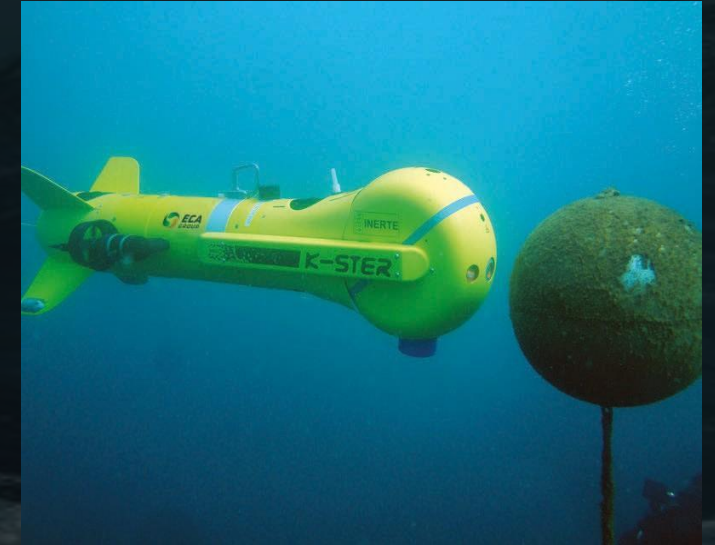


- Man out of the minefield vs Intel

- Threat vs Countermining

- Bottom Type vs Automatic Target Recognition

- Heritage & Experience



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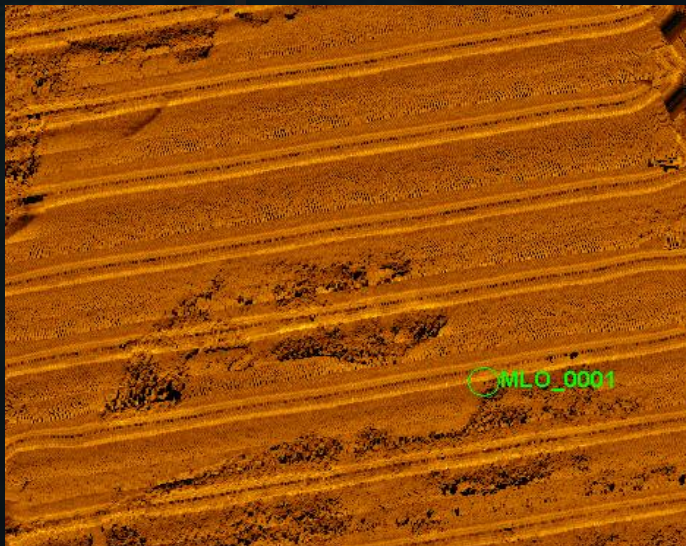
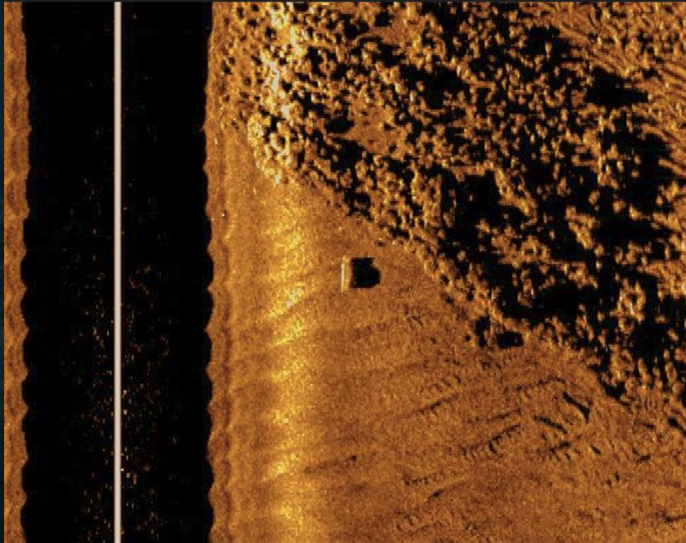
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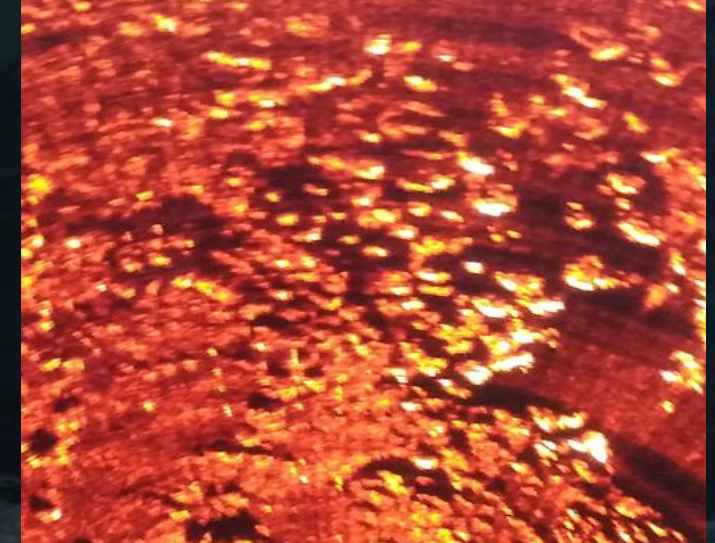


# MCM Evolution

## Why Transition?



- Man out of the minefield vs Intel
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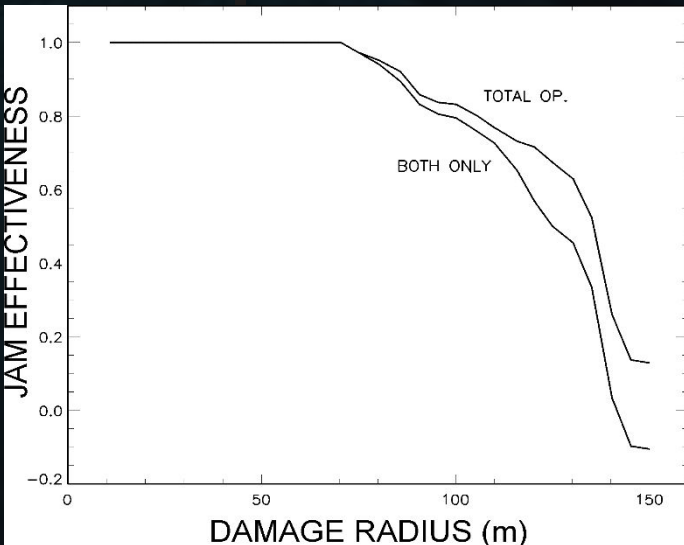
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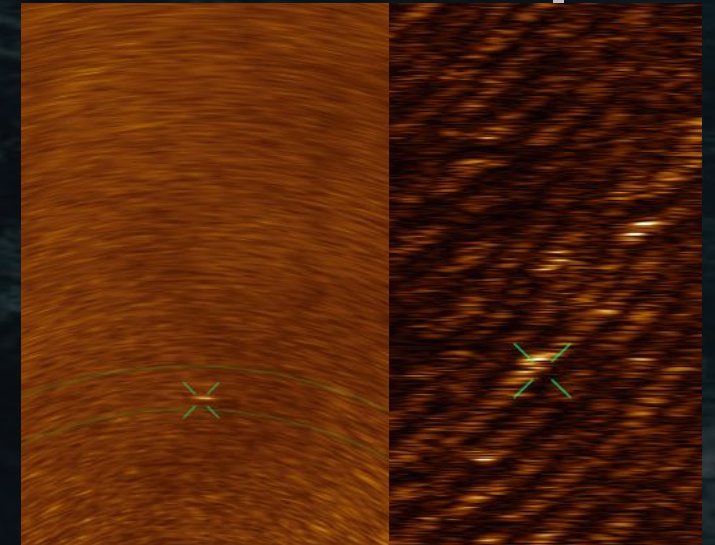


# MCM Evolution

## Why Transition?



- Man out of the minefield vs Intel
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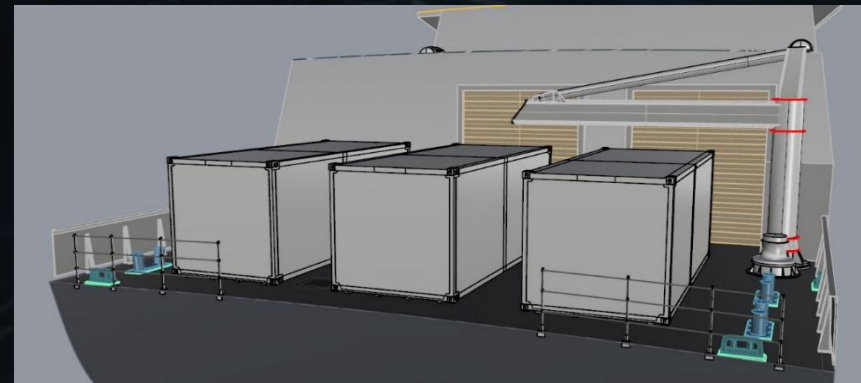
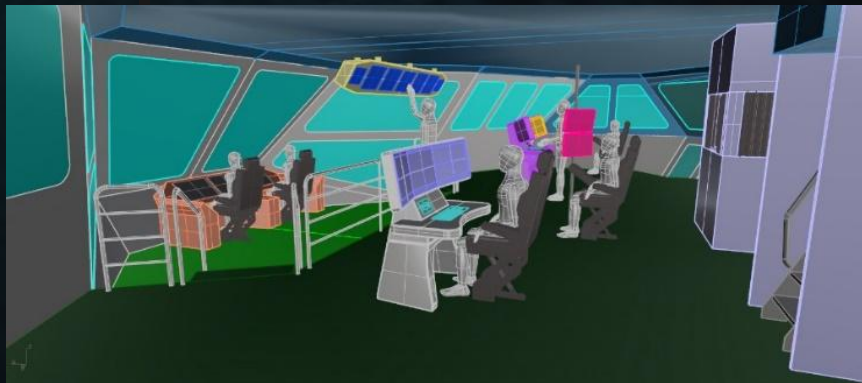
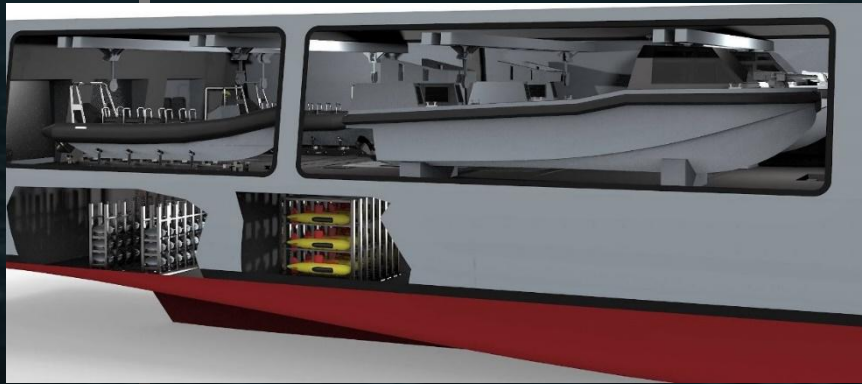
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# MCM Evolution

## *New Generation MCMV*



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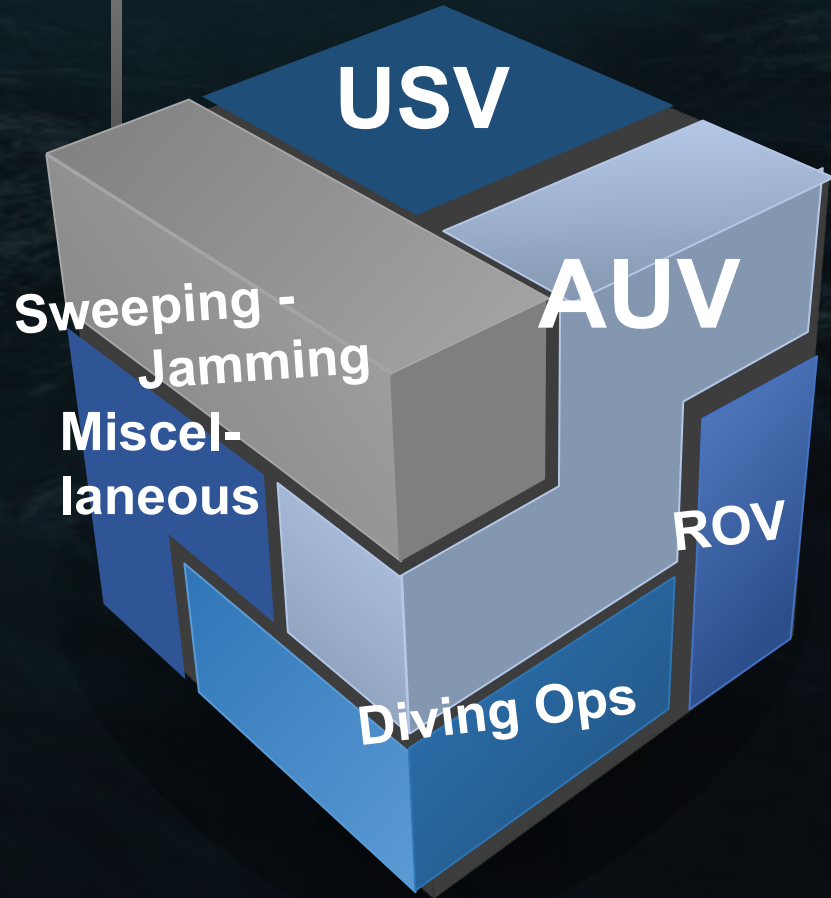
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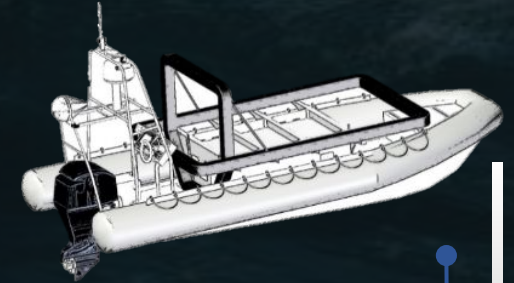


# MCM Evolution

## Operational Package



**USV**  
 SSS  
 ROV  
 AUV  
 MDV  
 Force Protection



**USV**  
 Sweeping  
 Jamming



**AUV / ROV**  
 Localization  
 Identification  
 Neutralization

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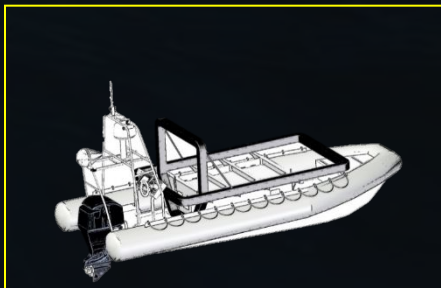
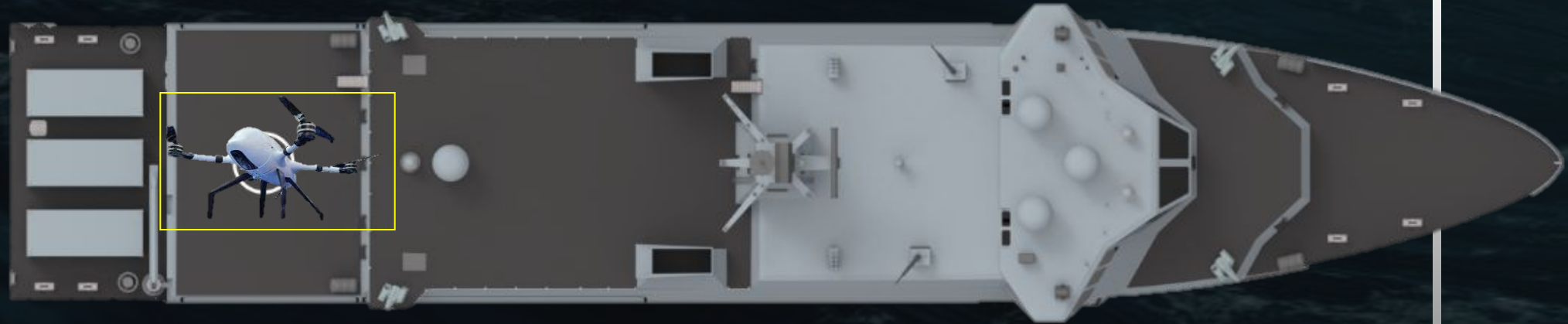
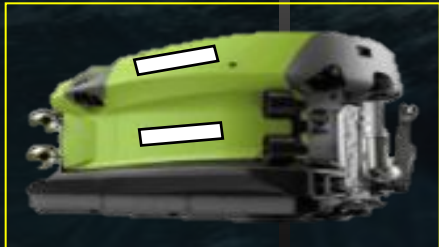
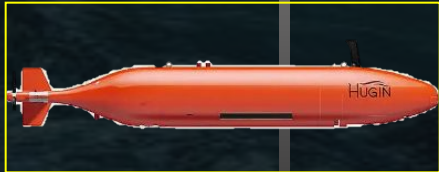
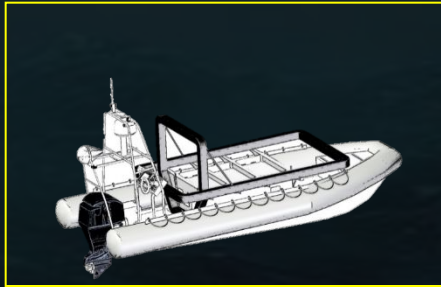


# MCM Evolution

## *Operational Package*

Resident

Deployable



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## Legal Framework

Long story short...

- **Convention for the protection of Submarine Telegraph Cables – 1884**
- **Lausanne Conference – 1932**
- **1958's Conventions**
- **UNCLOS – 1958**

*A provision that expressly legitimizes the protection of cables and pipelines in areas subject to the functional sovereignty of coastal states is totally missing. Furthermore, there is not any reference regarding a vessel voluntarily damaging/disrupting/destroying underwater cables.*

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## RECAP

- **SB Surveillance is a powerful tool, not the solution**
- **SB Residency is needed IOT enhance effectiveness of SB Ops**
- **Legal framework “grey areas” can be covered by a military holistic approach**
- **Seabed Warfare is a coordinated effort**

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# Italian Navy General Staff

## Mine and Seabed Warfare - ITA N perspective -