

The Italian Navy perspective for upcoming submarines



MARINA
MILITARE



Commander Stefano OLIVA

Submarine Research & Development Office
at Italian Navy General Staff

- COMBINED NAVAL EVENT -
Farnborough 22th May 2024

- ✓ Unmanned transition
- ✓ Digital & transparent oceans



- ✓ Leverage on human presence onboard
- ✓ Endurance & Persistence
- ✓ Covertness



Developments of ITA submarine fleet between 2024-2050

2024

OLE SAURO 4th Batch

MLU 1st Batch

2031

2036

2040

2022-2031 Production of n.4 U212 Near Future Submarine NFS

2025-2040 R&D activities on Next Generation Submarine NGS

2030-2036 Production of nr.2 NFS EVO

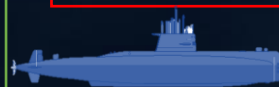


NR.4 SAURO (3rd + 4th BATCH)

- Deep-strike
- Unmanned vehicles
- Covert mining
- Lithium battery
- Countermeasure
- Towed array sonar
- Artificial Intelligence



NR.4 U212A (1st + 2nd BATCH)



NR.2 SAURO (4th Batch Post OLE)

- National bow
- TS reduction
- 360° Optronic Mast
- New technologies for underwater comms



NR.4 U212A (1st Batch Post MLU + 2nd Batch)



NR.4 U212 NFS



NR.4 U212A MODERNIZED

MLU 2nd Batch



NR.4 U212 NFS



NR.2 NFS EVO

2040-2050 Production of NGS

Sauro Class Operational Life Extension



PER



CMS



SNR



TORP

Mid-Life Upgrade U212A 1[^] batch



National
CMS

Torpedo
BSA

Periscope
Upgrade

Counter-
measure

New SNR
functionalities

Anti-
Jamming

Satellite
COMMS
SHF



**Deep Strike
Land Attack
capabilities**



**Release and recovery of
LDAUV**



LiOH Battery



**Management of
AUV & ROV
for SBW**



**Covert mining
capabilities**



Towed Array

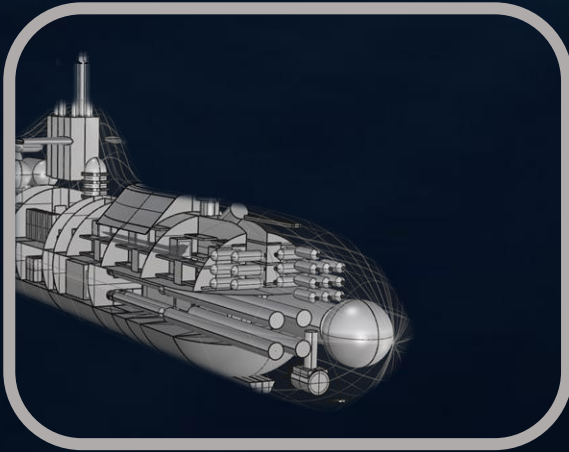


Artificial Intelligence



Countermeasure

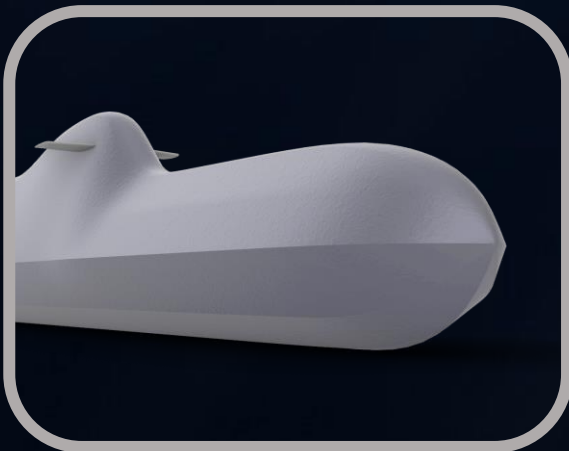
- Extending capabilities of U212 NFS
- Integration of more technologies resulting from R&D for NGS
- Full national submarine design



New Weapon Launching System

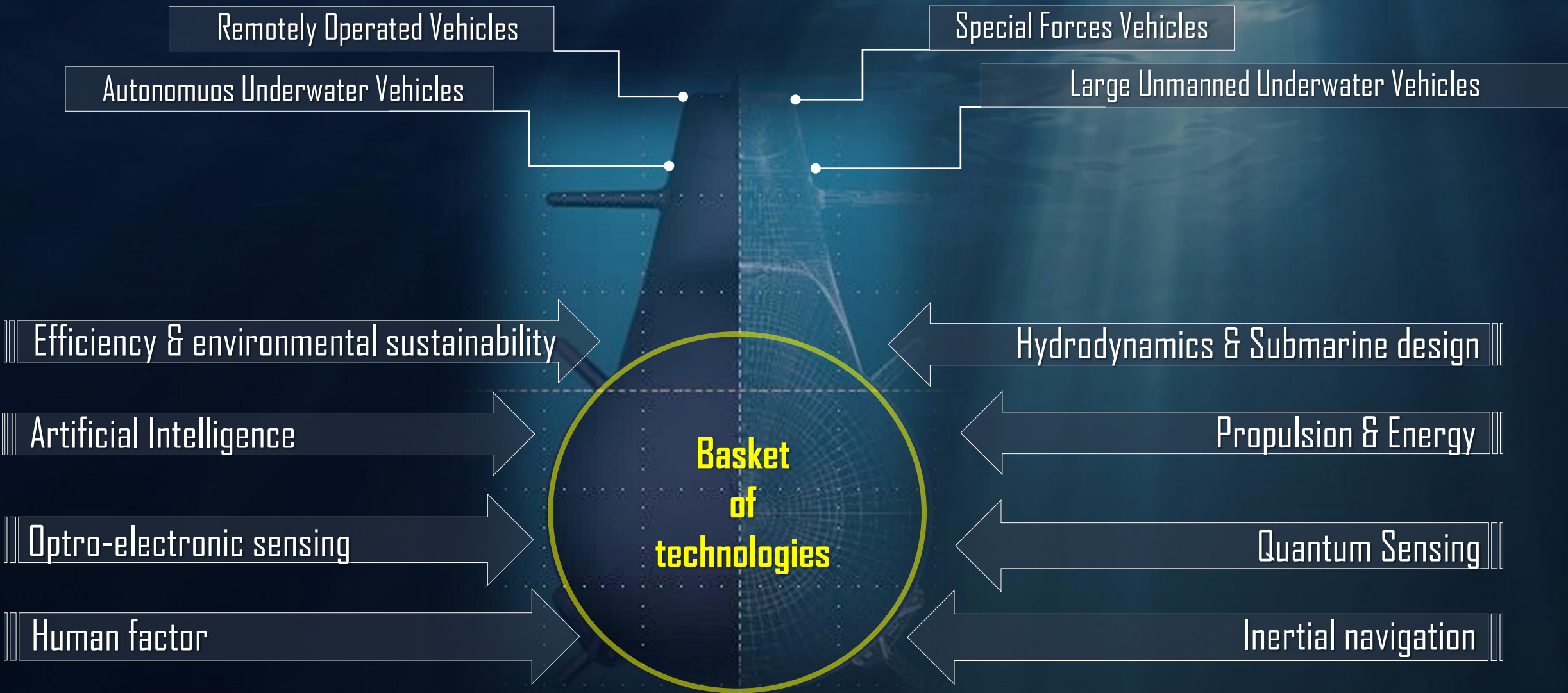


New Optronic technology

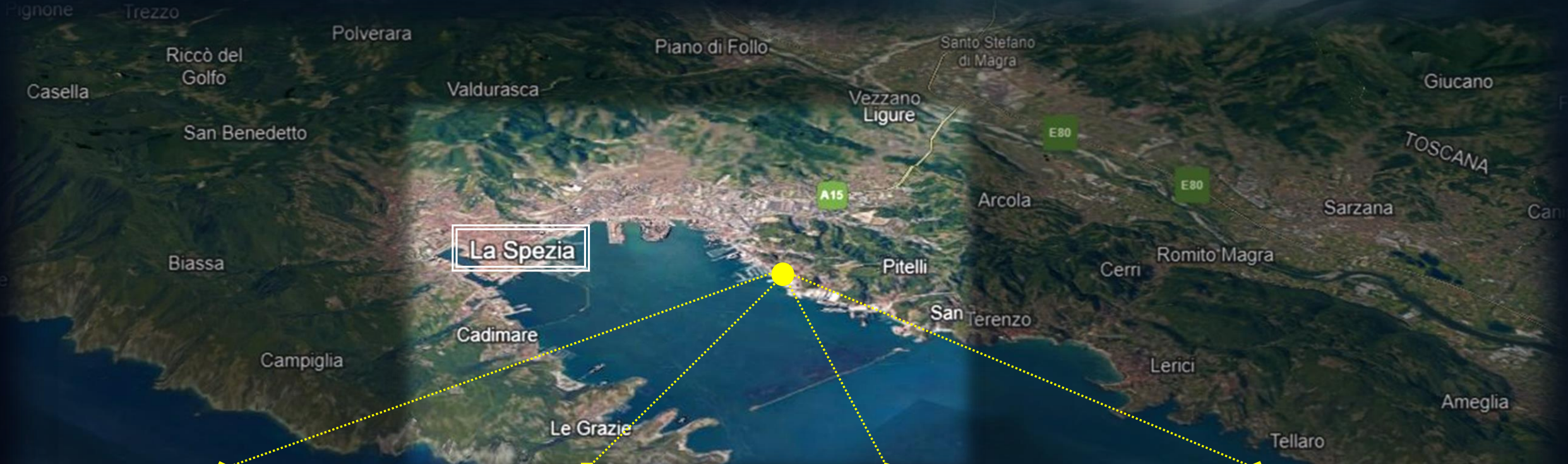


TS reduction & coating

Underwater Capability Carrier



Innovation technology: national underwater ecosystem



DEVELOPMENT & TECHNOLOGICAL SCOUTING



POLO NAZIONALE DELLA DIMENSIONE SUBACQUEA 

TEST & EVALUATION



CENTRO SUPPORTO Sperimentazione Navale

RESEARCH & EXPERIMENTATION

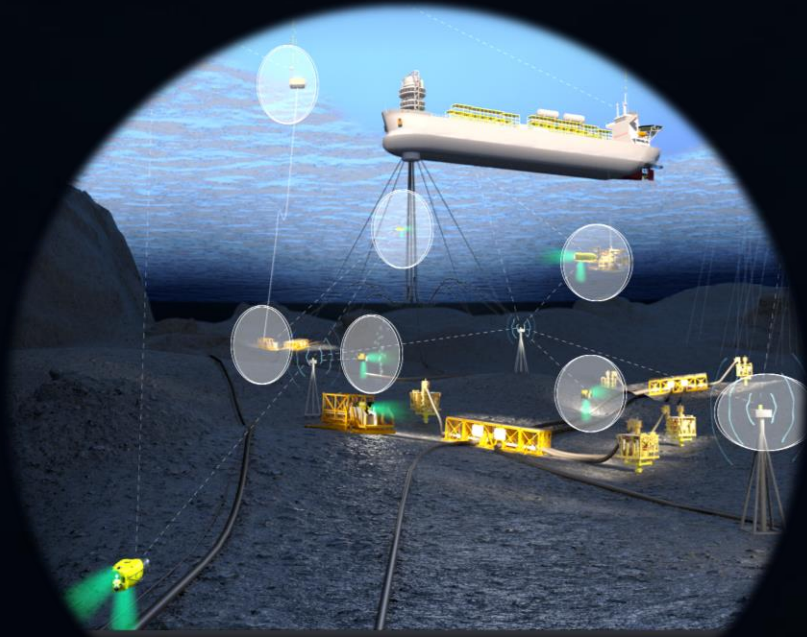


organization CMRE

DOCTRINE



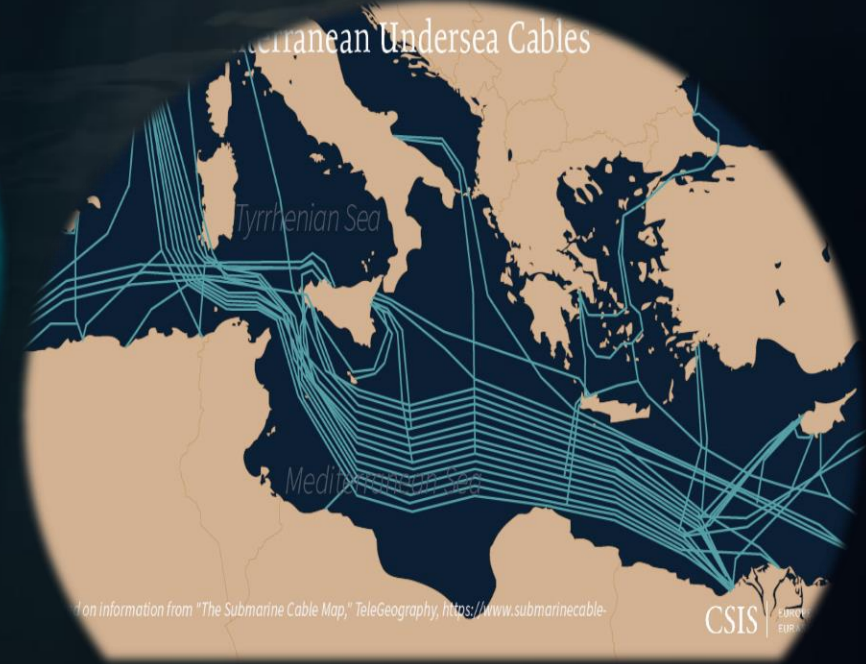
NATO OTAN COE UNDERWATER



**Technology acceleration
and capability development**



**Civil-military
cooperation renewal**



**Promotion of a new legal
framework**

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