

ITALIAN NATIONAL ARMAMENT DIRECTORATE

IV DEPARTMENT – ARMAMENT PROGRAMMES COORDINATION



INTERNATIONAL AND NATIONAL ITALIAN ROTARY WING PROCUREMENT PROGRAMMES

Global Defence Helicopters 2024



Warsaw, 22 October 2024

*Cdr. Antonio STRINA
RW Programs Section Leader*



Agenda



- Italy involvement in Rotary Wing Legacy, Enduring and Next Gen programs;
- Legacy replacement Program: AW169 Light Utility Helicopter;.
- Multi-Domain operations in future operating environments;
- The AW249 Attack Helicopter;
- Next Generation high level requirements;
- Next Generation helicopter Programmes;
- Q&A.



Italy involvement in Rotary Wing Legacy, Enduring and Next Gen programs



■ Legacy replacements:

- Light Utility Helicopter;
- New Reconnaissance and Escort Helicopter.



■ Enduring helicopters:

- HH101 Middle Life Update;
- NH90 Software Release 3.



■ Next Generation programs:

- Next. Gen. Fast Helicopter;
- Next. Gen. Rotorcraft Capability;
- E-Next. Gen. Rotorcraft Technologies.

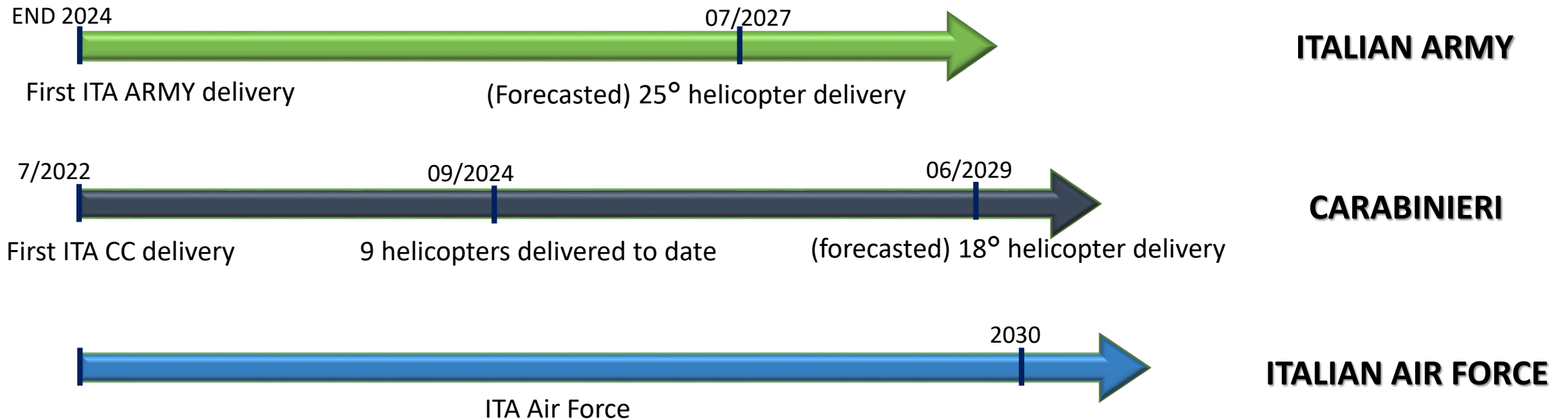




Legacy replacement: AW169 LUH







- Italian Army, Air Force and Carabinieri are currently procuring 103 Leonardo AW169 Light Utility Helicopter (LUH), in order to replace several legacy 4/5 ton fleets with a single platform.
- The Italian Army has so far contractualized 25 helicopter (50 platforms to be purchased); Italian Airforce plans to procure 30 helicopters; Carabinieri has contractualized 18 helicopters of the forecasted 23:

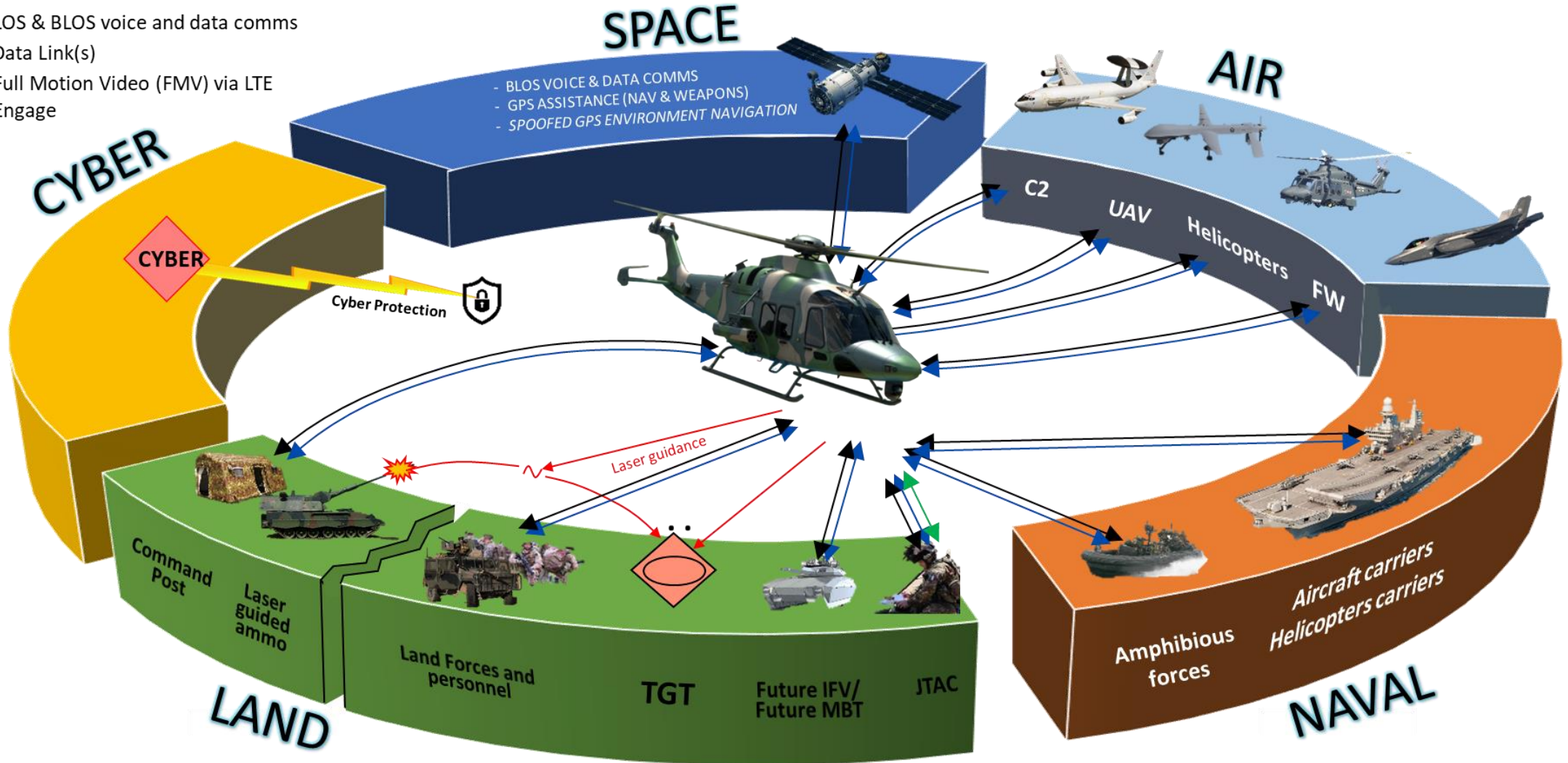




AWI69 LUH: interoperability, connectivity & multi-domain integration



-  LOS & BLOS voice and data comms
-  Data Link(s)
-  Full Motion Video (FMV) via LTE
-  Engage





Multi-Domain operations in future operating environments



MULTI-DOMAIN OPERATIONS (MDO)



M.D.O.

1. Coordinated Military Actions in 5 DOMAINS
2. OPERATIONAL TEMPO
3. Goal: to create DILEMMAS
4. Operational environment:
 - CONGESTED
 - CONTESTED
 - CONNECTED
 - CONSTRAINED
 - CLUTTERED
 ..COMPLEX
5. New threats (CYBER)

M.D.O. Native REQUIREMENTS

1. INTEROPERABILITY, CONNECTIVITY and MULTIDOMAIN INTEGRATION
 2. MANEUVERABILITY AND SPEED IN ANY OPERATIONAL ENVIRONMENT
 3. LETHALITY AND PRECISION, CLOSE AND DEEP
 4. CREWED-UNCREWED TEAMING (CUC-T)
 5. SURVIVABILITY
 6. SUSTAINABILITY AND SUPPORTABILITY
- **GROWTH %** and **OPEN ARCHITECTURE**

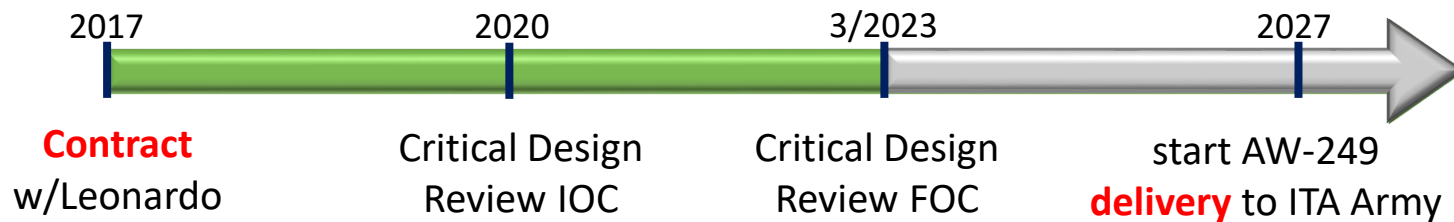
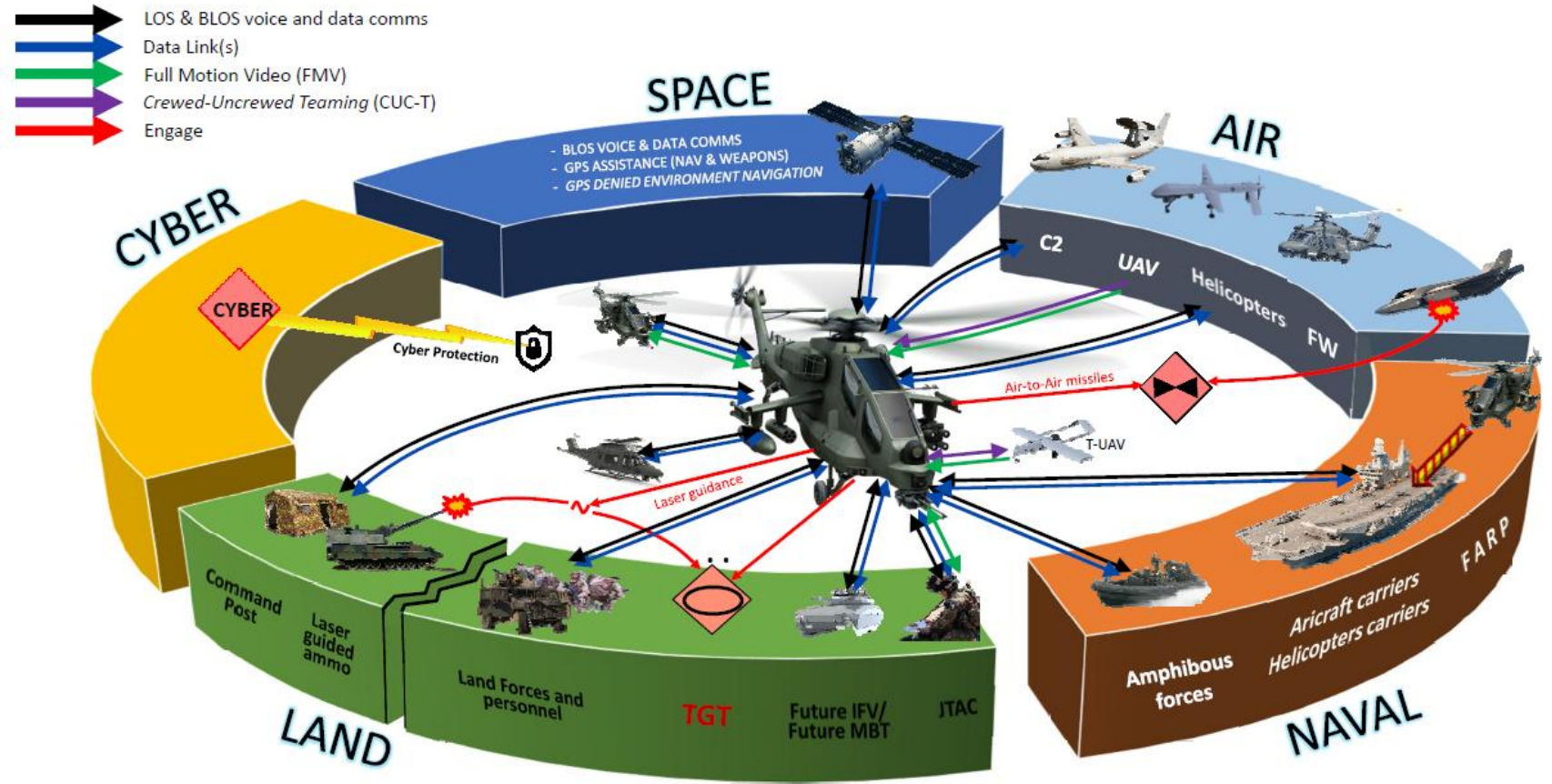
NEW REQUIREMENTS & E.D.T

- AI** for FLIGHT and LOGISTICS
- AIR LAUNCHED EFFECTS (ALE) & LOITERING AMMO
- VERY LONG RANGE MISSILES **HANDOVER**
- ANTI-UAS** CAPABILITY





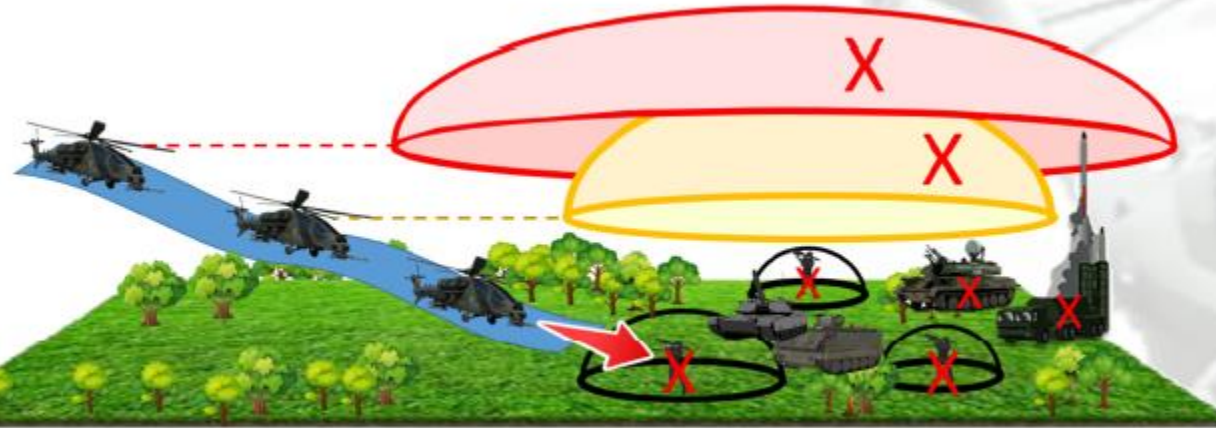
AW249 AH: interoperability, connectivity and multi-domain integration



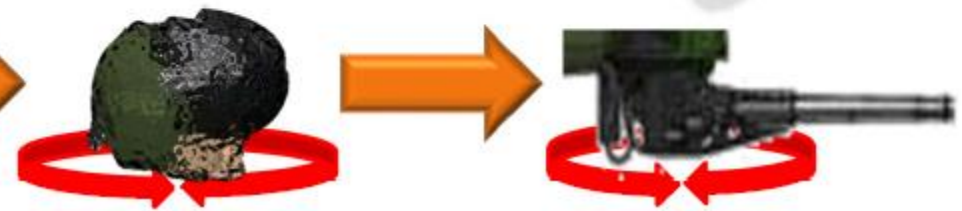
48 Helicopters to be delivered to Italian Army



AW249 AH: lethality, precision and standoff

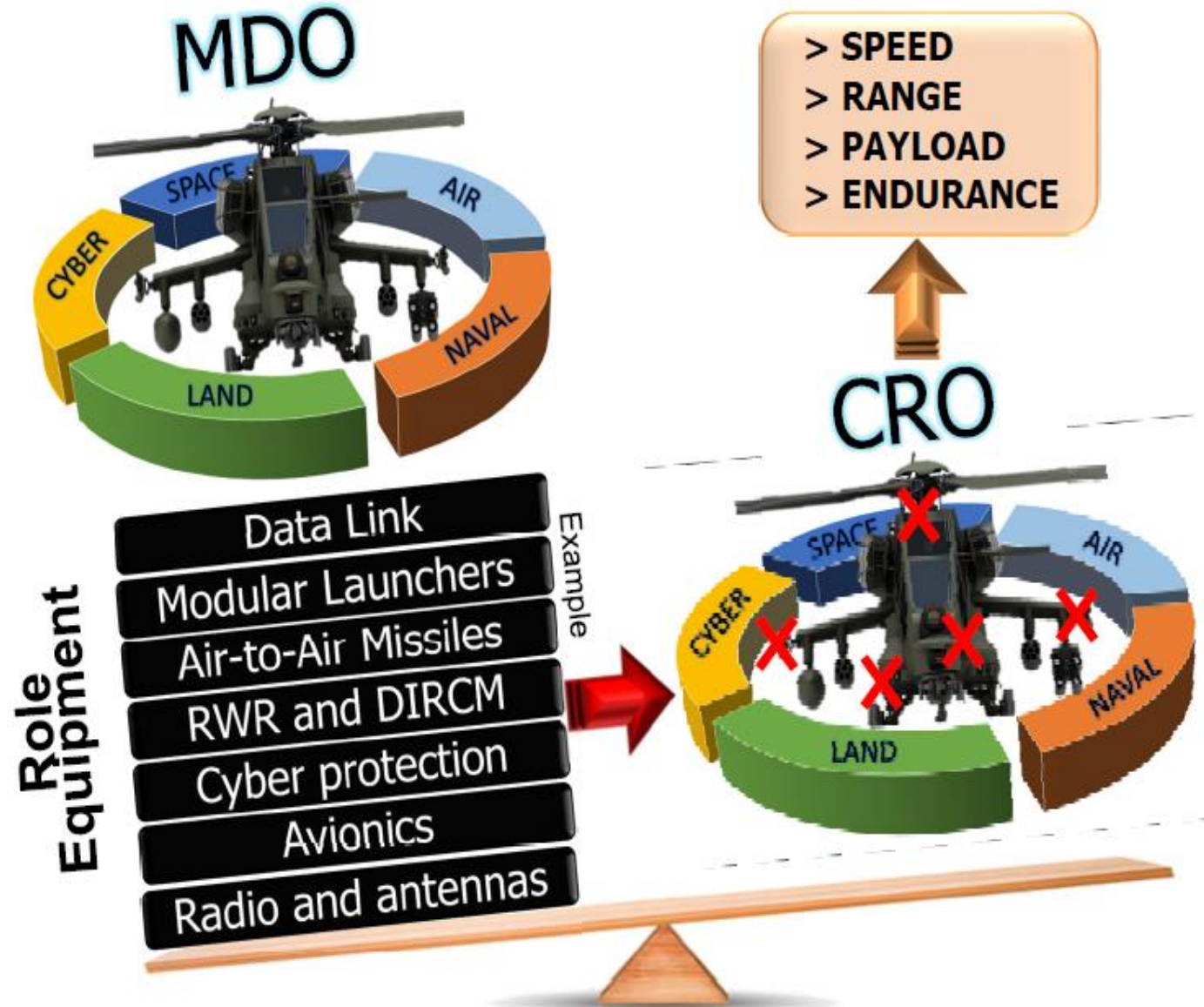


VISIONICS, MISSION SYSTEMS AND ARMAMENTS INTEGRATION



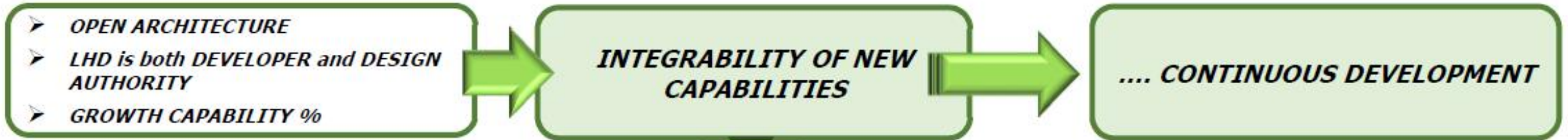


AW249 AH: Mission equipment modularity





AW249 AH: new capabilities, emerging & disruptive technologies



INTEGRATION with CUC-T

AIR LAUNCHED EFFECTS (ALE) & LOITERING AMMUNITION

HANDOVER of VERY LONG RANGE AMMUNITION

ANTI-UAS CAPABILITY

AI for FLIGHT and LOGISTICS





Next Generation High Level Requirements



- Next Generation Rotorcrafts programs are focused on a **broadly common set of requirements**:
 - Enhanced «**performance triangle**»;
 - Able to fly at very low altitude **to stay out/penetrate enemy's A2/AD**;
 - Able to interact with **Air Launched Effects (ALE)**;
 - Increased **manoeuvrability**;
 - Manned-Unmanned Teaming capabilities (**MUM-T**);
 - **Rapid reconfiguration** IOT perform a broad set of missions;
 - Modular Open System Architecture (**MOSA**);
 - **Cyber-native**;
 - Able to **operate from ships** as an embarked asset;
 - Compatible with the most common aerial transport assets (basically C17, A400M);
 - Equipped with **State of the art avionic, optoelectronic, mission and role equipments**.





Next Generation helicopter programs 1/2



NATIONAL



NGFH

NEXT GENERATION FAST HELICOPTER

INTERNATIONAL



PESCO - NGMH

NEXT GENERATION MEDIUM HELICOPTER



FVL

FUTURE VERTICAL LIFT



EDF - ENGRT

NEXT GENERATION ROTORCRAFT TECHNOLOGIES



NSPA - NGRC

NEXT GENERATION ROTORCRAFT CAPABILITY



Next Generation helicopter programs 2/2



2022 2023 2024 2025 2026 2027 2030 2032 2035 2040



Development

Delivery



Concept phase

Concept evaluation and Design phase

Development phase

Production phase



To provide coherent solutions for future EU rotorcraft capabilities



ENGRT 1.0
CONOPS, Specs, Techno selection

ENGRT 2.0
Techno & Pre-design maturation

ENGRT 3.0
Development

ENGRT1.0 activity start

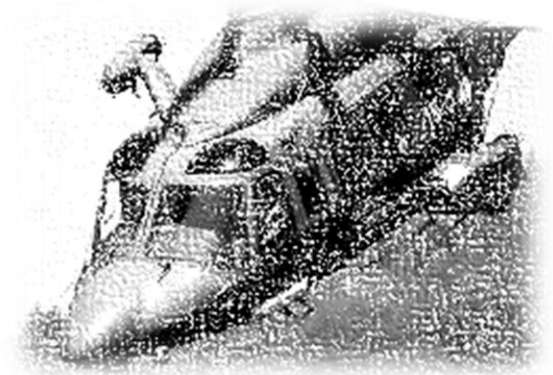
ENGRT2.0 call

ENGRT2.0 activity start





Q & A



Easy questions ?



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