

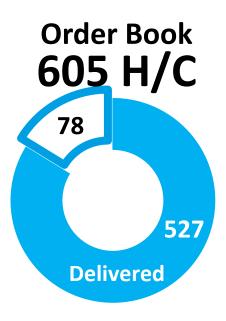


## NH90 Key Data at December 31st, 2024

Joint Venture NHI

+420,000

**Customer Flight Hours** 



# Versions of the Helicopter TTH & NFH

#### **Our Customers**

## 13 Nations



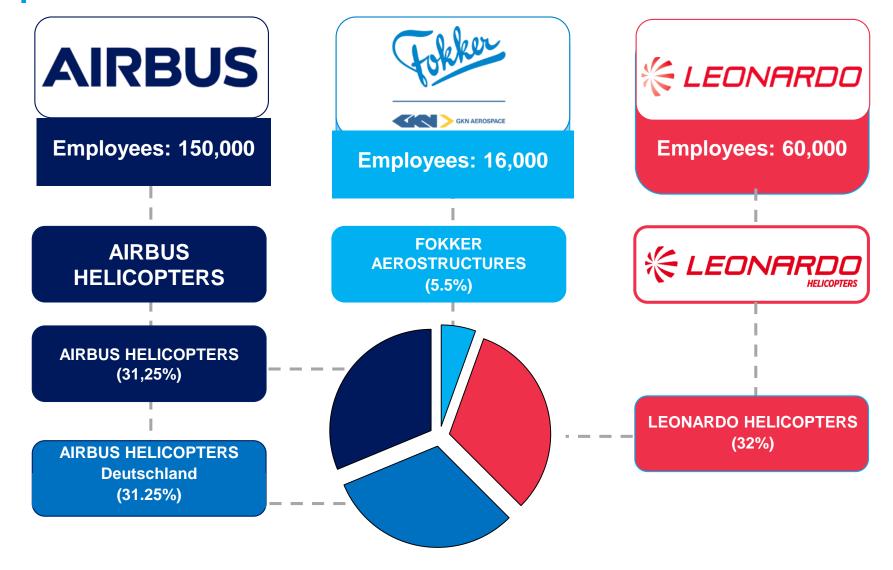
## 19 Operators

## **4 Assembly Lines**

Marignane, Venice (Tessera), Donauwörth, Albacete

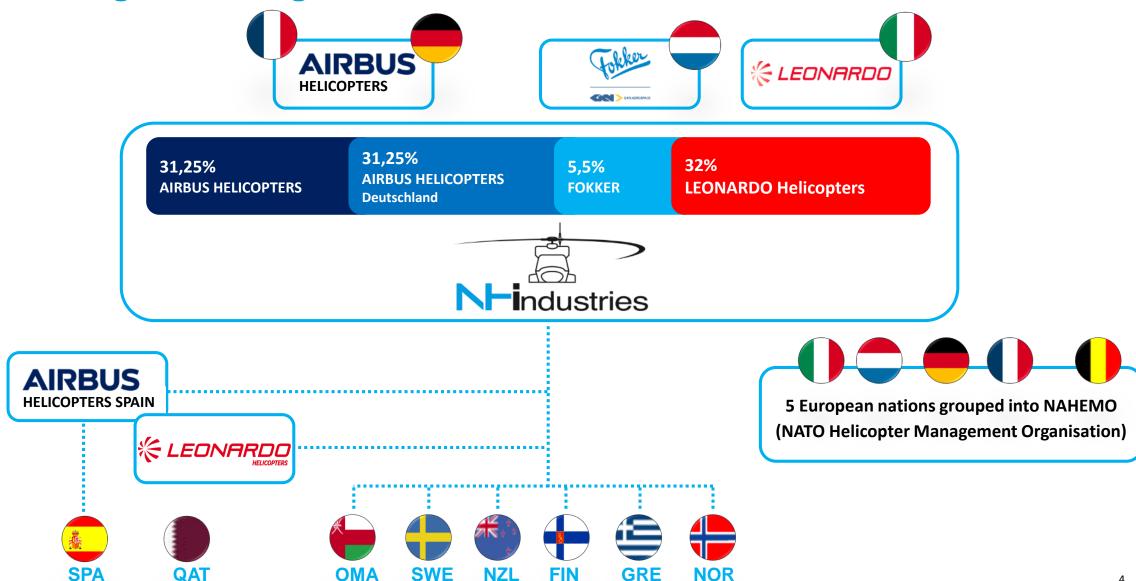


### **Ownership / Collaboration**





## **NH90 Programme Organisation**





## **NATO COOPERATION**



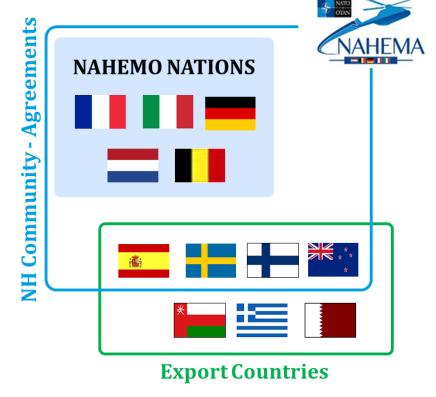
The NH90 is an essential element of EU sovereignty in the Defense domain:

 Cooperation between the major European helicopter OEMs (Airbus, Leonardo, Fokker) and their respective supply chains.

The NH90 is a Community of NATO and NATO friendly Countries that have chosen this superior platform to defend and secure their borders, their skies and their seas.

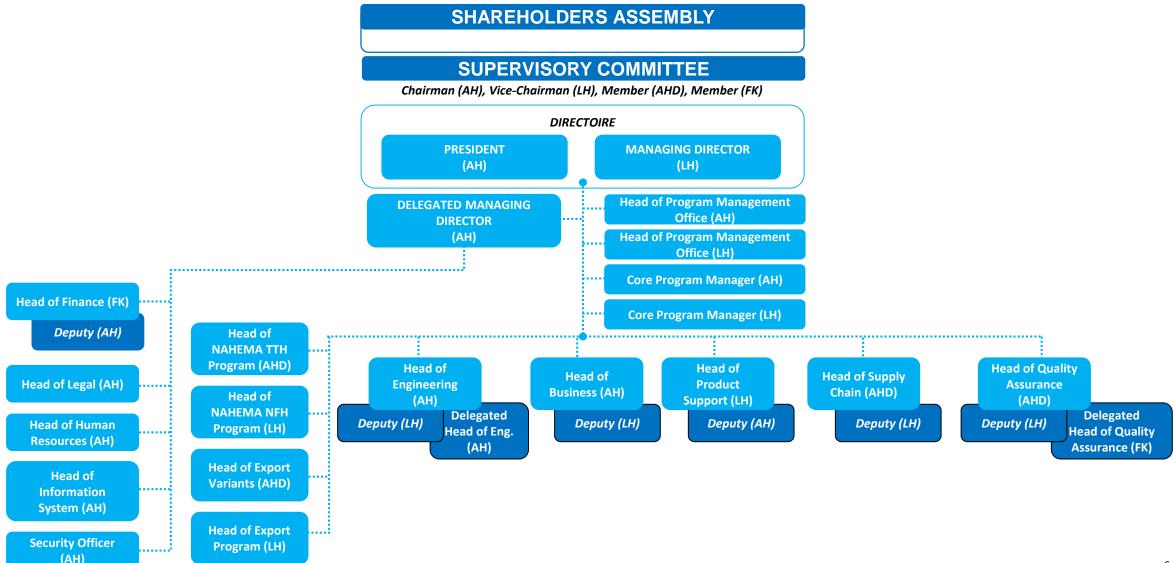
#### NH90 Strengthening:

- Operational interoperability across Armed Forces thanks to a common standard.
- A Community of customers, organized around a dedicated NATO Agency (NAHEMA) and an industrial cooperation (NHI), sharing together the same goals and means for the purpose of operational efficiency and affordability (maintenance practices, supply chain, airworthiness management, common qualification standards, obsolescence management, product evolution).





## **NHI Management Organisation**





## NHI Role / Responsibility / Value

#### **ROLE**

- Manage NH90 program "Through Life", including design and development, production, marketing and sale of helicopters and relevant in-service support
- Enter into contracts with NAHEMA and export Customers
- Manage the collaboration of the Partners and the agreement between the Shareholders regarding corporate governance of NHI

#### RESPONSIBILITY

- Process standardization across nations/industry
- Continued airworthiness, configuration control and technical support
- Program management within PC's and industry
- Bids/offers and post contract management
- Marketing, communication and events

#### **VALUE**

- Single focal point for each customer and program
- Access to and exploitation of EU defense/aerospace expertise
- Co-ordination of functions across nations/industries
- Assurance of equity, quality and value for money





## **Ownership / Collaboration**



31.25 %

- Forward and centre fuselage
- Fuel system
- Communication system
- Avionics control system
- TTH mission system
- Production assembly

## **Aerostructures**

**5.5** %

- · Tail structure
- Doors
- Sponsons
- · Landing gear
- · Intermediate gearbox

#### **LEONARDO HELICOPTERS**

**32** %

- Power plant
- Rear fuselage
- Main gearbox
- Hydraulic system
- AFCS
- Plant management system
- NFH mission system
- · Production assembly

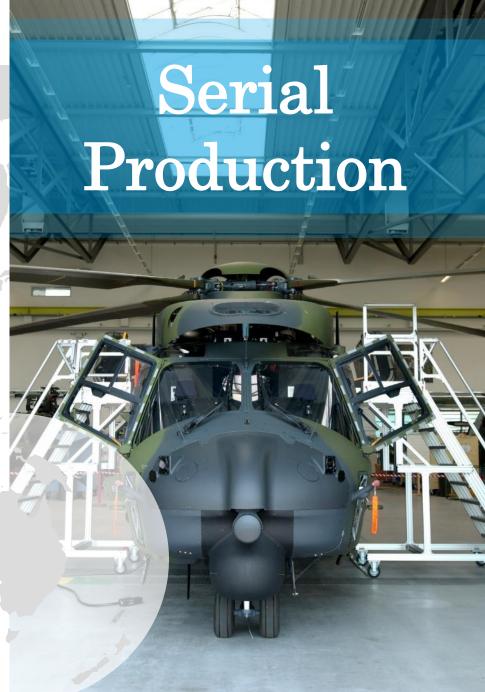
31.25 %

**AIRBUS HELICOPTERS** 

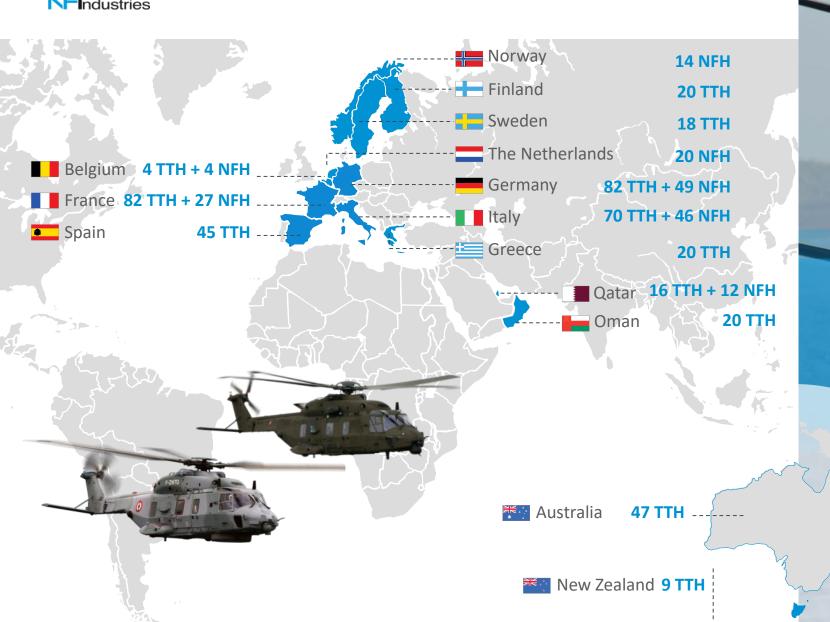
- Power plant
- Rotors
- Electrical system
- Flight control system
- · Core avionic system
- · Production assembly

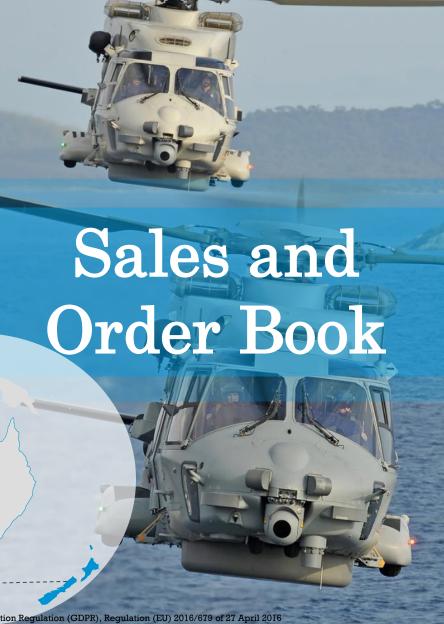














## **The NH90 User Community**



## MEMBERS OF THE WORLDWIDE NH90 USER COMMUNITY, MAXIMIZING THE POTENTIAL OF THE NH90 FLEET BY SHARING:

- Operational Concepts (ConOps);
- Operational Return of Experience (ReTex);
- Product/services evolutions and obsolescence treatment;
- Support and Services mutualisation;
- Software evolutions.













## The NH90



## MAJOR JOINT OPERATIONAL REQUIREMENT



#### « Nato Frigate Helicopter (NFH) »

- ✓ Autonomous Multi-mission Capability
- ☑ Day & Night (NVG) / Single Pilot Operation
- ✓ Full embarkability on frigates
- ✓ ASW/ASuW Suite (Sonar, Sonobuoys & Weapons)
- ✓ Tactical Surveillance (Video Link, Secure AIS, Targeting EO/IR surveillance system)
- Mission Duration: 4 hours

#### « Tactical Transport Helicopter (TTH) »

- ✓ 20 Troops / 12 Stretchers Or 1 Light Tactical Vehicle
- ☑ Single Pilot IFR
- ✓ N.O.E. Flight by Day and Night / Adverse Weather Conditions Beyond the FEBA
- Self Defence System & Engine IR Suppressor
- ☑ Piloting FLIR & Helmet Mounted Sight Display
- **Mission Duration:** 5 hours



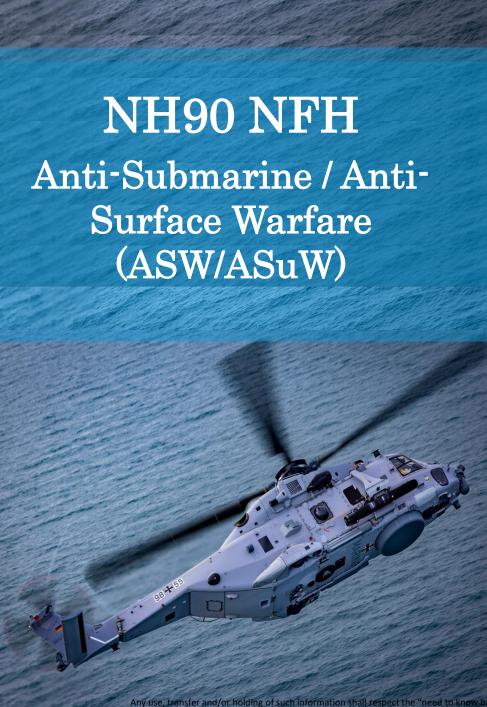
#### **SURVIVABILITY**

Low Detectability, Reduced Vulnerability, NBC Protection and Latest Standard Crashworthiness (Crew & Troops)



#### **ADVANCED ILS PHILOSOPHY**

Enhanced Reliability, Availability, Maintainability, Testability and Supportability Characteristics



#### **Anti-Submarine & Anti-Surface Warfare**

- Dipping Sonar: Advanced systems like the Thales FLASH SONICS provide superior performance in both deep and shallow waters.
- Torpedoes: Equipped with Mk 46 or Mk 54 torpedoes for anti-submarine operations.
- The Fire and Forget Marte ER (Extended Range)
- 360° Radar & IFF: Multi-mode radar systems offer comprehensive situational awareness.
- Ballistic Protection: Enhanced safety features for crew during operations.
- Machine Gun Provision: Space allocated for defensive armament.
- Operator Consoles: User-friendly interfaces for mission management.
- Stretchers: Accommodations for casualty evacuation.

#### **Tactical Surveillance & Communications**

- EO/IR Systems: Electro-optical/infrared sensors for day/night surveillance.
- Secure AIS: Automatic Identification System for secure maritime navigation.
- Video Link Relay: Real-time data transmission capabilities.
- Link 22: Beyond-Line-Of-Sight secure tactical digital data link.

#### **Shipboard Integration & Operations**

- Automatic Tail & Blade Folding: Space-saving design for shipboard storage.
- Steerable Nose Gear: Enhanced maneuverability on ship decks.
- Role-Fit Rear Ramp: Adaptable for various mission configurations.
- Pressure Refueling & HIFR: Capabilities for efficient fuel management.

#### **Electronic Warfare & Self-Protection**

- Advanced ECM Systems: Electronic Countermeasure systems for threat mitigation.
- Integrated Self-Defense Suite: Includes chaff and flare countermeasures.

#### **Crew & Operational Efficiency**

- 3-Crew Member Concept: Optimized for reduced workload and efficiency.
- High Growth Potential: New Generation (NG) computers, New Generation of IFF Interrogator and Transponder
- Frigate Integration: Built to operate in demanding ship/environment conditions.





# NH90 TTH Maritime Tactical Transport (MTT)



Marine and Special Operations, Onshore and offshore for Anti-piracy and counter Terrorism (Ballistic Protection and Fast Rope & Rappelling devices, provision for machine gun, rear ramp)

#### **TTH MTT Shipboard Integration & Operations**

- Automatic tail and blade folding with IR suppressor system allows ship operations
- Airborne command post (SATCOM Communication & Data Link)
- Latest generation Obstacle Warning System
- Parachuting
- Delivery/recovery
- Assistance to ships
- · Disaster relief
- · Vertical replenishment
- · Logistics and utility
- · Onshore and offshore SAR
- Onshore and offshore MEDEVAC / CASEVAC



#### NH 90 TTH Capabilities

- 24/7 All-Weather Operations against all threats
- Tactical Transport: 20 troops, 4-ton cargo (external/internal), VIP transport
- Medical Evacuation: Up to 12 stretchers or 25+ for mass evacuation
- Special Ops & Counter-Terrorism: SAR, CSAR-ready

#### **Operations & Self-Protection**

- Single-pilot optimized cockpit with helmet sight
- Fly-by-wire, obstacle warning, multi-redundant controls
- Stealth & Durability: Reduced detectability, 30-min dry run gearbox
- Global Reach: Self-deployable, battlefield repairable
- Manned-Unmanned Teaming Ready
- GDPR Compliant under EU regulations

#### **Crew & Operational Efficiency**

- Flexible Cabin: Rapid role changes, rear ramp, dual side doors
- Cargo Handling: Hook, winch, cargo rollers
- Self-Protection: IR suppressor, armor, DIRCM, self-sealing tanks
- Armament: Cabin weapons, external cannon
- Advanced Flight Systems





The Tactical Transport Helicopter (TTH) in Standard 2 Configuration is the most modern and versatile helicopter in its class meeting the most demanding requirements to operate in a complex environment.

#### **Helicopter Enhanced Capabilities**

- New generation optical sensors (EOS, Piloting FLIR DAS "Distributed Aperture System" with fixed cameras) coupled with new generation digital display helmet allowing unprecedented DVE "Degraded Visual Environment" capabilities
- Continuous digital flow of sensors images available for aircrew and commandos to be displayed on digital tablets and helmets
- Additional tactical satellite communication
- New fast roping, rappelling & extraction devices for lateral doors and rear ramp designed for Special operations commandos

#### **Operational Enhancement**

- · Additional «kitable» rear ramp capabilities with extended capabilities
- Extended radius of action with side 500kg external fuel tank, fire support 12,7mm gun mounts on the side doors





## **NHI Support Services**



## "THE EXCELLENCE OF EUROPEAN INDUSTRY FOR THE BEST AVAILABILITY"

Because our customers' missions are vital, NHI and its partner companies provide the best support solutions insuring the NH90 is ready, available and operational – anytime, anywhere



#### **COMPREHENSIVE SUPPORT PACKAGES**

Nose to tail solutions - turnkey, covering the entire helicopter
SBH (Service By the Hour) – securing material availability with full budget control
Parts and maintenance – your material at your demand
Training and training media – for pilots, ground-crew and tactical operators
Technical publications – electronic manuals, always up-to-date
Technical support services – everything from helpdesk to on-site support



#### **MAINTAINABILITY FEATURES**

Ground Logistics Management Information System

Monitoring and Diagnostics System and Health & Usage Monitoring Services
Integrated Electronic Technical Publications

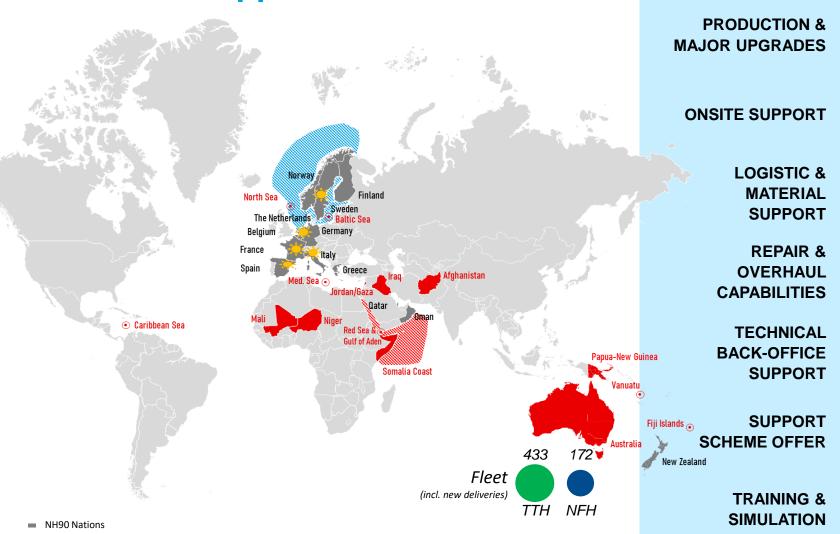






## **Product Support Services**

Final Assemply Line / Major Upgrades facilities / Repair Network



#### 5 dedicated Plants

located in France, Germany, Italy and Spain with 200+ helicopters yet to be delivered / upgraded

#### Our permanent presence in

more than **300** personnel deployed at customer bases including Technicians, Technical and Logistics
Representatives and Variant Support Leaders

#### **Dedicated stocks**

More than **8,000** Part Numbers coverage, under continuous review.

#### A network of repairers

More than **10.000** components yearly repair capacity by Partner Companies and a network of suppliers worldwide

#### At your request

Team of experts handling **5,500+** yearly requests and ensuring continuous improvement of technical publications

#### At customer's choice

Adaptative support scheme based on customers' needs with different level of Industry's responsibility

#### Training Academy

2 facilities based in Italy and France with more than **80** courses annually delivered for **500+** students.

## **Adaptative Support Schemes (4-level)**

#### **TURN-KEY SOLUTION**

- ✓ Full budget control
- ✓ Enhanced serviceability

#### GUARANTEED PART AVAILABILITY

- Enlarged budget control
  - ✓ Improved availability

#### **OPTIMIZED R&O FLOW**

✓ Budget control for R&O

PARTS CATALOGUE

✓ Autonomy

 Turnkey governance for harmonized maintenance & flight operations · CAMO - Continued Airworthiness Management Organization Preparation & Execution of Maintenance (Scheduled, Unscheduled, Evolution) Managed SBH: Service By the Hour Services - RBH: R&O by the hour - Stock Replenishment - Transportation On site assistance for stock management (LFR, WaK, tool) **Parts Availability** RBH: R&O by the hour **Recommended Spare Part List** Material On-demand R&O Management · On demand stock replenishment · On site Technical Representative On-demand services **Full Support** Service **SBH** Repair by the hour (turn-key) **Service** Time & Material (RBH)



## **Availability and mission readiness**



- Monitoring and Diagnostic System (MDS): monitors
  major helicopter systems, flight hours and component
  conditions to provide intelligent information to
  maintenance teams regarding necessary maintenance
  and schedules. Information is held on a memory plug that
  is transferred to the GLIMS.
- Ground Logistic Management Information System (GLIMS): a ruggedized laptop that accepts the MDS information by memory plug, informs the maintenance team about component lives and models trends in conditions
- Skyflight<sup>™</sup> is a Mission Planning & Analysis System fulfilling the requirement for a multi-mission and multiplatform mission planning system.
   A system mandatory for planning in advance complex missions such as the ASW and ASuW.



## **NHI Training Services**

## Because training is the key to mission success, NHI offers specific and tailored training packages

#### PRIMARY TRAINING LOCATIONS

- Airbus Helicopters Training Services, Marignane (France)
- Leonardo Helicopters, Sesto Calende (Italy)

#### TYPES OF TRAINING

- Pilot and co-pilot
- SENSO
- TACCO

- Mechanical
- Electrical
- Avionics

#### TRAINING MEDIA

- In flight and On Aircraft
- Traditional classroom
- Part Task Trainers
- Computer Aided Instruction (CAI)
- · Full Flight and Mission Simulators
- Maintenance Trainers (Virtual and Physical)

