

Open & Interoperable UAV System Architecture

Report Documentation Page

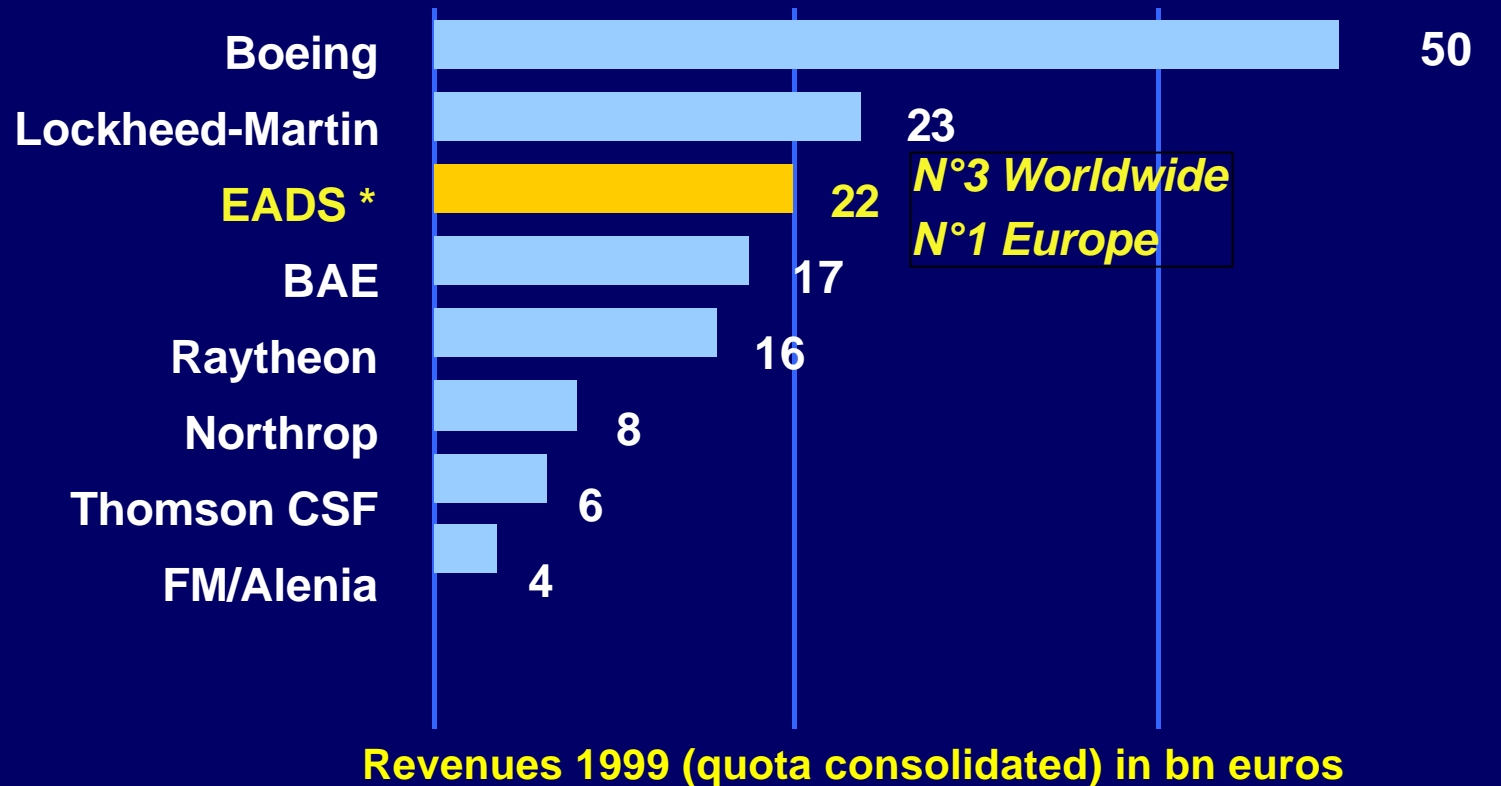
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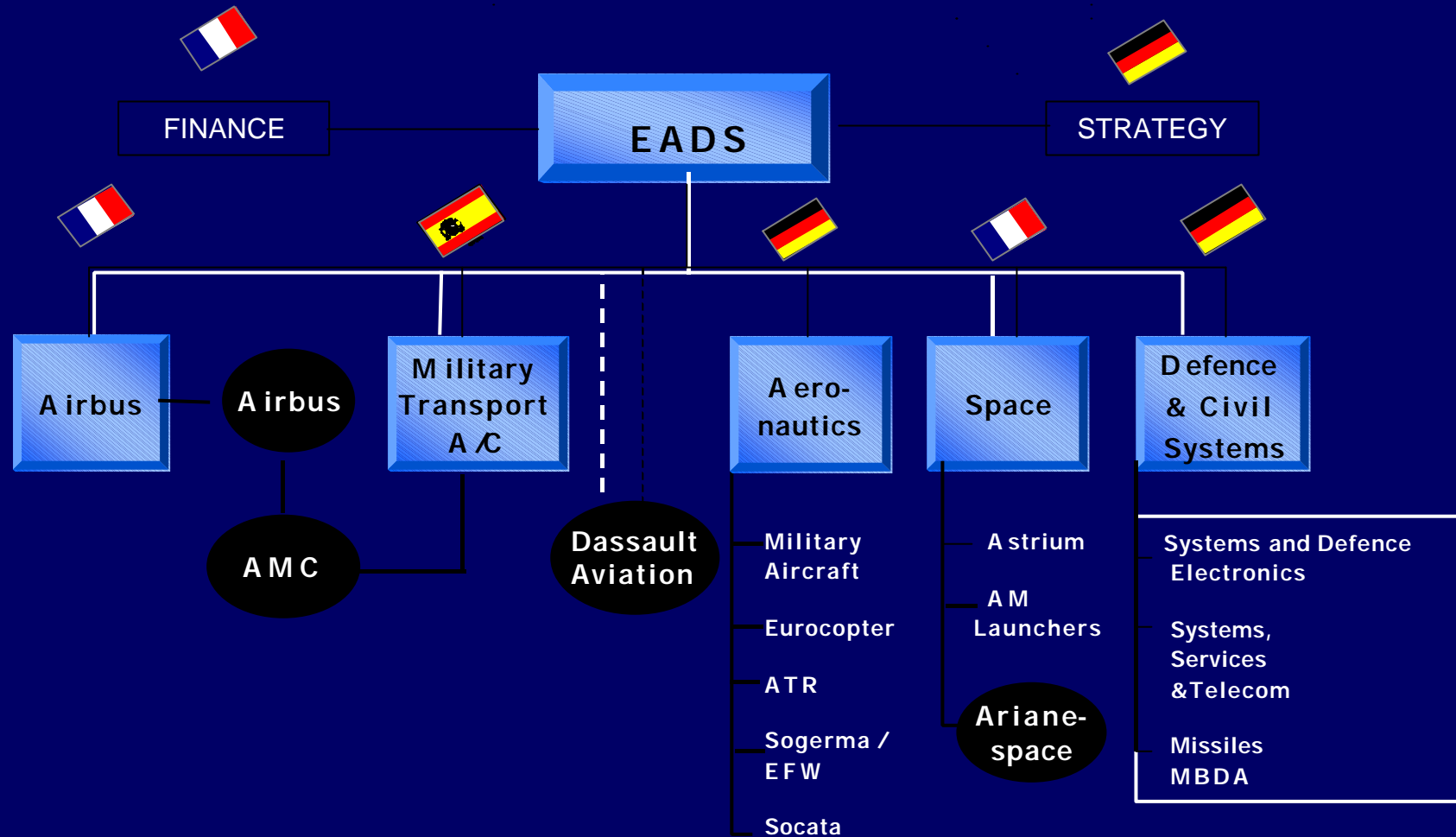
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EADS

ON THE LEADING EDGE OF GLOBAL AEROSPACE INDUSTRY



BUSINESS UNITS AND MAIN PARTICIPATIONS



Systems and Defence Electronics includes the former UAV activities from Aerospatiale, Matra, DASA and CAC Systems

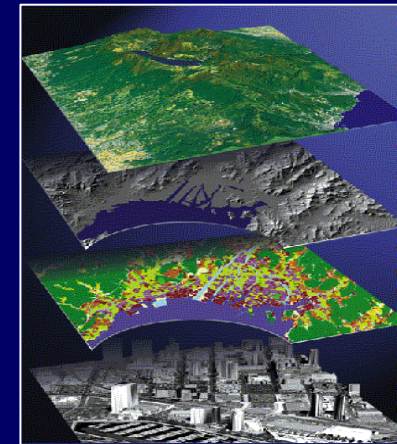
ISR Intelligence Surveillance Reconnaissance

BUSINESS
DEVELOPMENT

SYSTEMS

GROUND
SEGMENTS

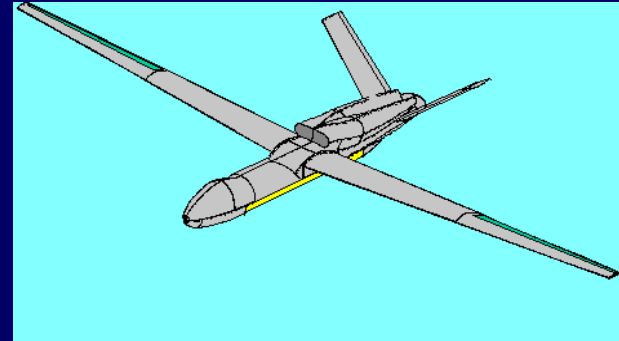
GEOMATICS



UAV SYSTEMS ON EVERY SEGMENTS



MALE



MULTIMISSION HALE



HIGH SPEED UAV



ARMY TACTICAL UAV



MARITIME UAV

OBJECTIVES

THE CORE SYSTEM IS DESIGNED TO SUPPORT THE MAIN FOLLOWING REQUIREMENTS:

- **AIRWORTHINESS AND SYSTEM CERTIFICATION**
- **INTEROPERABILITY**
- **STANDARDS RESPECT (STANAG)**
- **FULL EVOLUTIVITY AT LOW COST**
- **HIGH LEVEL OF INFORMATION MANAGEMENT AND PROCESSING PERFORMANCE**
- **LOW LIFE CYCLE COST**

**A REAL OPEN AND MODULAR ARCHITECTURE
BOTH FOR AIR VEHICLE AND GROUND SEGMENT**

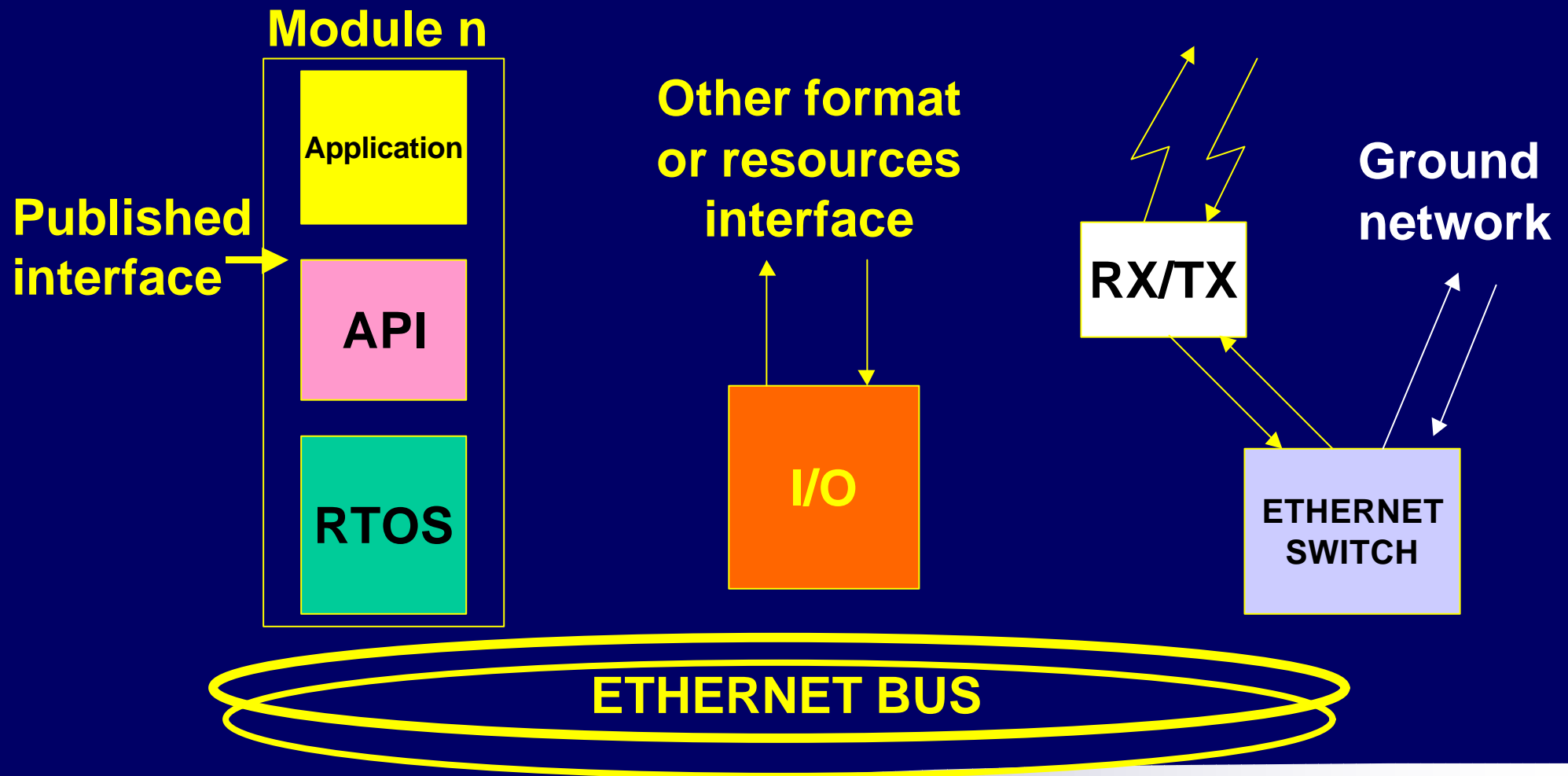
THE TOOLS (1/2)

- **A FULL REDUNDANT COMMUNICATION BUS WITH IMPLEMENTATION OF DETERMINISM AND SEGREGATION SERVICES (TO RECEIVE ALL MODULES)**
- **A REAL TIME OPERATING SYSTEM WITH ALL OBJECT ARCHITECTURE , COMMON FOR ALL SYSTEMS**
The OS becomes a components ' assembly which is dynamically linked and provides:
 - **The choice of components really needed**
 - **Determinism and pre-emptivity**
 - **low size code**
 - **evolution facility and regression reduction risk (code addition without recompilation of existing or sources modification)**

THE TOOLS (2/2)

- **A COMMON INTERFACE DEVELOPMENT (API) FOR EACH MODULE:**
 - **Open interface (Published format)**
 - **Set up by software**
 - **Functions or systems splitting**

INTERNET SERVER MODEL ARCHITECTURE



THE MEANS

EADS WHICH OFFERS QUITE ALL AERONAUTICAL SKILLS WILL COOPERATE WITH SME OF EXCELLENCE IN ORDER:

- **TO DEVELOP HIGH SYNERGY ON A STRUCTURANT PROGRAM**
- **TO IMPLEMENT CONTINUOUSLY HIGH TECHNOLOGY SKILLS WITH MATURE AND MASTERED PRODUCTS**

« WELCOME SINOVIA... »