

FRENCH MALE UAV PROGRAM



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SIDM CONOPS

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FAF IMAGERY ARCHITECTURE

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FUTURE FRENCH MALE UAV PROGRAM

Report Documentation Page

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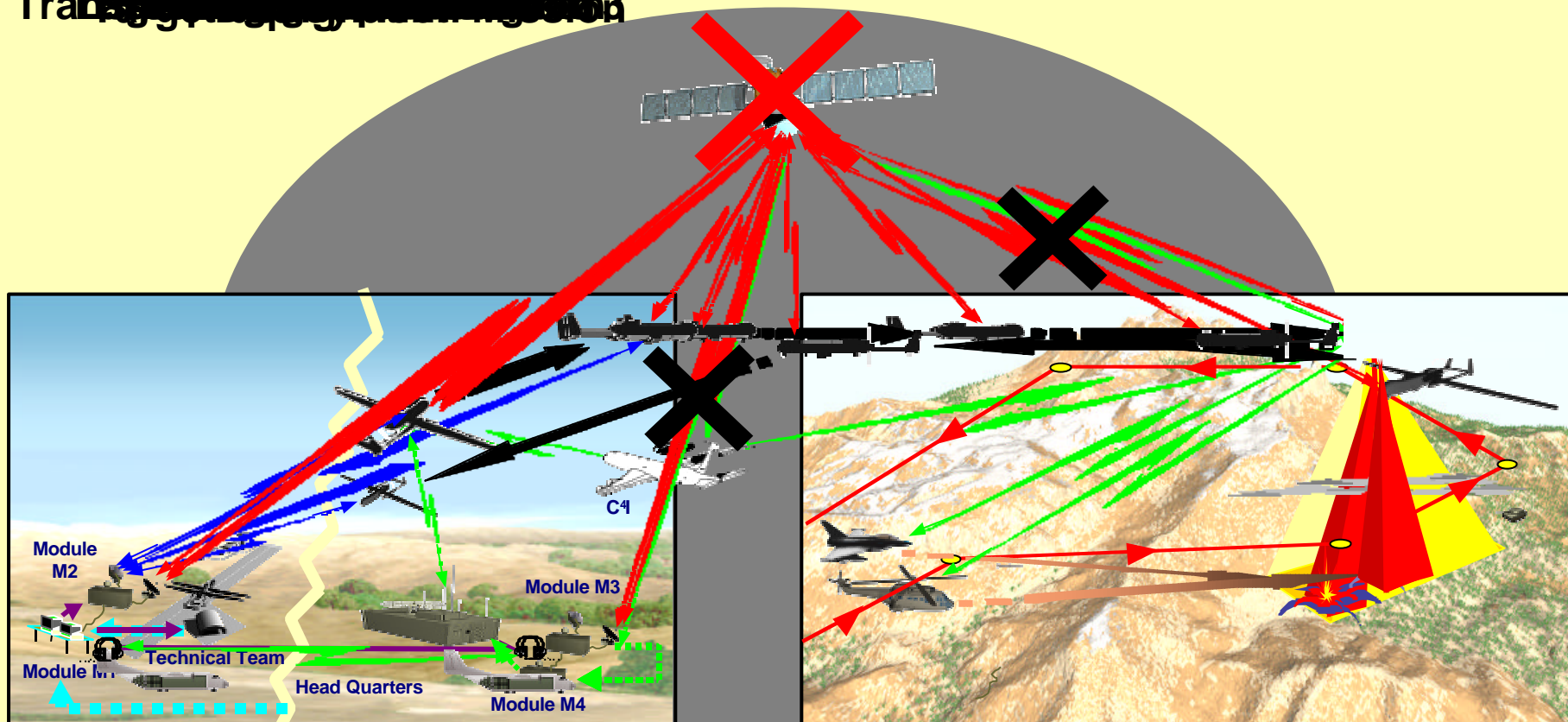
SIDM CONOPS

- ✓ **ALL WEATHER SURVEILLANCE MISSIONS IN REAL TIME**
- ✓ **ALL WEATHER RECONNAISSANCE MISSIONS**
 - ORDER OF BATTLE
 - TARGETTING
 - RAI
 - BDA
- ✓ **OFFENSIVE AIR SUPPORT**
 - TARGET DESIGNATION
 - TARGET ILLUMINATION
- ✓ **MISSIONS TO BE PERFORMED AT A RANGE OF 1000 KM FROM THE BASE**
- ✓ **MISSION CONTINUITY CAPABILITY FOR A PERIOD OF 24 HOURS OR MORE**



S.I.D.M. Typical CONOPS

Travail de l'Armée de l'Air

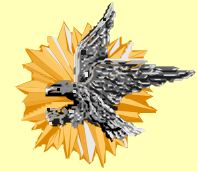


Deployment Site

← 1000 KM →

Operation Theatre

FRENCH MALE UAV PROGRAM



1

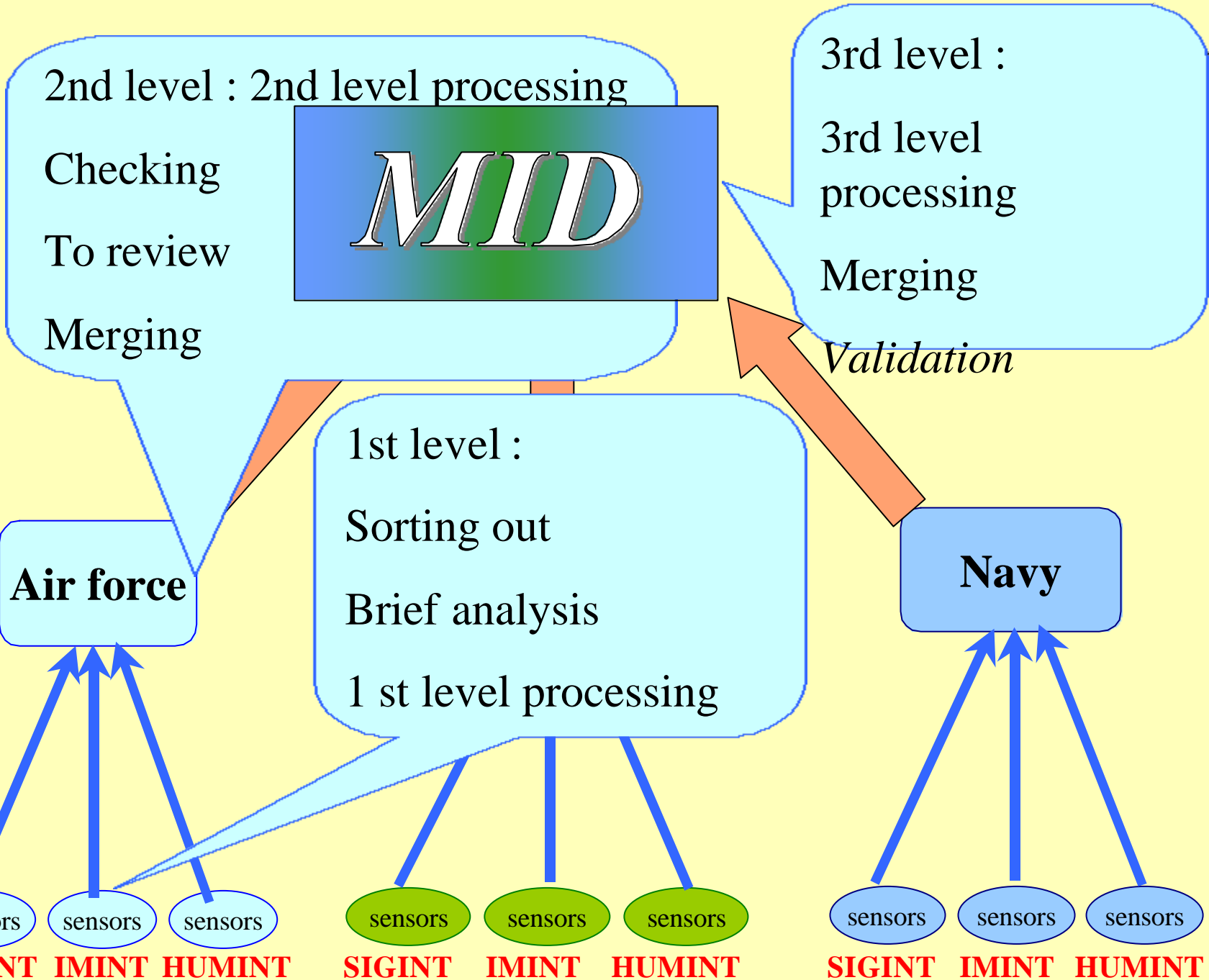
SIDM CONOPS

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FAF IMAGERY ARCHITECTURE

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FUTURE FRENCH MALE UAV PROGRAM





Multisensor Image Interpretation and Dissemination System

✓ ONLY ONE EXPLOITATION SYSTEM

- Every imagery sensors : Black White Film, IRLS, SAR-MTI, EOS
- Air Force: all cameras OM40/33, all imagery sensors:
PRESTO, SUPER CYCLOPE, SLAR RAPHAEL
- Army : UAVs, SLAR Horizon
- Navy : used for imagery recce

✓ NETWORK CAPABLE SYSTEM

✓ DISSEMINATION 1 st to 2nd Level

- Satellite, phone line, ...



Multisensor Image Interpretation and Dissemination System

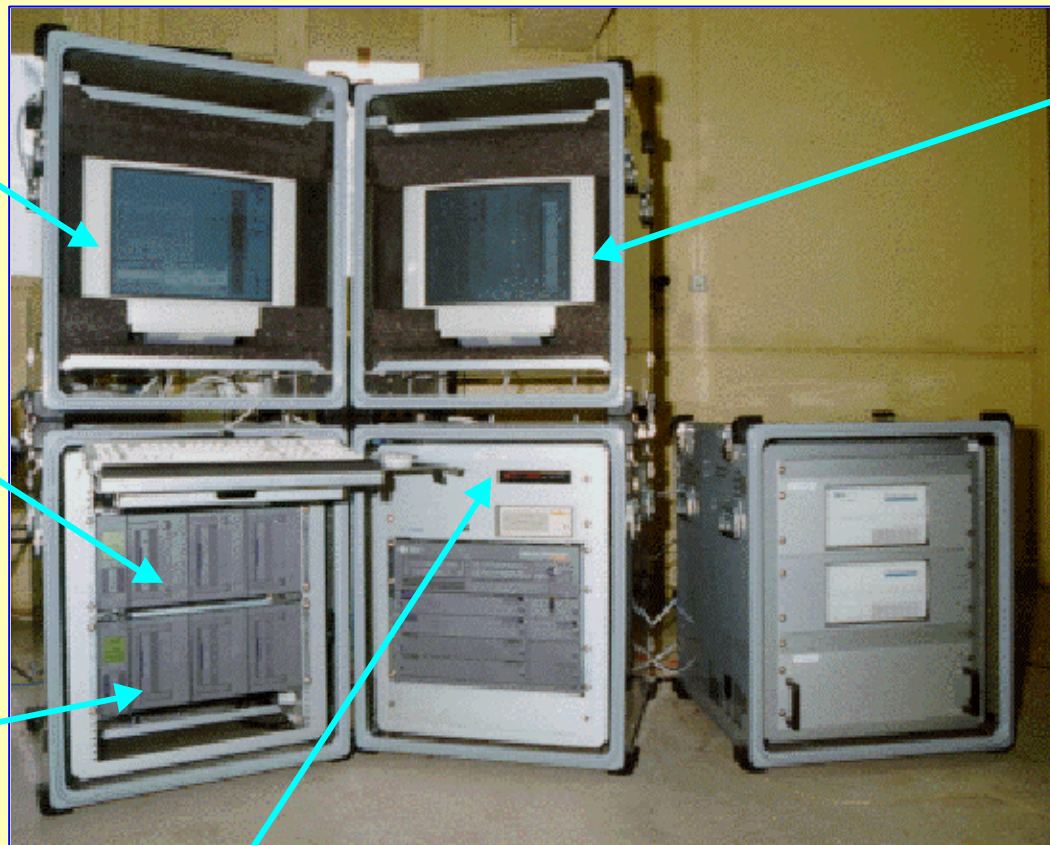
20 inches
Control screen

Visualisation
screen

Data base

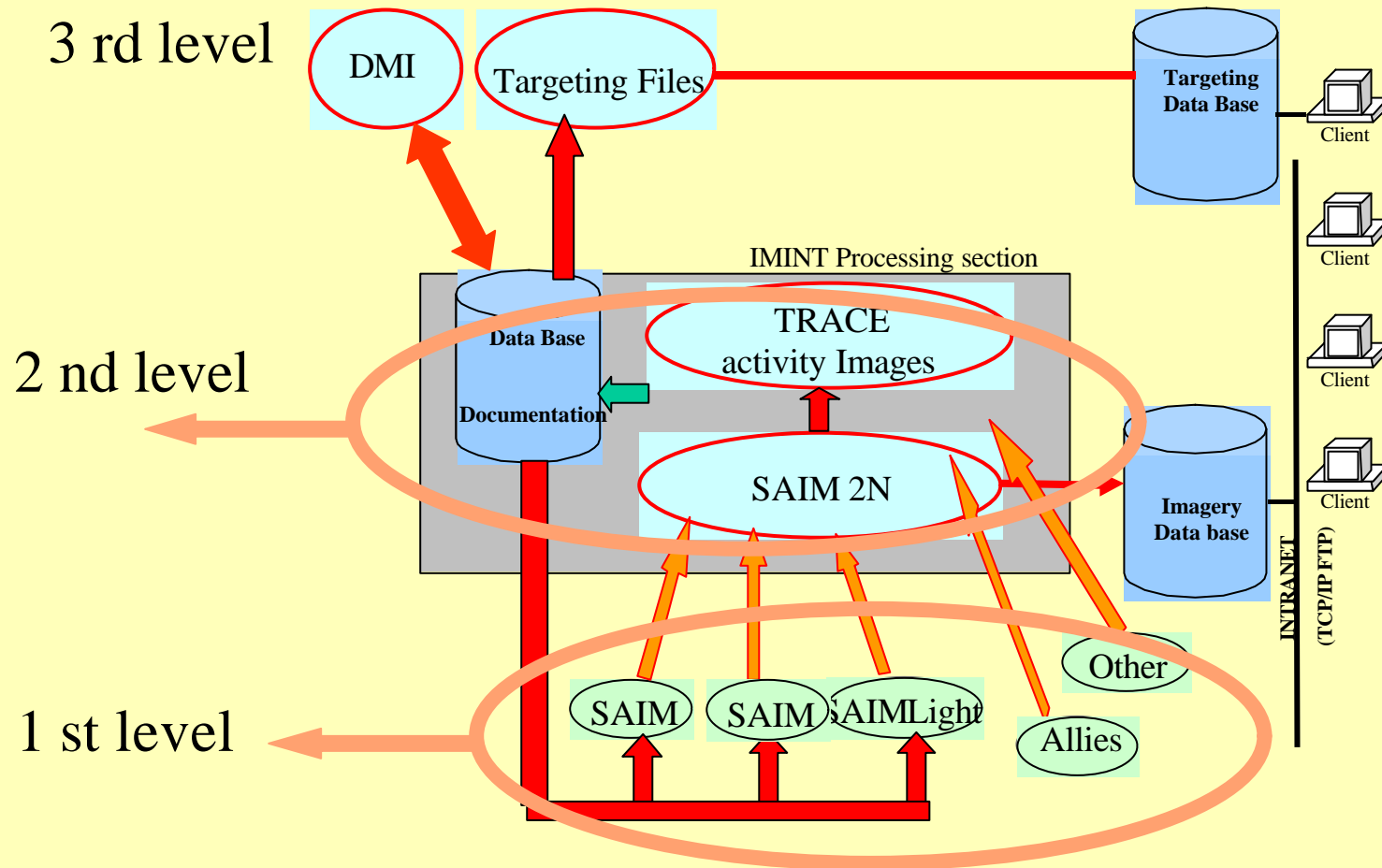
Data base

CD-Rom





Multisensor Image Interpretation and Dissemination System



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FUTURE FRENCH MALE UAV PROGRAM

THE FUTURE FRENCH MALE UAV PROGRAM

THE AIM



✓ PROPOSE A COMPLETE OPERATIONAL CAPACITY TO THE FAF

- INTEROPERABLE MALE UAV
- RELAY BETWEEN UAV
- COMMUNICATION RELAYS FOR C4I
- EO/IR
- LASER AND DESIGNATION
- SAR MTI
- ELINT + COMINT ESM
- COMMUNICATION AND RADAR JAMMING
- N2 + N5 INTEROPERABLE GCS

THE FUTURE FRENCH MALE UAV PROGRAM THE CALENDAR



- **2 VERSIONS**
- **FEASIBILITY V1 : 3 YEARS**
- **CO-OPERATION AGREEMENTS : 2 1/2 YEARS**
- **DEFINITION V1 AND FEASIBILITY V2 : 6 YEARS**
- **DELIVERY V1 7 1/2 YEARS**
- **DELIVERY V2 : 10 1/2 YEARS**

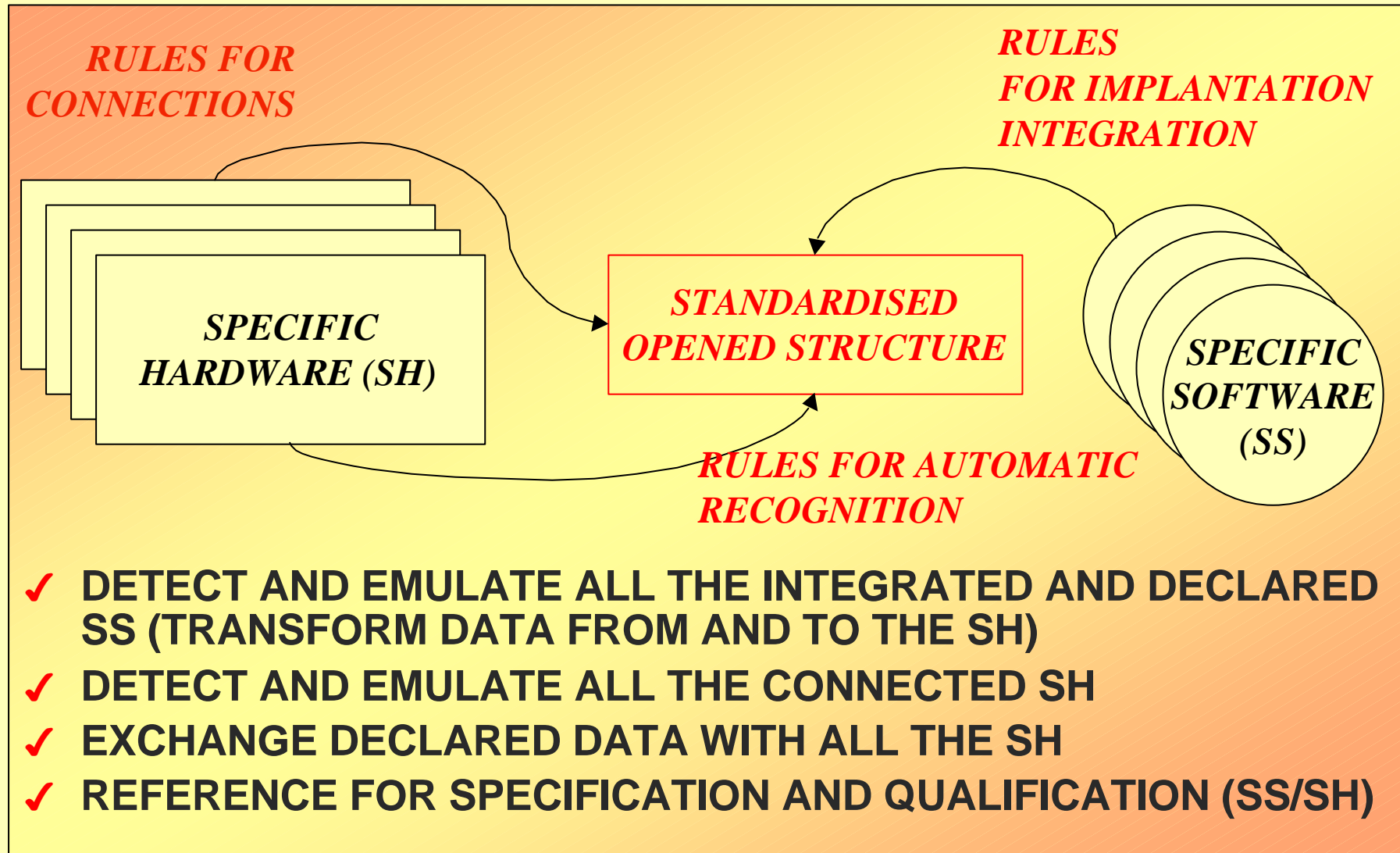


THE FUTURE FRENCH MALE UAV PROGRAM **FORECASTED FEASIBILITY STUDIES**

- **REQUIRED MEANS FOR QUALIFICATION**
- **VERY LOW COST MALE DEMONSTRATORS**
- **OPERATIONAL VULNERABILITY STUDIES**
- **COMPLETE REQUIREMENTS BOOK FOR CERTIFICATION, AIRWORTHINESS AND INTEGRATION INTO AIR TRAFFIC - FULL SIZE AIRBORNE DEMONSTRATION**
- **COST ANALYSIS FUNCTIONS BY FUNCTIONS (MALE VS OTHER VEHICLES)**
- **RISKS ANALYSIS FUNCTIONS BY FUNCTIONS**
- **COMPLETE SYSTEM REQUIREMENTS WRITING**
- **WITH MCMM : REQUIREMENTS WRITING FOR THE “FULLY INTEROPERABLE QUALIFICATION PLATFORM”**



THE FUTURE FRENCH MALE UAV PROGRAM INTEROPERABILITY APPROACH



THE FUTURE FRENCH MALE UAV PROGRAM INTEROPERABILITY AND ACQUISITION STRATEGY



- TO LEAVE OPEN THE CHOICE OF PARTITIONING (SEPARATED PURCHASES OF PAYLOAD AND VEHICLE, TO IMPOSE THE USE OF A SPECIFIC SUBSYSTEM ...).
- TO KEEP THE POSSIBILITY OF HAVING THE SYSTEM EVOLVE DURING ITS LIFE SPAN WITH OR WITHOUT THE COMPANY IN CHARGE OF THE INITIAL MANUFACTURING.
- TO BENEFIT FROM CHOOSING THE SAME LEVEL 2 STATION WITHOUT HAVING TO LAUNCH ALL UAV PROGRAMS AT THE SAME TIME.
- TO FACILITATE THE ARRIVAL OF A NEWCOMER FOR A SUBSYSTEM (VEHICLE, PAYLOAD...).



RESEARCH AND STUDIES IN PROGRESS

ETO

- ✓ TARGET DESIGNATION
FROM UAVS
- ✓ PLANNING, COMMAND AND
CONTROL OF A THEATER
WIDE UAV FLEET
- ✓ MULTI PAYLOAD UAVS

PEA

- ✓ INTEROPERABILITY OF ¹
UAV SYSTEMS
- ✓ INTEGRATION IN GAT
ENVIRONMENT
- ✓ CERTIFICATION OF
HALE/MALE UAV



MINISTÈRE
DE LA DÉFENSE



...A PROSPECTIVE APPROACH

RESEARCH AND STUDIES IN PROGRESS





Questions ?