EUROPEAN DEFENCE AGENCY

Cologne, ACARE WS Certification 2. Oct 2013

Jan Plevka Ph.D, EDA MAWA Chairman

Harmonisation of European Military Airworthiness

MAWA

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Research & Techn
Armaments Co-op
Technological & In Base
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Mature actions
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MILITARY AIRWORTHINESS

European countries operate aviation safety systems independently from each other and each country is individually responsible for the regulation of its aircraft. As a result, all military airworthiness activities are conducted and regulated on a national basis and harmonisation is only achieved at individual project level and repeated for each new project.

This generates many problems in multinational programmes and is a primary cause for delay and additional cost. There is a unique opportunity to agree on an EU-wide harmonisation and unification strategy on military airworthiness. Such an EU-wide harmonisation on military airworthiness will also be of benefit the European industry and thus strengthen the European Defence Technology and Industrial Base (EDTIB).

CONTINUE

- Early results
- MAWA Forum
- Certification
- Requirements

"European cooperation through EDA is part of the solution: the Agency allows Member States to save and to optimize their investments. Airworthiness is a good case. By developing common European airworthiness standards and certification regulations billions can be saved." *Alexander Weis, EDA's Chief Executive, September 2009*

MORE LINKS

- Armaments Directorate
- European Armaments Co-operation Strategy

MAWA ON THE NEWS

- Defence Ministers launch European Helicopter Training
- Progress of the EDA Future Unmanned Aerial System project
- EDA Supported the Military Airworthiness Harmonisation Workshop

Strategies
- Strategies overview
- Capabilities Development Plan
- Research & Technology
- Armaments Co-operation
- Technological & Industrial Base

Capabilities priorities
- Top 10 priorities
- Mature actions
- Core drivers & environments

Activities overview
- Software Defined Radio
- Intelligence
- 21st Century Soldier
- Armoured Systems
- Non-lethal capabilities
- Personnel Recovery
- Maritime Surveillance
- UAS Air traffic insertion
- R&T Projects and
- Defence Industry Data
- REACH
- Future Air Systems
- Ammunition Pilot Case
- Depth & diversity: SMEs
- Defence Test and Evaluation Base
- Standardization
- Military Airworthiness

EDA Portals
- Offsets Portal
- Defence Data
- EDRC Portal
- TPLS Portal
- EDSIS Portal
- Electronic Bulletin Board
- REACH Portal

IERINE ASHTON
Representative,
President of the
ean Commission
of EDA

NTS
May
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On the agenda
31 May 2011
Press briefing (Brussels) - IT...
Press Day - ITALIAN CALL 11
Countering Improvised Explosives...
MARSUR Demonstration Day
Open Day & industrial exhibition -...

UAS Conference

PORTALS
TPLS
Third Party Logistics Support

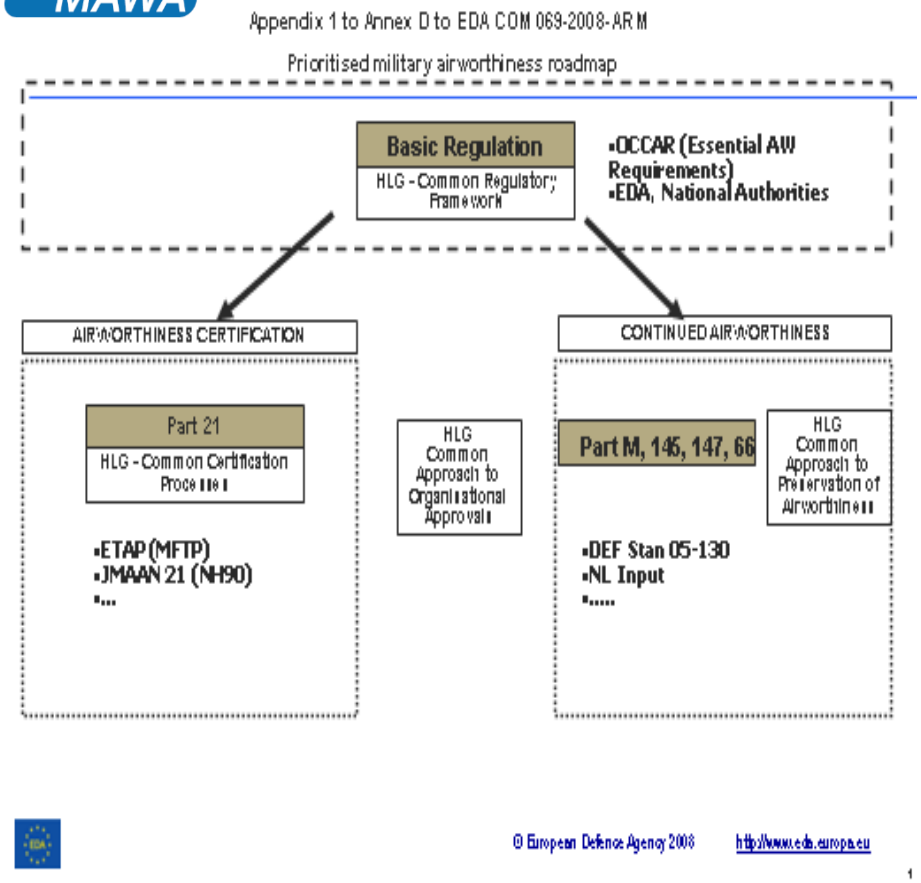
EDA & Airworthiness

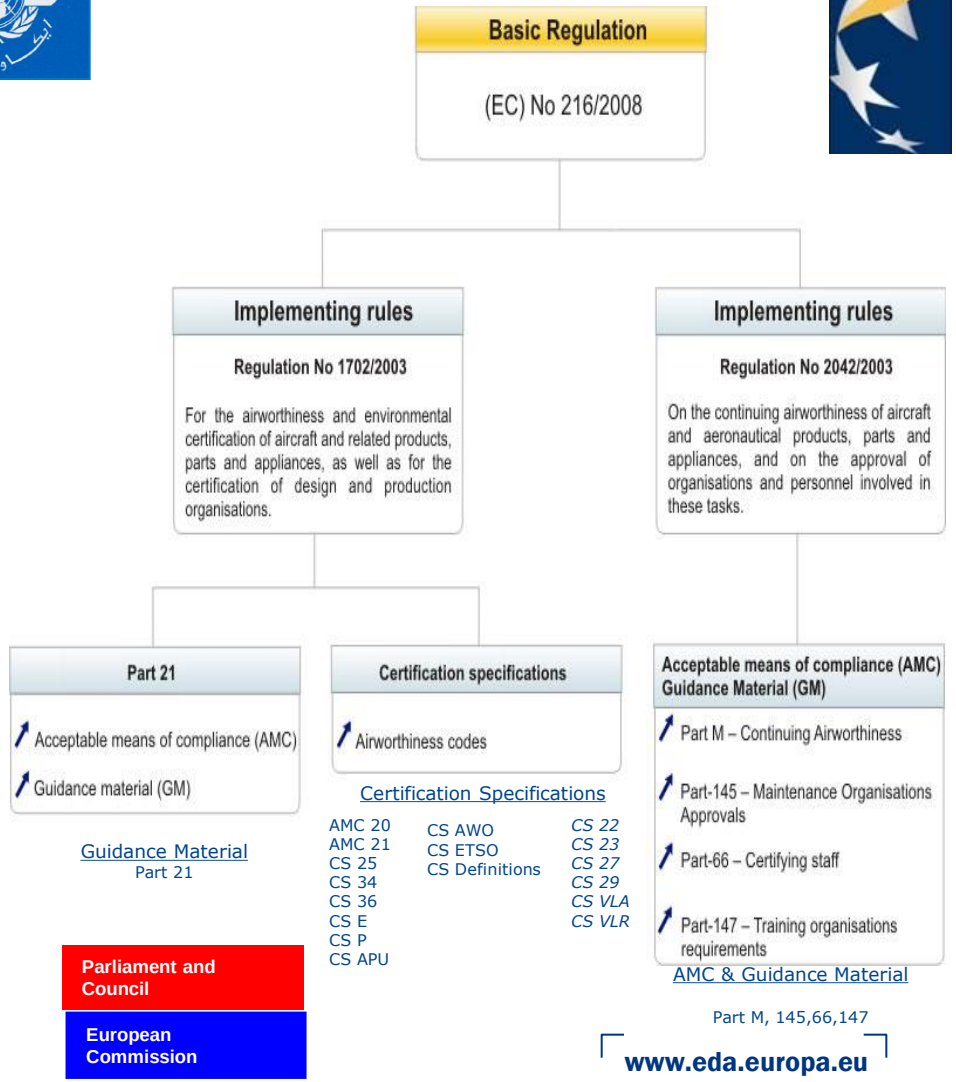
- Civil aviation recognised the need for harmonisation much earlier than the military (sovereignty, competitions, limitations in defence technology export ....)
- ICAO 1944, FAA, JAA, EASA …
- Military in Europe recognized certain drawbacks of the fragmented approach mainly after the geopolitical changes

- First signals were the international integration of air industry - common multinational projects (Typhoon, NH90, A400M....)
- Number of international activities for coordination of military airworthiness authorities started in 2003-4, EMAAG, FINAS, OCCAR, JMAAN, ETAP...
- November 2008 is an important milestone in EU military Airworthiness history:

  EU Ministers of Defence approved the establishment of Military AirWorthiness Authorities (MAWA) Forum and endorsed the European Military Airworthiness Roadmap

Determining an appropriate airworthiness structure





EU MoD

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SB decisions for EU Military Airworthiness

- **April 2008-** National Armaments Steering Board (SB) taske EDA to prepare for the creation of an EU-wide forum for **Military Airworthiness Authorities (MAWA)**

- **Nov 2008-**EDA Steering Board (SB) decision of MODs for the establishment of a forum for Military Airworthiness Authorities (MAWA) with a view to developing an EU-wide regulatory framework

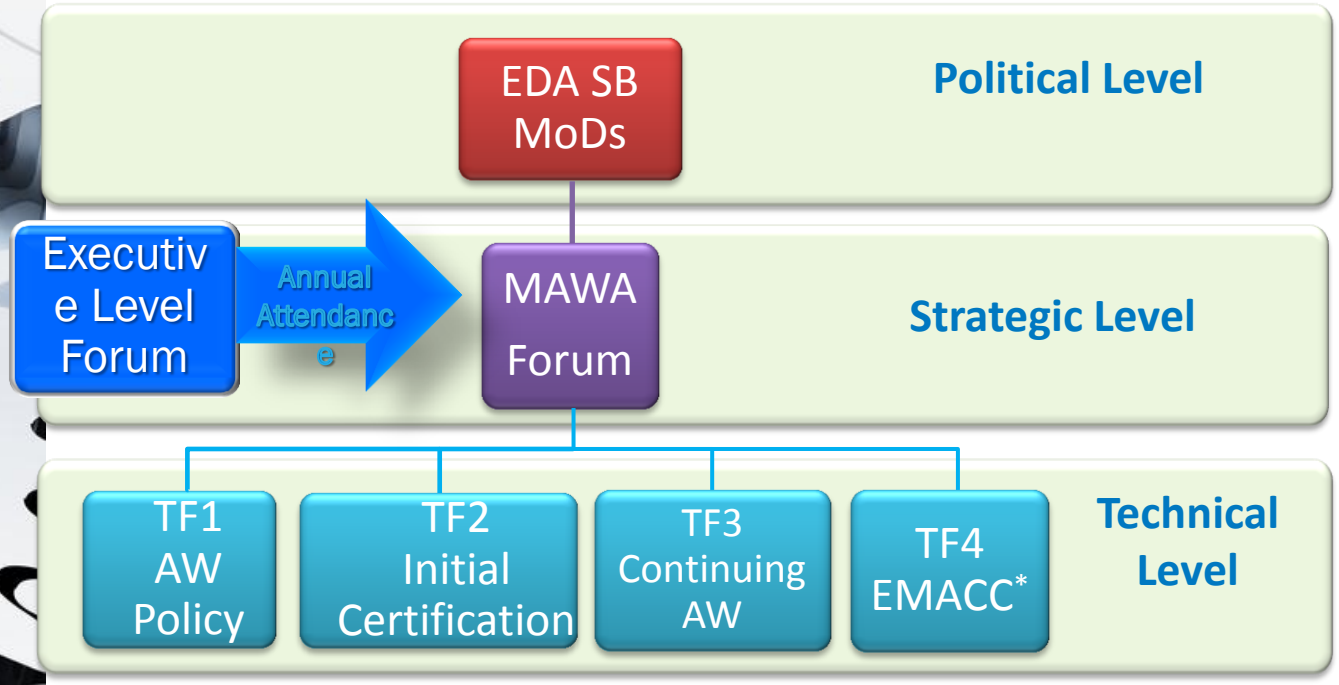
- The SB also approved a high level Military Road Map with the main objectives for airworthiness harmonisation

- **Nov 2009-**Defence Ministers' Political Declaration for the timely development and early implementation of the harmonised European Military Airworthiness Requirements (EMARs) into national regulations

The MAWA Roadmap Objectives

- Common regulatory framework
- Common certification processes
- Common approach to organisational approvals
- Common certification/design codes
- Common approach to preservation of airworthiness
- Arrangements for mutual recognition
- Formation of a European Military Joint Airworthiness Authorities Organisation

MAWA governance



* European Military Airworthiness Certification Criteria

EDA MAWA Forum current structure

EDA SB MODs

Executive level

MAWA Forum

EDA

MAWA TF1
Framework docs

AIRWORTHINESS POLICY DEVELOPMENT

Basic Framework EMAR -1
Mutual recognition
Functions of MAWA
Commitments of NMAAs'
Membership Etc.

MAWA TF2
EMAR certifications Approvals & GM, AMC

IN & CONTINUED AIRWORTHINESS

Design & manufactures approvals
Military type-certificates & Changes to those certificates
Airworthiness certificate

MAWA TF3
EMAR Maintenance + GM, AMC

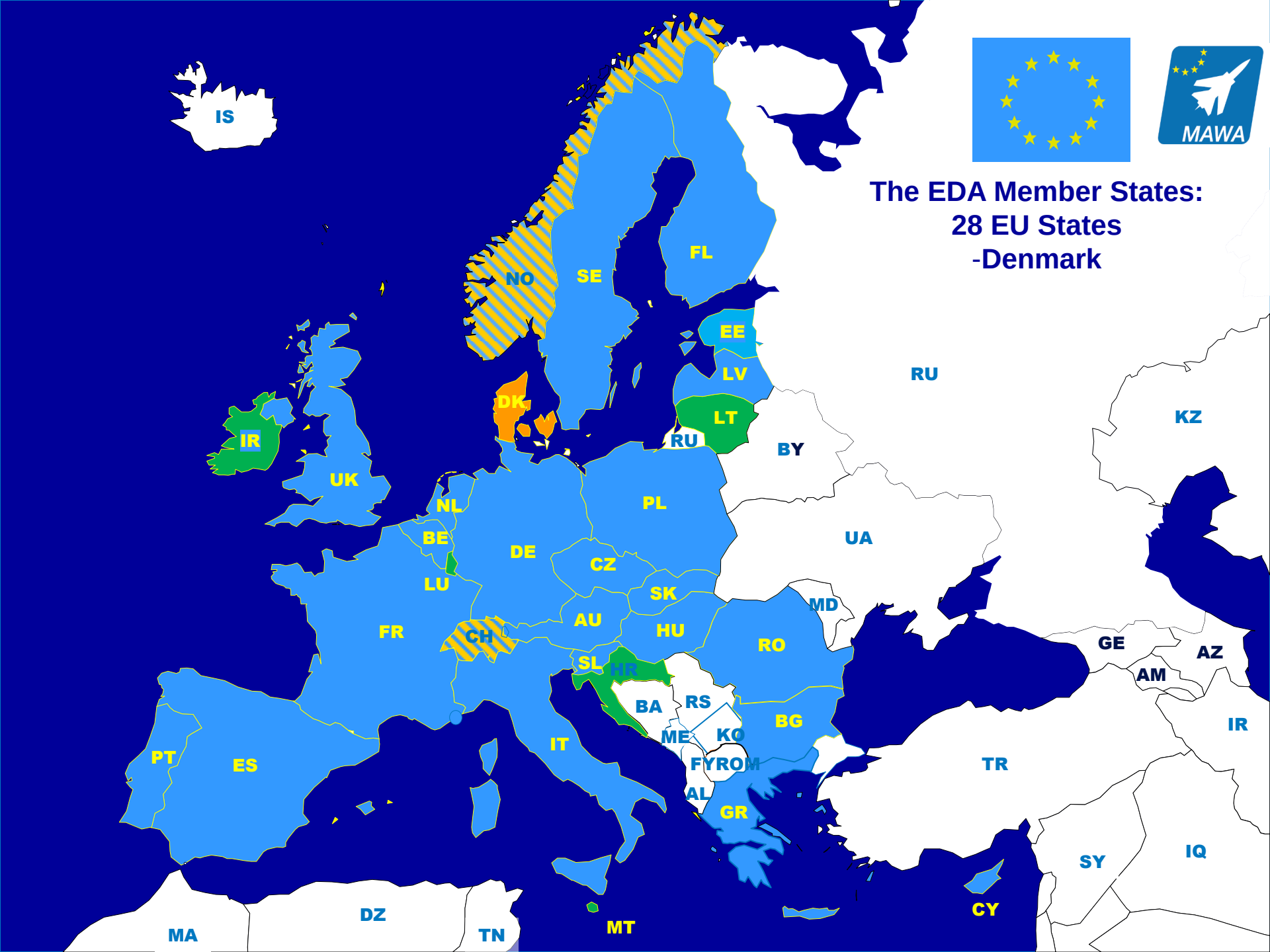
CONTINUING AIRWORTHINESS

Maintenance organisations approvals, CAMO, Housing, Facilities Equipment, Materials Data, Personnel Training &Training org. approvals.
Quality managements

MAWA TF4
Military certification criteria

EUROPEAN MILITARY CERTIFICATION CRITERIA (EMACC)

Develop a harmonised tool to assist NMAAs or joint project teams to define the certification basis for new military air systems.


The EDA Member States:
28 EU States
-Denmark
MAWA
IS
NO
SE
FL
EE
LV
LT
RU
DK
IR
UK
NL
BE
LU
DE
PL
CZ
SK
AU
HU
FR
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FYROM
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PT
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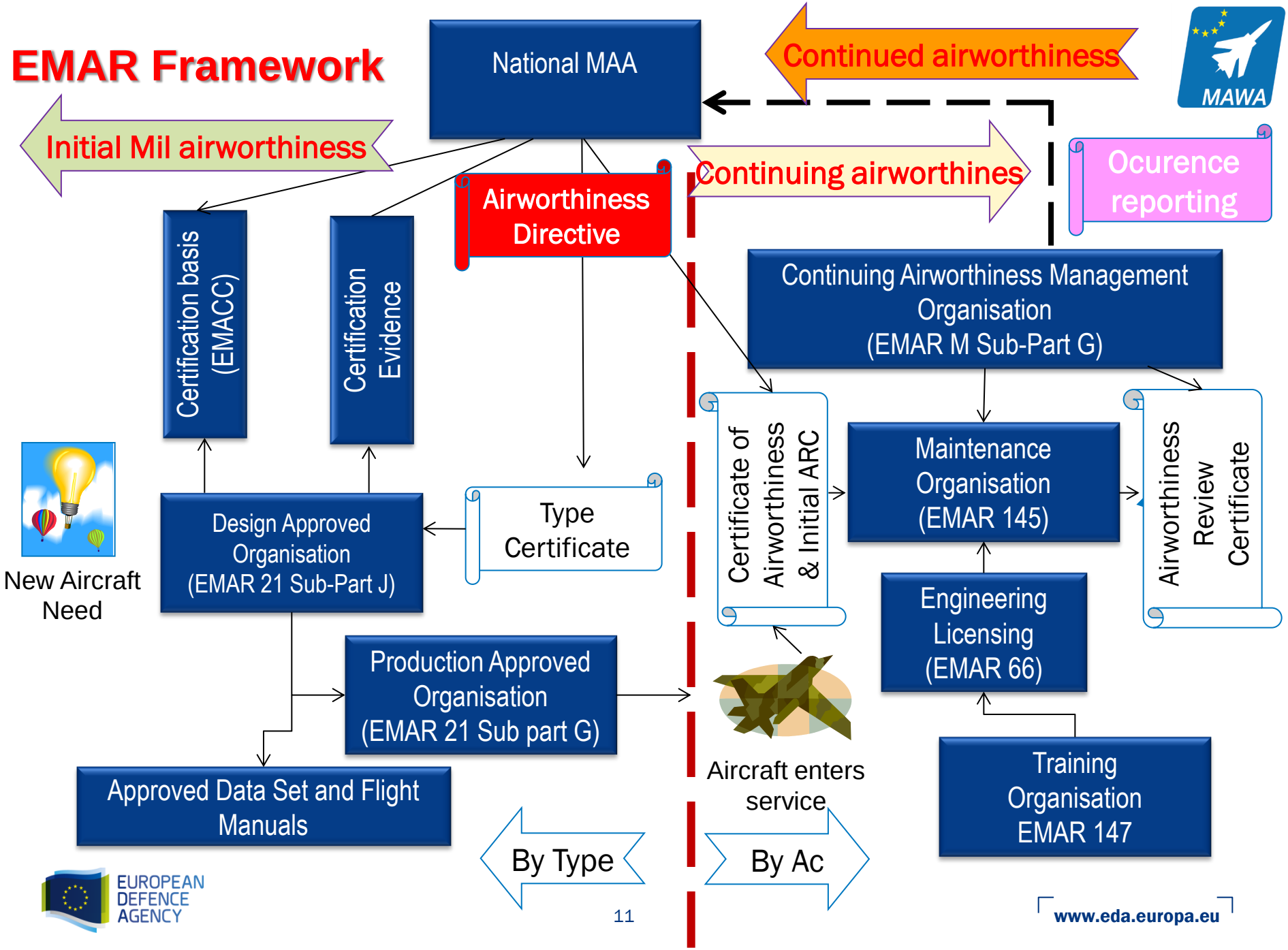
DZ
TN
MT

What are the expected benefits of working together ?

- Civil & Military aviation safety is paramount,
- Military-military & civil-military cooperation,
- Reducing time & costs for new aircraft development
- Helping to improve competiveness of EDTIB
- Common approach to maintenance and repair
- Mutual Recognition between the different authorities

EMAR Framework



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MAWA
Task Force 4

EMACC (HndBk)

First chairman LtCol Alessio GRASO (pMS – GE,FR,IT,NL,SE,UK & PT)

Based on existing certification criteria (Mil Hdbk. 516B, DEF std + civil codes…)

- Development of military EMACC for future military aircraft programmes or major modifications.
- Furthermore, platform unique criteria (special conditions) need to be added to fully address the safety aspects of unique military configurations.
- EMACC addresses airworthiness certification criteria to be used in the determination of airworthiness of all manned and unmanned, fixed and rotary wing air vehicle systems.
- It is a foundation and tailorable document to be used to define the air systems airworthiness certification basis.
- This document will cross reference relevant military and civil requirements.

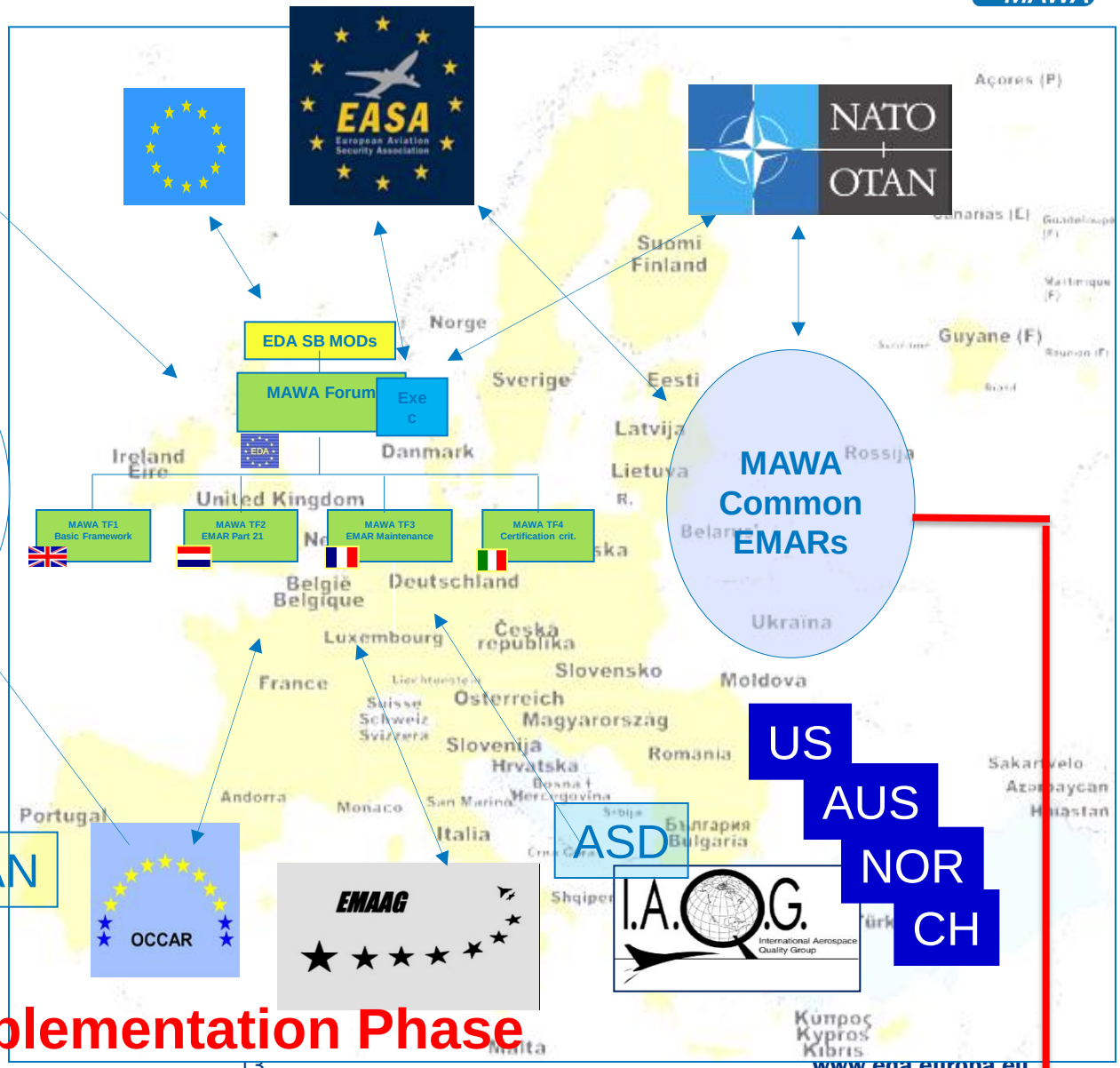
MAWA interrelationship

pMS

- Austria
- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- United Kingdom

MAWA database for sharing national and IO regulations

JMAAN



Implementation Phase

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Progress in cooperation to date

- Signing of EASA – EDA arrangement for enhanced cooperation between the two agencies on 18 June 2013.
  - The arrangement specifically covers the harmonisation of military aviation safety requirements with a primary focus on airworthiness

http://www.eda.europa.eu/Otheractivities/Militaryairworthiness

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Thank you for your attention!