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Belgian Military Airworthiness Authority

Implementing military
airworthiness in a small country
within an EU context



**Belgian Military
Airworthiness Authority**

MAWA Conference 2016 - Sr.Capt. (OF-3) BODET G.

Contents of the Briefing



- Belgian Air Component
 - Facts and Figures
 - Fleet composition
- Timeline of the Belgian Military Airworthiness Authority
- Project Letter Chief of Defence
 - Project teams
 - End State
- The current state of the BMAA
 - Legal Framework
 - Design
 - Maintain
 - Train
- Future of the BMAA
 - Short term
 - In Eu context
- Q&A



Currently:

- Born out of the RAF 70 Years ago (349 SQN – 350 SQN)
- 173 Airframes
 - 14 Different types (19 models)
 - oldest from 1971 - youngest 2015
 - 1 in leasing
- 5+1 different Airbases
 - Over two countries (BEL –FRA)
- 6000 Personnel (units only)
- Own schools for mechanics and pilots
- Specialised shops (NDI, avionics, ...)



Future:

- A400M (BEL and LUX)
- NH90 (BEL and NLD)
- Planning for F-16 replacement



Belgian Air Component

Fleet composition



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11x C-130H



1x A321 (Leasing)



2x ERJ-145

2x ERJ-135



1(+1)XF20-5E



1XF900b



32x SF-260 (M/D)



29x Alpha Jet
(Cazaux FRA)



54 x F-16 (A/B)



Belgian Air Component

Fleet composition



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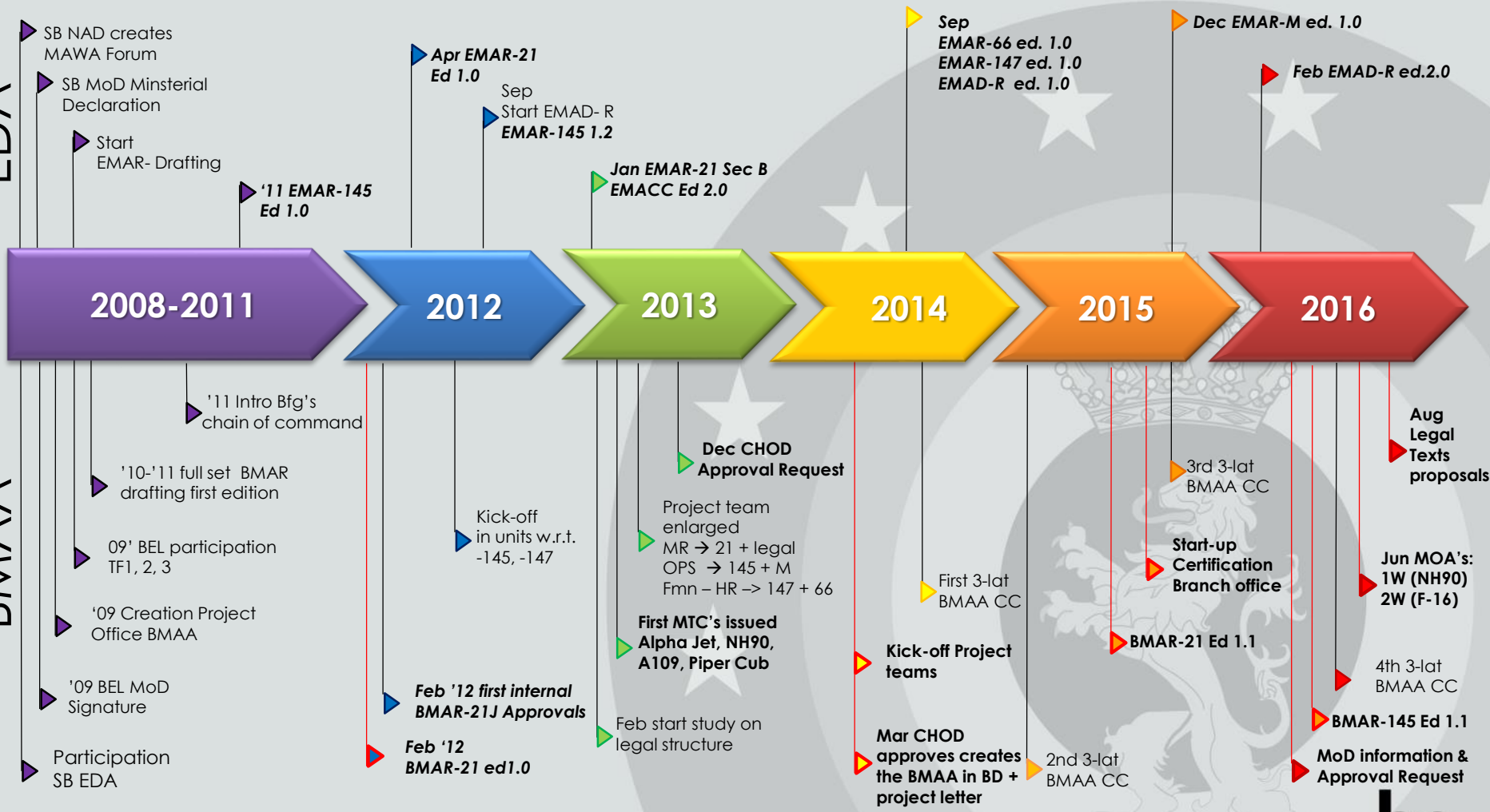


Timeline of the BMAA

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EDA

BMAA



Preparatory phase (bottom-up)

Implementing phase (top-down)



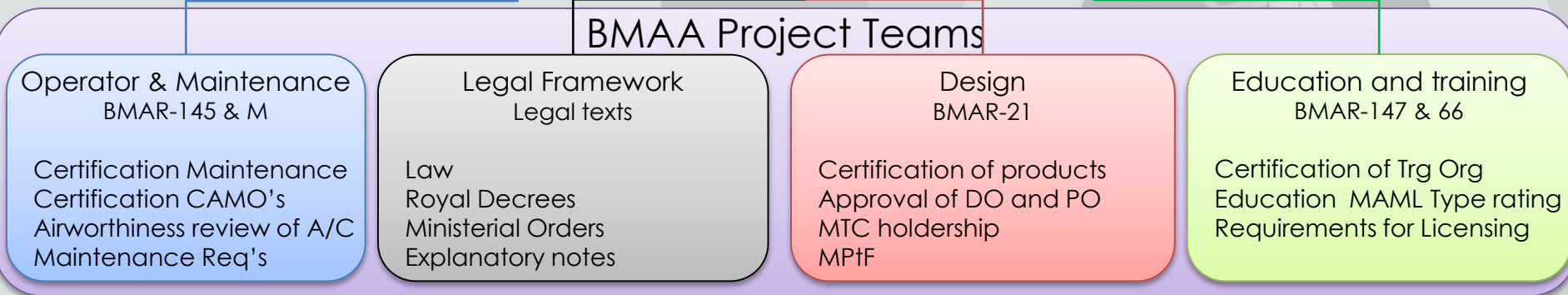
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Project letter CHOD

Project teams



Mimics the State of Design and Manufacture – State of Operator – State of Registry iaw ICAO 9760 but all joined under one umbrella



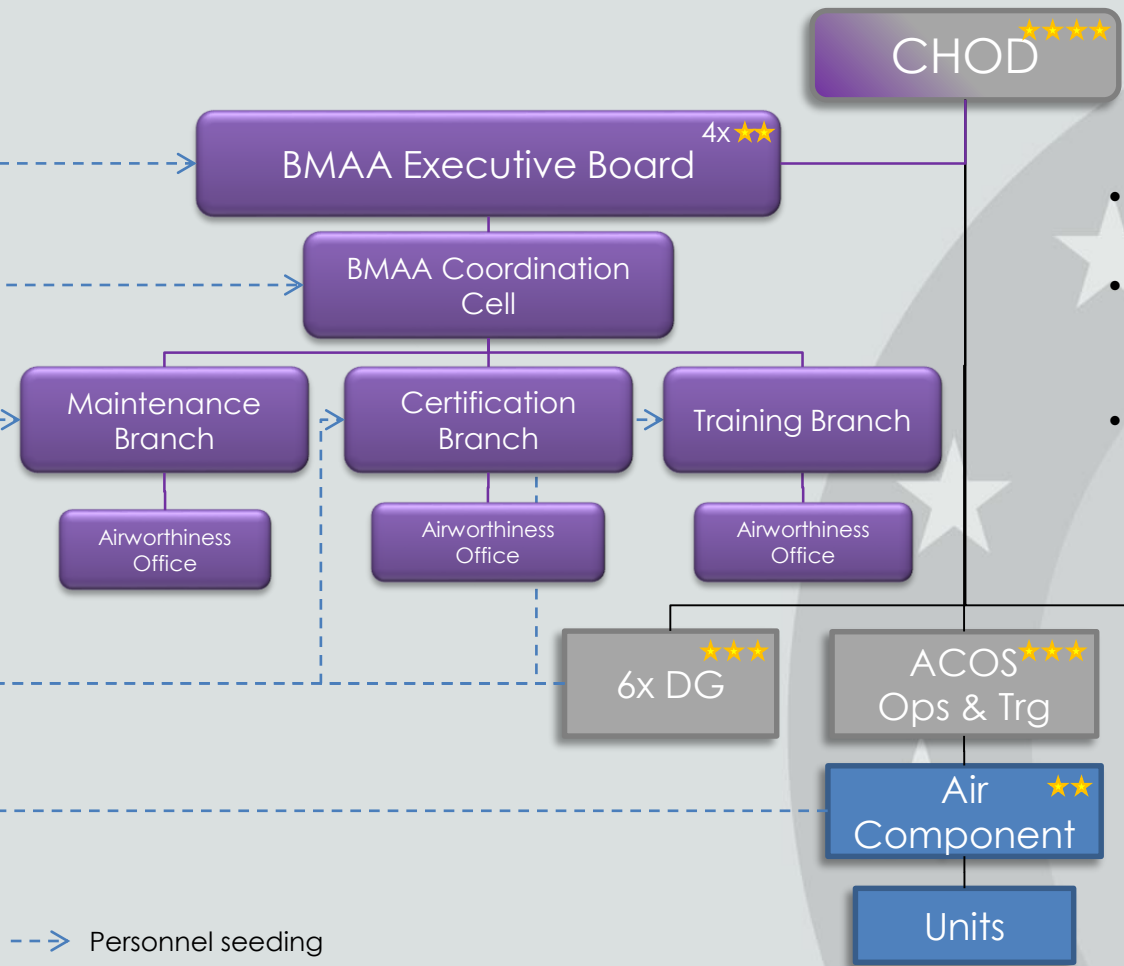
DGMR-Sys: Directorate General Material Resources – Systems Division
 MRSys-A: Aeronautical section of DGMR-Sys
 DG Fmn: Directorate General Formation
 DGHR: Directorate General Human Resources
 COA: Comopsair – Air force operational command



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Project letter CHOD

End State



- 3 separate branches with AW-SME's for day to day work
- Under the supervision of a Coordination Cell staffed by the Branch Chiefs
- Working under the authority of the BMAA Executive Board

➤ No extra personnel, physically embedded in the current joint staff structure but functionally independent as the Executive Board answers to the CHOD

- ➔ Functional Halving
- ➔ Except for the SME's in the AW offices (independent checking)

ACOS: Assistant Chief Of Staff
 DG: Directorate General
 CHOD: Chief of Defence

Current state of the BMAA

Legal Framework (Legal Framework project team)



EC 216/2008
Basic Reg.

LAW regarding the airworthiness of military aircraft
Defines the competencies of the **BMAA**
Requires the King to organise the **BMAA** and the **airworthiness specifications**.

Royal Decree – Military Airworthiness
Organises the **BMAA** and allows the MoD to **delegate tasks**.
Officialises the **Essential Requirements** defining the airworthiness specifications.

RD – Structure of Defence
Places the BMAA in the RD Structure of 2001

RD – Military Register
Lists the aircraft (BEL or Foreign) covered by the BMAA

EC 748/2012
1321/2014
Implementing rules

Ministerial Order BMAR-21
Officialises the requirements for design and production.

EMAR's
MO BMAR-M and BMAR-145
Officialises the requirements w.r.t. maintenance.

MO BMAR-66 and BMAR-147
Officialises the requirements w.r.t. formation.

MO Delegation
MoD designates the titleholders.

MO Miscellaneous
Regulates the remainder of the requirements laid down in the RD.

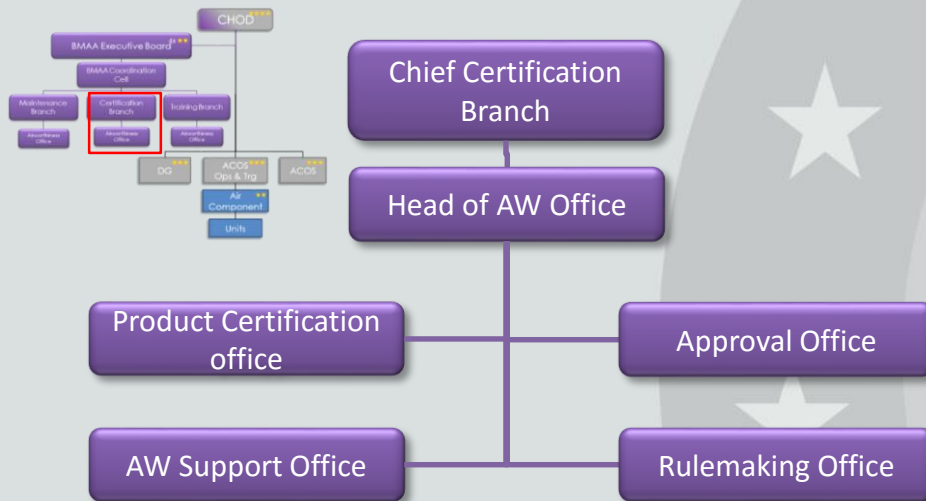
- Law and Royal Decree are proposed for empowerment at Gov't level
- Ministerial Orders are ready (can only be issued after the previous)
- Will empower the BMAA outside the Belgian Defence
- ⌚ Law and RD proposal approved end'17 (start of transition phase till 2022)

Current state of the BMAA

Certification Branch (Design Project Team)



- BMAR-21 Ed 1.1. approved in May 2015.
- Airworthiness Office introduced. (FOC end 2016)
- Procedures being put in place. (Internal Procedures – Sec B)
- Consultancy Support contract to be awarded
- Internal training-sessions being given.



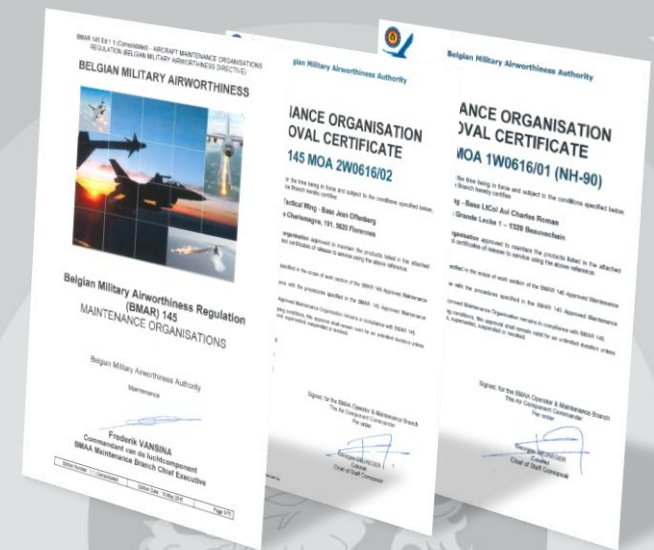
⌚ Material Management Organisation Approvals being granted (ADOA – to program managers).

Current state of the BMAA

Maintenance Branch (Operator & Maint. Project Team)



- BMAR-145 ed.1.1 approved in May 2016
- 2 Maintenance Organisation Approvals
 - 2W F-16
 - 1W limited to NH90
- BMAR-M drafting ongoing
- finalisation with EMAR-M AMC-GM approval
- ⌚ MOA's to be granted to 15W, 10W, CCV&C, 1W (remaining A/C)
- ⌚ 80 UAV MOA → awaiting further EDA RPAS Meetings
- ⌚ Study on the introduction of the CAMO-concept within the Air Component



Current state of the BMAA

Training Branch (Education & Training Project Team)



- Finalisation BMAR-147 and BMAR-66
- Categorisation of the technicians
→ Reconciling the current functional description (BHK) with the EMAR description

- ⌚ Approval of the schools Mid'17
- ⌚ Start Fmn Mechanics within 66
→ Sept '17.

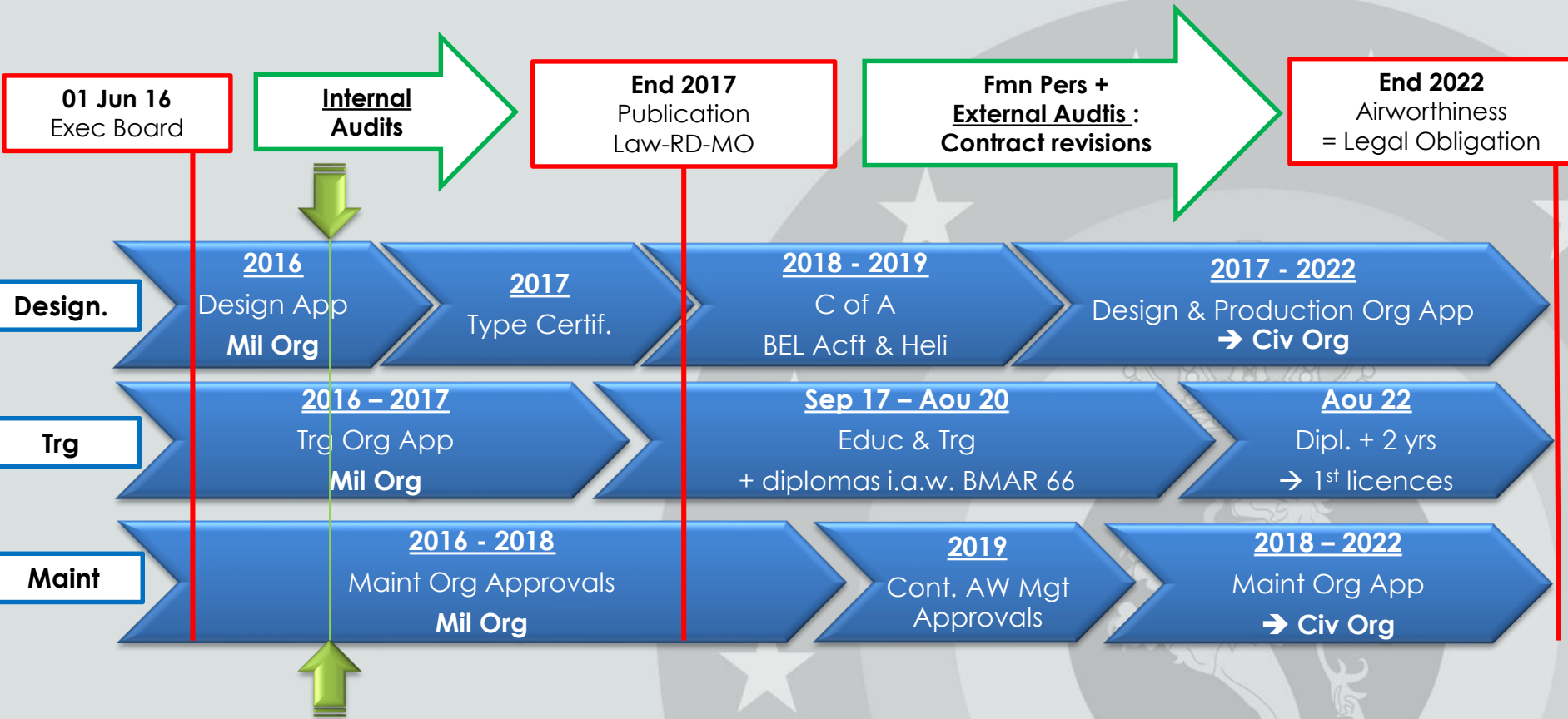
System F-16	BHK	BMAR 66	Permanent Limitation for Certifying Staff	
Structure / Mechanical Systems	AT24A Cell AT24B ECS & Fuel AT24C Hydr & Pneu AT24Z Paint, Comp, Seal AT241 Sheet Metal	Cat B1	Releases to service (RTS) only on product, components linked with their particular competency domain (as per BHK).	
	Powerplant		AT24D Engine	RTS only for tasks on the F-16 engine (sub)systems and/or PW220 product.
	Electrical Systems		AT24E Electric	RTS only on electrical systems. Where unclear, repartition of tasks between electricians and avionics is defined in the "Skill Matrix".
Weapon / Armament System	AT23A Armt Specialized with KOO in <i>AT23E Egress</i> <i>AT23M Miss& Smart</i> <i>AT23W Wpn Tech</i>	Cat B-Arm	RTS only on weapon / armament systems i.a.w their BKH.	
Avionic System	AT22A Syst A AT22B Syst B AT22E Elec Specialized with KOO in <i>AT22F FLCS</i> <i>AT22K IWS</i> <i>AT22L CNI</i> <i>AT22W E-War</i>	Cat B2	Releases to service (RTS) only on product, components linked with their particular avionic related competency domain (as per BHK).	



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Future of the BMAA

Milestones



We're here



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Future of the BMAA

Within an EU context



- BD maintains its support to the EDA and continues to participate in MAWA-TF1-TF2-TF3, RPAS WG.
- Mutual Recognition projects
 - DGAM – A400M – use of PERAM 1 for Mil parts
 - MLA – NH90 – Maintenance
- Observation / participation projects
 - DGA – Alpha Jet – DOA Audit DASSAULT.
 - Alpha Jets in Cazaux for Pilot Trg.
- Program participation
 - A400M CQC – CAF – POF
 - NH90 JMAAN

We firmly believe in a European Airworthiness effort with a robust system of mutual recognitions based on a common acceptance of the EMAR's as this helps us grow, but foremost it supports us in maintaining a credible airworthiness authority for our own fleet.



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QUESTIONS?



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