

NH90 EMAR IMPLEMENTATION EXPERIENCES AND INTEGRATION IN A GLOBAL CONTEXT

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AGENDA OUTLINE

MAC 2016

1. NH90 programme
2. JMAAN organization
3. EMAR Transition for NH90 (EMAR-T)
4. Conclusion



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NH90 NAHEMO AND COMMUNITY PROGRAMME

MAC 2016

- ❖ Corporate Identity:
 - ❖ NAHEMO is a subsidiary body of NATO
 - ❖ NAHEMA is the international programme office of NAHEMO

- ❖ Established:
 - ❖ In 1992, in Aix-en-Provence (France) in vicinity of industrial consortium NHIndustries

- ❖ Mission:
 - ❖ Management of the NH90 programme on behalf of the NAHEMO Nations, during the
 - ❖ design & development,
 - ❖ production & post-design and
 - ❖ in-service support phases





NH90 PROGRAMME IN BRIEF

MAC 2016

1 product: **NH90**
2 Versions: TTH, NFH
>20 Variants: TGEA, GITA, TFRA, HITN, NBEN,>NNLN, ...

Customer: **NAHEMA**
11 Nations: BEL, DEU, FRA, ITA, NLD, AUS, ESP, FIN, NOR, NZL, SWE, (GRC, OMN)

Contractor: **NHIndustries**
4 Industries: AH, AHD, FK, LHD

- ❖ Design & Development (D&D)
 - ❖ development of two versions TTH and NFH
 - ❖ signed in 1992
- ❖ Production Investment/ Production (PIP)
 - ❖ production of the serial helicopters in different variants
 - ❖ signed in 2000 (25 Contract Amendments so far)
 - ❖ first serial helicopter delivered in 2006 (IOC) and 2012 (FOC)
- ❖ In-service support
 - ❖ more than 240 helicopter in service with over 100k logged flight hours





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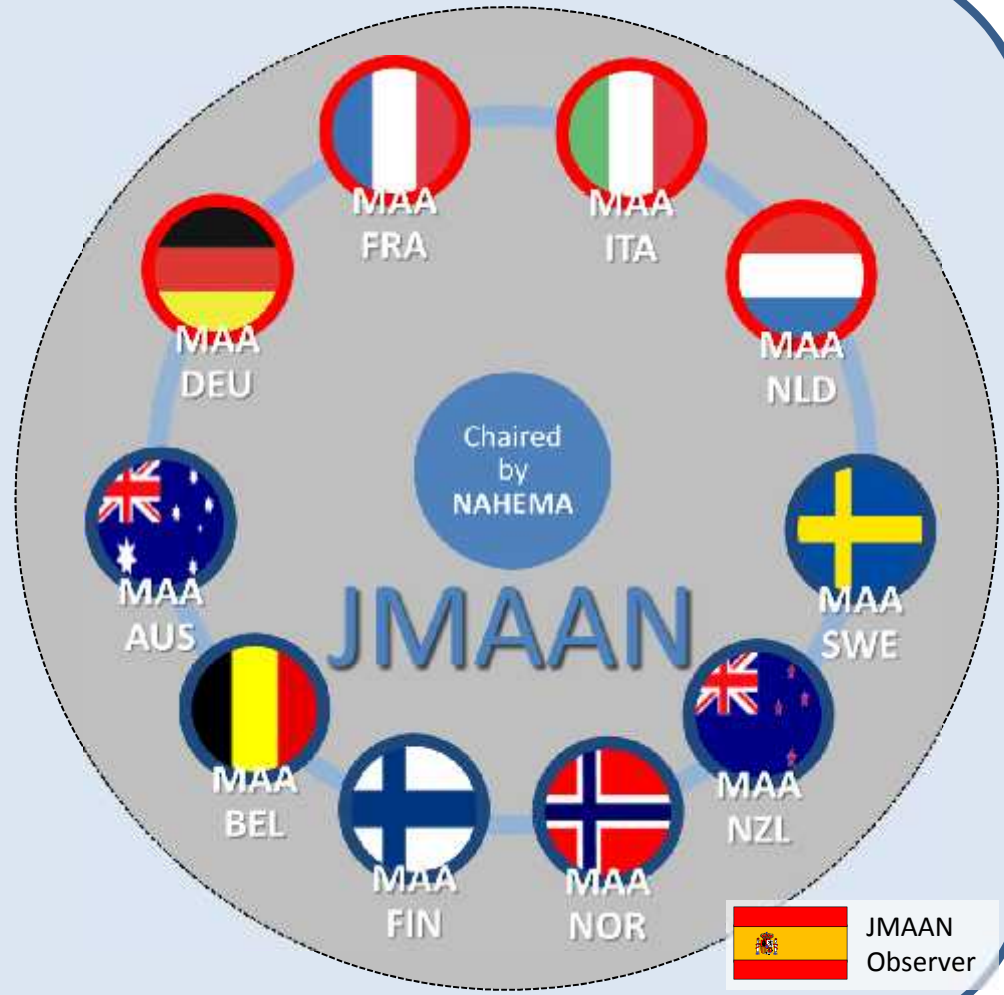
JMAAN IN BRIEF

MAC 2016

JMAAN is a body of the NH90 Community

JMAAN regulates all processes in the field of:

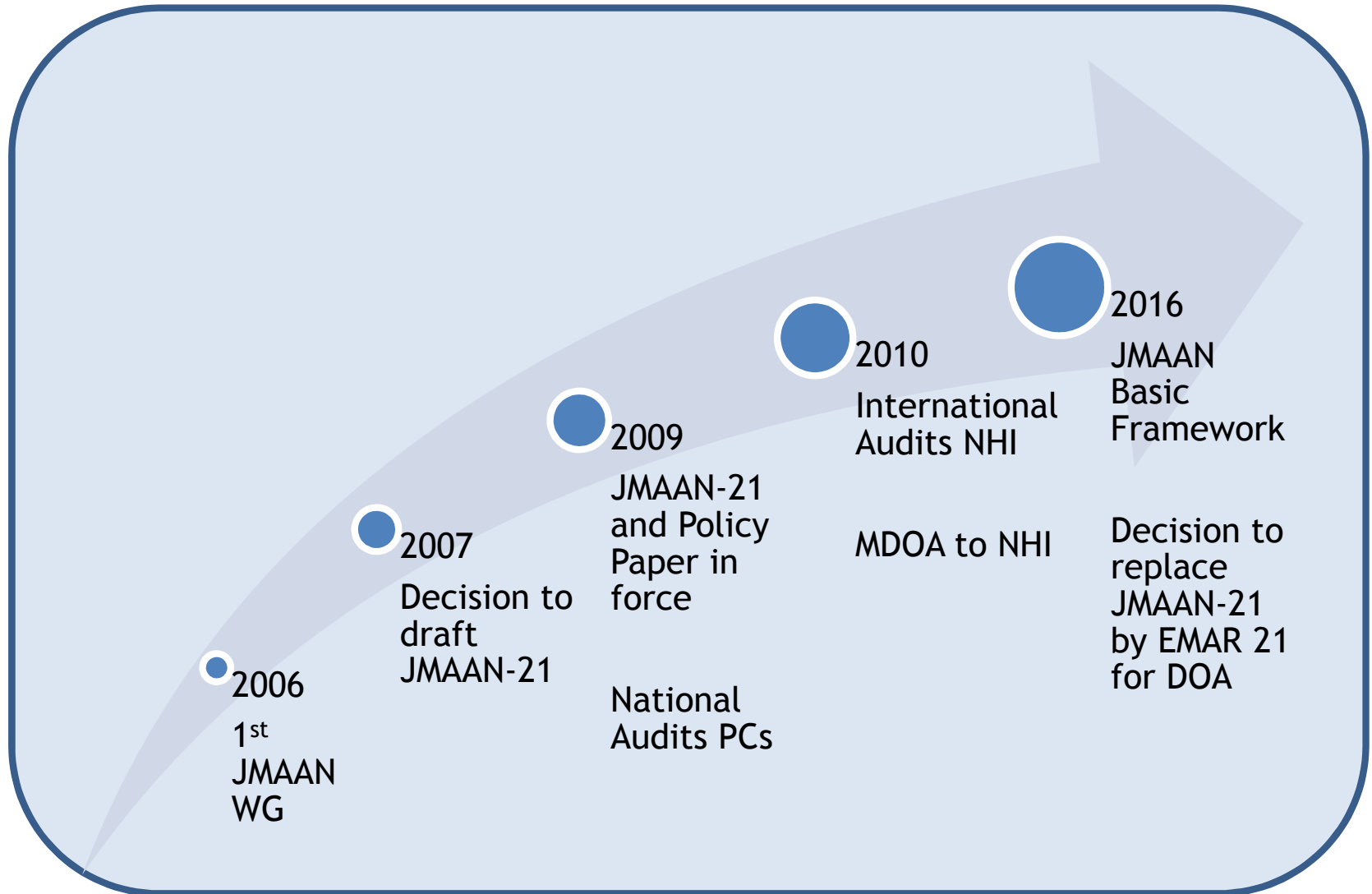
- Military Design Organisation Approval
- Rule-making for Airworthiness
- Continued Airworthiness and technical certification





JMAAN TIMELINE

MAC 2016





7 JMAAN PRINCIPLES

MAC 2016





LEAD NATION AND RECOMMENDATION PRINCIPLE

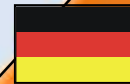
Lead nation principle

Recommendation principle

Joint Military Aviation Authorities NH90 (JMAAN)
Primary Authorities (PA)

Applicable rules:

JMAAN Basic Framework and
JMAAN-21 (to be replaced by EMAR 21)



DEU



FRA



ITA



NLD

PA level jointly provides recommendations, that need to be validated on MAA level

Applicable rules:

National rules
(e.g. national EMAR derivate)

national Military Aviation Authorities (MAA)
of Participating Nations of "Airworthiness" Programme
Arrangement under NH90 CMOU



AUS



BEL



DEU



FIN



FRA



ITA



NLD



NOR



NZL



SWE



ESP JMAAN Observer

MAC 2016





AGENDA OUTLINE

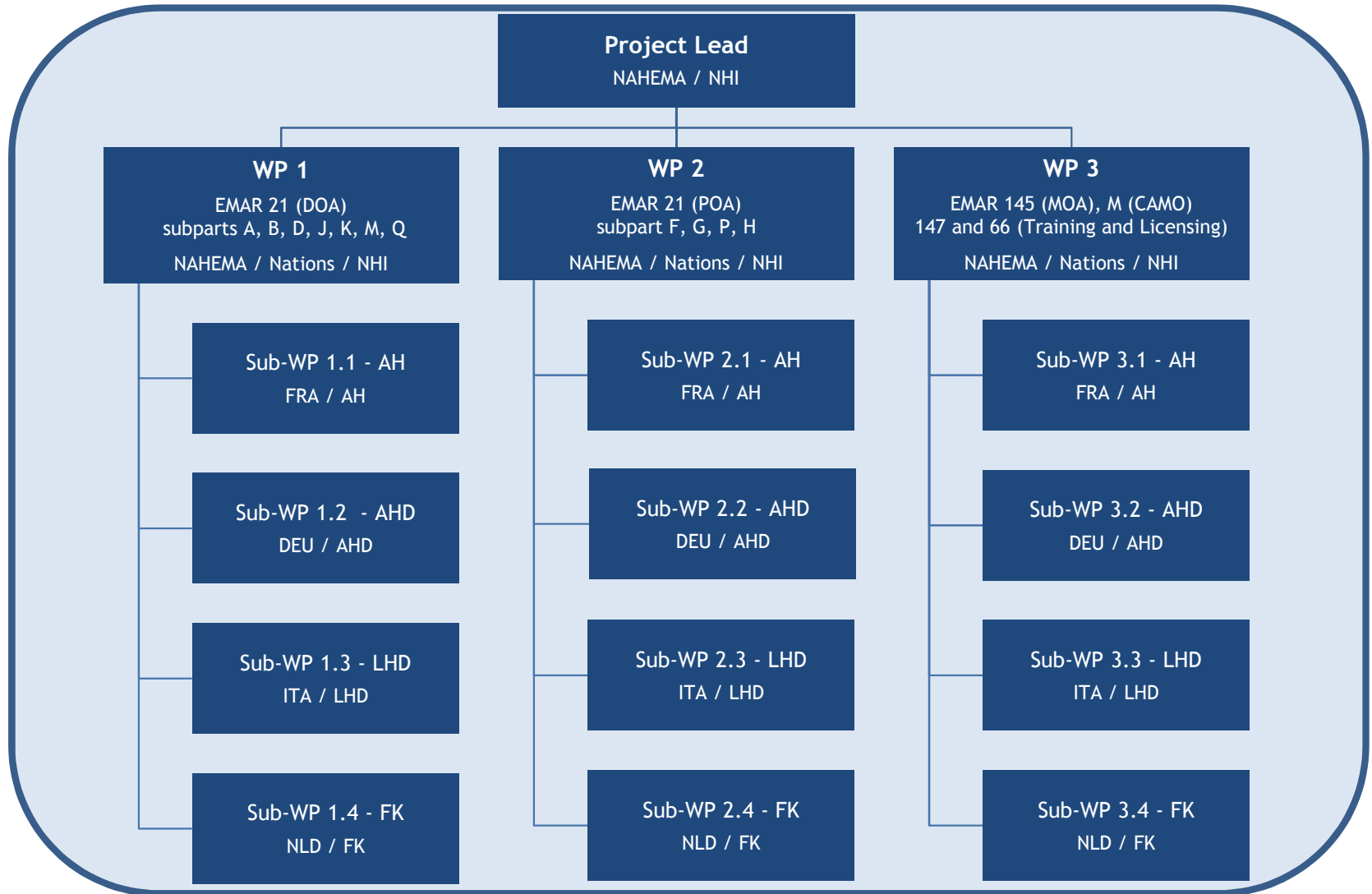
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EMAR-T: PROJECT TEAM AND GOVERNANCE

MAC 2016



NATO UNCLASSIFIED



EMAR-T (JAN 2016) WORKSHOP OUTCOME

MAC 2016

	Perimeter of EMAR implementation	Timeline of implementation (as of Jan 2016)
AUS	Full scope (DASR)	Ongoing, until Dec 2018
BEL	Full scope (BEMAR)	Until 2022
DEU	Full scope ((D)EMAR)	Until end of 2019 (for NGEN In-Service phase, after German Air Traffic Law §30a change)
ESP	Full scope (PEMAR)	66, 145, 147 already in force. M and 21 in 2016
FIN	Full scope, as far as possible and necessary	145 partially done, other EMARs under investigation
FRA	Full scope (EMAR (FR))	In force in Apr 2016
ITA	Full scope (AER, generally w/o 21 for legacy programs)	Ongoing implementation
NDL	Full scope, as far as possible	Analysis how to implement EMAR ongoing
NOR	Full scope	21 partially started, others at later stage
NZL	Full scope	Project initiated: Phased approach anticipated with Phase 1: 145, 21 and M; Phase 2: 66,147
SWE	Full scope	Approval Jun 2016, impl. until Nov 2016





EMAR-T (JAN 2016) WORKSHOP OUTCOME

MAC 2016

1st step:

EMAR 21 (as JMAAN-21; same subparts and articles, continuation of privileges, commitment of the Primary Authorities Nations)

2nd step:

EMAR 21 Subpart G (production organization)

3rd step:

EMAR 145, 147, 66 and M (maintenance organization, training organization, certified personnel and continuing airworthiness management organization)

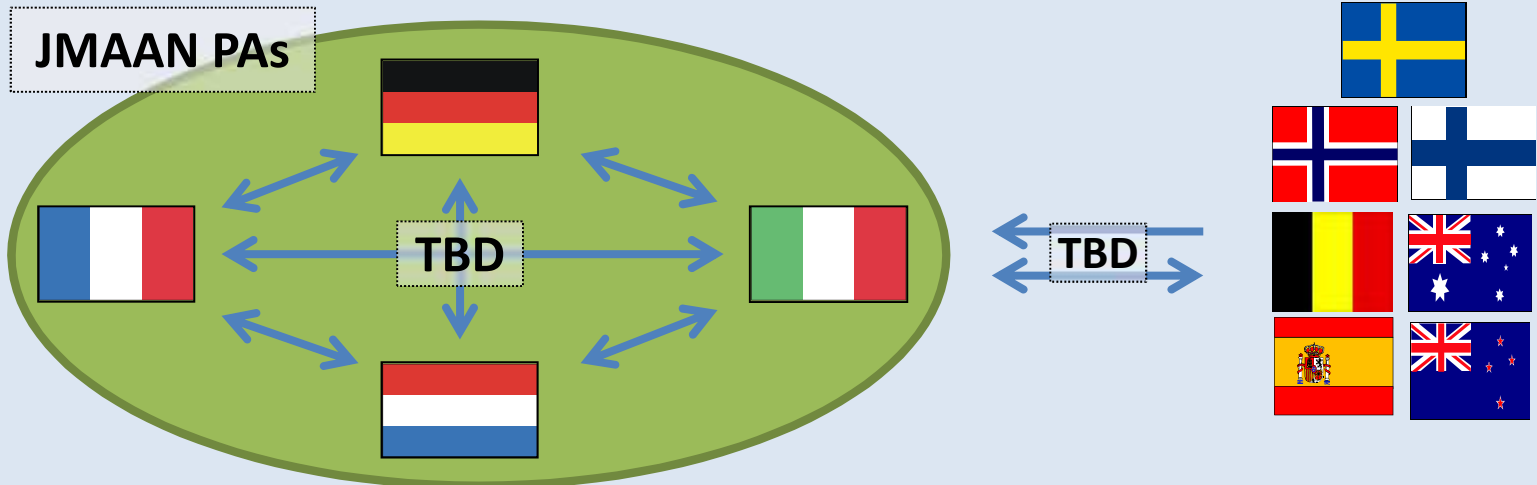


RECOGNITION USING EMAD-R

MAC 2016

During JMAAN PA Directors' Meeting in Jun 2016 it was decided to work on an harmonized Recognition Agreement

Scope: NH90, design





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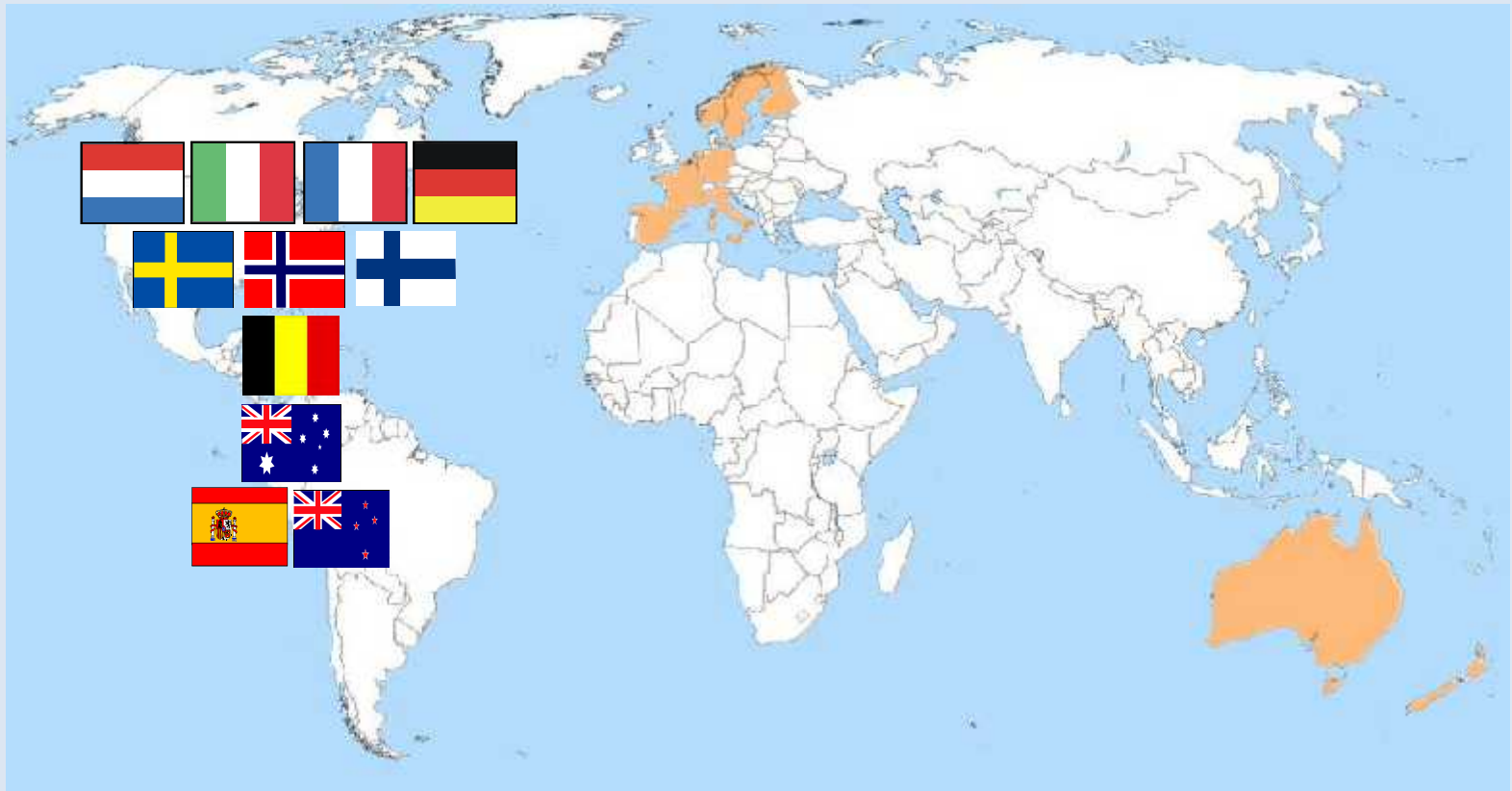
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DEVELOPMENT OF NH90 COMMUNITY - GLOBAL CONTEXT

MAC 2016





CONCLUSION

- ❖ JMAAN PA MAAs decided to adopt EMAR 21 for NH90 “design” on international level (JMAAN organisation) - update of JMAAN Basic Framework document to enable the adoption of EMAR 21 for DOA is planned in Nov 2016
- ❖ Adoption of EMAR 21 for NH90 “production” as well as 145, M, 66, 147 – out of JMAAN scope at the moment as more of a individual national responsibility
- ❖ Full scope national and international EMAR-T for NH90 will take time, but has been started.



THANK YOU

FOR YOUR

ATTENTION



BACKUP SLIDES

NH90 COMMUNITY PROGRAMME - GOVERNANCE

MAC 2016

