



NORWEGIAN DEFENCE
MATERIEL AGENCY

EMAR in Norway

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AGENDA

- Current situation
- EMAR implementation
 - EMAR 21
 - EMAR M and 145
- Collaboration
 - EMAD R

NORWEGIAN DEFENCE SECTOR

MINISTER OF DEFENCE

MINISTRY OF DEFENCE



NORWEGIAN
ARMED
FORCES



NORWEGIAN
DEFENCE
ESTATES
AGENCY



NORWEGIAN
DEFENCE
RESEARCH
ESTABLISHMENT



NORWEGIAN
NATIONAL
SECURITY
AUTHORITY

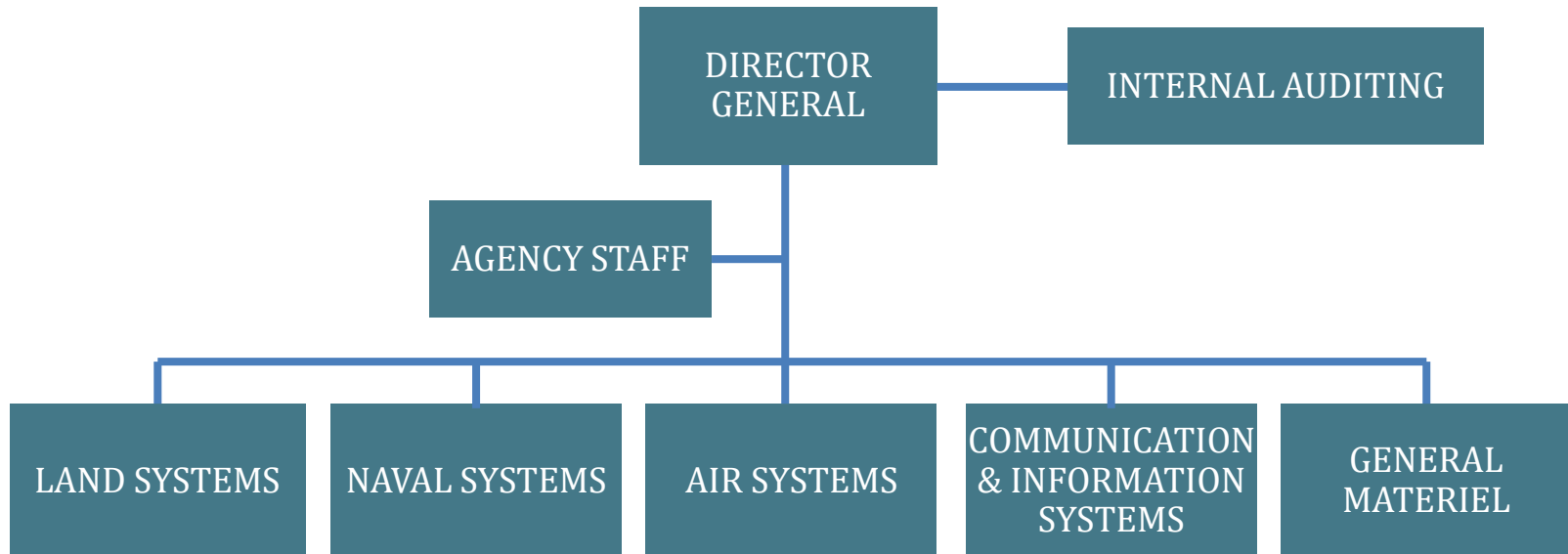


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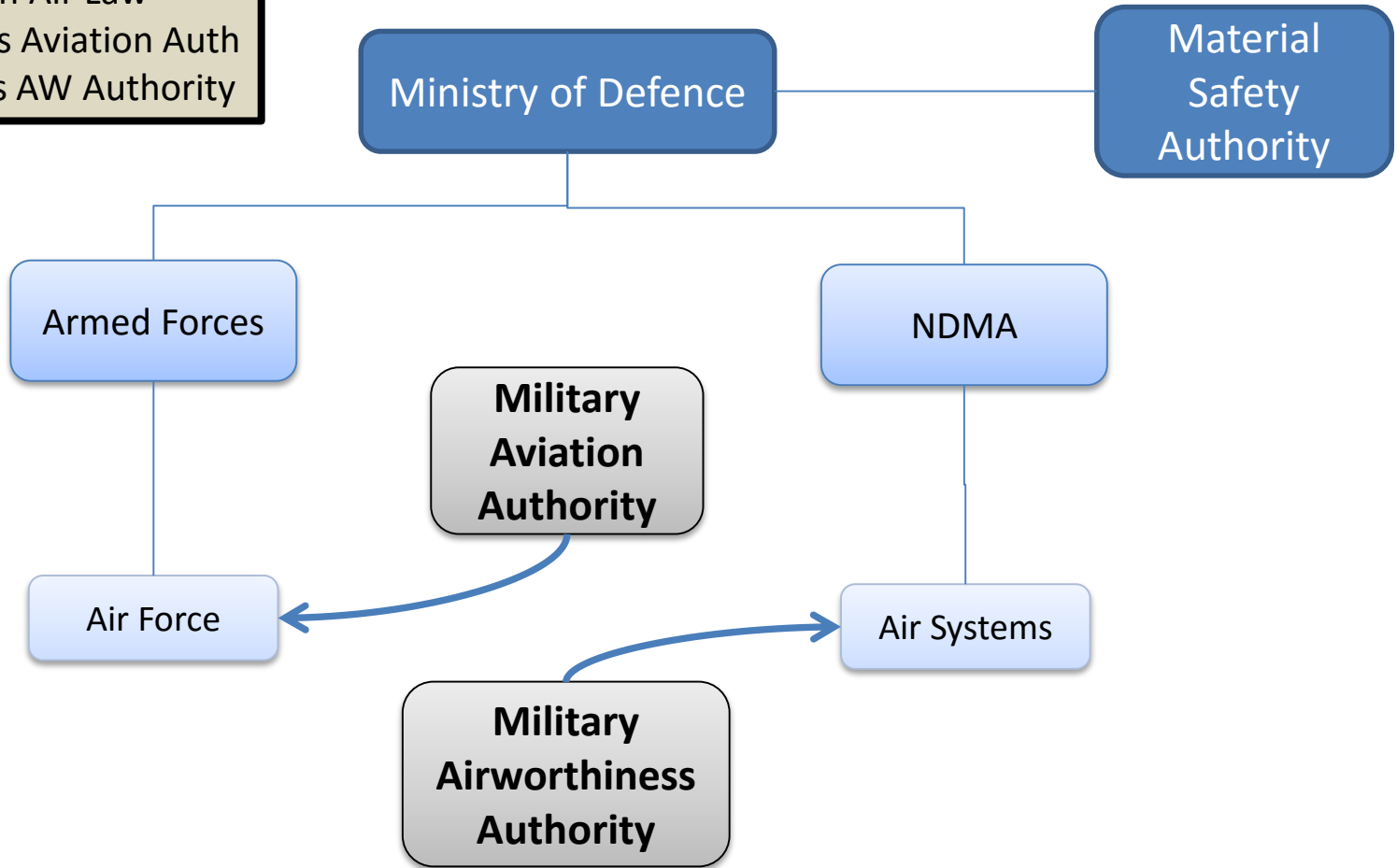
NDMA ORGANIZATION





AIRWORTHINESS AUTHORITY

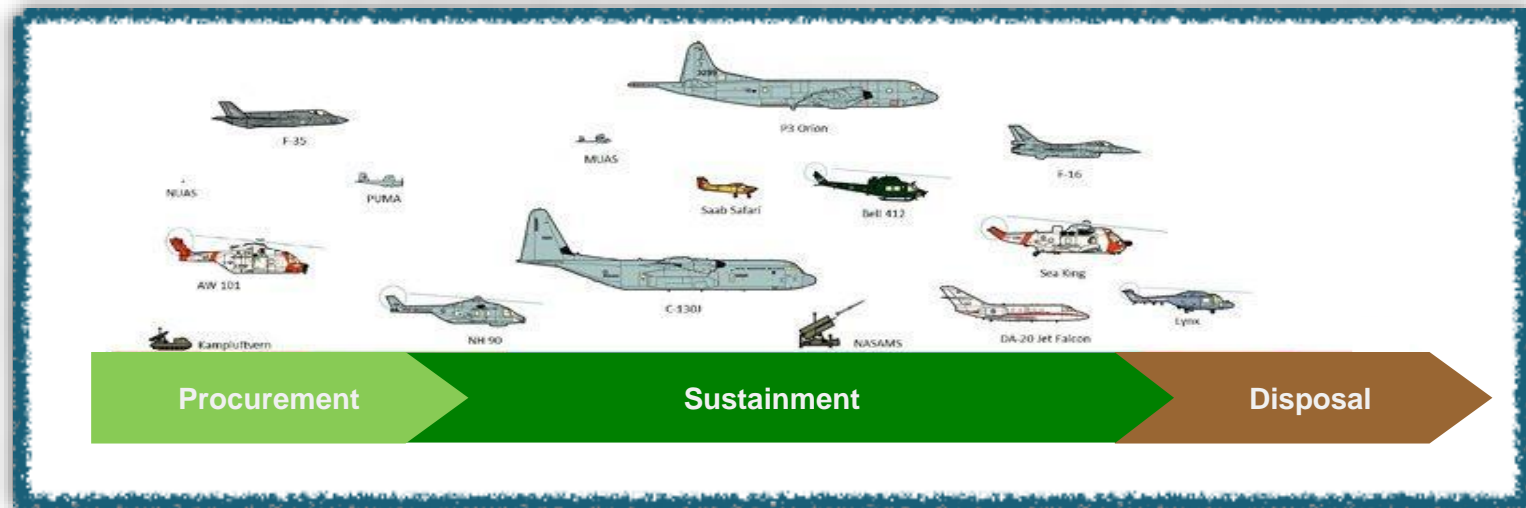
Norwegian Air Law
CHOD delegates Aviation Auth
COAF delegates AW Authority





AIR SYSTEMS DIVISION

- Norwegian Defence Materiel Agency is a separate Ministry of Defence agency.
- Currently acting as NMAA
- But also same staff performing
 - “part 21” repair and modification, “part M” CAME org (partially)
- Separation of tasks underway
- Other tasks: acquisition, GBAD, support/advice/competence
- GQA, MSA, CHOD





MAA, NMAA IN NORWAY

- Currently no single organisational entity that
 - Develops, implements and enforces regulations
 - Approves organisations to act/operate within the sector (i e industry)
 - Audits as a part of regulation enforcement
 - Introduces additional need for coordination and potentially increases risk



NORWEGIAN DEFENCE
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NMAA ACTIVITIES BY LAW

- The AC shall be in the Military Register
- The AC shall be airworthy
- Military aviation is subject to EASA regulations
 - Specifically stating «equivalent level of safety» for mil AC



EMAR IN NORWAY

- Norway as a small country does not intend to have the capacity to certify aircraft
 - Validate foreign mil and civ certifications
 - Certify modifications
 - Approve/contract
 - Need all the competence, but not «all» the capacity
- Recognition of other bodies important tool
 - EMAR provides procedures for this (EMAD R/MARQ)
 - Normally the NMAA in country of manufacture

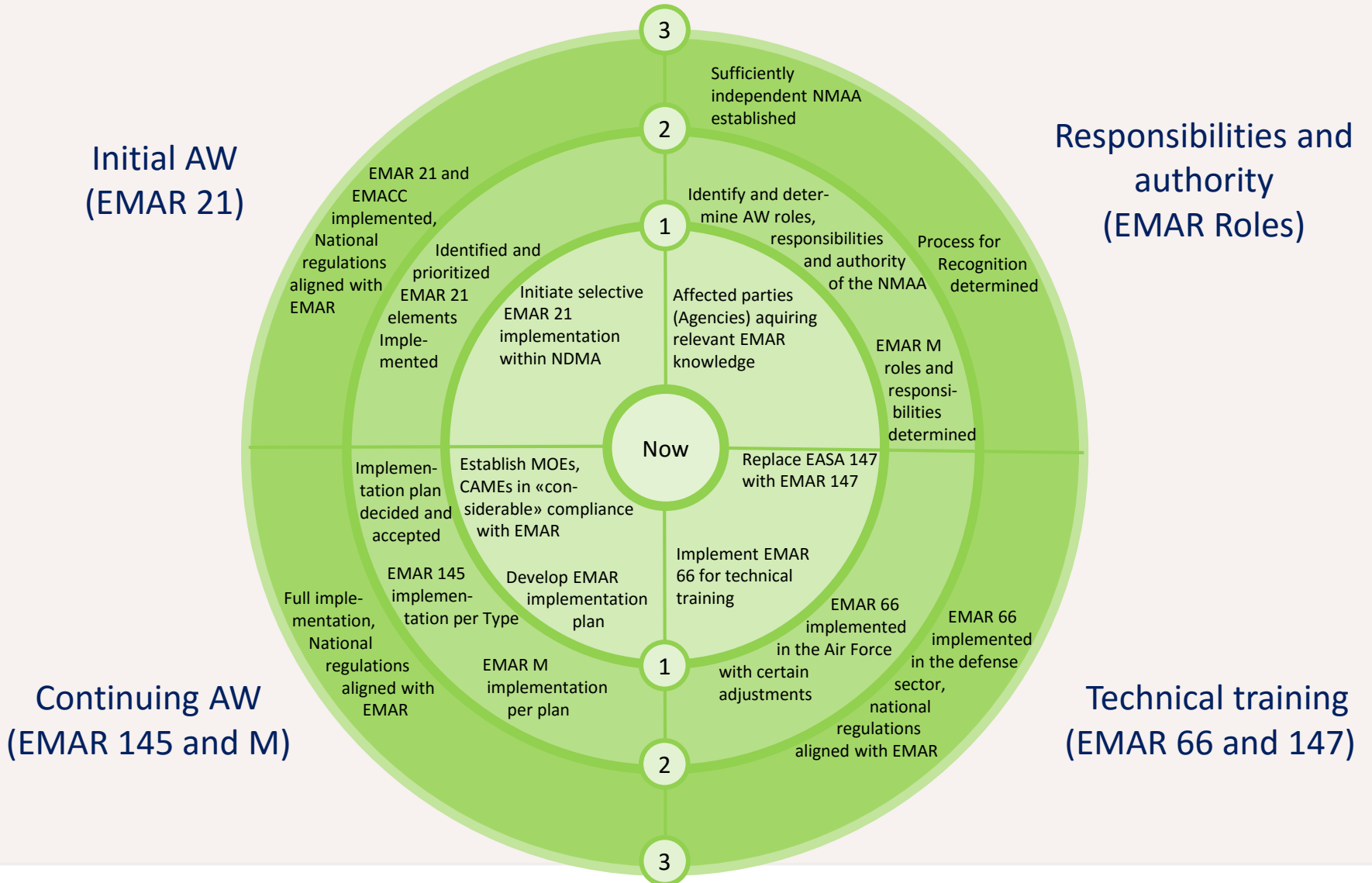


EMAR IMPLEMENTATION STATUS

- Prior efforts to close gaps in military airworthiness regulatory framework 2009
 - For several reasons never came to fruition.
- Decision to implement EMAR Sep 2015.
- With EMAR, the focus has shifted from developing regulations to implementing them
 - more manageable task
- Established NMAA working group
- Inter-agency working group
- Implementing essential parts of EMAR 21 first
 - based on risk assessments
- Followed by EMAR 147 and 66



MATURITY MODEL



Responsibilities and authority (EMAR Roles)

Technical training (EMAR 66 and 147)



EMAR IMPLEMENTATION PLANS

- Higher-level regulations (directives) are updated to accept EMAR as the next lower level of regulations.
- Mid-level regulation is in final development
 - Mandates EMAR as official part AW
 - Still takes legacy regulations into consideration
- Still only reflects maturity level 1
 - Awaiting final NMAA decision



AWAY AHEAD

- AW 101 SAR helicopters release to service in compliance with EMAR 21 *processes* (MTC, MCA). Will most likely be managed in accordance with EMAR M (CAME).
- Norway's F-35s flying on a Permit to Fly with reference to EMAR 21 subpart P
 - Final release to service is slated to be in full compliance with EMAR 21 (MTC, MCA).
- NH-90 helicopter project (international) is migrating their AW platform to EMAR
 - has already started
 - NDMA as NMAA is playing an integrated part
 - Norwegian NH90s have issued a release to service document very similar to an MTC.



EMAR 21 IN NDMA

- No legal implications
- Legacy/grandfathers rule
- Effects mainly within NDMA (and industry)
 - Prior to release to service
- Objective
 - Secure output/deliverables
 - cooperation
 - Risk reduction
- Implications
 - Implications for future contracts
 - DOA/POA
 - MTC
 - Simplify acceptance and in-service



COLLABORATION

- NDMA wishes to collaborate with MAAs with similar scope
- Unofficial talks with Denmark, Portugal, Ireland and Croatia
- Expect benefits of making a common implementation plan if possible
 - Implementation requires a lot of resources for a small organisation
 - Learn from each other
 - Share regulation proposals
- Norway would also like support from EDA
 - Collaboration could make for a common scope of EDA support



SUMMARY

- Norway is transitioning to EMAR
- Scope of implementation adapted to National needs
- Will still have to adjust to other regimes ie USAF/USN



FORSVARSMATERIELL

Questions/Comments