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# European Aviation Safety Agency

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## ***Extension of the Agency's remit to ATM/ANS***

ETF, 10 March 2009

*Jussi Myllärniemi*



## European Aviation Safety Agency

*Extension of the Agency's remit to ATM/ANS*  
- we are located in Cologne

→ The Agency is located in Cologne

→ The Agency already employs some 425 professionals from all EASA Member States



20 September 2005

Stavanger



*Extension of the Agency's remit to ATM/ANS*  
- contents

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- 1) EU aviation safety policy
- 2) EASA system
- 3) 2nd extension - milestones & state-of-play
- 4) Development of implementation means, personnel issues



➤ **1. EU aviation safety policy**

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## European Aviation Safety Agency

### *EU aviation safety policy*

#### - basic principles

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- High and uniform level of civil aviation safety - through common action;
    - ✦ common safety rules
    - ✦ ensuring that products, services, persons and organisations comply with safety rules
    - ✦ establishing independent safety regulator = EASA
    - ✦ EASA system – shared roles between Member States, Commission, EASA & industry
  
  - Aviation system behaves as a network 
    - ✦ progressive harmonisation of safety requirements across all fields
    - ✦ total system approach
-



## European Aviation Safety Agency

### *EU aviation safety policy* - common rules in past

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ICAO, JAA, EUROCONTROL ...	EU States
<ul style="list-style-type: none"><li>· Standards and recommended practices</li><li>· Safety regulatory requirements</li><li>· JAR's</li><li>· etc...</li></ul>	Discretionary transposition into national legal order
Non legally binding	Legally binding

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*EU aviation safety policy*  
- common rules now

ICAO, JAA, EUROCONTROL ...	EU States	EU/EASA
<ul style="list-style-type: none"><li>· Standards and recommended practices</li><li>· Safety regulatory requirements (ESARR's)</li><li>· JAR's</li><li>· etc...</li></ul>	Discretionary transposition into national legal order	Transposition into Community legal order
Not legally binding	<b>Not necessary</b>	Legally binding



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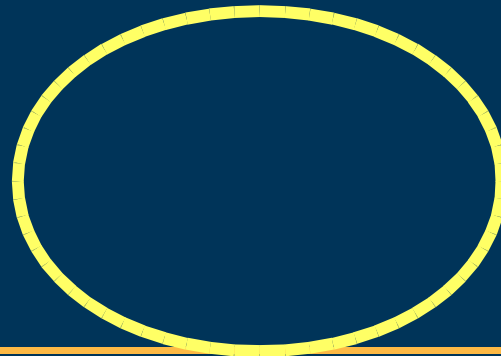
*EU aviation safety policy*

- progressive harmonisation

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EASA Basic  
Regulation  
- adopted in  
09/2002

EASA 1st extension  
- OPS, FCL, 3rd country  
a/c



EASA 2nd extension  
- ATM/ANS &  
aerodromes

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### *EU aviation safety policy*

#### - how to best achieve in ATM/ANS?

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- How to best achieve the ATM/ANS safety regulatory system in Europe?
  - EASA Opinion 01/2008 & Commission SES II proposals: by extending EASA system to cover ATM/ANS and aerodromes because it;
    - ★ (1) would be based on total system approach
    - ★ (2) is a proven system already established and comprising of all elements needed in safety regulation
-



# European Aviation Safety Agency

*EU aviation safety policy*  
- total system approach

**Economic  
regulation**

**Performance  
regulation**

**Safety  
regulation**

**Interoperability  
regulation**

**Airworthiness**

**Operations  
& FCL**

**3rd Country  
Operations**

**Aerodrome  
s**

**ATM/  
ANS**

**EASA total aviation  
system approach**



## European Aviation Safety Agency

### *EU aviation safety policy* - total system approach

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- “Aviation system behaves as a network □ high and uniform level of safety attained through harmonized requirements applicable across all domains □ total system approach”:
    - ★ Eliminates risks of safety gaps, conflicting requirements and confused responsibilities
    - ★ No two channels for safety regulation, no questionable distinction between ATM/ANS and other aviation activities
    - ★ Reduces burden on the regulated persons by streamlining approval (certification) processes
    - ★ Well adapted to regulation of future ATM/ANS systems where equipment on ground, on board, in space and their link constitute a single system
-



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### *EU aviation safety policy* - proven system

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- EASA system = proven system and comprises of elements needed in safety regulation, notably:
    - ★ principal regulatory activities: rulemaking, certification & standardization inspections responsibilities
  
  - ... but also;
    - ★ safety analysis
    - ★ mutual recognition of all approvals
    - ★ international cooperation
    - ★ enforcement – sanctions, loosing mutual recognition, EU infringement procedure
    - ★ NAA's obligatory exchange of safety information (MS-EC-EASA-AIB)
    - ★ voluntary reporting and protection of the source ('just culture')
    - ★
-



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## *Extension of the Agency's remit to ATM/ANS*

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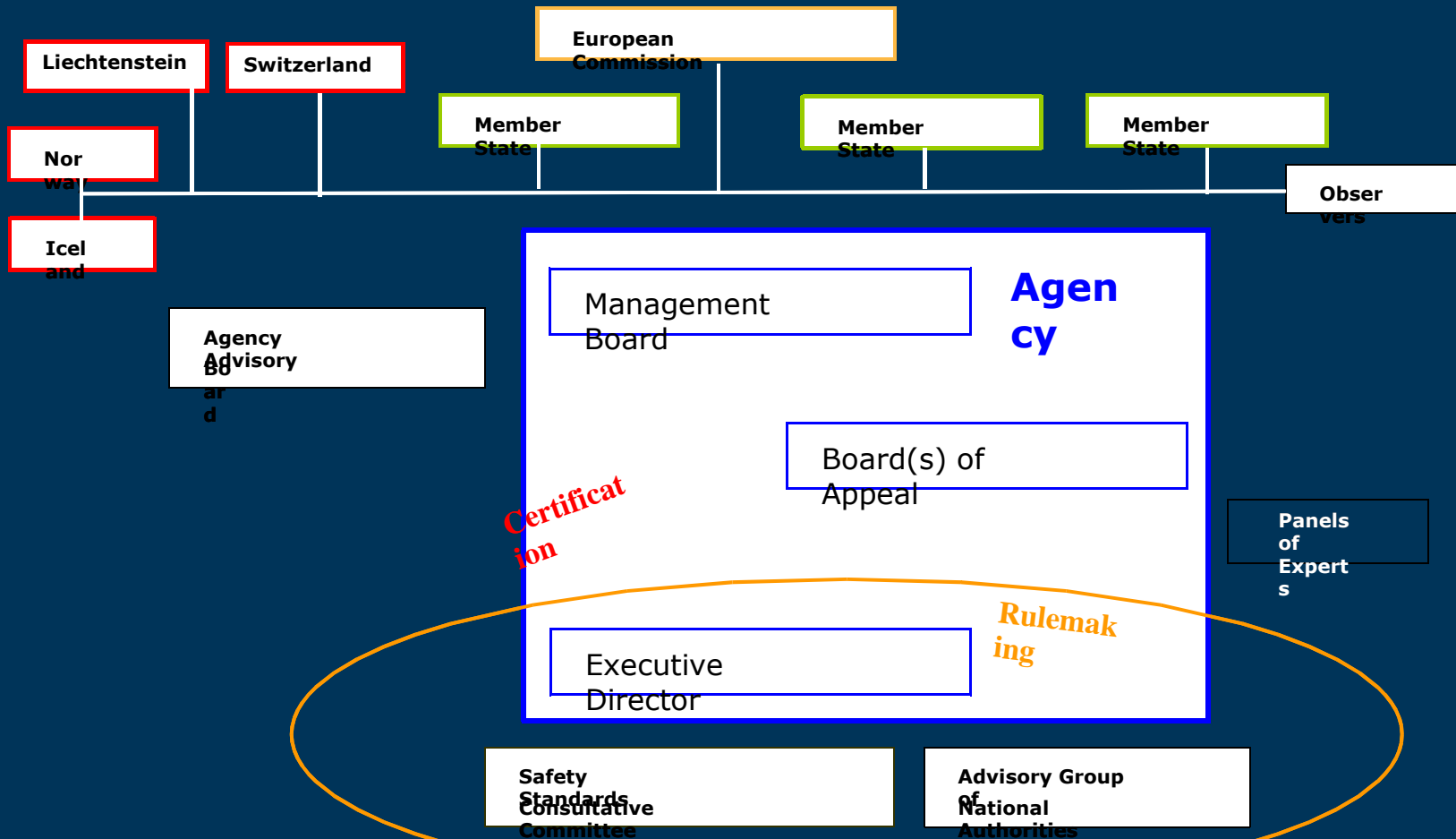
- 2) EASA system
-



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## EASA system

### - governance structure





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*EASA system*  
- principles

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- Decentralisation is the 'rule'
  - Centralisation is the 'exception'
-



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### *EASA system*

#### - rulemaking – who decides?

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- The **EU Parliament** and the **Council** – **Basic Regulation**
    - ✦ define the **scope** of powers transferred from the Member States to the Community & **implementation means**
    - ✦ adopt the **Essential Requirements** specifying the objectives to be met
  
  - The **Commission** – **implementing rules**
    - ✦ adopts rules for implementing the essential requirements (= implementing rules)
  
  - The **Agency**
    - ✦ adopts **non binding standards** for implementing the essential requirements (AMC, CS, guidance material)
-





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### *EASA system*

#### - role of EASA; rulemaking

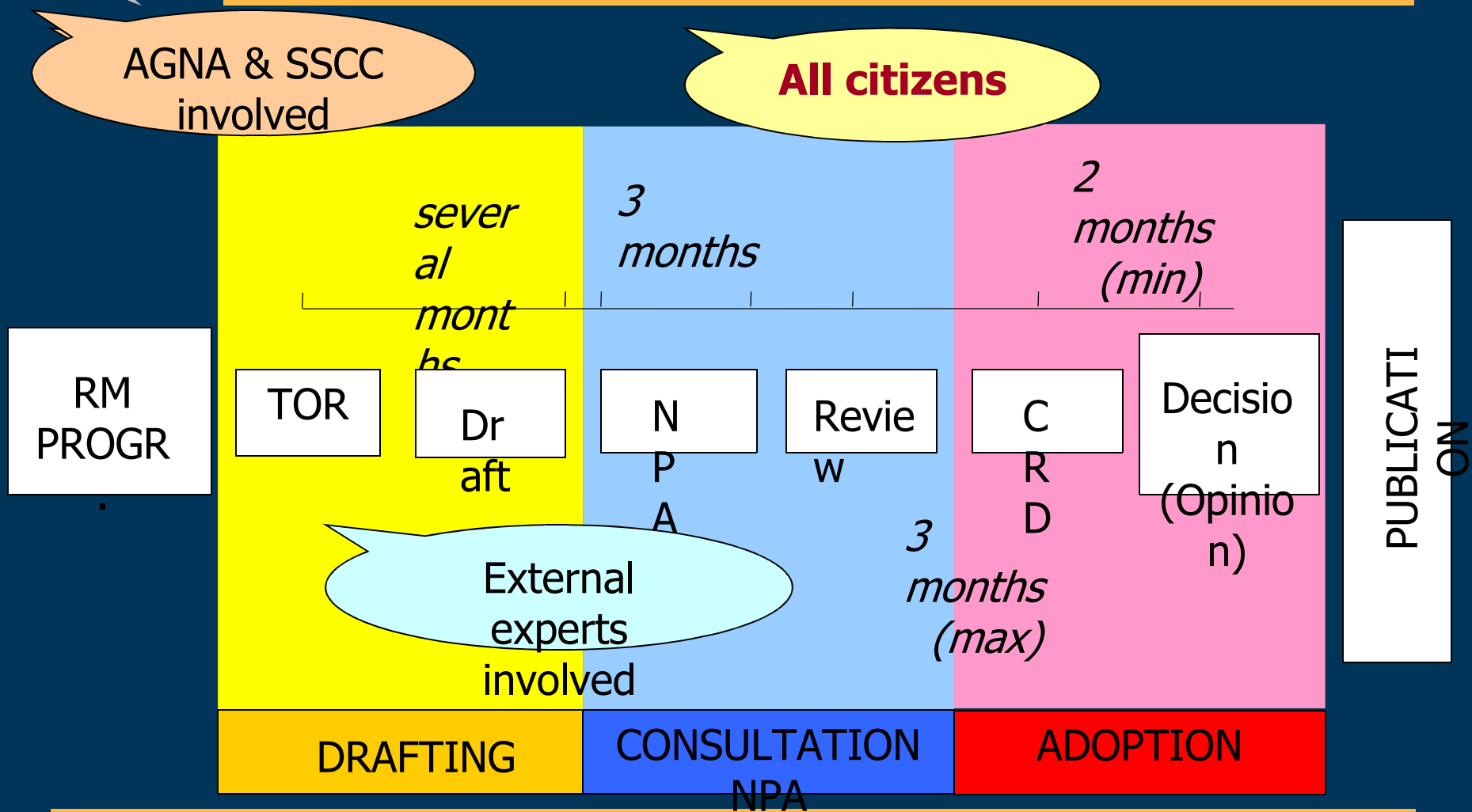
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- EASA to prepare necessary proportionate rules = **RULEMAKING**
  
  - EASA to assist Commission - Opinions:
    - ✦ preparing essential requirements to transpose safety objectives
    - ✦ preparing detailed implementing rules that clarify what regulated persons shall do to comply
    - ✦ evaluating the results achieved for continuously improving the quality of rules (= safety analysis)
  
  - EASA to assist NAA's in their implementing role:
    - ✦ adopting best practices AMC, CS and guidance material
    - ✦ providing advise on interpretation of rules
    - ✦ organising training and workshops to help applying rules
-



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## EASA system - rulemaking procedure





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### *EASA system*

#### - role of EASA; standardisation

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- Commission = guardian of EU rules
    - ★ to ensure effective and uniform implementation of Community law by Member States (enforcement through infringement procedure or other sanctions)
  
  - EASA assists the Commission through standardisation inspections of competent authorities overseeing their actual implementation = **STANDARDISATION**
    - ★ opportunity also to assist NAA's in identifying their weaknesses and in rectifying them before an infringement procedure is initiated
-



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### *EASA system*

#### - standardisation; methods

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- **common** standardisation procedures in **all fields**
  - **complete process**: e.g. preliminary meeting – on-site inspections – wrap-up meeting – ...
  - outcome: report with **findings** with supporting evidence
  - **final report**: to Commission and concerned Member State
  - **EASA** conducts **follow-up** to monitor closure of corrective actions, reports to CION and may do follow-up inspections
  - CION may decide **further actions**
-



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### *EASA system*

#### - role of EASA; certification

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- Application of Community law (e.g. evaluation of conformity with binding standards) may be delegated to a Community Agency = **CERTIFICATION**
  
  - Only when **centralised** action is the best means to achieve uniform implementation:
    - ✦ **airworthiness** – type design approvals of aeronautical products and foreign organisations approvals
    - ✦ **air operations and pilot licensing** - foreign organisations (operators)
    - ✦ **aerodromes and ATM safety** - no transfer of certification tasks to EASA except for systems of true pan-European nature or foreign operators
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## *Extension of the Agency's remit to ATM/ANS*

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- 3) 2nd extension - milestones & state-of-play
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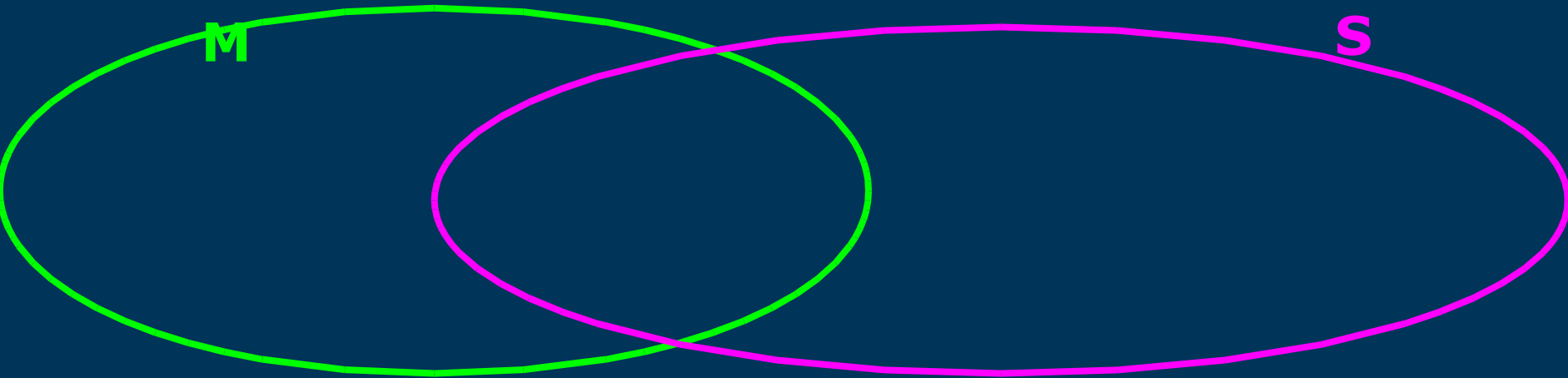
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*Extension of the Agency's remit to ATM/ANS*  
- what is ATM/ANS?

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AT  
M

AN  
S





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## Extension of the Agency's remit to ATM/ANS - milestones

**BR.002** - Extension of EASA system to aerodromes

**BR.003** - Extension of EASA system to ATM/ANS

**BR.002** - Extension of EASA system to aerodromes

**BR.003** - Extension of EASA system to ATM/ANS

amendment of the Basic

Opinions

SES II  
25.6. 2008

EU co-decision:  
adopted ... 2009 (?)

BR entry into  
force... 2012  
(?)

development of implementation

preparatory  
work

ToR's ...  
drafting groups

IR's enter into  
force ... 2012  
(?)

in progress





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### *Extension of the Agency's remit to ATM/ANS* - co-decision

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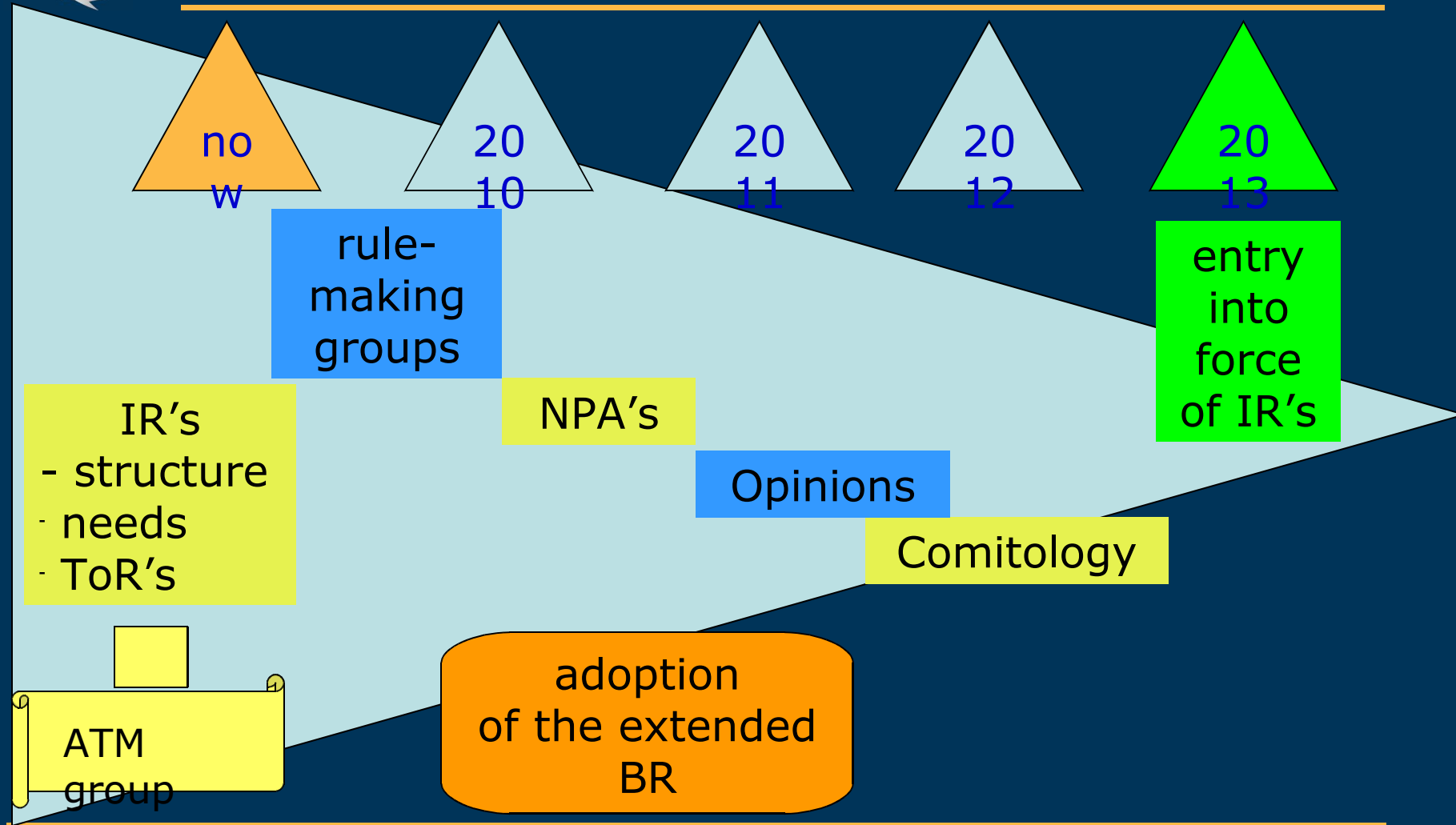
The extension of the Basic Regulation is under co-decision by EU Council & EP

- Single European Sky II package (25 June 2008), including;
    - ★ proposal to amend Basic Regulation to ATM/ANS & aerodromes
    - ★ in ATM/ANS fully compliant with EASA Opinion, transfer of safety regulatory aspects of SES
  
  - adoption of the proposal – very close (but not yet certain);
    - ★ Council partial general approach (Dec 2008), incl. ATM articles
    - ★ significant progress now on aerodromes & ER's
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# European Aviation Safety Agency

## Extension of the Agency's remit to ATM/ANS - what will happen next?





## European Aviation Safety Agency

### *Extension of the Agency's remit to ATM/ANS* - what will change in Basic Regulation?

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- Extension of EASA system = to define in existing system for new fields:
    - ★ new ER's (safety objectives)
    - ★ scope (who will be regulated)
    - ★ implementation means (where IR's needed, how to show compliance, who is the competent authority)
  
  - Detailed measures established on level of IR's & AMC/CS
-



*Extension of the Agency's remit to ATM/ANS*  
- what will change in Basic Regulation; ER's

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➤ new Essential Requirements to BR

Annex Vb

ER's for ATM/ANS:

- A. Use of the airspace
  - B. ATM/ANS services
  - C. Systems & constituents
  - D. Qualification of Air Traffic  
Controllers
  - E. Service providers & training  
organisations
-



*Extension of the Agency's remit to ATM/ANS*  
- what will change in BR; ATM/ANS (1)

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**Article 8b – ATM/ANS**

1. Provision of ATM/ANS shall comply with the essential requirements laid down in Annex Vb ...
  2. ATM/ANS providers shall be required to hold a certificate ...
  3. By way of derogation ... providers of FIS may declare ...
  4. Measures (IR's) ... may require certification of organisations in design, manufacture and maintenance of safety critical ATM/ANS systems and constituents ...
  5. Measures (IR's) ... may require certification of safety critical ATM/ANS systems and constituents ...
-



*Extension of the Agency's remit to ATM/ANS*  
- what will change in BR; ATM/ANS (2)

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## Article 8b – ATM/ANS

6. Measures (IR's) ... shall be adopted in accordance with Regulation 549/2004 (=SES Committee) ...

7. Measures (IR's) ... shall;

d) be developed using as far as practicable the relevant provisions of Regulation 549/2004 ... (=SES regulations) and provide for transitional mechanisms to ensure the continuity of approvals already granted ...

**In addition, a new Article inserted in Regulation 549/2004 (=SES):** "When implementing SES Member States & Commission ... shall coordinate with EASA to ensure that all safety aspects are properly addressed".

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## *Extension of the Agency's remit to ATM/ANS* - what will change in BR; ATCO's

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### *Article 8c – Air traffic controllers*

1. Air traffic controllers + persons & organisations involved in training, testing, checking or medical assessment ... shall comply with essential requirements in Annex Vb ...
  2. ATCO's shall be required to hold a licence & medical certificate ...
  6. Capability of ATCO training organisations, aero medical examiners & aeromedical centres ... shall be recognised by certificate.
  8. Persons providing practical training or for assessing ATCO's skill shall hold a certificate.
  11. Measures (IR's) ... shall be developed on the basis of the provisions of Directive 2006/23 on a Community ATCO licence.
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# *Extension of the Agency's remit to ATM/ANS* - what will change in BR; certification

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### *Article 22b – ATM/ANS certification*

With regard to ATM/ANS the Agency shall :

(b) issue & renew certificates of organisations located outside the territory of Treaty, responsible for providing services in MS's;

(ba) issue & renew certificates of organisations providing pan-European services;

### *Article 22c – Air Traffic Controller Certification*

(b) issue & renew the certificates of ATCO training organisations located outside the territory of the Member States ...

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## European Aviation Safety Agency

# Extension of the Agency's remit to ATM/ANS - roles of EASA

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**RULEMAKING:** Common safety rules...

- ATM/ANS providers (services + SMS)
- all ATM/ANS safety personnel (ATCO licensing & training schools)
- specific ATM/ANS systems, including

design, production & maintenance

- safety 'adviser' for SES rules

### **STANDARDISATION**

:  
inspections of competent national authorities in ATM/ANS

**SAFETY ANALYSIS:**  
covering whole ATM/ANS

### **CERTIFICATION** of:

- pan-European service providers & systems
  - specific ATM/ANS systems (possibly)
  - non-EU organisations
-



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## *Extension of the Agency's remit to ATM/ANS*

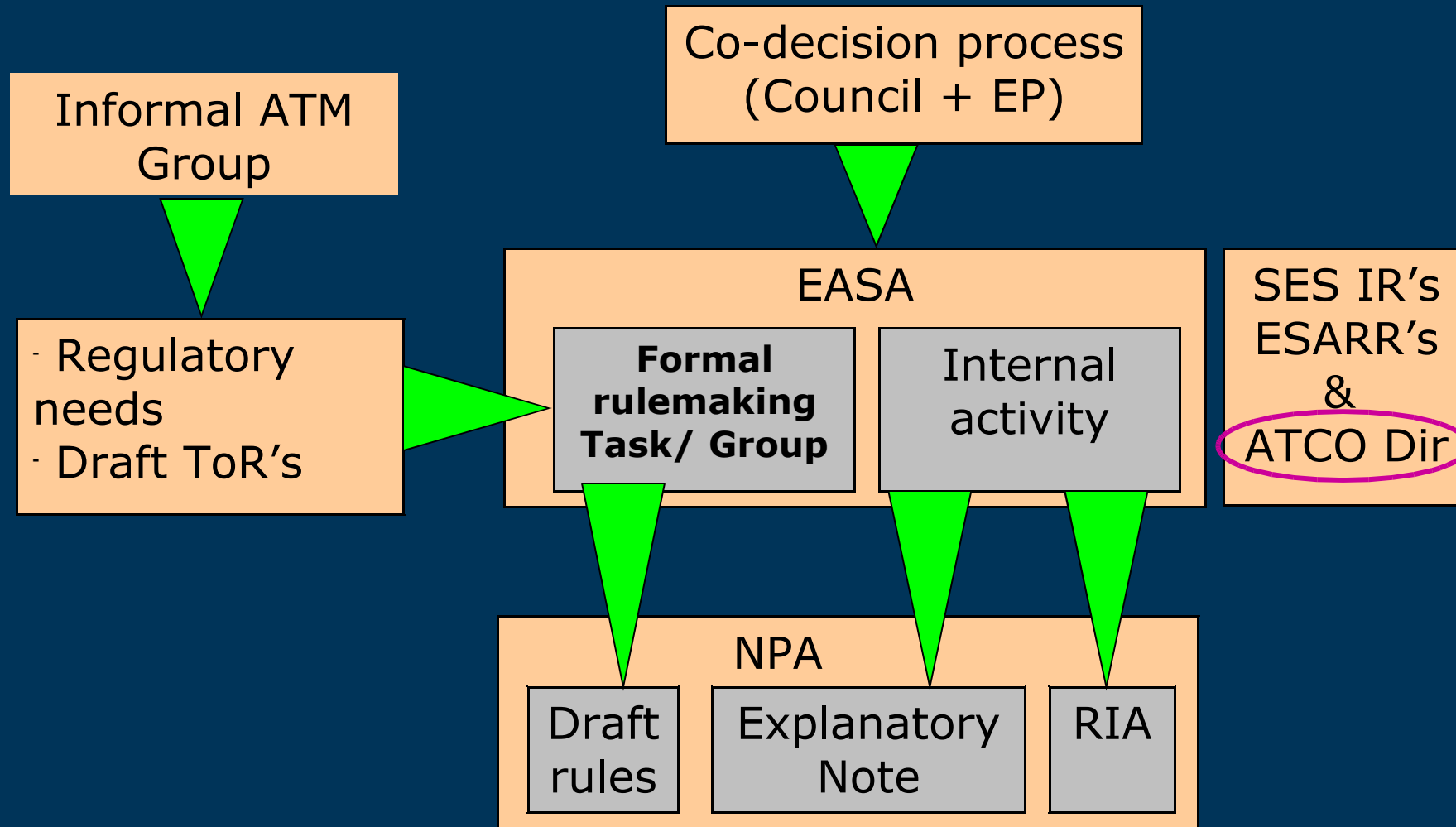
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- 4) Development of implementation means, personnel issues
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## European Aviation Safety Agency

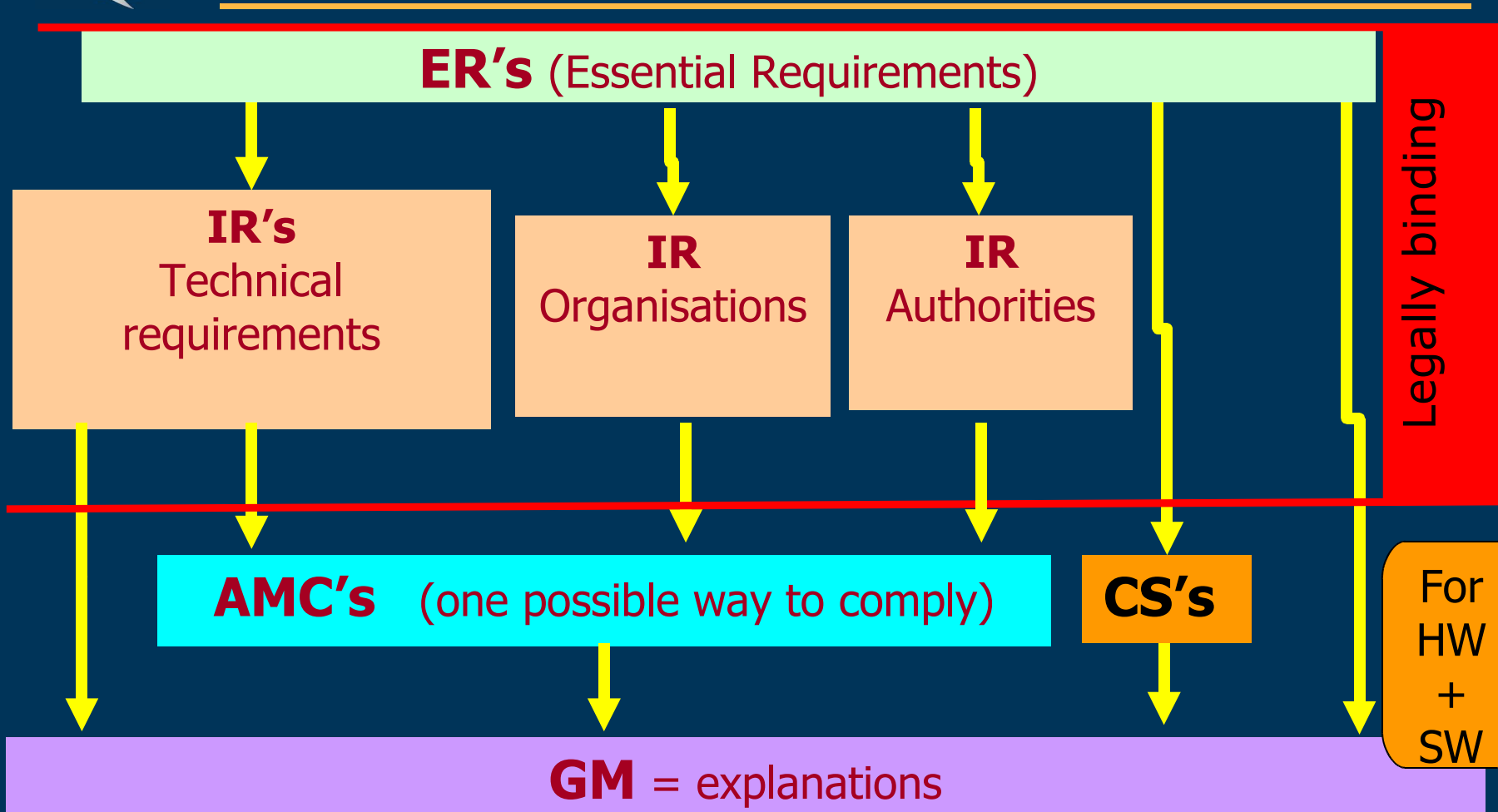
*Extension of the Agency's remit to ATM/ANS*  
- development of implementation means





# *Extension of the Agency's remit to ATM/ANS*

- structure of rules





## European Aviation Safety Agency

*Extension of the Agency's remit to ATM/ANS*  
- strong cooperation with EUROCONTROL

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- Taking place already within existing structures
  - Road-map
    - ★ under preparation
    - ★ covers all areas of safety/non-safety regulation
-



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### *Extension of the Agency's remit to ATM/ANS - personnel*

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- What has been proposed:
  - Implementing rules;
    - ★ Common rules shall be established to specify training and proficiency requirements for all personnel involved in safety critical ATM/ANS tasks
    - ★ IR will be based on the ATCO Directive for this category of personnel
  - Verification of compliance;
    - ★ ATCO's subject to certification defined by a new EASA IR
    - ★ other personnel (including ATSEP's) subject to compliance verification by their employer (condition for the organisational
-



## European Aviation Safety Agency

### *Extension of the Agency's remit to ATM/ANS* - ATCO's

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- Common rules (ER's) & implementation means in Basic Regulation by legislator
- No notable differences between ATCO Dir & proposed Basic Regulation
- Legal basis to complement, needs to improve, lessons learned ... ?

**IR**  
**'Personnel':**  
+ Part x:  
"ATCO"

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## European Aviation Safety Agency

*Extension of the Agency's remit to ATM/ANS*  
- all ATM/ANS personnel (other than ATCO)

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### ➤ Other ATM/ANS professions – which and how?

- ★ Which professions should be safety regulated?
- ★ Specificities related to different professions & existing regulatory material ?

**IR**

**'Organisations':**

+ Part ANSP

+ competency rules

by professions

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## European Aviation Safety Agency

*Extension of the Agency's remit to ATM/ANS*  
- all ATM/ANS personnel (other than ATCO)

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- Other ATM/ANS professions - elements to be considered for personnel provisions:
    - ★ General elements (e.g. age, medical fitness, ???)
    - ★ Qualifications related to each function
    - ★ Training relevant to each function/task (theoretical, practical)
    - ★ Continuation training (e.g. refresher, recurrent, checking provisions)
    - ★ Experience: experience needed to perform a certain task, assessment of experience
    - ★ Responsibilities and privileges
-



## European Aviation Safety Agency

# Extension of the Agency's remit to ATM/ANS - ER's: qualification of ATCO's (1)

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- a) General;
    - ★ *... undertaking training ... must be sufficiently mature ...*
  
  - b) Theoretical knowledge;
    - ★ *... acquire a level of knowledge ... demonstrated during training ... maintained ... demonstrated by regular examinations ...*
  
  - c) Practical skills;
    - ★ *... acquire and maintain practical skills ... demonstrate ability to perform ... maintained and demonstrated by regular examinations ...*
  
  - d) Language proficiency;
-



## *Extension of the Agency's remit to ATM/ANS* *- ER's: qualification of ATCO's (2)*

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- e) Synthetic training devices;
  - ★ *... level of performance ...*
  
- f) Training course;
  - ★ *... by a training course ... defined and approved ...*
  
- g) Instructors
  - ★ *... theoretical instruction ... appropriately qualified, instruction on practical skills ... (additional requirements)*
  
- h) Assessors;
  - ★ *... demonstrated ability to assess ... ATCO's ...*

➤ i) Medical fitness

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## European Aviation Safety Agency

### *Extension of the Agency's remit to ATM/ANS* - ER's: service providers

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- 5. Service providers and training organisations:
  - 5.a Service provision must not be undertaken unless the following conditions are met:
    - ...
    - 5.a.4 *The service provider must use only suitably qualified and trained personnel and implement and maintain training and checking programmes for the personnel;*
-



*Extension of the Agency's remit to ATM/ANS*  
- ER: service providers

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➤ I) All service providers;

★ *... necessary means ... SMS ...qualified and trained personnel ... manuals ... etc.*

➤ II) ... in addition, ATC service provision;

★ *... prevention of fatigue of personnel ... rostering system ... needs to address duty periods, etc.*

★ *... prevention of stress of personnel through education and prevention programmes ...*

★ *... procedures to verify ... fitness insufficient ...*

★ *... human factors principles taken into account in planning and operations ...*

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*Extension of the Agency's remit to ATM/ANS*  
- implementing rules/personnel

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- (8) The **implementing rules** to be developed by the Agency in the domain of ATM/ANS should be prepared in accordance with the **consultation** process of the Agency on a basis that should be **adapted to new stakeholders**, and build on the provisions of Regulation ... (= **SES**) ... , in particular the transposed **ESARR's**.
  - Such **implementing rules** should be adopted **by the Commission** in accordance with the procedure established in Article 5 of Regulation 549/2004 (= **SES Committee**). **Transitional mechanisms** should be designed in order to provide for the continuity of **approvals** already granted under the rules of those Regulations.
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## European Aviation Safety Agency

### *Extension of the Agency's remit to ATM/ANS* - rulemaking process & ETF

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#### ETF ...

- has actively contributed to BR.003 through consultation
  - may contribute to every EASA rulemaking task
  - as a **member of SSCC** is involved in deciding rulemaking programmes, ToR's and members of drafting groups, etc.
  - as a member in EASA **informal ATM group** will contribute in defining needs and structure of future ATM/ANS rules
  - (hopefully) as a member of **formal drafting groups** in ATM/ANS will contribute in the preparation of future rules
-



## European Aviation Safety Agency

### *Extension of the Agency's remit to ATM/ANS* - why to replace the ATCO Dir?

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- EASA system does not contain directives
    - if no ATCO regulation:
      - ★ no new elements or changes to ATCO licensing through safety regulation
      - ★ ATCO & ATC service provision ER's not implemented
      - ★ no 'acceptable means of compliance' material in ATCO issues by EASA
      - ★ EASA standardisation inspections excluding ATCO issues
        - no findings or enforcement measures
      - ★ no mutual recognition of related approvals
-





**European Aviation Safety Agency**

*Extension of the Agency's remit to ATM/ANS*  
- ETF 10 March 2009

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➤ **Thank you for your attention !**

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