

# Règlement EASA AIS / AIM

Séminaire UAF

Bordeaux, 31 Mai 2016

*Stéphane DUBET, DSNA / SIA, EASA AIS/AIM RMG Chairman*

# THE DRIVER



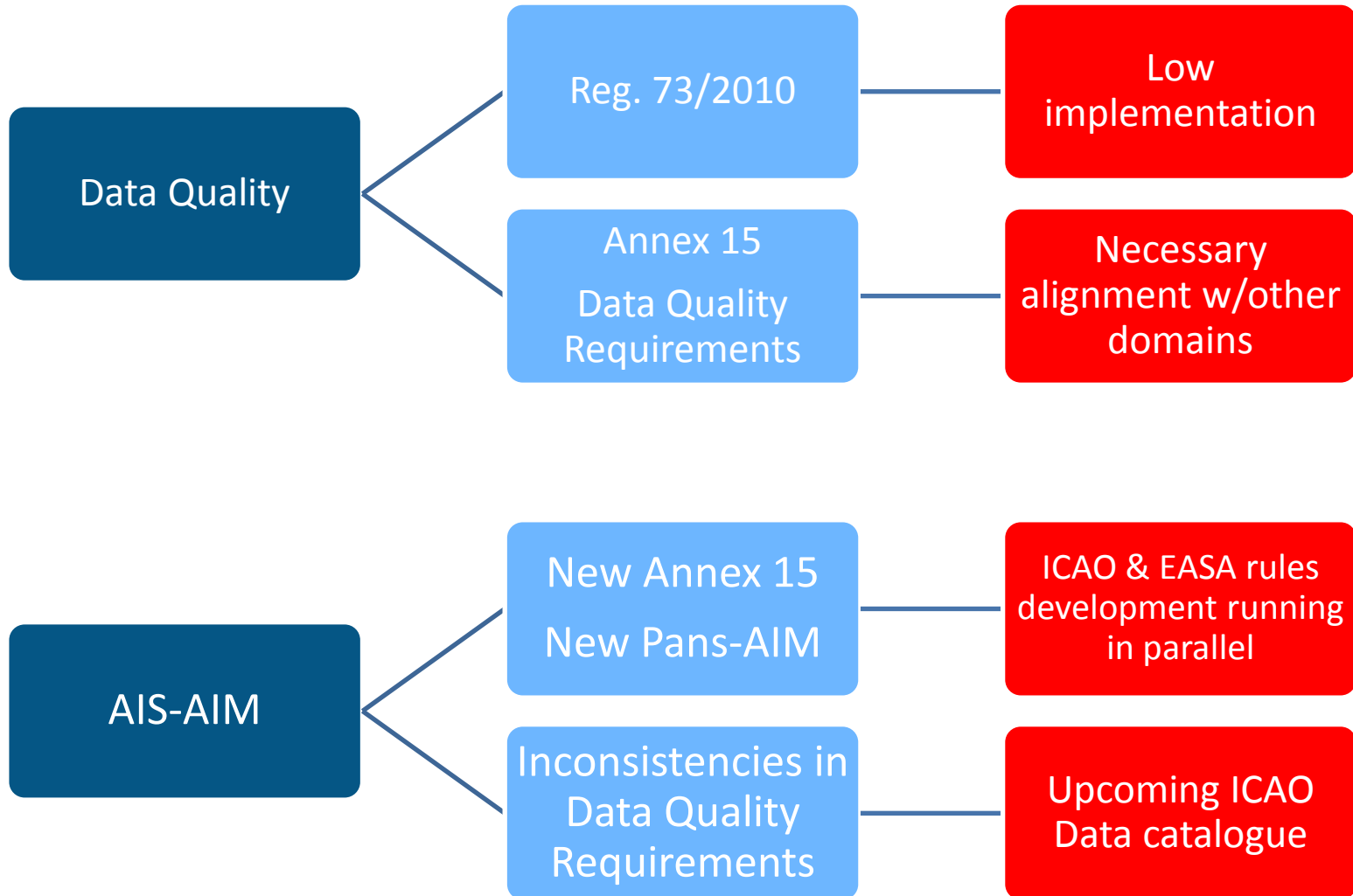
# THE OBJECTIVES

*‘ensure that the quality of aeronautical data and aeronautical information is met at origination, production and delivery of the aeronautical information products and services’*

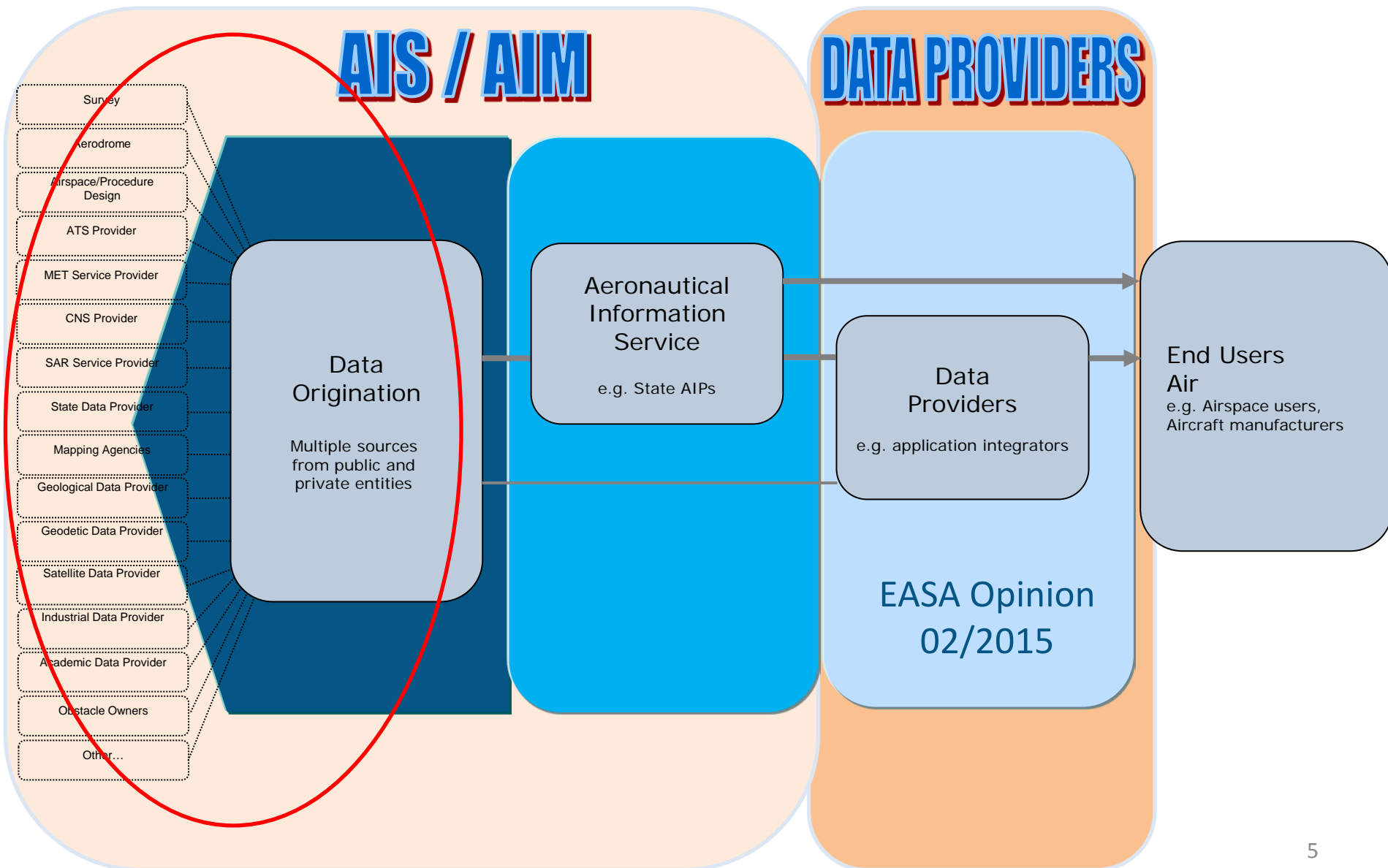
## Propose rules for:

- **Aeronautical information products and services**
  - **ICAO Annex 15**
    - *AIS providers responsibilities*
    - *AIP, NOTAM, AIRAC, AIC, PIB, Terrain & Obstacles, AMD*
- **Aeronautical data quality**
  - **Regulation (EU) No 73/2010**
    - **Data quality requirements**
    - *Service providers, origination*

# THE CHALLENGES



# THE SCOPE



# METHODOLOGY AND DELIVERABLES

- **Methodology**

- *Starting point:*

- *Annex 15 - AIS-AIM as a service*
    - *Regulation 73/2010 - Origination*

- *Focus on Data quality*

- *Keep the “better regulation” driver in mind*

- *Address all the “upstream chain”*

- **Deliverables**

- Implementing Rules: Organisation & Technical Requirements

- AMC/GM using all existing material

- Include impact on existing rules (139/2014 on ADR, ANS providers, aviation undertakings)

# KEY INPUTS



Annex 15  
Annex 4



"ADQ"



Basic Regulation,  
139/2014



**EASA rules on AIM**

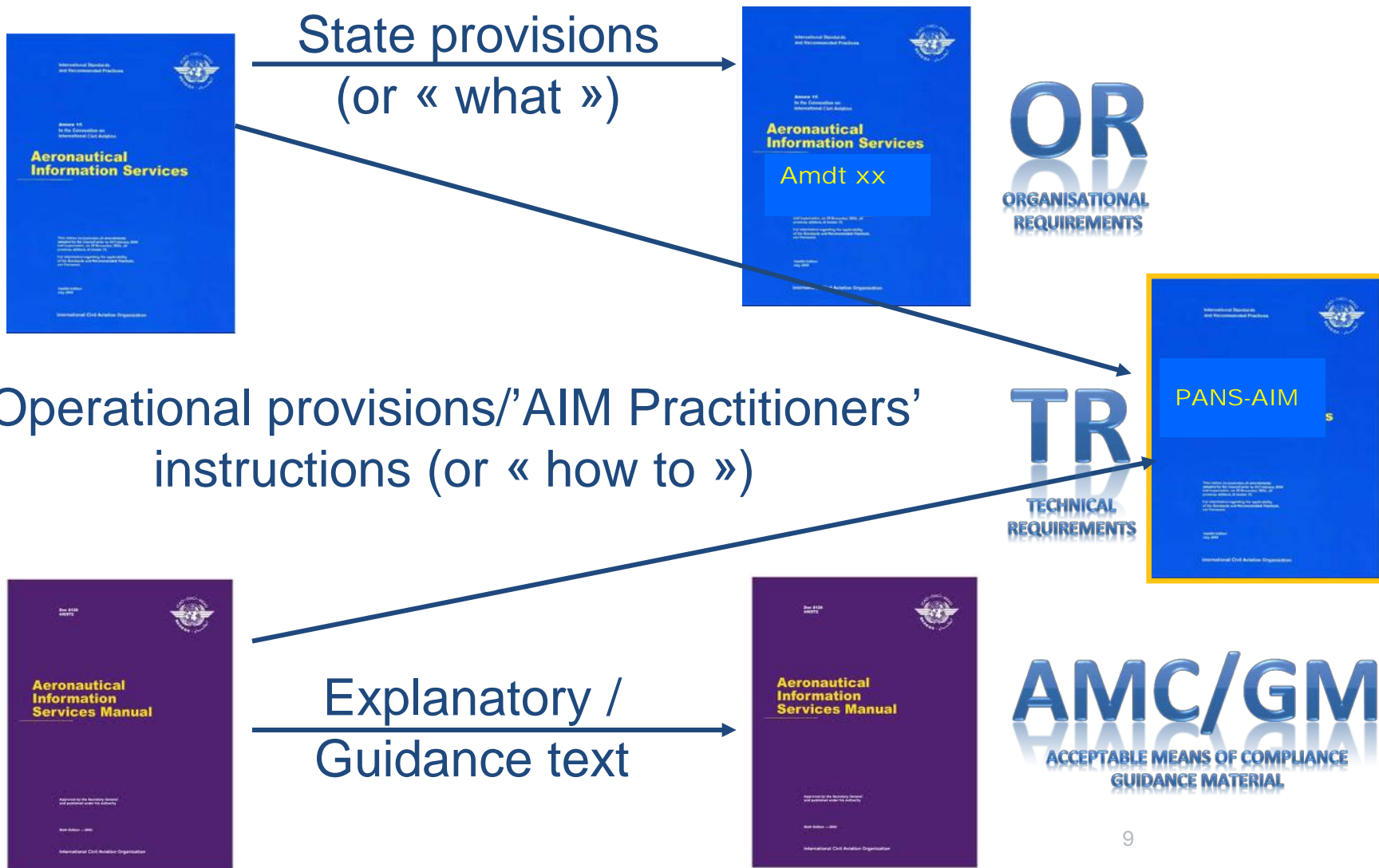
# OVERCOMING THE CHALLENGES

- **ICAO Annex 15 major change in progress**
  - *Work by ICAO AIS-AIM SG running in parallel*
  - *Draft rule to reflect the latest version of the work by ICAO*
  - *Transposes both ICAO Annex 15 and PANS-AIM*
- **Addressing all data originators**
  - *Requirements applicable to all ANS providers*
  - *Some data originators are beyond the scope of EASA Regulation*
  - *Data originated by aviation undertakings (non-aviation parties) to follow minimum data quality requirements, compliance to be checked by competent authority.*
  - *Ensure consistency with 139/2014 aeronautical data quality related provisions ( -> impact on existing rule)*

*‘Aviation undertaking’ means an entity, person or organisation, other than the service providers regulated by this Regulation or other than the aerodrome operators regulated by Regulation (EU) No 139/2014 that is affected by or affects a service delivered by a service provider or an aerodrome operator*



# ICAO AIM STANDARDS EVOLUTION



# DATA CATALOGUE

v2-06

Data Catalogue - Aerodrome

	A	B	C	D	E	F	G	H	I	J
1	Subject	Property	Sub-Property	Type	Description	Note	Reference	Accuracy	Integrity	Orig Type
2	Runway				A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft. (Annex 14)					
3		designator		Text	The full textual designator of the runway, used to uniquely identify it at an aerodrome/heliport which has more than one. E.g. 09/27, 02R/20L, RWY 1.		Annex 14   2.5.1 a)			
4		nominal length		Distance	The declared longitudinal extent of the runway for operational (performance) calculations.		Annex 14   2.5.1 a)	1m	Critical	surveyed
5		nominal width		Distance	The declared transverse extent of the runway for operational (performance) calculations.		Annex 14   2.5.1 a)	1m	Essential	surveyed
6		geometric points		Coordinates	geometries of RunwayElement, RunwayDisplacedArea and RunwayIntersection		AMDB			
7		elevation		Elevation	The profile of the centre line of the runway (including beginning and End of the centerline / the elevation of the runway centre line at each end of the runway, at the stopway, at the origin of each take-off and at each significant change of slope of approach area, and at each stopway).		Annex 4 Ch 3 and 4, 5 AMDB	1m	Critical	surveyed
8		geoid undulation		Value			Annex 4 Ch 3 and 4, 5 AMDB	0.25m	Critical	surveyed
9		runway exit line		line	Continuous line captured of a runway connecting the two thresholds		AMDB			
10				Coordinates			AMDB			
11				colour	Colour of runway exit line		Annex 14 AMDB	0.5m	essential	surveyed
12				style	Style of runway exit line		AMDB			
13				direc	Directionality of corresponding feature instance, which can be oneway or two-way.		AMDB			
14										
15										
16		surface type		Text	Surface Type runway		Annex 14   2.5.1			

Aerodromes

Airspaces

ATS Routes

Instrument Flight Procedures

Navigation Aids / Systems

Obstacles

Geographic Information

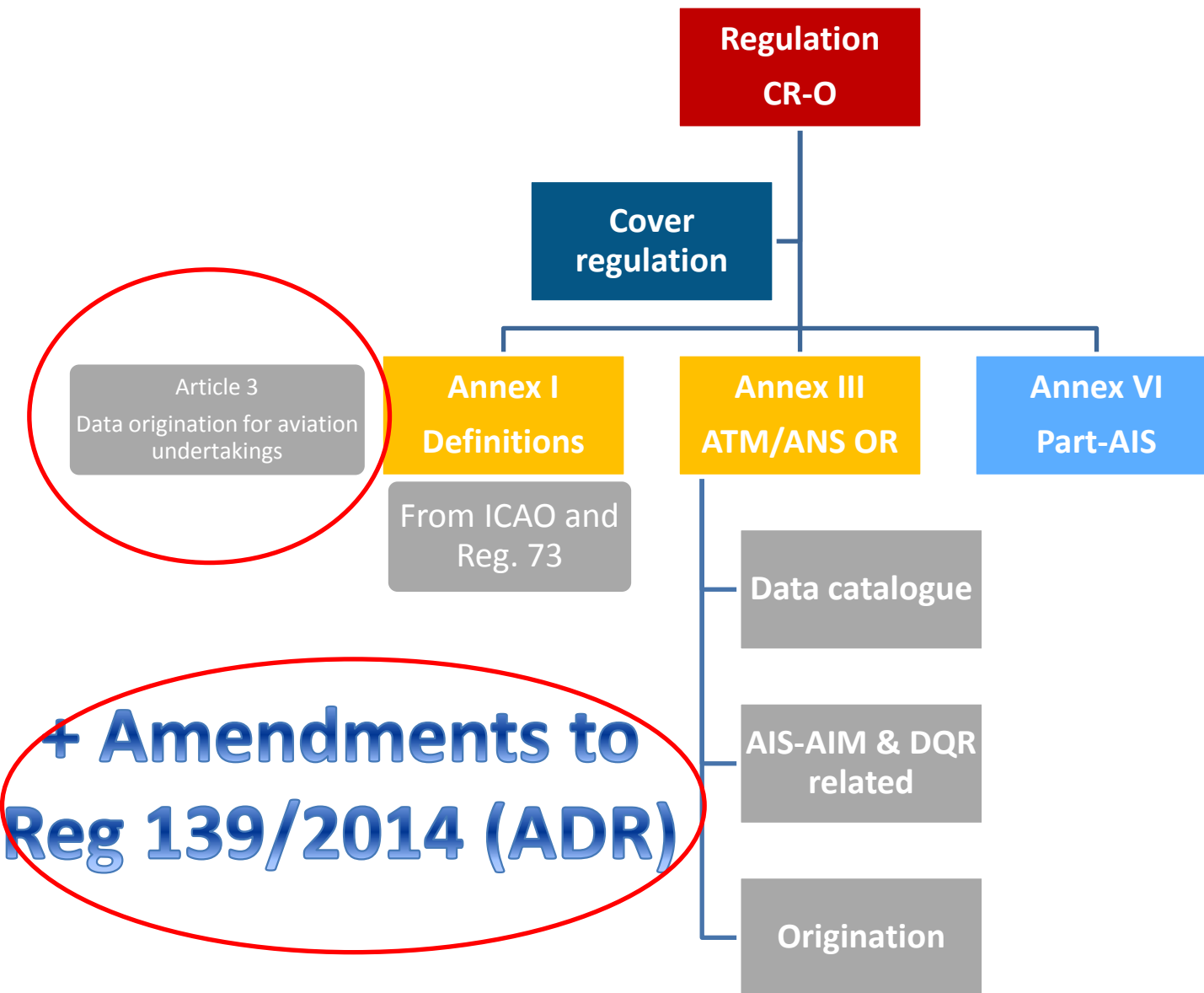
Usage:

Common language

One-stop-shop

SLA with DOs

# OVERALL RULE STRUCTURE



# AIS/AIM RULE STRUCTURE

- **General requirements**
  - Information management, responsibilities of SP, data limitations
- **Data quality requirements**
  - Reference to data catalogue, data exchange, metadata, error reporting and corrective actions
- **Aeronautical information products**
  - AIP, AIP amendments, AIP supplements, AIC
  - Aeronautical charts (provision req't and object per chart)
  - NOTAM
  - Digital data sets (AIP, TOD, AMD, IFP)
- **Distribution and pre-flight information services**
- **Aeronautical information product updates**
  - AIRAC, NOTAM updates, Data updates
- **Personnel requirements**
  - General requirements and language proficiency

# **Amdts to Reg 139/2014**

## ***Additions to ADR***

- **Personnel requirements**
  - Competency, training and authorization of personnel involved in provision of aeronautical information
- **Data error detection and authentication**
  - Performance based approach in the rule
  - For AMC : open question on application of CRC (alignment w/Annex 14)
- **Data Catalogue**
  - Origination of data shall comply with the Data Catalogue
- **Metadata**
  - Identification of organisation performing origination
  - Action performed on data
  - Date and time of the action
  - Details of any limitations on the data
- **Data exchange**
  - Use of electronic means

# AMC and GM for Aerodromes

- **AMC on Data Quality Requirements**
  - Performance based approach to automation v/v quality
  - Error handling and corrective action mechanisms
- **Deletion of DQR tables from the AMC**
  - Superseded by the Data Catalogue
- **Formal arrangements**
  - Minor (consistency) adjustments
- **Data error detection and authentication**
  - CRC (but still open through question to stakeholders in the NPA)

# EUROPEAN AIS/AIM RULE EVOLUTION

## Previous rules

Data originators

Data set requirements

AIXM 5.1

CRC32Q

Quality, safety, Security  
management

Conformity/Suitability of  
constituents

Formal arrangements

Tools and software

**Member States' responsibility**

**Use of the developed ICAO DC**

**Performance based approach**

**Other means introduced**

**Common Requirements Reg.**

**Reg. 552/2004 sufficient**

**Flexibility approach**

**Pragmatic approach**

## New EASA proposal

Specific DQR for originators

Data catalogue

Exchange model globally  
interoperable

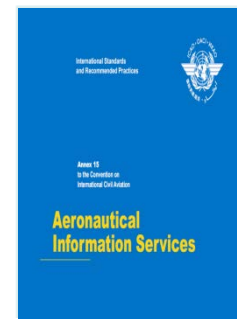
Cycling codes or  
cryptographic tech.

Management system  
covered by CR Reg.

Oversight of 552/2004 covered  
by new CR Reg.

Content at AMC level

Not at origination level



# NPA 2016-02

- ✓ **Public consultation**  
(persons or organisations)
- ✓ **Open for comments**  
**until end August 2016**
- ✓ **Follow-up:**
  - Review of comments
  - Thematic meetings as required
  - Further formal consultation if necessary
  - Opinion + Common Response Document release



European Aviation Safety Agency

## Notice of Proposed Amendment 2016-02

### Technical requirements and operational procedures for aeronautical information services and aeronautical information management

RMT.0477 — 27.4.2016

#### EXECUTIVE SUMMARY

This Notice of Proposed Amendment (NPA) addresses a safety issue related to the provision of aeronautical information services (AIS) and aeronautical information management (AIM).

The main objective of this NPA is to maintain a high level of safety, increase efficiency and provide for greater cost-effectiveness of the air navigation system by achieving an uninterrupted aeronautical data chain with no loss or corruption in data and information and with guaranteed data quality.

The role and importance of aeronautical data and aeronautical information has changed significantly with the implementation of area navigation (RNAV), performance-based navigation (PBN), airborne computer-based navigation systems and data link systems. Corrupt, erroneous, late, or missing aeronautical data and aeronautical information can potentially affect the safety of air navigation.

The specific objectives of this NPA are to: 1) ensure that aeronautical data and aeronautical information are originated, assembled, edited, formatted, published and finally provided at the required level of quality to the next intended user and for all phases of flight; the quality of the data shall be proportionate to the types of aeronautical actors involved; 2) ensure alignment in an efficient and effective way with the latest International Civil Aviation Organization (ICAO) Annex 15 amendment; and 3) ensure enough proportionality and flexibility to allow smooth implementation of AIS.

This NPA proposes rules for:

- ATM/ANS providers; and
- organisations involved in the origination of aeronautical data.

It amends Annexes I (Definitions), II (Part-ATM/ANS.AR), III (Part-ATM/ANS.OR) and VI (Part-AIS) to Regulation .../.... laying down common requirements for service providers and the oversight in air traffic management/air navigation services and other air traffic management network functions. as well as Regulation (EU) No 139/2014 of 12 February

# NPA STRUCTURE

- **Procedural information**
- **Explanatory note**
  - *Overview of the issue to be addressed*
    - *Current issue in AIS-AIM*
    - *What does this NPA try to solve?*
  - *Summary of the regulatory context*
    - *ICAO Annex 15*
    - *Regulation (EU) No 73/2010*
  - *Summary of the proposal*
    - *Explanation of the proposed text*
  - *Data quality requirements – changes to ADQ Reg*
  - *Overview of the proposed amendments*
    - *Why the amendments are proposed;*
  - *Text of the proposed amendments*
- **Proposed amendments**
- **Regulatory Impact Assessment (RIA)**
- **References**
- **Appendices**

# THE PROPOSED AMENDMENTS

- **Proposed amendments to Reg (EU) No .../.. on ‘Requirements for service providers and the oversight thereof’**
  - Article 3 (origination by aviation undertakings)
  - Annex I - Definitions
  - Annex II – Part-AR (authorities – certification of AIS-providers)
  - Annex III – Part-OR (origination by service providers)
  - Annex VI – Part-AIS (req’ts applicable to AIS providers)
- **Proposed amendments to Reg (EU) No 139/2014**
  - Aeronautical data quality
- **Proposed amendments to AMC and GM to Authority, Organisation and Operations Requirements for Aerodromes**

# A COUPLE OF LAST WORDS

# Happy Users

1 European AIM  
rule

