

# European AIS / AIM Regulation

IFAIMA Global AIM – Rio 2016

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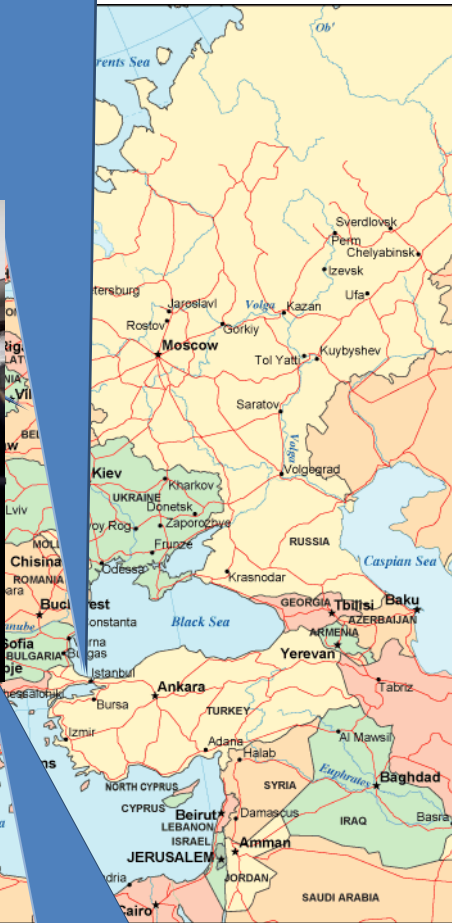
# CONTENTS

- **Regulating AIS-AIM in a European context**
  - The reasons
  - The objectives
  - The challenges
  
- **The new (draft) European EASA AIS AIM regulation**
  - Methodology
  - Structure of the rule
  
- **Conclusions**

# THE CONTEXT

National AIM regulation

Differences to Annexes 4&15



Differences to Annex 15

National AIM regulation

Differences to Annex 15

National AIM regulation

Differences to Annex 4

# 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 CONSTRAINTS

*Avoid unnecessary  
regulatory  
burdens*

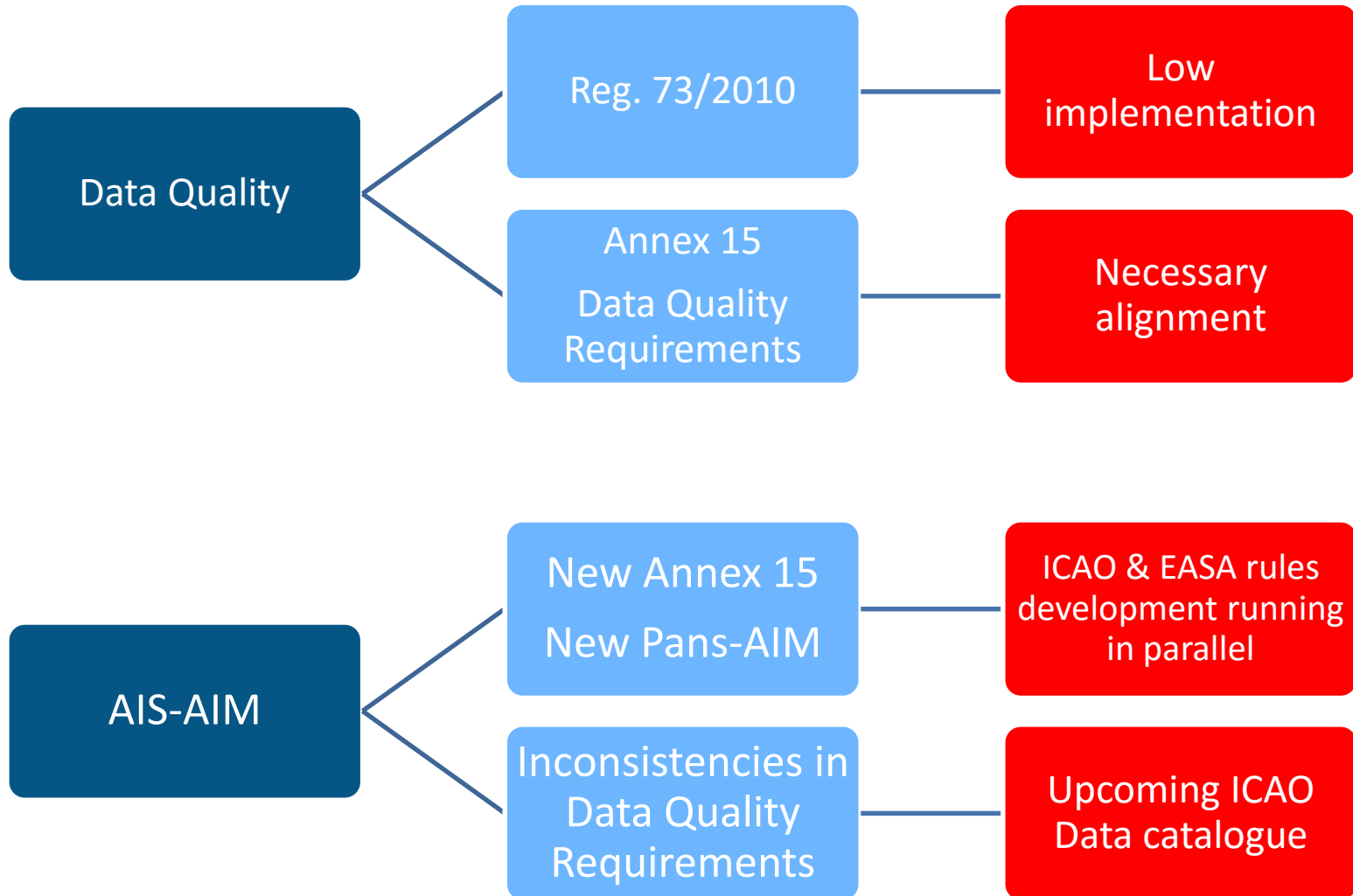
*Demonstrate a  
simple and clear  
regulatory  
framework*

*Anticipate  
implementation  
challenges*

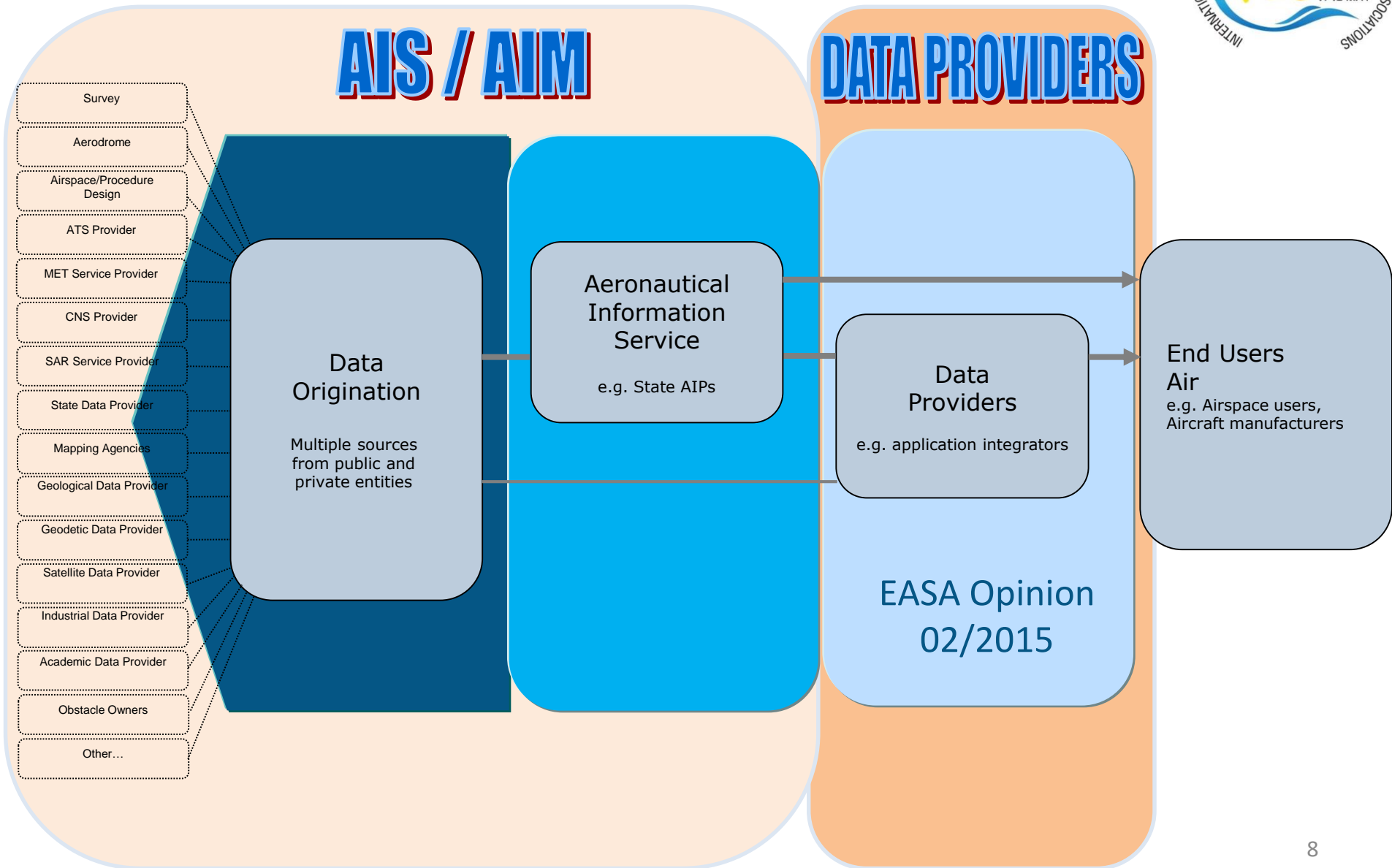
*Facilitate rule  
transposition*

*Avoid duplication  
of rules*

# 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*

- **Deliverables**

- Implementing Rules: Organisation & Technical Requirements
- AMC/GM using all existing material

# KEY INPUTS



Annex 15  
Annex 4



"ADQ"



Basic  
Regulation

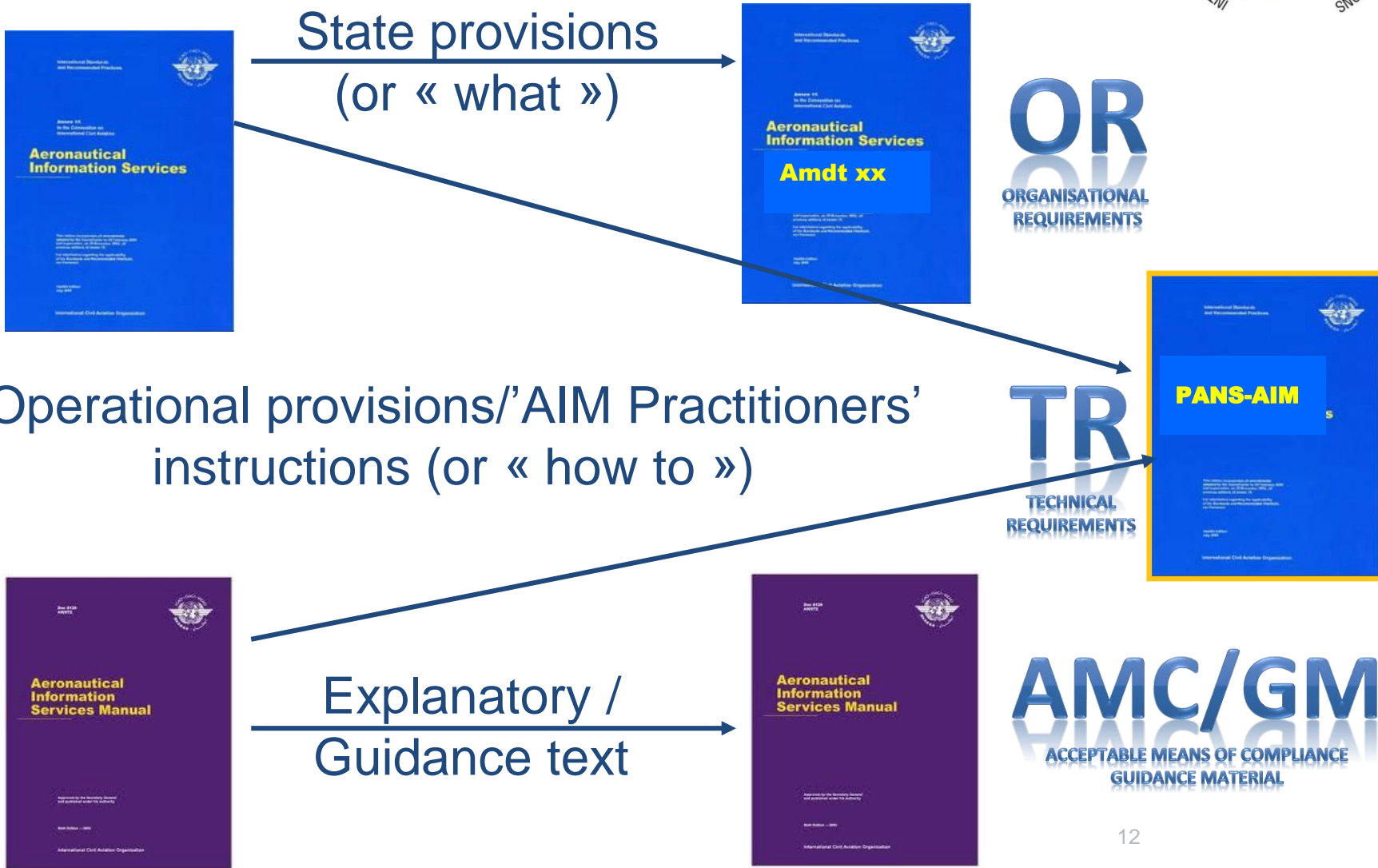


**EASA rules on AIM**

# 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**
  - *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.*

# ICAO AIM STANDARDS EVOLUTION



# NEW ICAO MATERIAL (ANNEX 15 & PANS-AIM)

- **Split** Data collection/provision – From **Product to Data Centric**
  - **Digital Data services**
    - **Severall** Datasets : Aeronautical (AIP), Terrain, Obstacles, Aerodrome Mapping, Instrument Flight Procedure Design
    - ***"progressive introduction of the requirements for digital data publication"***
    - ***"incentive - allowed to remove certain AIP tables, if data is made available digitally"***
    - Short-term operational sign. update - [implicit – **Digital NOTAM**]
- 
- But also
    - **English Language**
    - **Safety Management** provisions
    - **Data quality** separated from Quality/Safety **Management**
    - **I-AIP** replaced by **Aeronautical Information Products**

# NEW ICAO MATERIAL (ANNEX 15 & PANS-AIM)

- Further cleaning up of 'Terms' (collect/provide/promulgate/..., ....)
- Strengthening 'Formal arrangements' (DO↔AIS)
- Data protection provisions updated (CRC one option + ED76/DO200A)

- Some Doc8126 AIP text (multiple volumes, page numbering, formatting, ...) lifted to PANS-AIM level
- Paper vs Electronic (AIP/eAIP) clean-up
- Improved consistency with industry standards (definitions, provisions)

- Restructured Annex 15 (+- **30** pages) + New PANS-AIM (+- **100** pages)

# 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 transversal extent of the runway for operational (performance) calculations.   |      | Annex 14   2.5.1 a)        | 1m       | Essential | surveyed  |
| 6  |         | beginning and end of runway |              | Coordinates | geometries of RunwayElement, RunwayDisplacedArea and RunwayIntersection   |      | AMDB                       |          |           |           |
| 7  |         | centre line                 |              | Elevation   | The profile of the centre line of the runway (including beginning and end of the centreline / 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). |      |                            |          |           |           |
| 8  |         | stopway                     |              | Elevation   |   |      | Annex 4 Ch 3 and 4, 5 AMDB | 1m       | Critical  | surveyed  |
| 9  |         | obstacle clearance          |              | Elevation   |   |      | Annex 4 Ch 3 and 4, 5 AMDB | 0.25m    | Critical  | surveyed  |
| 10 |         | geoid undulation            |              | Value       |   |      | AMDB                       |          |           |           |
| 11 |         | runway exit line            |              | Coordinates | Continuous line captured of a runway connecting the runway exit line  |      | AMDB                       |          |           |           |
| 12 |         | runway exit line            |              | Coordinates |   |      | AMDB                       |          |           |           |
| 13 |         | line                        |              | Coordinates |   |      | Annex 14 AMDB              | 0.5m     | essential | surveyed  |
| 14 |         | colour                      |              | List        | Colour of runway exit line  |      | AMDB                       |          |           |           |
| 15 |         | style                       |              | List        | Style of runway exit line   |      | AMDB                       |          |           |           |
| 16 |         | dirac                       |              | List        | Directionality of corresponding feature instance, which can be oneway or two-way.   |      | AMDB                       |          |           |           |
|    |         | 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

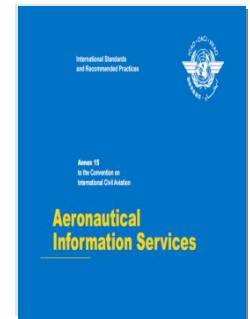
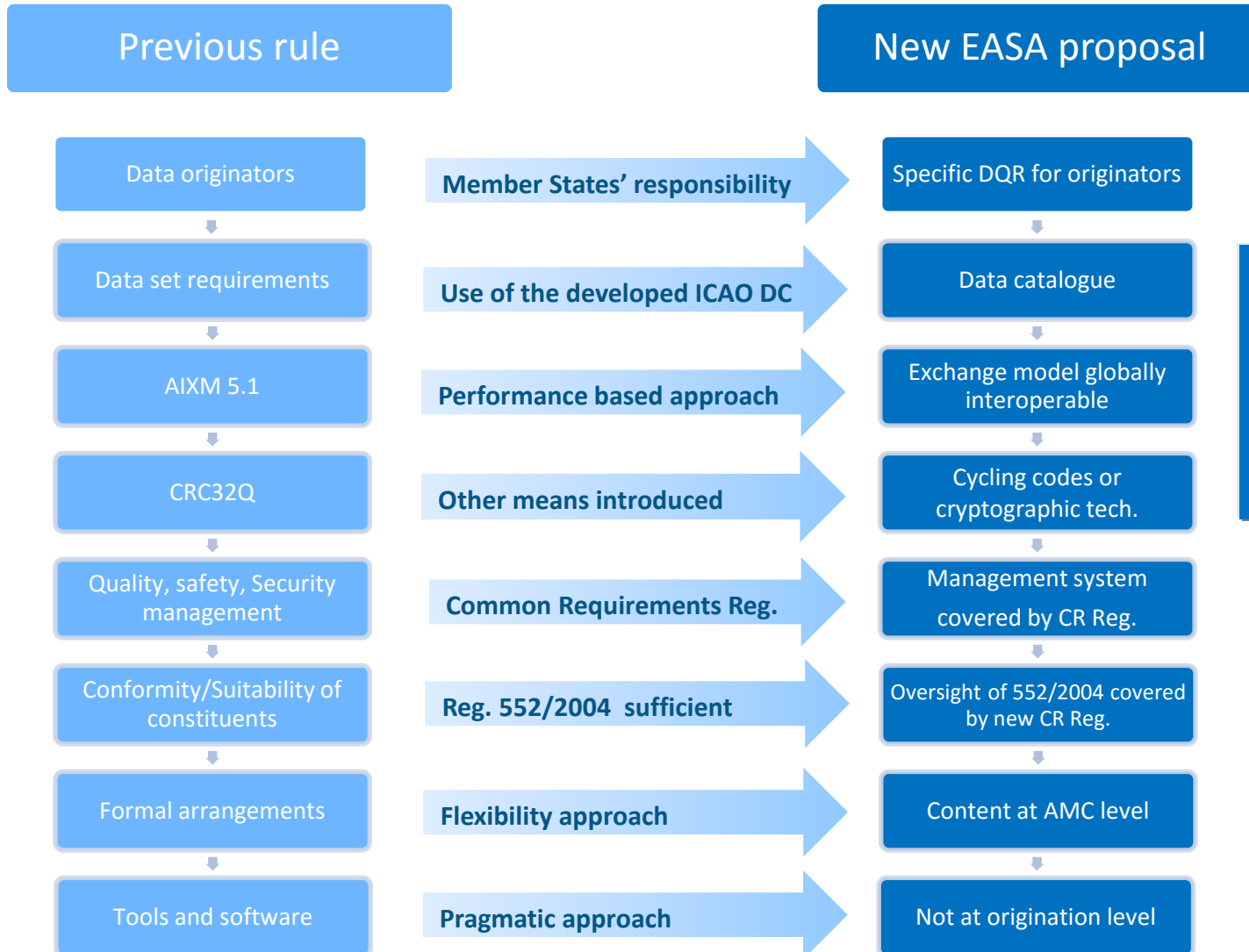




# AIS/AIM RULE STRUCTURE

- **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

# EUROPEAN AIS/AIM RULE EVOLUTION



# AMC and GM

- **Re-use of existing material**
  - ICAO material (PANS-AIM and Documents)
  - ADQ material (Eurocontrol specifications, ADQ guide)
  - Other technical standards (ISO, EUROCAE)
- **AMC**
  - Extracted from existing material
  - or developed together with the rules
- **Guidance material**
  - Reference to complete documents (eg eAIP specification)
  - Specific extracts from existing material (eg ADQ guide)
- **Detailed sources**
  - ICAO : AIS Manual, WGS-84 Manual
  - EUROCONTROL : specifications (eAIP, Data Origination), OPADD, TOD Manual
  - EUROCAE : ED-76A, ED98, ED99, ED119
  - Other : ISO 19100 series

# BETTER REGULATION IN PRACTICE

| Former regulation  | New EASA regulation                               |
|--|---|
| <b>Detailed technical requirements</b>   | Not go beyond what is needed to resolve the issue |
| <b>Economic impact</b> <ul style="list-style-type: none"><li>• Tools &amp; equipment</li><li>• Staff</li></ul>                   | Achieve regulatory objectives with minimum cost   |
| <b>Complexity of rule</b> <ul style="list-style-type: none"><li>• Complicated provisions</li><li>• Numerous references</li></ul> | Text easy to understand and implement             |
| <b>Similar requirements for all parties</b>  | Proportionality                                   |
| <b>Rule mandatory in its entirety</b>  | Objective and balanced rules                      |

# EUROPEAN CONSULTATION ON THE DRAFT MATERIAL



European Aviation Safety Agency

## Notice of Proposed Amendment 2016-02

- ✓ Public consultation
- ✓ Open for comments until end August 2016
- ✓ Follow-up : review of comments, EASA Opinion

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

# A COUPLE OF LAST WORDS

# Happy Users

1 European AIM rule

