

PBN, ADQ, ADQ2 IR EUROCONTROL Activities Status

Sylvie GRAND-PERRET

DSS/SES Unit,
EUROCONTROL

ICAO EUR APV Workshop – 25-27th of May 2011

PBN IR Mandate

Title of the Mandate

Mandate to Eurocontrol to assist the European Commission in the development of an interoperability implementing rule on Performance Based Navigation (PBN).

Purpose

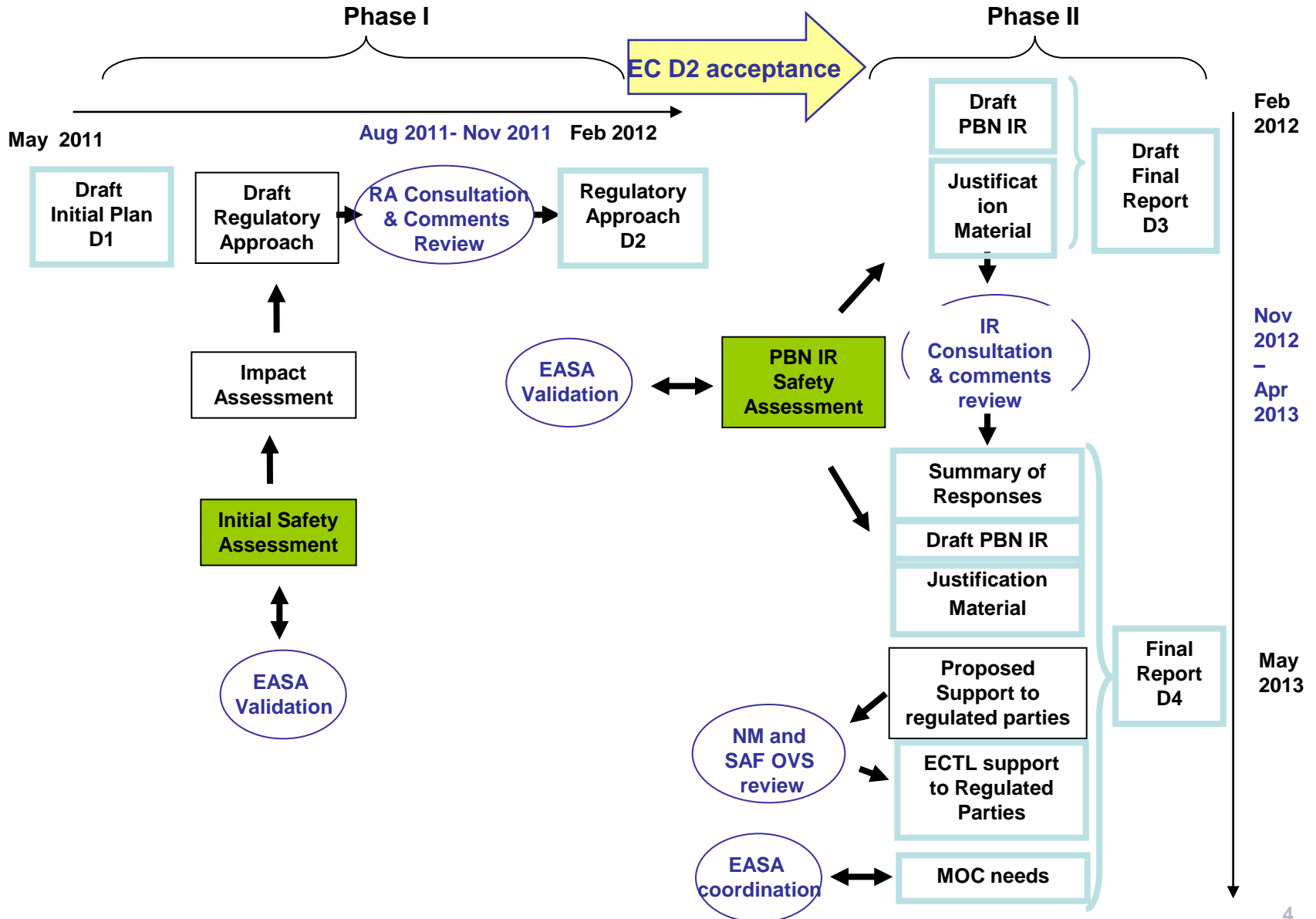
Eurocontrol is mandated to develop a draft interoperability implementing rule on performance based navigation (PBN) that **will define navigation requirements and identify the functionalities required in en-route and terminal airspace, including arrival and departure, and also approach.**

The rule shall address the implementation of ICAO Resolution A37-11

Status of the PBN IR mandate

- ✓ PBN IR mandate issued by EC
- ✓ ECTL acceptance of the mandate
- ✓ PBN IR development from May 2011 – May 2013
Initial Plan under finalisation

Work Plan Overview



Key material to be considered

- PBN implementation plans
- FAB policies
- European ATM master Plan & Next Gen
- ICAO PBN Manual
- ICAO Assembly resolutions, notably A37-11
- Free Route Airspace/ Fixed Routes
- European fleet capability
- Existing or under development Rules and AMCs in relation to PBN

Phase I : Regulatory Approach

Regulatory Approach

- Assessment of PBN IR context
- Identification of different possible regulatory approach scenarios to be considered
- Development of an impact assessment, in particular cost-benefit analysis for each scenario
- Recommendation of the most suitable regulatory approach based on impact assessment results

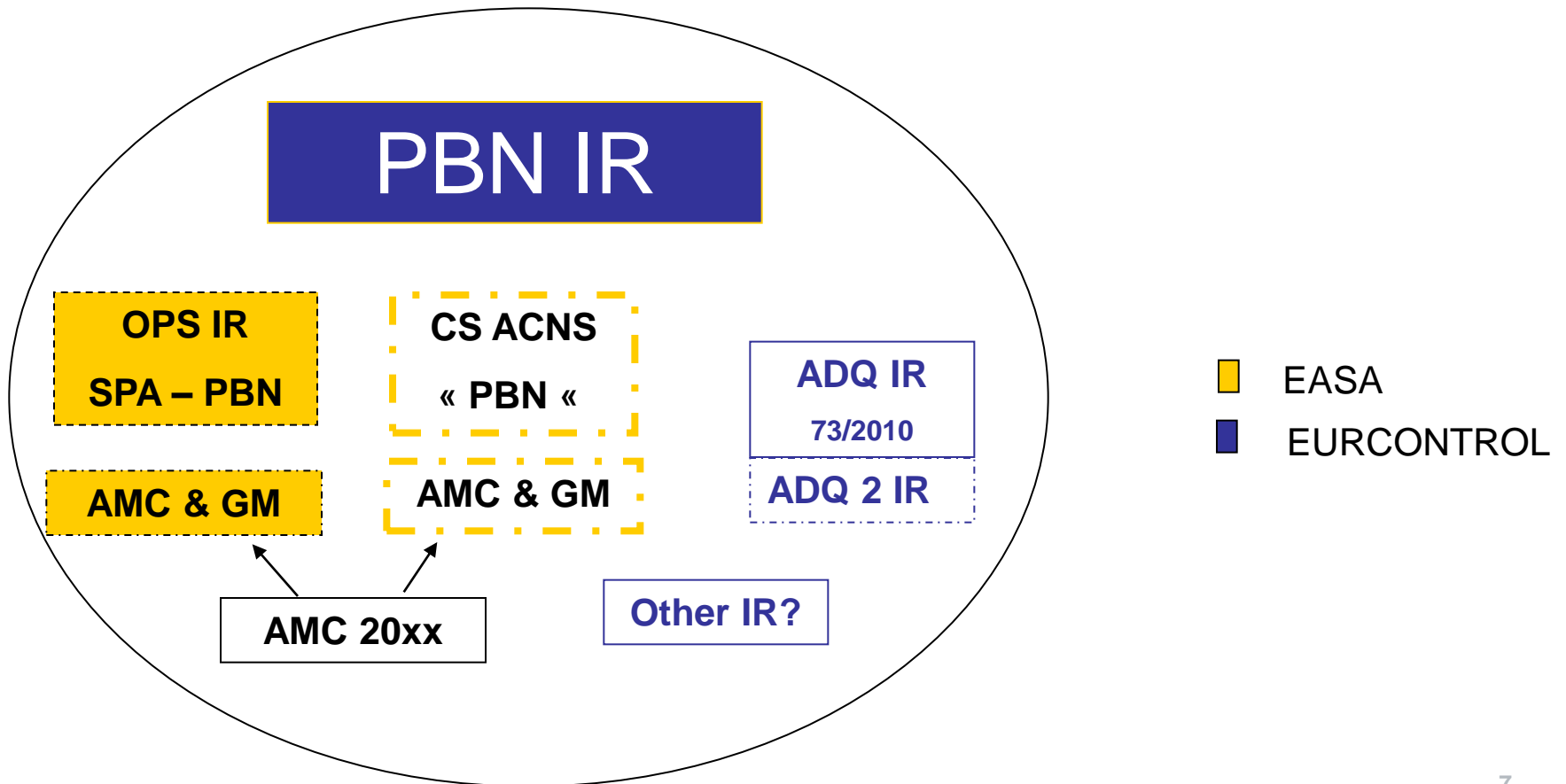
Submitted to formal consultation

PBN Regulatory Context

PBN Regulatory Context will be analysed in the early stages of the mandate work

Principles:

1. Ensure consistency with existing & under development regulatory Material
2. Avoid duplication



RNP APCH relevant questions to be addressed in the RAD? (1/2)

- **Do we need to regulate RNP APCH?**
 - Would this stimulate implementation of ICAO resolution A37-11?
- **Should there be a mandate on the ANSP to publish and/or on the aircraft to equip with RNP APCH capability?**
- **What could be the options for publication by an ANSP?**
Any combination of RNP APCH types : LNAV, LNAV/VNAV, LPV?
- **Would this depend on the context?** (TMA, Airport location, infrastructure...)
- **Should this depend on the aircraft operator capability at a given airport?** (e.g. should we assume that SBAS capable aircraft would be allowed to perform LNAV/VNAV approaches?)

RNP APCH relevant questions to be addressed in the RAD ?(2/2)

- **Are GNSS system performances required for each RNP APCH type met everywhere in the area to be regulated?**
- **Should a stepped approach be adopted for implementation (one option before another)?**
- **Should we include LPV 200 in the mandate?**
- **Are there any other constraint to consider that would prevent any of the implementation options?**
- **What are the benefits/drawbacks of each option on each actor?**
- **Are all options safe?**
- **How to ensure the civil/military interoperability for each option?**

Phase II: Implementing Rule Development

Draft Final Report

(Based on the scenario selected following the Regulatory Approach consultation):

includes

- Proposed Draft Implementing Rule
- Draft Justification Material
 - Detailed impact assessment (safety summary, civil/military organisation, efficiency and economic aspects)
 - Current and desired regulatory situation

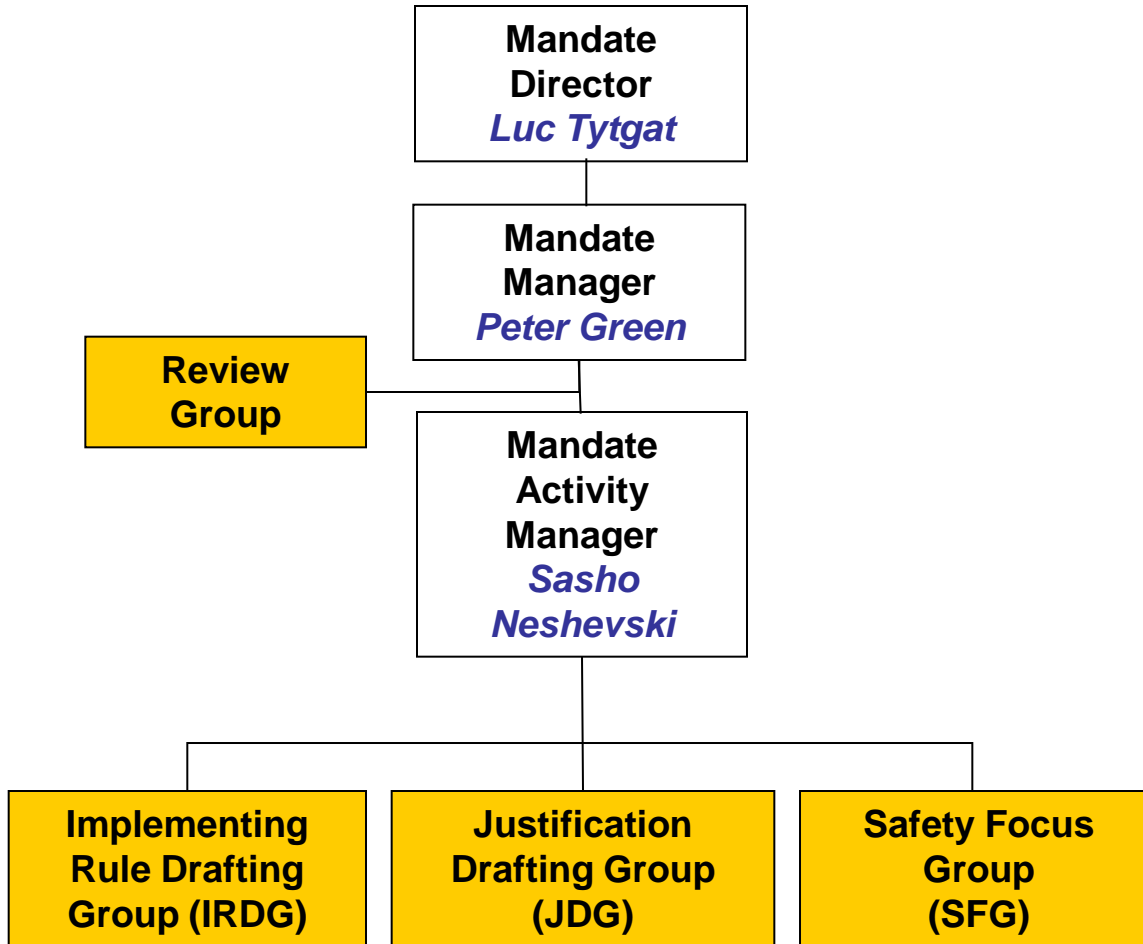
Draft IR submitted to formal consultation (ENPRM)

Final Deliverable

Final Report

- Draft Implementing Rule (including safety requirements)
- Justification Material
 - Impact assessment (safety summary, civil/military organisation, efficiency and economic aspects)
 - Current and desired regulatory situation
- Identification of Means of Compliance
- EUROCONTROL Support to Regulated Parties

Work Organisation



Consultations/Involvement of Stakeholders

- **Coordination and cooperation with EASA**
 - EASA expert participation in IRDG and SFG
 - Validation of safety risk assessment and safety requirements
 - Coordination of MOC needs
- **Formal consultation**
 - Written consultations (2)
 - Stakeholder consultation workshops (2)
- **Informal consultation through Focal Points**
 - Bilateral meeting to capture specific stakeholder requirements
 - Direct involvement in Implementing Rule Drafting Group and Safety Focus Group
- **ECTL participation in ICAO PBNSG and ICAO EUR PBN TF**
 - Alignment with ICAO PBN Manual update

CONCLUSION

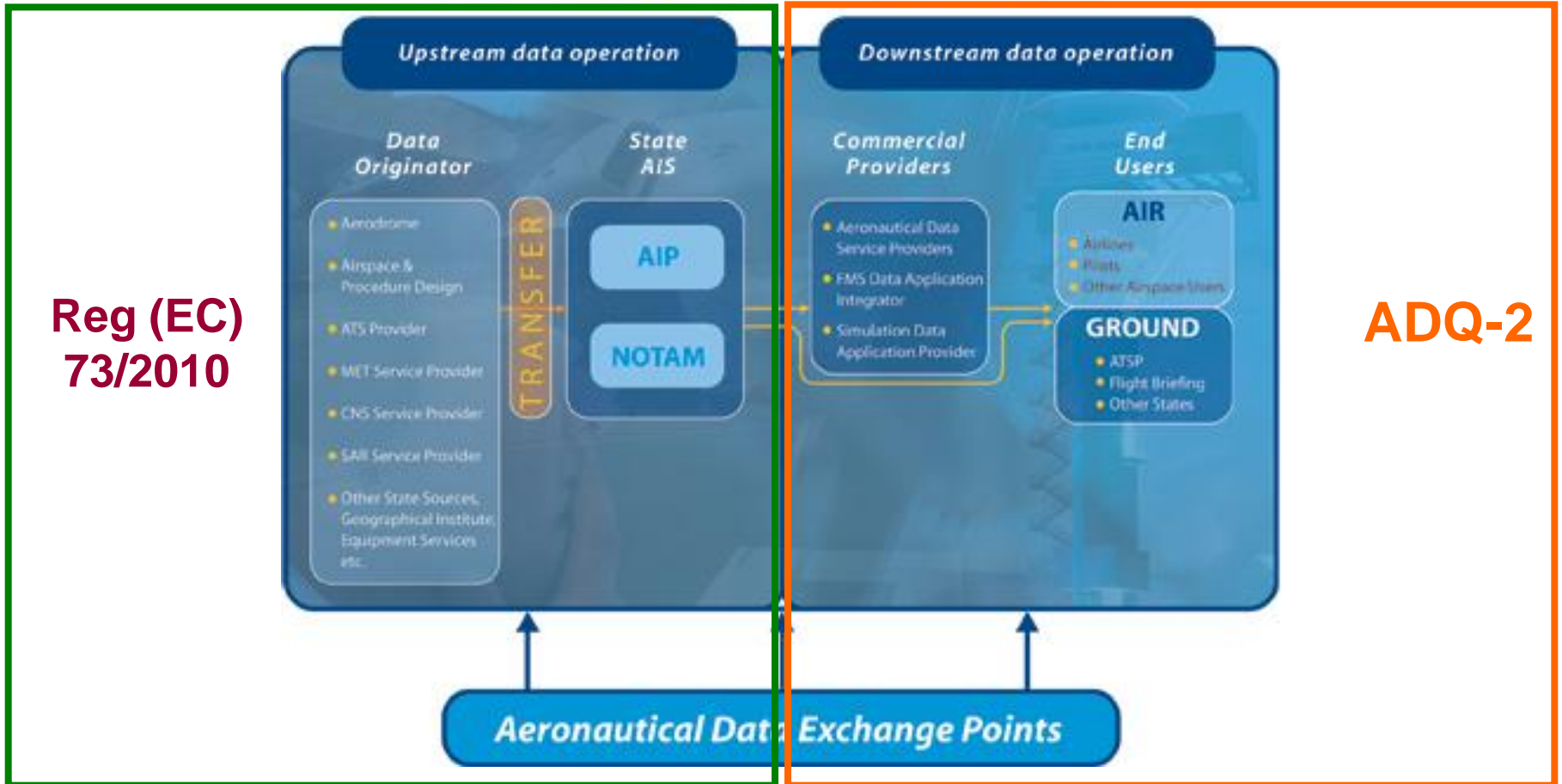
Overall Goal of the PBN IR

To ensure harmonised and coordinated implementation of ICAO Assembly Resolution A37-11 within the EATM Network.

ADQ & ADQ2

Data Supply Chain (*ADQ versus ADQ-2*)

Aeronautical Data Chain



What is ADQ?



Single Sky Committee gives favourable opinion on draft EC Regulation on Aeronautical Data and Information Quality

Article 1 – Subject matter

This Regulation lays down the requirements on the quality of aeronautical data and aeronautical information in terms of accuracy, resolution and integrity.

Article 2– Scope

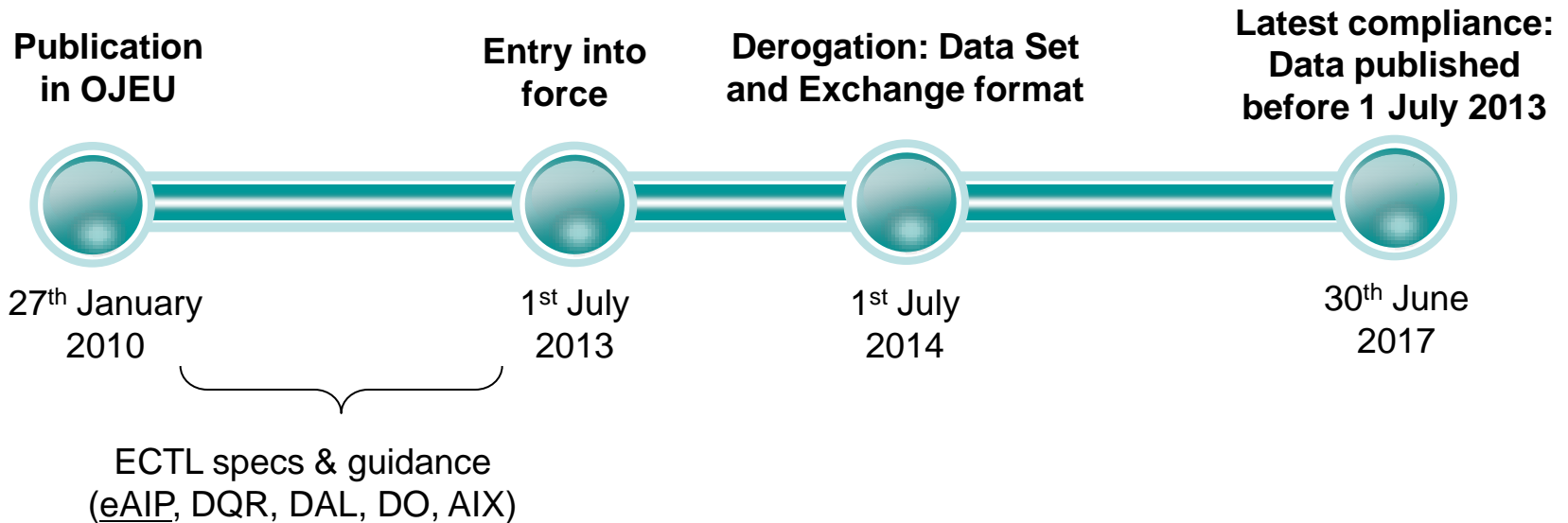
ADQ functions

Data and Information

Regulated parties

(ANSPs, Originators and providers of survey data, Operators of aerodromes and heliports with IFR, procedure design services, providers of electronic terrain data, providers of electronic obstacle data)

ADQ Key Timeline



ADQ Implementation Support Cell (ADQ-ISC)

For additional information: (e.g. FAQs, Best Practices, Library)

ADQ ISC provides support on the following number:

+32 2 729 98 18

or email

adq@eurocontrol.int

www.eurocontrol.int/adq



The ADQ-2 EUROCONTROL task

- “Mandate to Eurocontrol to assist the European Commission in the development of an interoperability draft IR on:
 - **Aeronautical Data and Aeronautical Information Quality for the post-publication phase (ADQ-2).**
- Purpose:
 - ‘...provide the data quality required to meet specific applications such as Performance Based Navigation (PBN)’
 - Common quality measures throughout the data supply chain
- Draft ADQ2 IR development: Jun 2010 – Oct 2012
 - *Draft RAD to be issued in the coming days for consultation*
 - *Draft RAD workshop planned end Sept 2011 (date to be confirmed)*

Q&A

- ADQ : Aeronautical Data Quality
- AIX : Aeronautic Information Exchange
- DAL: Data Assurance Level
- DO: Data Origination
- DQR: Data Quality Requirement
- eAIP: Electronic AIP
- PBN : Performance Based Navigation
- RAD: Regulatory Approach Document