



EASA

European Aviation Safety Agency

ECCAIRS 2.0 (E2) Project Update RASG 10 April 2019

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ECCAIRS relation to ICAO

- **Chapter 8 of ICAO Annex 13** requires the States to establish mandatory occurrence (incident) reporting (MOR) systems to facilitate the collection of information on actual or potential safety deficiencies.
- **ECCAIRS is the Software Suite** developed and maintained by the European Commission facilitating the implementation of the ICAO ADREP Taxonomy and is used by the 28 EU Member States plus Iceland, Norway, Liechtenstein and Switzerland (so called EASA Member States).
- **ECCAIRS is also promoted by ICAO and used in many other Countries outside European Union**; in exchange the European Commission is promoting the usage of **ICAO's ADREP taxonomy** as the standard for reporting and exchanging accident/incident information.



Background of the ECCAIRS 2.0 (E2) Project

- After some **high-level strategic decisions**, the European Commission has mandated EASA to redevelop a new, modern efficient and user-friendly ECCAIRS suite labelled E2 & take over its **maintenance and support in the EU** once the total solution suite is in place, which is planned to happen towards mid **2020**.
- The **main drivers** that led to the decision to refactor ECCAIRS are:
 - **Outdated technology stack** not being aligned with EASA IT strategy [(older)technologies/(non)hosting model]
 - **Need for an easier to maintain solution** (multiple local installations requiring important efforts to upgrade to newer versions of the System & Taxonomy)
 - Long term echoed User Community feedback to have a **more user friendly, easier accessible and performant system**
- The European Commission informed ICAO on all these forthcoming changes by a letter sent on 17 November 2017. Similarly, all ECCAIRS users that meet annually in the ECCAIRS Steering Committee were also informed by the European Commission.



E2 Benefits (1/2)

- The E2 architecture has been completely reviewed, shifting from a decentralized model, to a **fully central cloud-hosted setup**. This has as main benefits:
 - ✓ no longer need for numerous local PC/Server installations and associated infrastructure costs at State level.
 - ✓ users will be able to use any web-browser to access the system as the solution is fully web-based.
 - ✓ the new ECCAIRS will allow much easier maintenance in terms of central software updates, as well as cater for a central ADREP Taxonomy maintenance.
- Combined with an **increased system performance** and a more modern, **user-friendly interface**, the E2 system will be able to drive easier acceptance of this solution by States and allow an enhanced uptake of structured and harmonised Aviation Safety reporting worldwide.
- It will **natively support RSOO needs**, by integrating local national repositories natively (without duplication/copying) into a regional view, and as such it will be implemented in European Union.



E2 Benefits (2/2)

- There will still be the **possibility to run E2 as a local single State solution** on a small-sized local Webserver setup, with one or more PC “web-clients”.
- The E2 system will be made available and maintained in English only, however the **architecture will allow the translation of screens and ADREP values translations**, to be made by the user community itself. This will require an initial local effort but the EASA central support group will facilitate sharing and re-use of translations to avoid re-work by “same-foreign-language” user communities.
- With regards to **European Union**, the **E2** solution will be **integrated into the Data4Safety programme of the EC/EASA**, subject to the strict rules on protection of information contained in the ECR imposed by Regulation (EU) No 376/2014. Through this programme, the European NAA’s and EASA will be in a position to exploit advanced analytics, insights and auto-improved data quality to support even better their requirement to constantly improve Aviation Safety.



E2 Main principles of Reporting Hierarchy

(* ICAO Level if in one single DB, see also slide 9)

Original Report

Report as submitted through reporting web portal, landing in the ECCAIRS WEB APP Inbox of the Authority.

Validated Report

Original Report in the “inbox” is validated by the Authority and becomes integral part of the Authority repository. This version is editable, Original Report is Archived as “record”.

Occurrences

Validated reports (eventually merged together) and shared to the RSOO Level (ECR for the EU).

* ICAO LEVEL

Could be the sum of all occurrences shared from the RSOO to the ICAO Global level.

Taxonomy Central Management / Standardization of reporting

Reporting
PORTAL

STATE
DATABASES

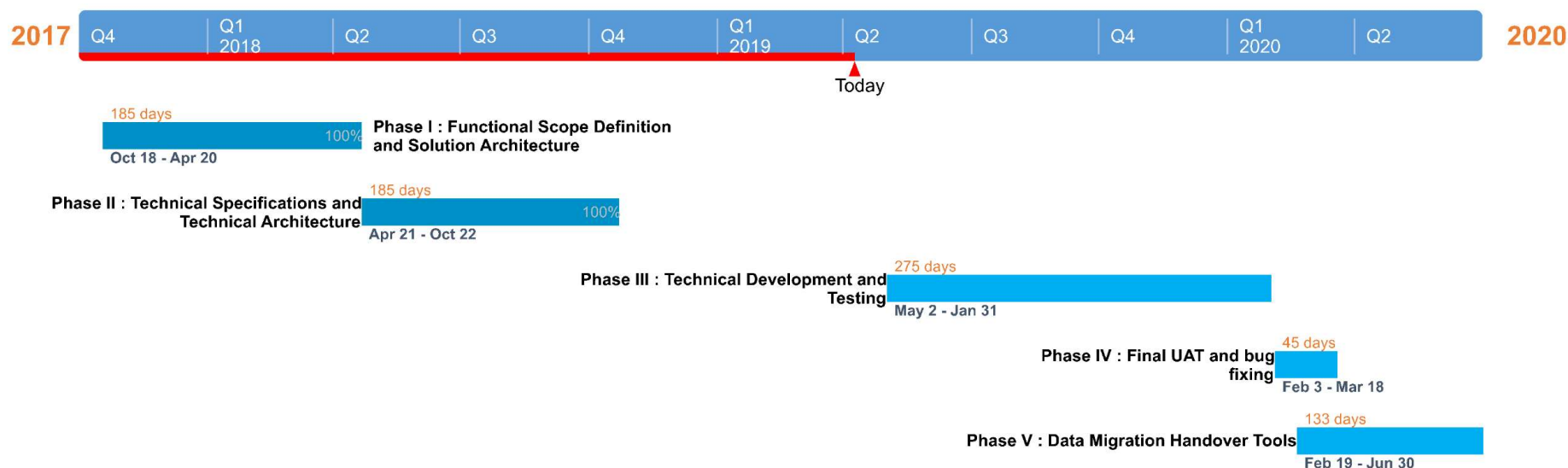
RSOO

* ICAO
LEVEL



E2 Project Timeline for the EU implementation

- Phase I and II of the E2 project, dedicated to the **functional requirements** and **solution architecture** are finalised. Development of the solution (Phase III) is about to start in May.
- Testing of the solution by Key Users from EU Member States (Phase IV) will take place as of Q4 2019.
- **Data Migrations (Phase V)** will take place in Q1 and Q2 2020.
- **By mid-2020, E2 will be fully operational for EASA Member States.**





E2 Migration and Training for the EU implementation

- Specific Tools will be developed as part of the project scope to facilitate Data Migration and validation from current ECCAIRS Local Repositories. **Absolute Data Compatibility will be guaranteed to support migration from current ECCAIRS v5 (latest JRC deployed version) towards ECCAIRS 2.0.**
- **API's** will also need to be redesigned (web-only). Test environment will be made available as early as possible in the project (Q3/Q4 2019) to allow stakeholders to adapt accordingly their existing interfaces.
- Adapted **Training Material** will be developed for each type of stakeholders (reporters/end users on Authority side/ Administrators...). **Preference** will be given for **online material** (e.g. tutorials, in-app training, FAQ's,...). When necessary (administrators mainly), classroom training/workshop will be organised.



Transition to E2, the International Dimension

- The main objective is to properly address the non-EASA States, who are currently using ECCAIRS, through the best possible ways to inform and involve them in the E2 project. **This will be done in coordination with ICAO HQ.**
- As a basis, it is foreseen to have a **fully packageable solution** that will come **with proper documentation**, and which can be **distributed worldwide to the different Authorities** for installation on local servers and/or in RSOO mode.
- To avoid anew many decentral installations of E2 and to potentially benefit from a Global E2 Safety Data Repository, discussions whether to include the non-EU States and/or RSOOs in **one global E2 database** is feasible/desirable; are **being evaluated by ICAO HQ**. [see also (* on slide 6)]
- The European Commission in its letter of November 2017 already informed ICAO on the intention to **review the current Working Arrangements** in order to adjust the roles and responsibilities of the different stakeholders (**EC, ICAO and EASA**) and support the international dimension for both deployment as well as support. For this, **discussions** have been **initiated** between the Commission and ICAO.



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Questions from the audience ?

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Q & A



For further questions:

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