EASA
European Union Aviation Safety Agency

Funded by the European Union

8TH EASA INTERNATIONAL COOPERATION FORUM

JOINING FORCES FOR SAFER AND GREENER AVIATION WORLDWIDE

EU-SOUTH ASIA APP

COLOMBO, SRI LANKA
19-21 MARCH 2024

EASA
European Union Aviation Safety Agency

ECCAIRS2: ICAO and EASA's International Strategy

ICF/8 Sri Lanka
March 2024

ECCAIRS 2

E2

Your safety is our mission.

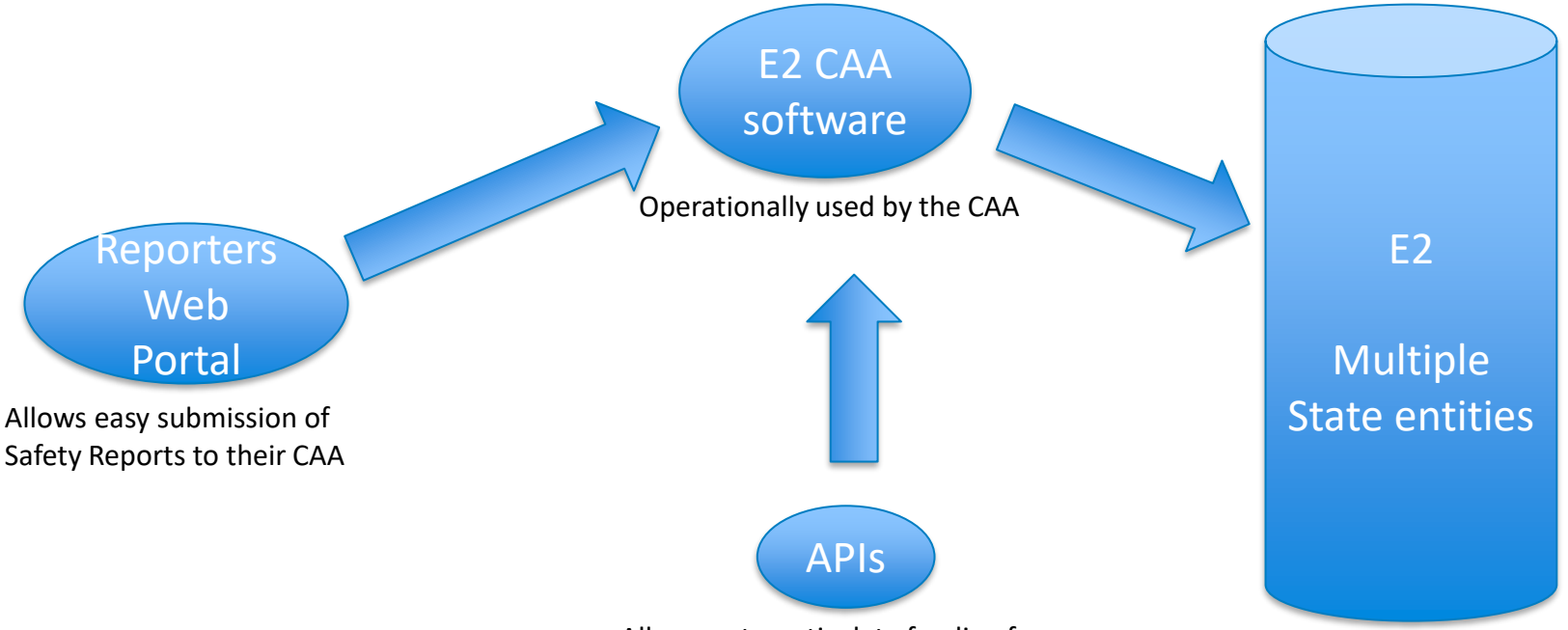
An Agency of the European Union

History of ECCAIRS and drivers for the creation of E2

- *The current ECCAIRS (E1) has been in existence for over 3 decades*
- *E1 was developed and supported by EU DG JRC*
  - *IT Technology behind E1 was from the "80ties" and had a heavy Architecture because of decentral and individual "PC & Server installations"*
- *E1 is no longer available for new installations and no longer under maintenance or support for running instances as of 2020*

- *EASA has not taken over E1 "as-is" from JRC, but has redeveloped the solution, naming it ECCAIRS 2 or E2 in short.*
- *E2 is a central, EU Cloud solution without any local PC/Server installation. Browser Internet access only.*
- *E1 is no longer available for new installations and no longer under maintenance or support for running instances as of 2020*

ECCAIRS 2 : the basic flow highlighted



Principles for ICAO States desiring to get their own E2 system

- *The EU has signed a revised Working Arrangement with ICAO on ECCAIRS*
- *The WA revision focusses on the potential use of E2 for ICAO States*
- *ICAO endorses that ICAO States can request their own E2 instance*
  - *Becoming part of the global, central E2 cloud system of EASA*
  - *E2 solutions cannot be installed locally at/on ICAO State IT systems*

- *Boarding trajectory:*
  - *Procure an ICAO iPack "ECCAIRS 2 Annex 19" when available.* ***This is a one-off cost.***
  - *This Ipack is being designed and created by ICAO with full support and input of EASA*
  - *Target of ICAO is to have it available by Q3 2024*
  - *This iPack will contain the setup and configuration and admin-training of the ICAO State's own E2 instance*

- *In parallel to the procurement and delivery of this iPack, the ICAO State will have to sign a Service Agreement with EASA*
  - *This is a contract between the ICAO State and EASA directly*
  - *It enumerates the E2 services and support levels provided by EASA*
  - *For those services and support, the ICAO State will commit to pay a yearly E2 usage fee to EASA.* ***This is a yearly recurrent cost.***
    - *Height of the fee will be driven by the assessed size and usage of E2 by the ICAO State*
    - *Fee is based on cost elements for the E2 EU Cloud and the support services*

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European Union Aviation Safety Agency

EASA eRules

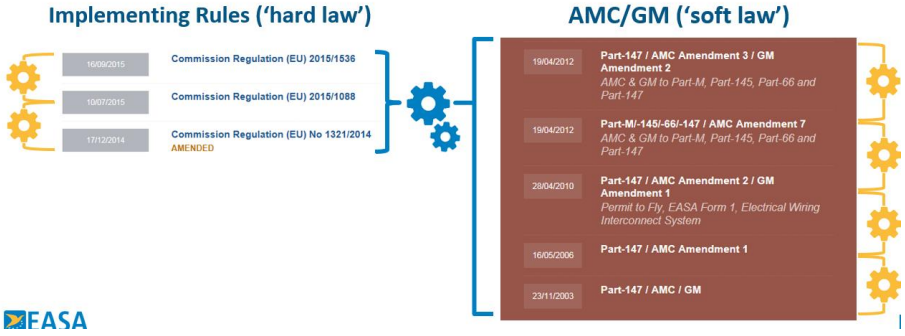
Modern way of presenting aviation rules

Your safety is our mission.

An Agency of the European Union

Trigger for eRules (back in 2016)

- Lack of single source of rules
- Complexity of European aviation regulatory system
- Inefficiency in internal and external processes



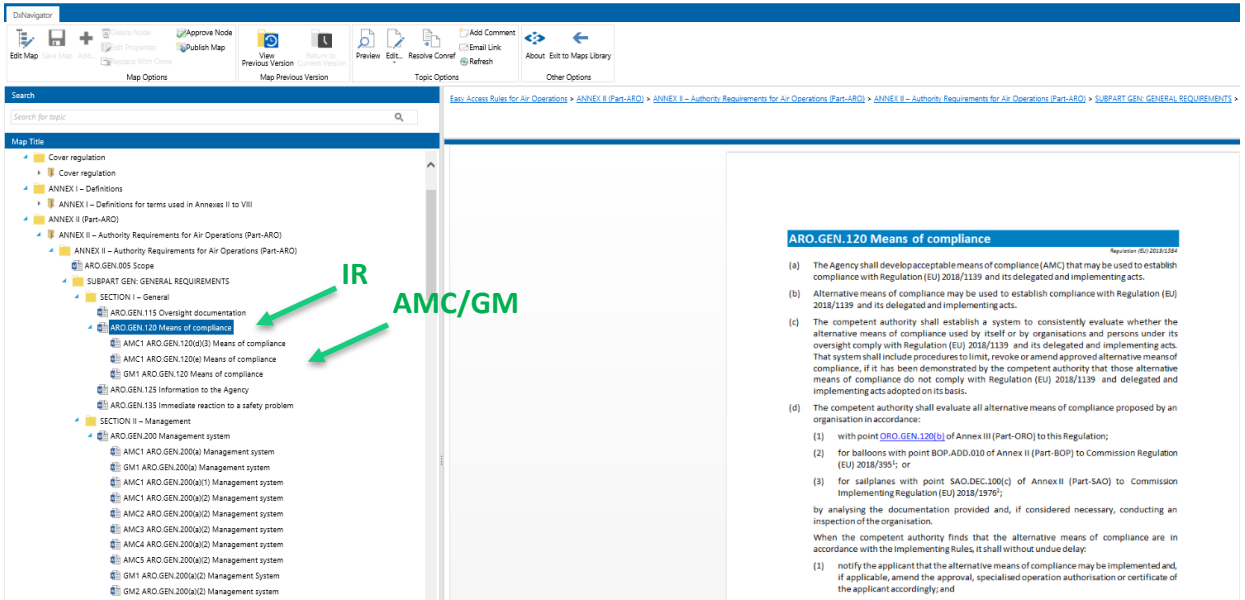
Business requirements (back in 2016)

- Consolidate regulatory material scattered over different sites
- Create consolidated outputs (**Easy Access Rules**) in different formats
- Share consolidated outputs with stakeholders

What is eRules?

- Platform for managing aviation rules based on a Component Content Management System (**CCMS**)
- **Easy Access Rules** are published from **eRules**

eRules =
structured data



Easy Access Rules – available in 3 formats

PDF format – as of 2017

- Consolidated, structured content
- One of most downloaded files on EASA website

Online format – as of 2020

- Adjustment to mobile views (tablets, phones)
- Online filters to provide a view tailored to users' needs

XML format – as of 2022

- Machine-readable format – for integration with stakeholders' applications

Data4Safety

Partnership for Data Driven Aviation Safety Analysis

Supported by EASA

D4S Briefing for ICF/8

EASA European Union Aviation Safety Agency

D4S is co-funded by the European Union

Data4Safety explained in one paragraph

The Data4Safety Programme (D4S) is a **strategic initiative, objective and priority** of the Agency (ref. EASA Single Programming Document).

D4S is a **voluntary partnership** of the **EASA Members States** and the **Industry** that aims at **inferring unprecedented aviation intelligence**, e.g. to **identify and manage safety risks** or **support data driven change** in both the fields of **safety** and **sustainability**.

This is done by organising a **massive collection of aviation data sources** and, equally important, **organising the analytical capacity** amongst all **EASA aviation partners (both EASA MSs and Industry)**.

This will take the **collaborative work of EASA with the Industry and the EASA MSs** at a scale never achieved before in Europe.

D4S is led by EASA and powered by its Members

Programme key Principles

Collaborativeness
The success of the *Data4Safety* programme is reliant on a cooperative effort involving the entire aviation community, the European Union institutions, oversight authorities, industry and unions. The programme members contribute the programme in a cooperative manner.

Voluntariness
The programme is a partnership that is joined or left by the members on a voluntary basis.

Confidentiality
The programme members are obliged to confidentiality in relation to all data and intelligence derived from the programme. A member may voluntarily choose to allow access to the identified data it supplies under the conditions specified in the rules and procedures document.

Just Culture
The programme is aligned with the Just Culture principle as defined in European Union regulation 376/2014 and the European Corporate Just Culture Declaration.

Safety first
The primary goal of the programme is safety and as such the programme aims at supporting the identification and assessment of the systemic safety risks at European level as well as the measurement of safety performance. The programme also supports the members in enhancing their own safety performance. The programme has also the ability to support **sustainable aviation, security and cybersecurity** when they impact safety. The programme will not allow any other purpose contrary to its spirit such as seeking mercantile purposes or for a targeted oversight on a given organisation or individual

Out there!

Objective Deliverables

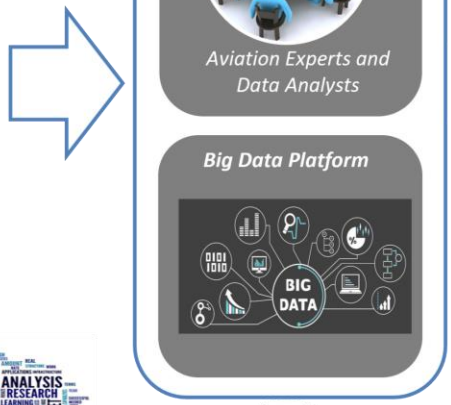
Expert Knowledge

Flight Data

Traffic data

Safety Reports

Weather,
and more...



Know where to look

See it coming

Act!

Metrics

Directed Studies

Blind Benchmarking

Vulnerability Discoveries

D4S ROADMAP

Current phase

Feasibility Study

2015 to 2016

Proof of Concept Phase

2017 to 2022

- Focusing on safety
- Limited to founding members

Development Phase

2022 to 2025

- Membership expansion: all Member States, more Airlines, new Members (starting with ANSPs, Airports)
- Safety, Sustainable Aviation, (Cyber) Security
- Definition of a public/private partnership for the Operational phase

Operational Phase

2026 onwards

Data4Safety Development Phase (DEV)
⇒ High-level roadmap for expansion

1st expansion wave (2023)

More EU Air Operators
More EASA MSs
Open to ATM/ANSPs

Airports

Rotorcraft

Engine/OEM

Training / Maintenance

GA

Data4Safety expansion and membership (status March 2024)

Air Operators

British Airways*
EasyJet*
Iberia*
KLM*
Ryanair*
Vueling*
Aer Lingus
Norwegian
TAP (Portugal)
Wizz Air
Edelweiss Air
Luxair
TUI Fly (Belgium)
HOP!

EASA MSs

Ireland*
France*
Spain*
Belgium
Bulgaria
Croatia
Denmark
Finland
Italy
Luxembourg
Netherlands
Norway
Portugal
Romania
Slovenia

ATM

Airnav Ireland
Austro Control
Eurocontrol MUAC
DFS
DSNA
ENAIRE
ENAV
SKYGUIDE

OEMs

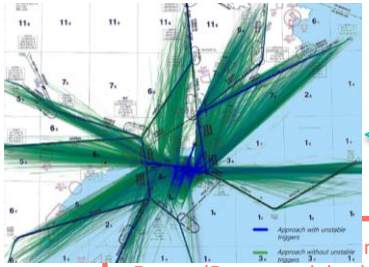
Airbus*
Boeing*

Aviation Professional Representatives

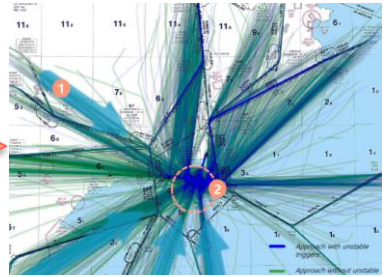
ECA*
IFATCA

(*) D4S Founding Member (from Proof of Concept phase)
Member seating at the D4S Governing Bodies

Directed Study Approach Path Management

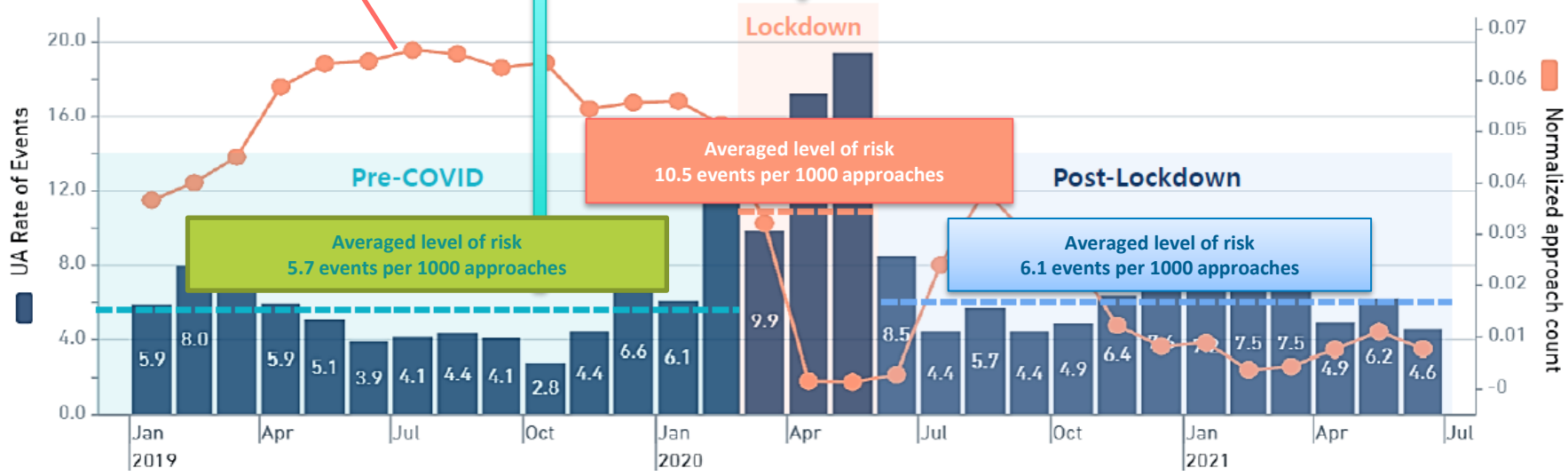


Example of risk monitoring during approach and landings



Approaches evaluated	Unstable Approaches
1,421,560 approaches	5.85 UAs per 1,000 app.

Europe (Eurocontrol data)



D4S Benefits

AVIATION COMMUNITY

Safety Initiatives at the disposal of the Aviation Community

Outputs for the benefit of the Aviation Community (approved by the Steering Board)

Potential material for EPAS (Mitigations)

Intermediate Processing?

SAB/MAB

Decision Making Process

MB

GENERAL ASSEMBLY

Elects representatives

STEERING BOARD

Decide/Validate

TECH. BOARD

Organise the technical activities

TASK TEAMS

Implement

Validates

D4S MEMBERS Provide..

AVIATION EXPERTS

DATA SCIENTISTS*

OUTPUTS/DELIVERABLES

- Metrics
- Directed Studies
- Blind Benchmarking
- *Vulnerability Discoveries*

Deliver

DATA PIPES

BIG DATA PLATFORM*

*contracted by EASA

Setting a new global standard

EASA

asias

AP-SHARE

FDX

IATA

EASA Corner

Update on International Cooperation

Carla Iorio

EASA – International Cooperation Section Manager

Contents Outline

Evolution from 2019 to date

Agency level
International Strategy level
Partnership level

Update at level of

Technical Cooperation
Regional Cooperation
Institutional/Agreements
International Representation

8TH EASA INTERNATIONAL COOPERATION FORUM

JOINING FORCES FOR SAFER AND GREENER AVIATION WORLDWIDE

European Union Aviation Safety Agency

Mission: Ever Safer & Greener Civil Aviation in Europe and Worldwide

Established
2002

20 YEARS

800+
aviation experts
& administrators

Headquarters in
Cologne
Office in
Brussels

31 EASA member states
= 27 + 4
EU + Switzerland, Norway
Iceland, Liechtenstein

EASA

Rulemaking & Standards

EASA drafts regulatory material, including Certification Specifications, Guiding Material

Certification & Approvals

EASA certifies aviation products and approves organisations

International Cooperation

Cooperate with international actors in order to achieve the highest safety level for EU citizens globally

Safety Intelligence

EASA provides actionable safety intelligence through the collection and analysis of safety data.

Oversight & Support

EASA provides both oversight and support to Member States in fields where it has shared competence

Research & Innovation

EASA supports research, innovation and new developments of the aviation sector

Resilience & Innovation as Agency's strategic objectives

Overcome COVID-19 - Tackle challenges into Opportunities: new topics embraced in aviation sector

EASA moves with changing times

Being resilient & adaptable to a dynamic sector

Return to 2019 traffic levels worldwide in 2025 is foreseen

Research/New technologies

Innovative air mobility solutions

EASA Enhanced Focus

Safety
A special attention to regional organisations

Environment
CORSIA, climate change actions (SAF, LTAG)

New airspace users / Aerodromes
(e)VTOL certification/ Drones management / Aerodromes certif.

(Cyber)Security
New regulation (PART-IS) published end of 2022

Health Safety
Updated protocol published on 11th May 2022

ECCAIRS 2.0
New agreement signed with ICAO in 2023

Innovative Air Mobility

Drones, eVTOL, vertiports & -pads, start-ups

Sustainability

SAF, CORSIA, electrical propulsion, noise/emission reduction

Cyber Security

Impact on aircraft design, development and operation

International Strategic Objectives up to 2019

To protect citizens' interests in safety and environmental protection at global level

To facilitate and support aviation industry needs and interests at global level

Evolution of International Strategic Approach

Two Main Objective successfully achieved

Safety for EU citizens at global level, level playing field for EU industry

2019

as of 2020

Green/ sustainable cooperation with other stakeholders

Building on international networks

Stronger orientation towards cooperation at global scale

Efficiency and Partnership

Multiple New Main Objectives "broader & wider"

The value of Partnership & EU's global footprint

EASA is aiming to increase cooperation based on a Partnership approach worldwide through joint initiatives with:

- National Aviation Authorities
- Accident Investigation Authorities
- Air Navigation Service Providers
- Industry

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Thank you for your attention

easa.europa.eu/connect

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