EASA
European Union Aviation Safety Agency

Product Certification and Design Organisation Approval Workshop 2019

DOA update

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19/11/2019

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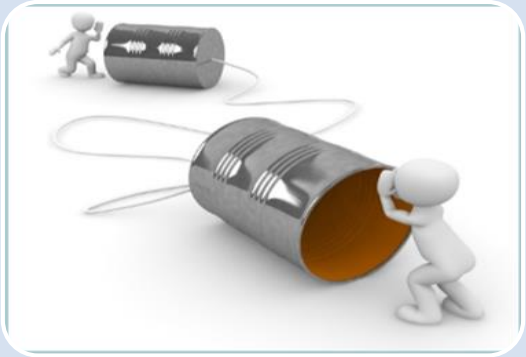
An Agency of the European Union

DOA update



Statistics

- DOA overview
- ADOA overview
- Staff involved in DOA activities
- Significant Changes due to LOI

BREXIT

- Contingency measures
- Implications for DOAs

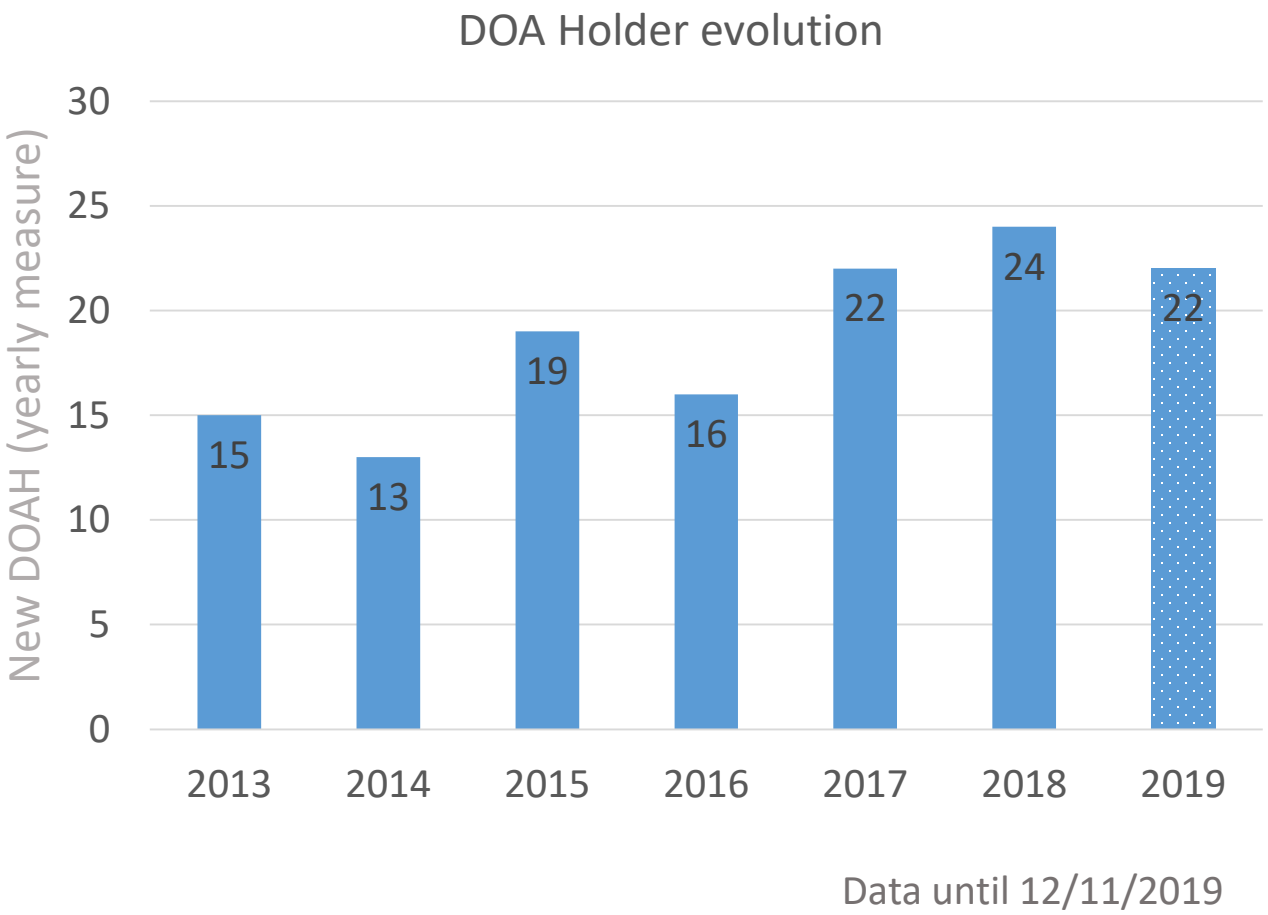
Changes

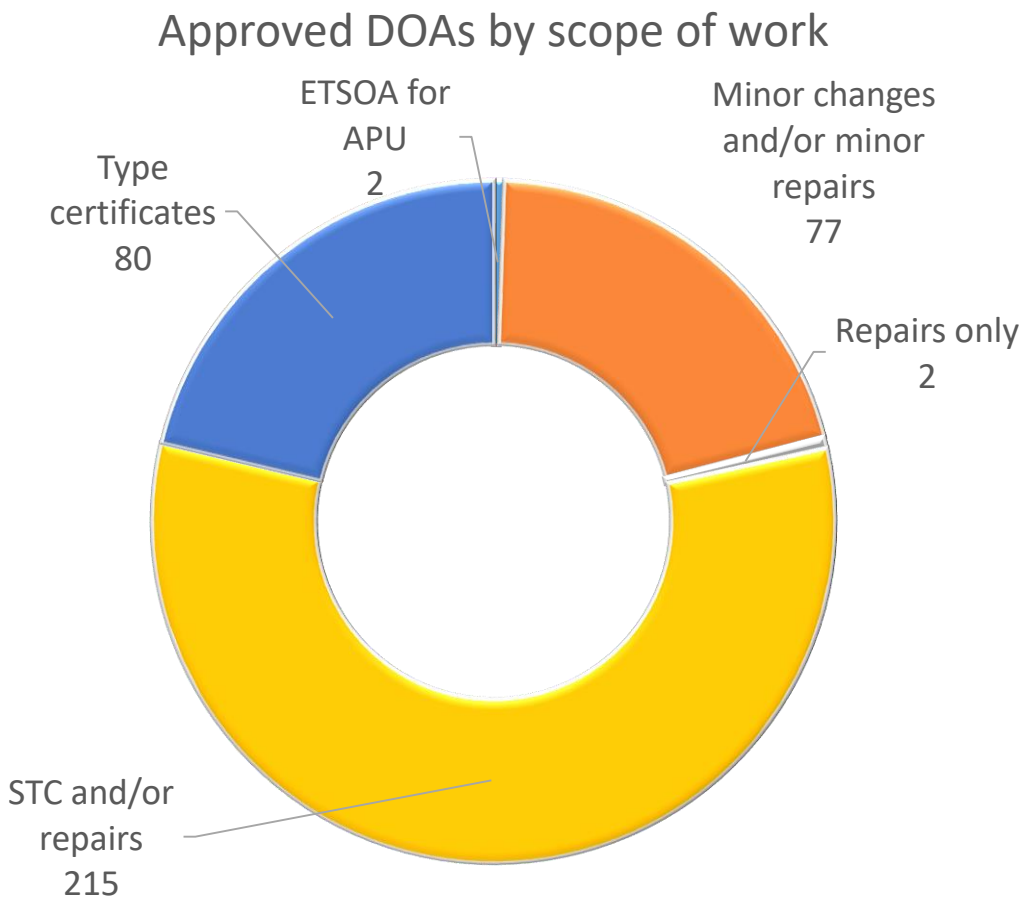
- Organisational
- Processes
- New Dashboard

Communication and other activities

- Workshops
- Training
- J-News

Statistics – New DOAs

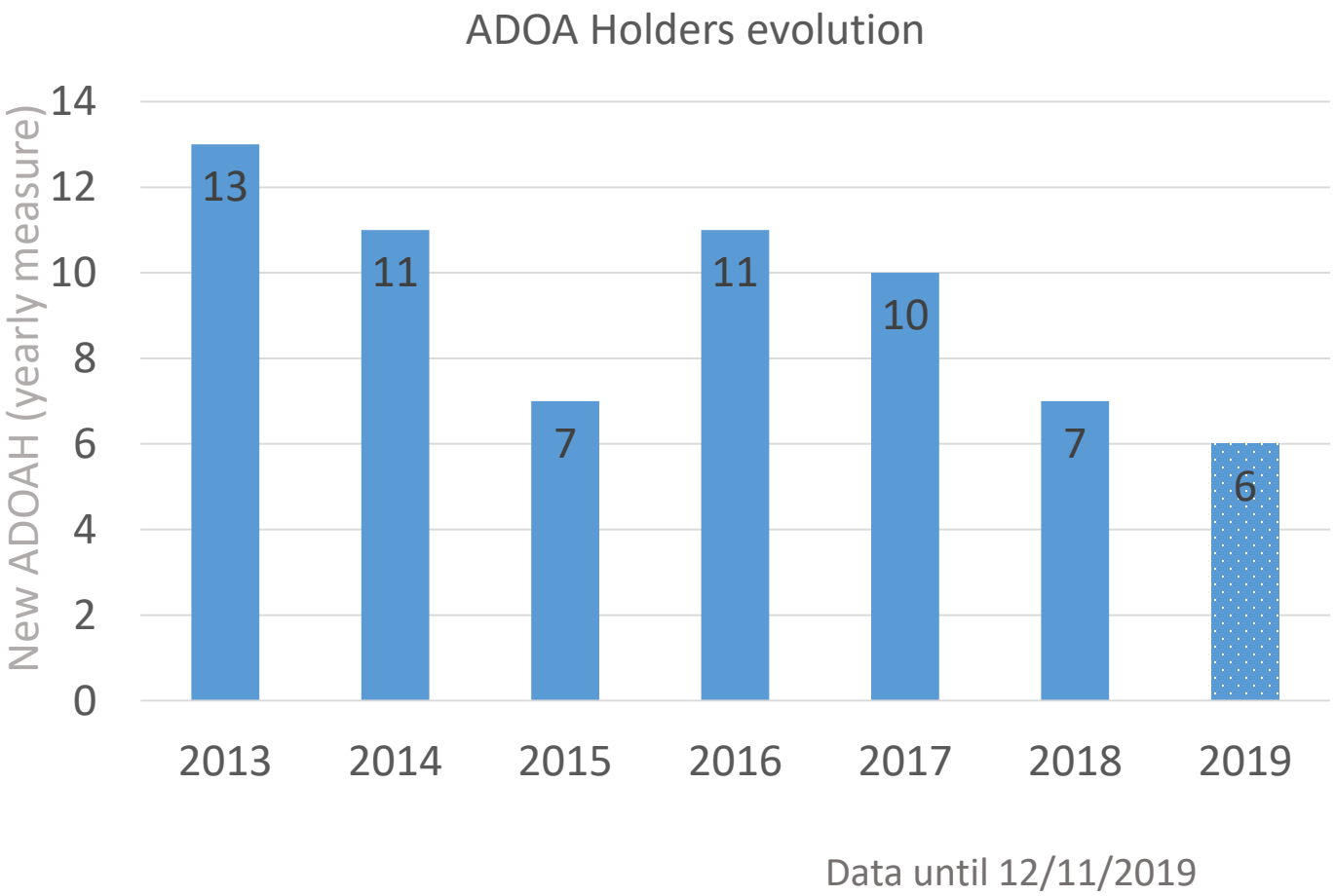


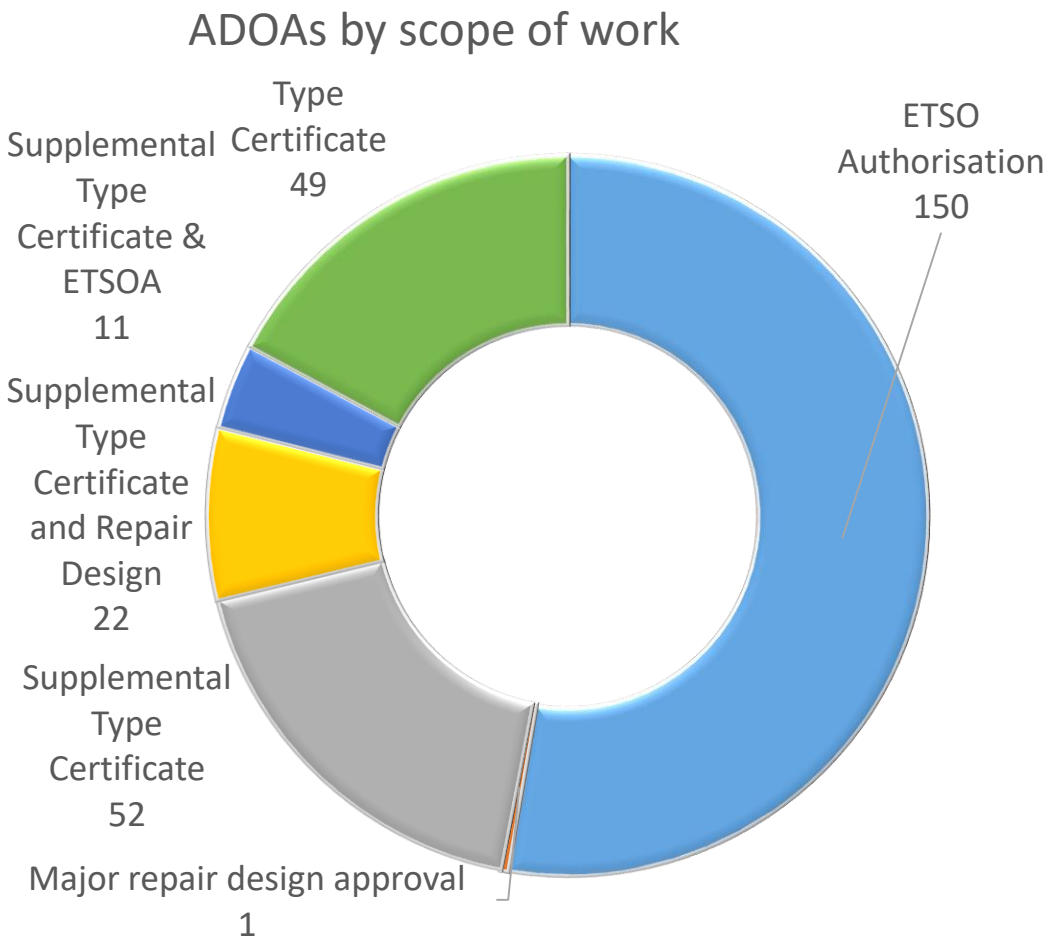


Distribution of approved DOAs in Europe

376 approved DOAs in total

Statistics – New ADOAs





Distribution of ADOAs in Europe

285 ADOAs in total

Statistics – Staff involved in DOA activities

- Staff at EASA working full time on DOA activities
  - 2 Section Managers
  - 4 Senior DOA Team Leaders
  - 20 EASA DOA Team Leaders
  - 2 Administrative Assistants
- Around 50-60 PCMs/Experts supporting DOA activities part-time
- Around 50 NAA staff working partly on DOA activities as Team Leaders or Team Members
- Close to 500 audits performed so far

Data until October

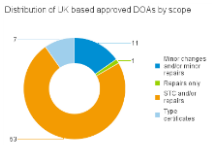
Statistics – Significant Changes due to LOI

- So far we received 47 applications from DOAs to amend the Design Assurance System to address the LOI requirements and other amendments introduced in Part 21
  - Number increases on a daily basis
- According to the list approx. 295 DOAs should amend their DAS
- A lot of DOAs work internally on changes to the DAS

Statistics – Significant Changes due to LOI

- Make sure that you are ready and apply for the LOI change in time to have your DAS updated in order to meet the deadline of 23/03/2020
  - And consider the lead-time for your DOATL to process that change
- DOAs should postpone the application for a significant change for the new privileges, as this might delay the significant change for LOI and lead to workload issues
- In case the DAS was not update in time EASA will not be able to process new applications for STCs or major changes
- We will have to raise a Level 2 finding on the DOA

Brexit information – General



No deal

- Contingency measures

Deal

- Arrangement

Brexit information – General

- The CAA-UK becomes responsible authority of State of Design as of Brexit date
  - They will become responsible for the existing EASA issued design certificates held by UK persons, including managing the continued airworthiness and issuing ADs
  - They will approve new design certificates applied for by UK persons

- For further information related to Brexit see EASA website under https://www.easa.europa.eu/brexit

Brexit information – in case of no deal

- EC contingency measures
  - Certificates issued by EASA to natural or legal persons having their principal place of business in the UK shall remain valid for 9 months from the date of application of the Regulation among others (so 9 months after Brexit date):
    - Type certificates and restricted type certificates,
    - Approval of changes to type certificates and restricted type certificates,
    - Supplemental type certificates,
    - Approval in respect of repairs,
    - European Technical Standard Order authorisations,
    - Design organisation approvals.

Brexit information – Practical implications

- All approvals granted by EASA remain valid for 9 months but are frozen, except in case of CAW issues
- Ongoing projects are not covered by this contingency procedure and will be stopped
  - An application to CAA-UK is needed in order to continue
- Within the 9 months transition period, DOAs can still exercise their privileges and approve e.g. minor changes
- An overlap between EASA and CAA-UK for the 9 months period might occur, but coordination will be ensured for CAW matters

Brexit information – future

Changes – CT Roadmap

Why?

Strategy orientation – new EASA regulatory and financial regulation

Competitive advantages - ensure the highest safety and Environmental/sustainability standards in Europe

Digitalisation - necessary IT Tools to support the CT Staff work at all levels

Efficiency - efficiency gains while maintaining a stable and reliable service

Integration - disciplines integration & competency matrix for each individual creation

Prepare for the future - new entrants in aviation market, Military/Civil platforms

New technologies - facilitate and support technological innovation (e.g. UAS, VTOL, Electrical & Hybrid propulsion)

Changes – EASA Certification Directorate

Certification Director
Rachel Daeschler (Acting)

- Deputy Director — ***Markus Goernemann***
- Deputy Director — ***Julian Hall***
- Innovation Special Projects Manager — ***Alain Leroy***
  - **Chief Experts**
  - **Chief PCMs**

CT.1 Large Aeroplanes — ***Ludovic Aron***
- CT.1.1 EU Large Transport Aeroplanes — ***Caroline Vuillin***
- CT.1.2 Non-EU Large Transport Aeroplanes — ***Israel Navarro Santos***
- CT.1.3 Regional Transport Aeroplanes — ***Colin Hancock***
- CT.1.4 Special Aeroplanes and projects — ***Carla Iorio***

CT.2 General Aviation — ***Dominique Roland***
- CT.2.1 Jet Aeroplanes — ***Dominique Renaud***
- CT.2.2 Small Aeroplanes — ***Manfred Reichel***
- CT.2.3 Light manned and unmanned Aircraft, Balloons and Airship — ***Stefan Ronig***

CT.3 VTOL — ***David Solar***
- CT.3.1 Heavy Rotorcraft — ***Mathieu Henry***
- CT.3.2 Medium and Light Rotorcraft — ***Fabrice Legay***
- CT.3.3 eVTOL and new concepts — ***Volker Arnsmeier***

CT.4 Environment and Propulsion Systems — ***Michael Singer***
- CT.4.1 Environment and sustainability — ***Illimar Bilas***
- CT.4.2 Propulsion and Powerplant Systems I — ***Javier Castillo***
- CT.4.3 Propulsion and Powerplant Systems II — ***Olivier Robelin***

CT.5 Certification Strategy and Programming — ***Julian Hall***
- CT.5.1 Initial Airworthiness Specifications — ***Michael Gerhard***
- CT.5.2 Programming & Continued Airworthiness Information — ***Pierluca Satriano***
- CT.5.3 Certification Strategy and International Validation — ***Grégory Lièvre***

CT.6 Design Organisations and ETSO — ***Markus Goernemann***
- CT.6.1 Design Organisations & Policy issues — ***Alexandru Enache***
- CT.6.2 Design Organisations & Outsourcing — ***Francesco Maria Caridei***
- CT.6.3 European Technical Standard Orders — ***Marco Capaccio***

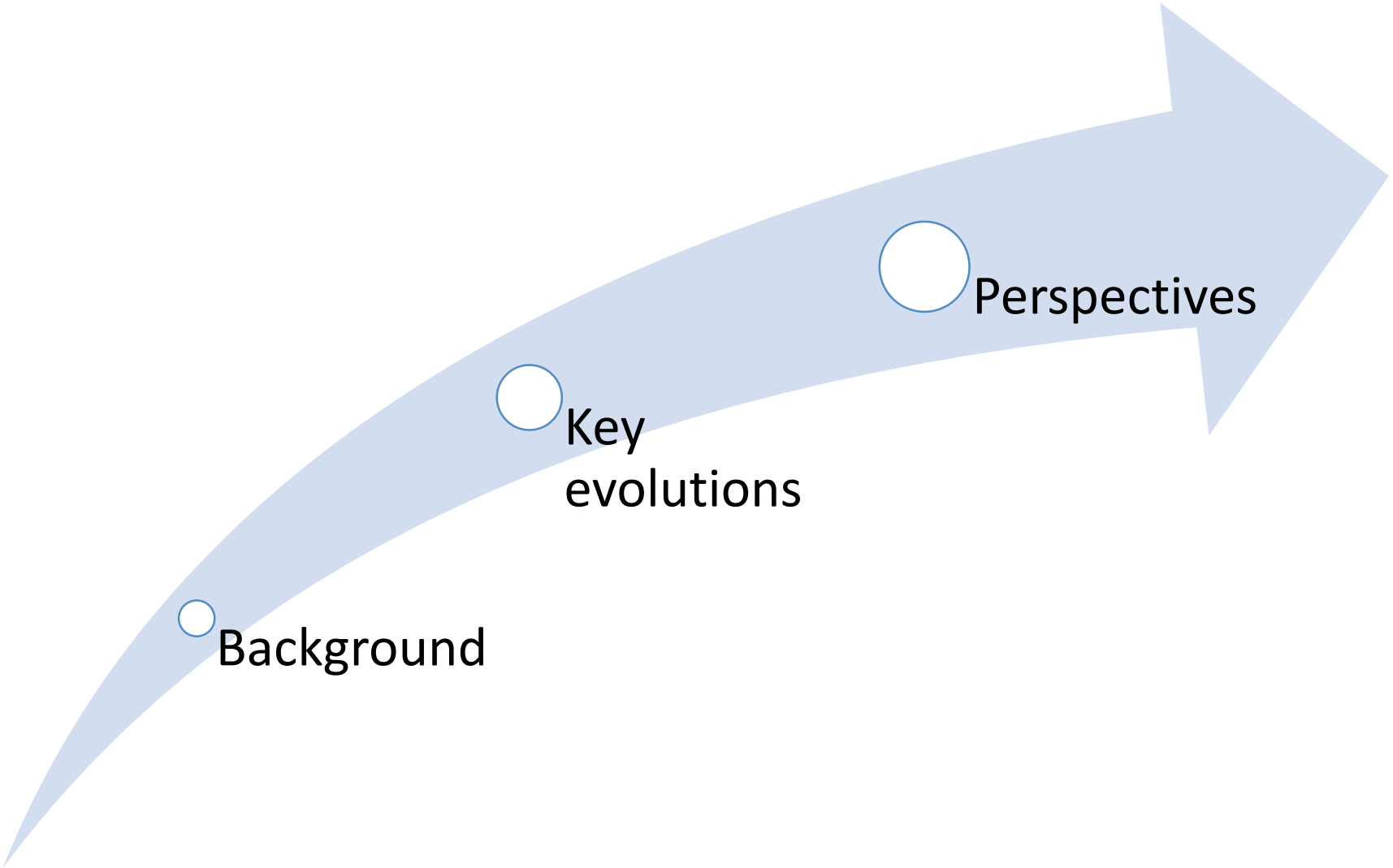
Changes – DOA related

- Risk based approach for auditing core processes for DOAs with
  - high performance &
  - high ISM rating &
  - scope minor changes, repairs, STCs or limited TC activities
- Level 3 findings will be recorded in the audit report, follow up by ISM of DOA with regular reporting during progress/annual meeting
- Identification of Focal point (PCMs) in CT departments to liaise with Focal Points identified in CT6 (DOATLs)
- Further improvement planned with the publication on EASA website of an initial investigation (DOA/ADOA) bulletin

Changes – DOA related

- Transfer of DOA/Change of ownership
  - Contact EASA as soon as possible to discuss the planned change of ownership or transfer of DOA
  - We realised that following the presentation done 2 years ago some DOAs still go ahead with their ideas and contact us too late which makes the process more cumbersome and could lead to delays or even blocking points
  - We can support you and provide guidance in which way this planned change could work and which pitfalls to avoid
  - We are considering whether there is a need to clarify or amend the guidance material

DOA Dashboard revision



A <u>single Dashboard</u> supporting:

- Risk-based oversight;
- LOI implementation.

Background

- More transparent assessment criteria for the Industry
- Closer links between Product Certification & DOA
- Tool needed to support LOI & adapt DOA Holders oversight

Major evolutions – Overview

Enhanced data consistency	• Mandatory & simplified inputs • Fixed weights → Comparable PI
Standardised assessment	• Mirroring Technical Visa & Expert Statement of Satisfaction approach: standard questions • Revised 'Quality feedback' from SEPIAC
Global *Performance* picture	• Safety-related issues highlighted • 'SMS-like' approach: effective corrective actions • Highlight low performance for LOI

Major evolutions – Data consistency

DOA dashboard

21J.800
Amazing_DOA

Select the panel/discipline

Overall

DOA dashboard

21J.800
Amazing_DOA

Select the panel/discipline

Overall

Results shown for

Overall

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Overall

esults shown for

Overall

2] Performance

Template

Dashboard Matrix

Warning, IAW feedback missing!

2] Performance

100
80
60
40
20
0

0 20 40 60 80 100

1] Scope and level of activity

Overall
IAW
CAW

HIGH
MEDIUM
LOW

Performance

Template version - V 8.8

Last update: 31/Oct/ 2019

oard Matrix

IODEL IS INVALID

0 20 40 60 80 100

1] Scope and level of activity

Overall
IAW
CAW

HIGH
MEDIUM
LOW

Performance

Template version - V 8.8

Last update: 31/Oct/ 2019

Major evolutions - Standardized assessment

Feedback received during the last 12 months

Subjects	Feedack value	Number of feedback
Feedback from PCMs and Experts on IAW		
Panel 0 - PCM	80	5
Panel 1 - Flight and Human Factors	40	2
Panel 2 - OSD-FC	N/A	N/A
Panel 3 - Structures	N/A	N/A
Panel 4 - Hydromechanical Systems	N/A	N/A
Panel 5 - Electrical Systems	90	5
Panel 6 - Avionic Systems	60	3
Panel 7 - Powerplant Installation and Fuel Systems	N/A	N/A
Panel 8 - Environmental Control Systems (ECS)	N/A	N/A
Panel 9 - Noise, Fuel Venting and Emissions	N/A	N/A
Panel 10 - Software and AEH	N/A	N/A
Panel 11 - Cabin Safety	65	2
Panel 12 - DASA	N/A	N/A
Panel 13 - Transmission	N/A	N/A
Panel 14 - ICA	N/A	N/A
Panel 15 - OSD-MMEL	N/A	N/A
Panel 16 - OSD-SIM	N/A	N/A
Panel 17 - OSD-CC	N/A	N/A
Panel 18 - OSD-MCS	N/A	N/A
Panel 19 - Propulsion	N/A	N/A

DOA dashboard

Super_DOATL

ate 31/10/2019

Overall DOA Performance

Performance on IAW (sel

Perform

Have you ra

Is the DO impler

Has the DOATL raisec

No

Yes

Major evolutions – Performance picture

2] Overall DOA Per

Feedback from PCM

Feedback from PCM

Level 1 findings

Responsiveness to

ISM Performance

DOA Team feedbac

DOA dashboard

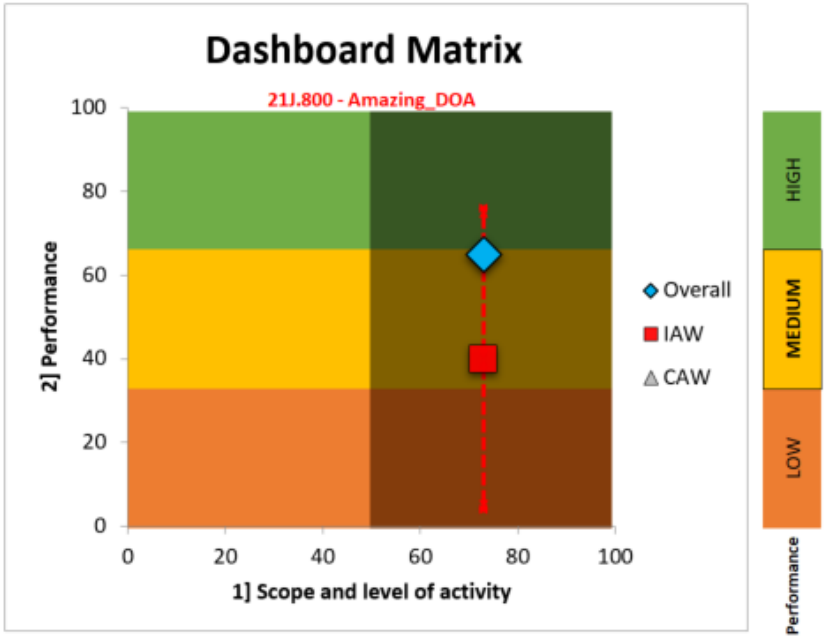
21J.800
Amazing_DOA

DOATL Super_DOATL
Last update 31/10/2019

Select the panel/discipline → **Panel 1 - Flight and Human Factors** ←

Results shown for

Panel 1 - Flight and Human Factors



Template version - V 8.8 *Last update: 31/Oct/ 2019*

Comments and analysis by the DOA Team

Positive elements: XXXX
Opportunities for improvement: ZZZZ

Comment for Panel 1 - Flight and Human Factors

Flight test plan inadequate on Project 123 to demonstrate compliance to CS 25.XXXX

HIGH

HIGH

Perspectives

- → Roll-out of the ‘Quality feedback’ forms in SEPIAC;
- → CAW performance assessment tool;
- → Blending certain elements of the DOA performance into the panel specific performance at project level;
- → Transition to full risk-based approach (consistent with SMS introduction).

Other Activities

- Higher involvement of NAA colleagues in DOA work
  - Specific training course held in Summer 2019 for new NAA colleagues from
    - CAA-CZ, CAA Poland, FOCA, LBA and ACG
  - DOA TLMs started to join audits performed by NAA TLs for standardisation purposes and to ensure all apply the process in a similar way
    - Positive feedback from NAA colleagues as well as from TLMs
- 2 workshops with NAA colleagues held to exchange views and experiences as well as to provide guidance and share best practices
  - Very good attendance and active participation by all NAAs that support DOA activities

Other Activities

- Several DOA trainings provided to EASA and NAA staff as well as to industry and foreign authorities (Hong Kong)
  - 2 additional colleagues qualified as trainers which will allow us to provide up to 6 courses in 2020
  - Registration possible via the EASA website under https://www.easa.europa.eu/easa-and-you/technical-training/technical-training-offered-us
- J-News
  - 2 editions published in 2019
  - 1 edition to come in December
- Close cooperation with product certification colleagues
  - Project under CT Roadmap 2.0 on DOATL/PCM/Expert collaboration
  - Sharing of information and experience, working closer together

EASA
European Union Aviation Safety Agency

Thank you for your attention!

Questions are welcome.

easa.europa.eu/connect

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