EASA DATAPP PROJECT WEBINAR

UNVEILING KEY DIGITAL CHALLENGES IN CURRENT OPERATIONS FOR FUEL MANAGEMENT

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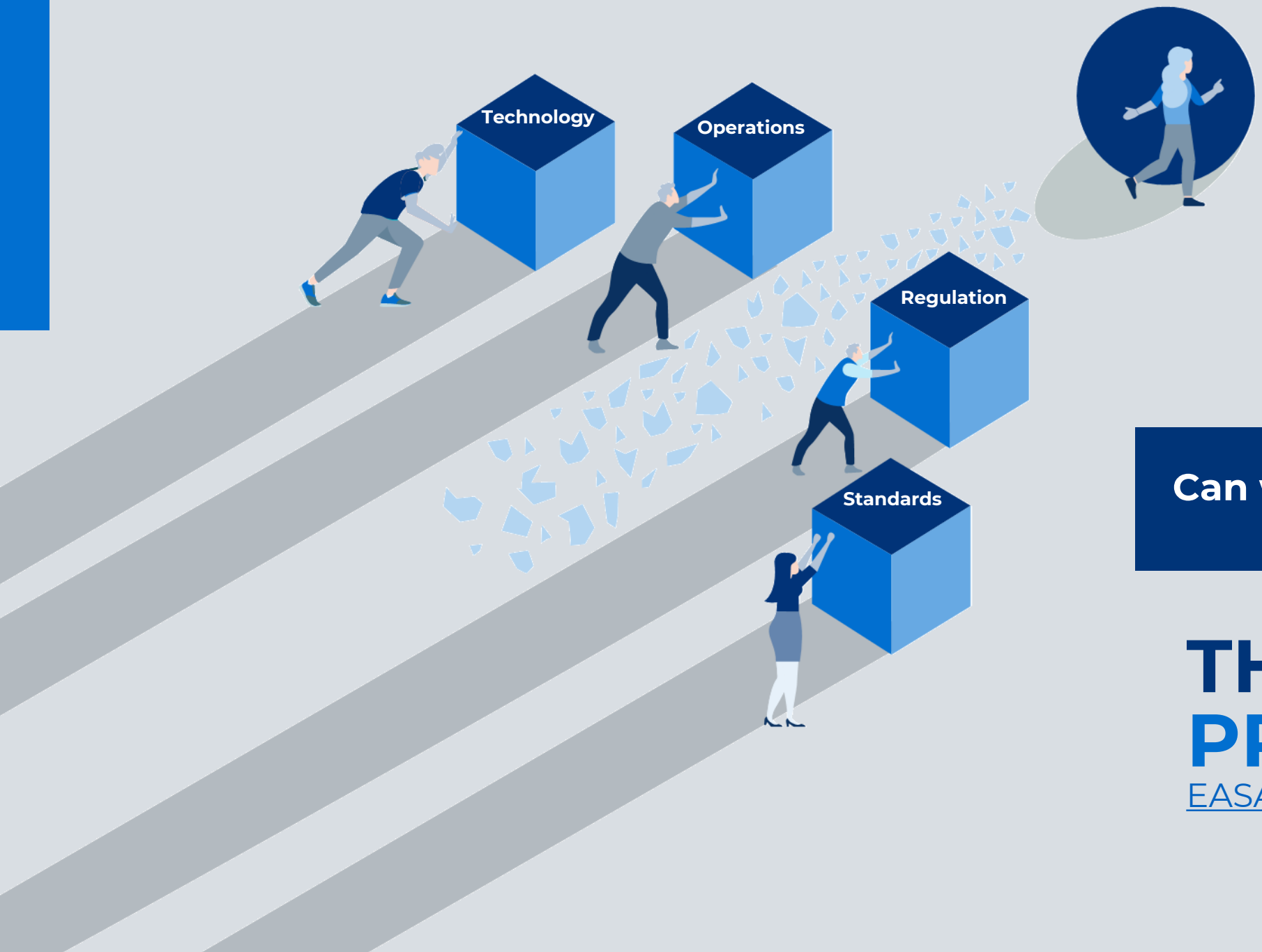
ALG

EASA
European Union Aviation Safety Agency



DIGITAL TRANSFORMATION

Can we keep the pace in all dimensions?

THE DATAPP PROJECT

EASA's Research Project

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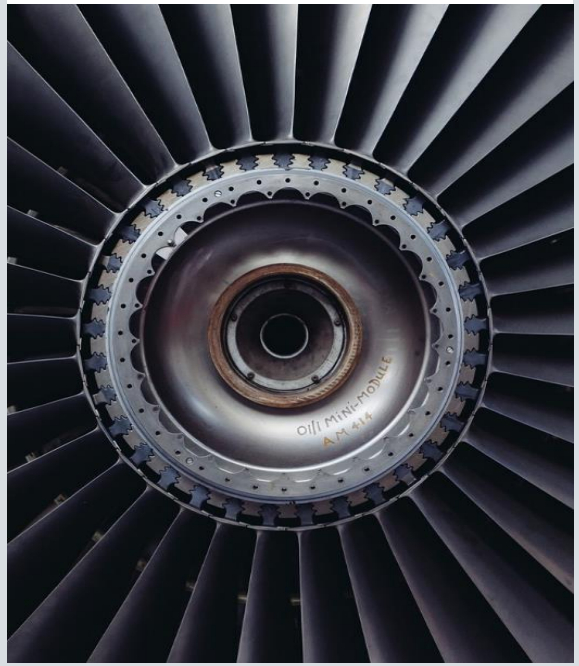
CASE STUDIES

The DATAPP project focuses its research on three different aviation fields, structured and particularised each on a Case Study

CS3 Flight training data for EBT and CBTA

CS4 Digital fuel management



CS5 Flight data models for safety

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WHAT HAVE WE DONE

TO DO

Literature review and digital solutions identification

Case studies definition & work plan

Current status and limitations identification

25 Interviews

Attendance to EASA working groups

Open questionnaire

Propose solutions and evaluate the impact

Propose changes to the regulation & standards

Roadmap and training material

Definition of the case study

Development of the case study

Regulatory materials and standards

We are here

DEVELOPMENT OF THE CASE STUDY

STAKEHOLDER CONSULTATION PROCESS

Big thank you to the many organizations and experts who have invested their time and effort with us to make us aware of your situation and constraints. We still have a few more with whom we hope to close conversations in the next few days!

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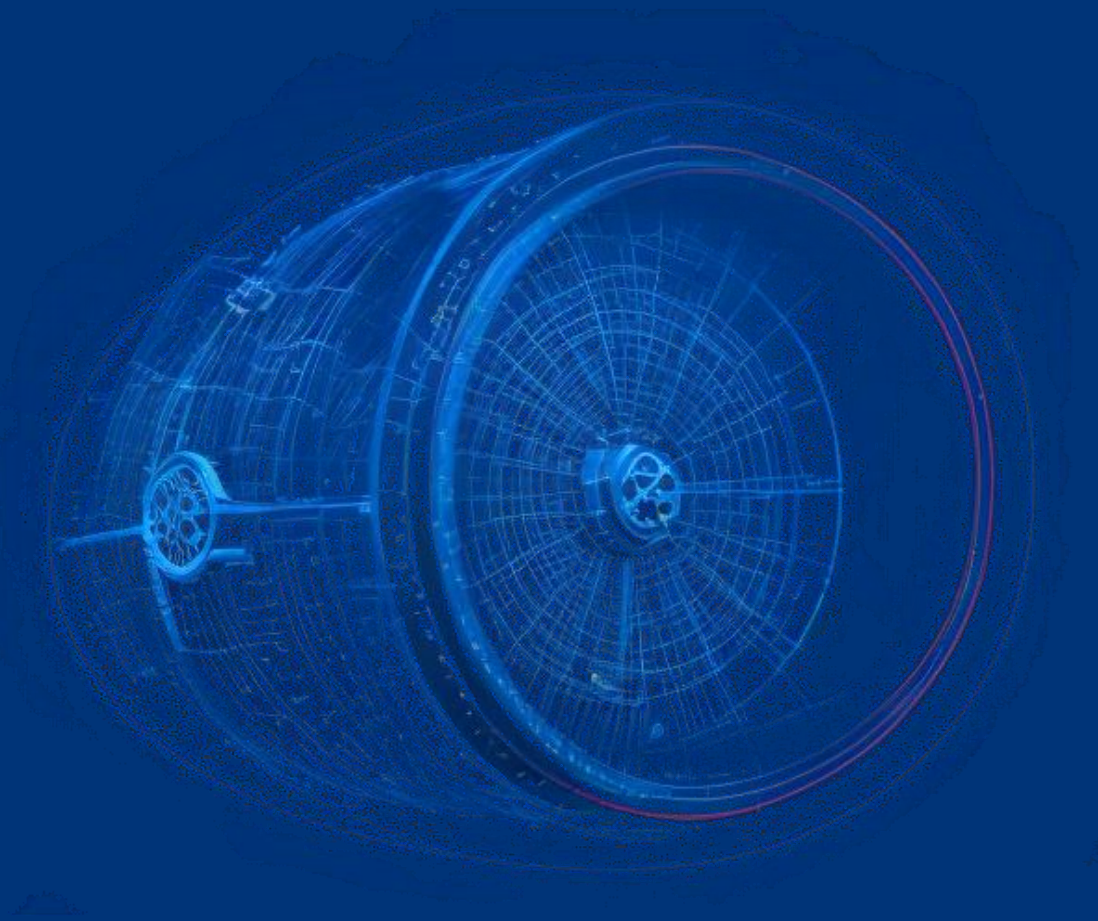
CASE STUDY #4

DIGITAL FUEL MANAGEMENT



What are **the key digital challenges** towards the progressive adoption of fuel reduction schemes in our operations?

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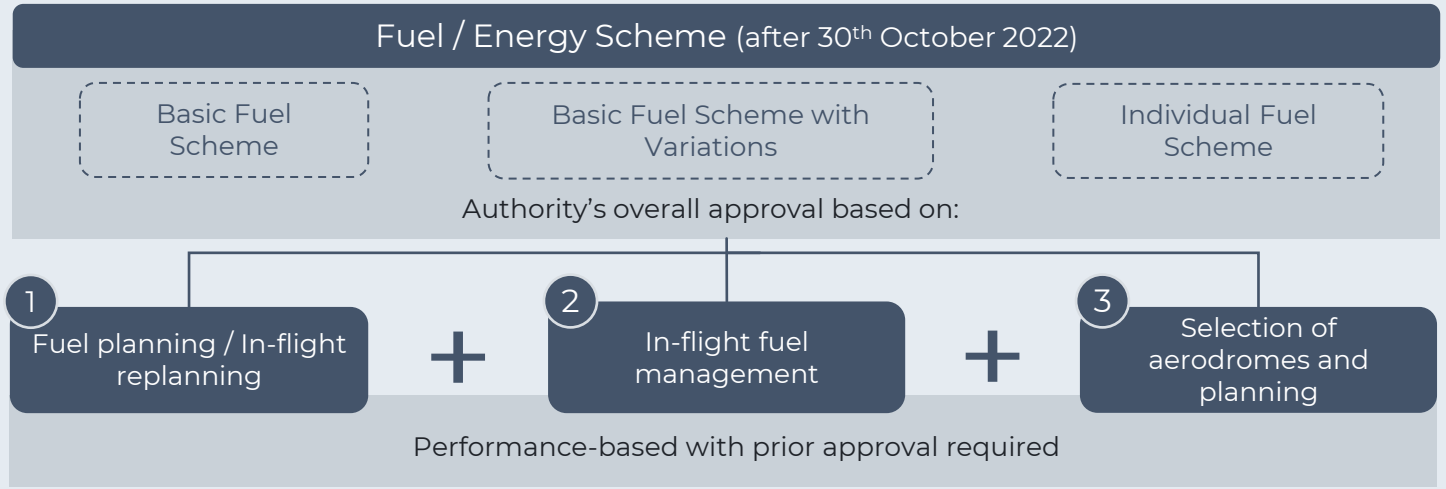
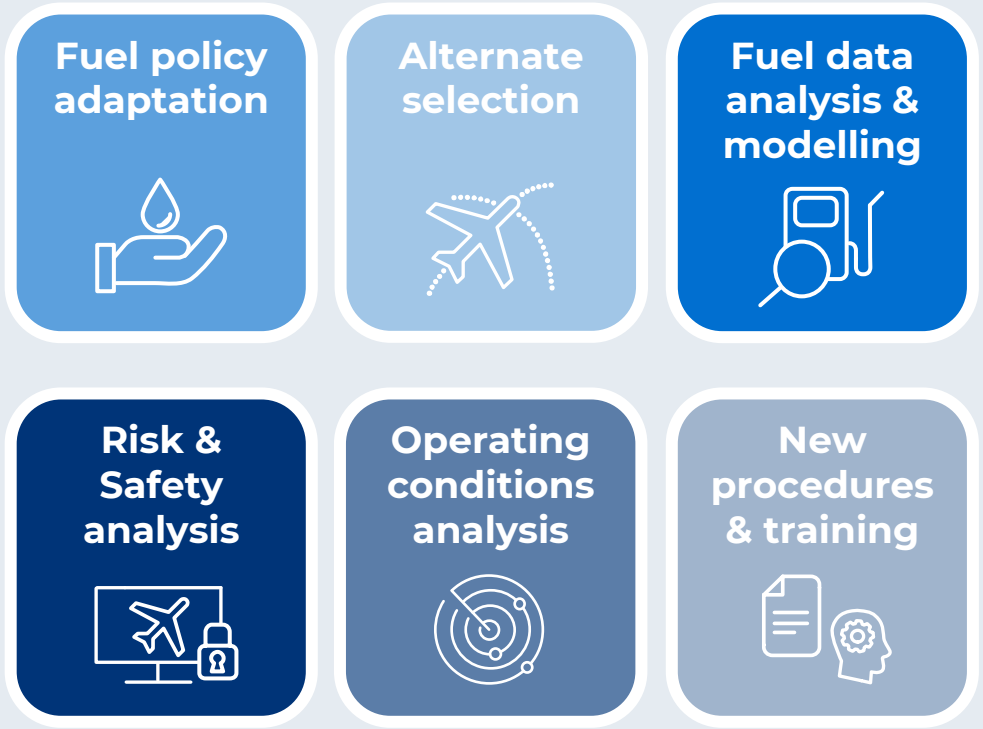
STATUS & MATURITY

New fuel regulations, in effect for **nearly a year**, have sparked a revolution in the aviation industry. Many operators have already taken the leap, adopting **Basic Fuel Schemes with Variations**.

Now, there's **willingness to embrace the next level** through Individual Fuel Schemes, but...

... the adoption of these advanced schemes brings a **set of challenges that need to be addressed.**





LIMITATIONS IDENTIFICATION

TOP 5 CHALLENGES

DIGITAL AND DATA-RELATED LIMITATIONS TO THE ADOPTION OF FUEL-REDUCTION SCHEMES

1

Definition of **fuel data input** for fuel reduction schemes

2

Development of **statistical and predictive** models

3

Validation and deployment frameworks

4

Definition and monitoring of **safety performance**

5

Management of **operating conditions data**

TOP 5 CHALLENGES

1 Definition of fuel data input for fuel reduction schemes

- Selection of fuel-related data sources
- Definition of relevant fuel data to be recorded
- Assessment of fuel-related data quality

TOP 5 CHALLENGES

2 Development of statistical and predictive models

- Standardization and generalization of fuel models and methods
- Definition of statistically relevant set of data
- Capitalisation of knowledge for fuel estimations and predictions

TOP 5 CHALLENGES

3 Validation and deployment frameworks

- Integration and deployment of models into daily operations
- Progression from deterministic to predictive models
- Ensure trustworthiness and learning assurance approach

TOP 5 CHALLENGES

4 Definition and monitoring of safety performance

- Comprehensive framework for the definition of Safety Performance Indicators
- Continuous reporting of fuel and safety-related data
- Integration of fuel schemes within SMS/FDM
- Flexible digital solutions' requirements for different types of operation

TOP 5 CHALLENGES

5 Management of operating conditions data

- Reliability of operating conditions data sources
- Consistency of data along fuel management
- Governance of operating conditions data sources

TIME TO INVESTIGATE SOLUTIONS

WHAT'S NEXT?

Now, our research will focus on defining potential working points or solutions (digital, standard or procedural) to the identified problems, as well as assessing their potential impact in case of implementation.

1. **Identify potential solutions** to the identified limitations
2. **Evaluate the impact** of different solutions proposed
3. **Issue recommendations for EASA** to consider in future working groups or to develop standards

WE NEED
YOUR INPUTS!

This research is meaningless if we do not address the real barriers that affect your day-to-day life. **Help us** by explaining your limitations!

Fill out our survey to continue identifying constraints and solutions to future digital challenges

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QUESTIONS
& ANSWERS

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ABOUT US

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About Us

ALG AT A GLANCE

Global strategy and business consulting firm specialized in logistics, infrastructure and transportation with 25+ years in the business

Aviation

We provide in-depth knowledge of the industry (air transport, airport infrastructure, air navigation, UTM and drones, space and civil aviation

Maritime

We identify opportunities to take advantages of trends in global trade, cruise markets and marina concessions, and support the development of maritime transportation and infrastructure throughout the value chain

Land

Leading players in the highway and railway sectors and public transport authorities trust us (the highest rate of client repetition) to achieve more efficient and sustainable transport

Intermodal & RE

We draw on our in-depth understanding of all modes of transport to assess and define the role of logistics zones in global supply chains and to design new strategies and modern logistics processes

OUR DIGITAL DEPARTMENT

Our team of hybrid profiles, supporting transportation organisations along their path towards digital transformation

WHAT DO WE OFFER?

- **Digital strategy**
- **Digital capabilities**
- **Digital technologies**

Introducing the panellists

OUR TEAM

Núria Alsina

Principal at ALG and head of digitalisation and advanced analytics in the Transportation practice. Aeronautical engineer with specialisation in air navigation and systems, certified in project management and scrum methodology

Antonio Cabeza

Engagement Manager at ALG. Aeronautical engineer with a MSc in Big Data and Advanced analytics. Specialises in strategical projects in airport and air traffic operations with wide expertise in digitalisation and regulatory related projects

Andrada Bujor

Team Leader at ALG. Aeronautical engineer with a MSc in Business Intelligence and Big Data and expertise in strategic business projects, ATM research, impact assessment and digital initiatives mainly in the European context

Anna Feliubadaló

Consultant at ALG. Aeronautical engineer with relevant expertise in Advanced Analytics, ETL operations and Business Intelligence

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