

Challenges
proposed by

vueling

BACKGROUND

connects
science meets business

vueling

Vueling, an IAG company, is a benchmark airline in Europe and key to connectivity in Spain.

Vueling Airlines is a leading low-cost carrier headquartered in Barcelona. It connects passengers to dozens of destinations across Europe, North Africa, and the Middle East, offering affordable and convenient travel options through an extensive route network.

ARES OF INTEREST

SUPERCOMPUTING / HPC

SUSTAINABILITY

ARTIFICIAL INTELLIGENCE

DATA & ANALYTICS

Aina

 **Generalitat
de Catalunya**

CHALLENGE 1

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TITLE

eSAF production

DESCRIPTION

The aviation sector faces increasing pressure to decarbonize while maintaining operational efficiency and scalability. This open challenge seeks disruptive deep tech solutions to enable the production of sustainable aviation fuels (SAF) through innovative pathways, including synthetic fuels (eSAF), carbon capture utilization, advanced catalysis, and novel feedstocks. The goal is to attract diverse approaches from startups, research teams, and technology developers that can accelerate the transition toward cleaner aviation.

KEY WORDS

eSAF · sustainability · decarbonization



CHALLENGE 2

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TITLE

Flight paths optimization

DESCRIPTION

The aviation industry is increasingly looking for digital technologies to improve efficiency and reduce environmental impact. This open challenge calls for innovative solutions to optimize flight paths using advanced technologies such as artificial intelligence, data analytics, real time systems, and high-performance computing. The aim is to enable smarter, more adaptive routing strategies that reduce fuel consumption, emissions, and operational costs while maintaining safety and reliability.

KEY WORDS

AI · data · HPC



CHALLENGE 3

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TITLE	Dynamic Intent–Aware Personalization
DESCRIPTION	How can we use privacy–first open city data (such as urban mobility networks, cultural events calendars, and municipal APIs) to dynamically predict a traveler’s current journey intent, allowing Vueling to deliver hyper–personalized, context–aware services without causing over–personalization friction? We invite startups to propose solutions in Intent Prediction Engines, Smart City Data Integration or Contextual “Invisible Retailing”.
KEY WORDS	Customer experience • Data



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[Submit your proposal here](#)

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**Generalitat
de Catalunya**

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**Barcelona
Supercomputing
Center**
Centro Nacional de Supercomputación

 connects@bsc.es



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