



GOBIERNO
DE ESPAÑA

MINISTERIO
DE FOMENTO

ENAIRe

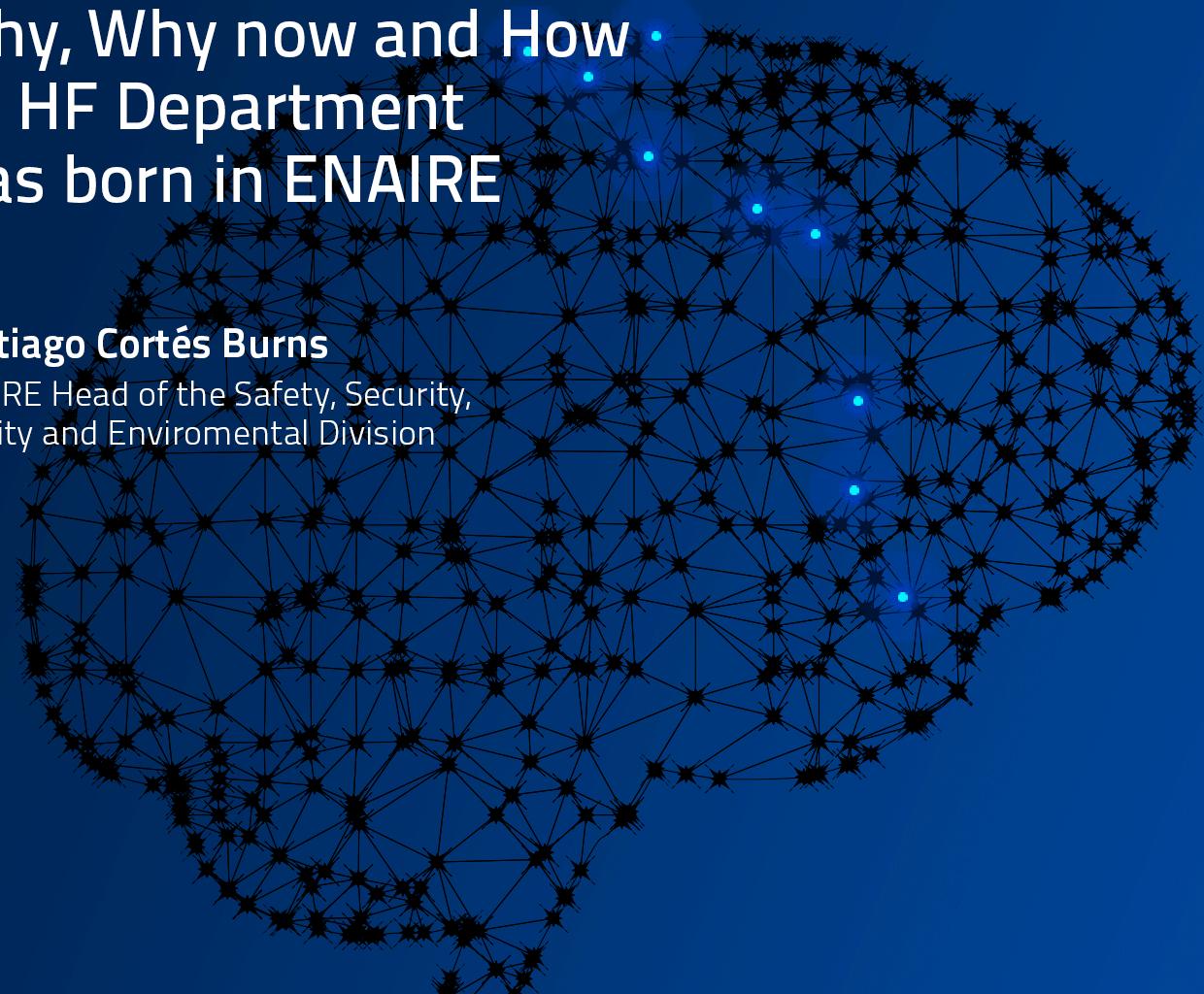


DFS Deutsche Flugsicherung

Why, Why now and How an HF Department was born in ENAIRe

Santiago Cortés Burns

ENAIRe Head of the Safety, Security,
Quality and Environmental Division





ENAIRe

HUFA Department Tale

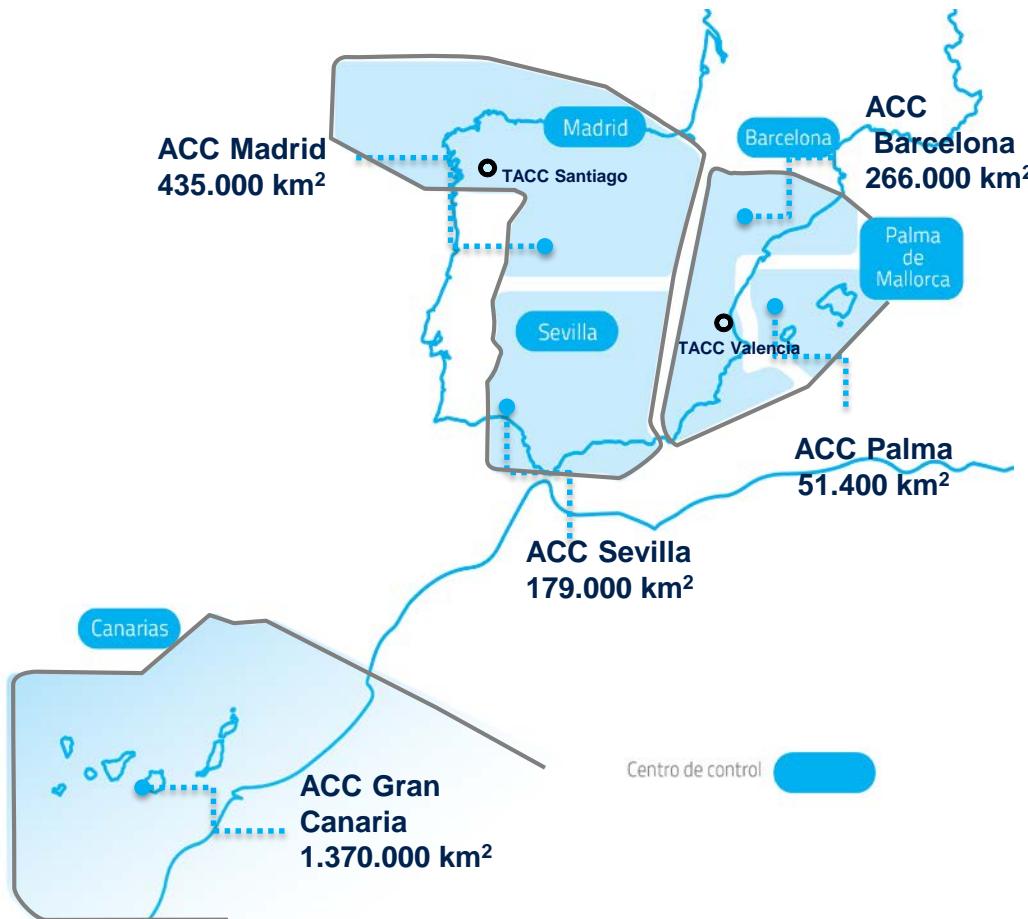
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ENAIRO: AIRSPACE – ATS UNITS



2.190.000 km² airspace

3 Flight Information Regions (FIRs) Madrid, Barcelona and Canaries

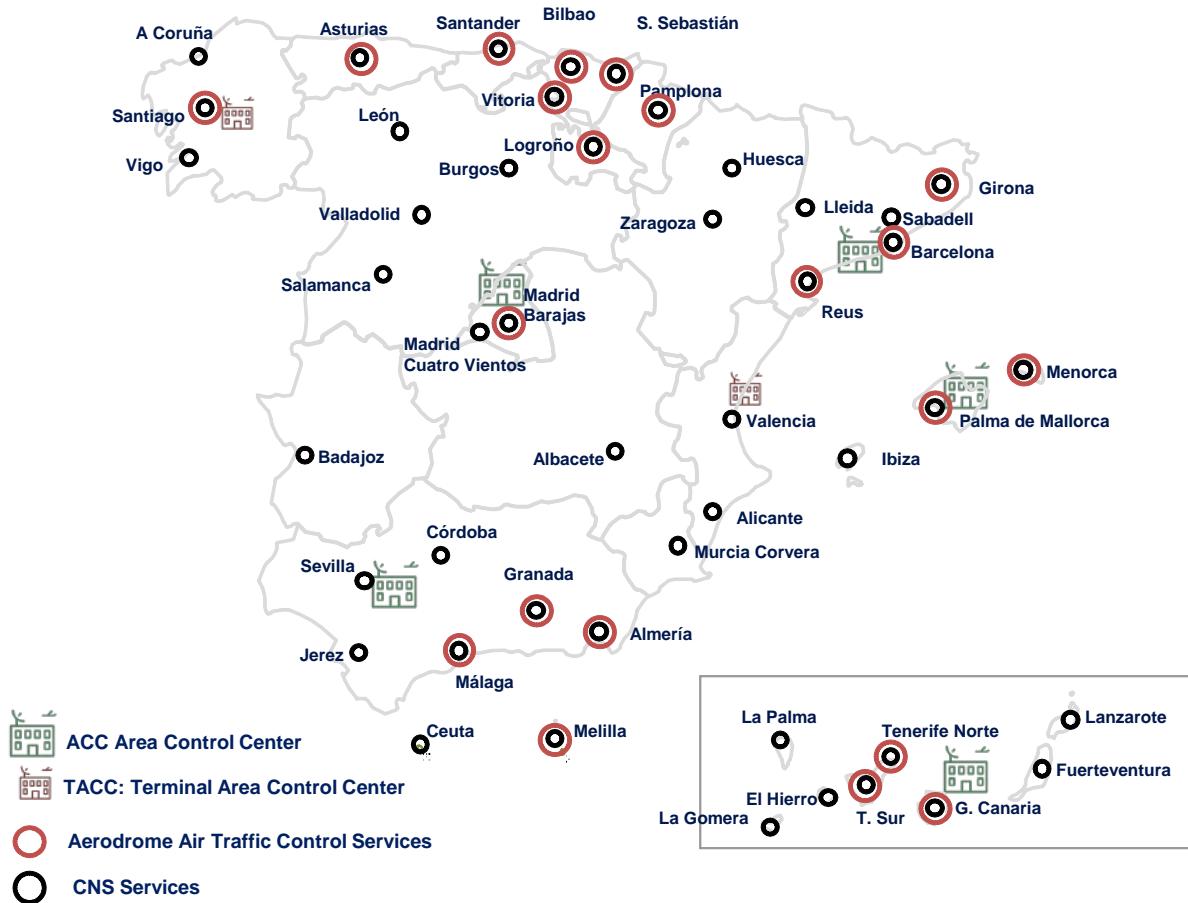
5 Regional Directorates

- **Center-North** – Madrid ACC
- **South** – Sevilla ACC
- **East** – Barcelona ACC
- **Balearic** – Palma ACC
- **Canary** – Gran Canaria ACC

2 TACCs Terminal Area Control Centers (Santiago and Valencia)



ENAIRO: ATS UNITS



21 Control Towers (provision of Aerodrome Air Traffic Control Services, including the five with highest traffic in Spain)

45 Airports (provision of Communication, Navigation Surveillance and Maintenance services)



ENAIRO: FACTS



4th European ANSP considering traffic operated following Germany, France and the UK.

2.095.956 flights in 2018, **5,3%** more than in 2017. **Record number in history**

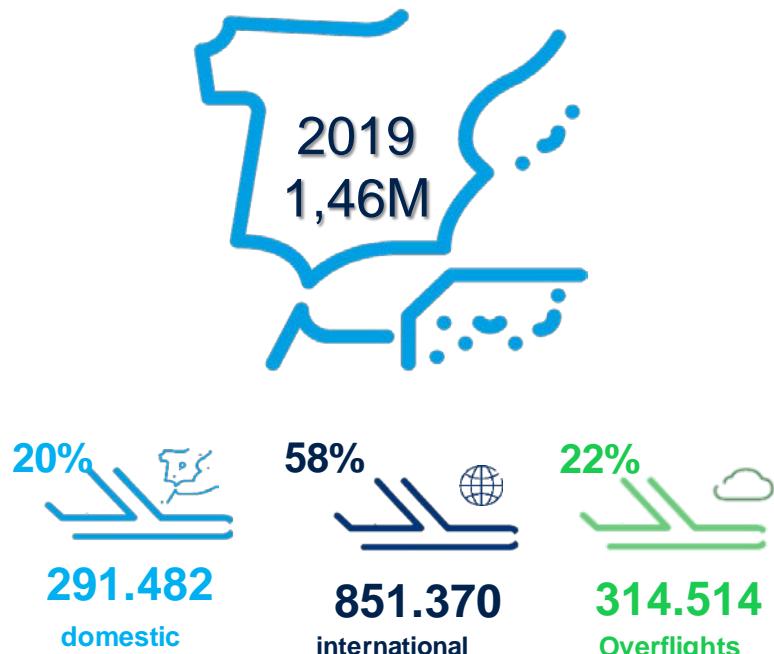
7,425 flights on July 20, 2019, **new record of movements in a day**

1,457,366 flights YTD (August 2019), a **3,7% growth in 2019 with respect to 2018**

All control centers register growth in 2019 in comparison with 2018

2.25 million estimated flights in 2020

2019 Traffic Distribution in Spain



International flights: their origin or destination is not a Spanish airport

Domestic flights: their origin and destination is a Spanish airport

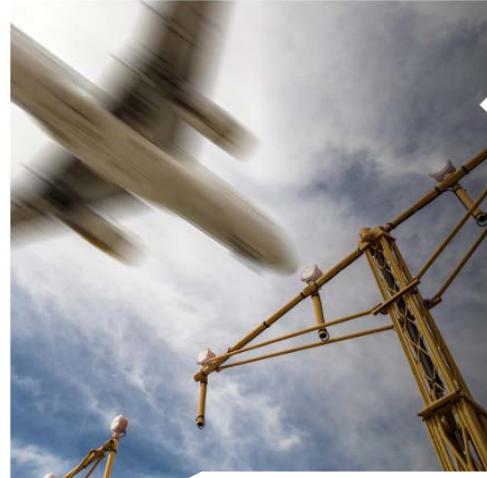
Overflights: flights crossing Spanish airspace whose origin and destination is not a Spanish airport



OUR PROFESSIONALS

ENAIRe's greatest value is the people who compose it.

Almost 4,000 people who, distributed across Spain, perform their functions and allow us to be the leading air-navigation service provider.



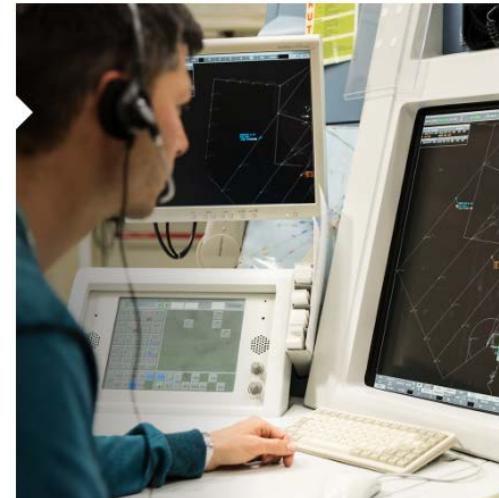
Service personnel 852 people

The people who support the core activity we provide in different areas or specialities. They include our administrative, quality and environment, communication, legal, economic, planning, management and HR personnel.



Air traffic controllers 2.044 people

Specialist personnel whose main function is to provide air traffic control services. They prevent collisions and keep air traffic moving smoothly, quickly and continuously. They guarantee maximum safety levels.





Maintenance staff

604 people

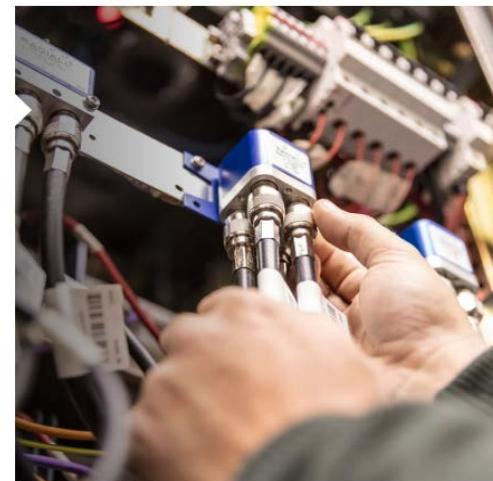
Technicians specialising in the activities needed for the centralised management and maintenance of all air-navigation systems and facilities. These include automation, communication, energy, climate control, navigation and surveillance.



Operations personnel

228 people

Technical officers specialising in activities designed to ensure the proper functioning of the aeronautical information service, aeronautical communications and flight plans, among other duties.



Engineering personnel

208 people

Specialist engineers who perform the actions needed for the planning, control and standardisation of technical operations. They also manage the procurement and distribution of spare parts and equipment and facilitate the roll-out of maintenance programmes



Why?

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Human Factors Department



CANSO Human Performance Management SoE





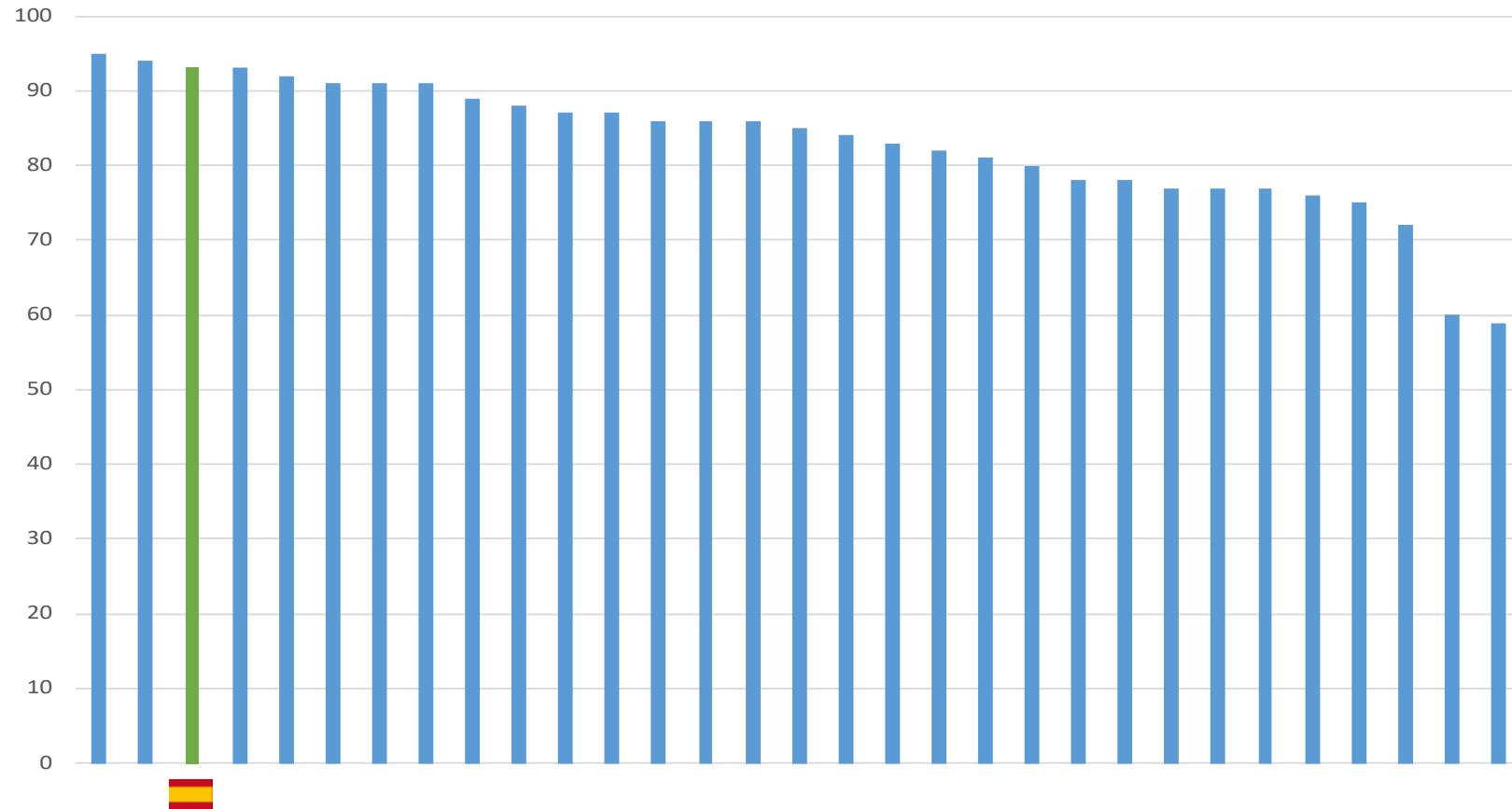
Why now?

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Human Factors Department

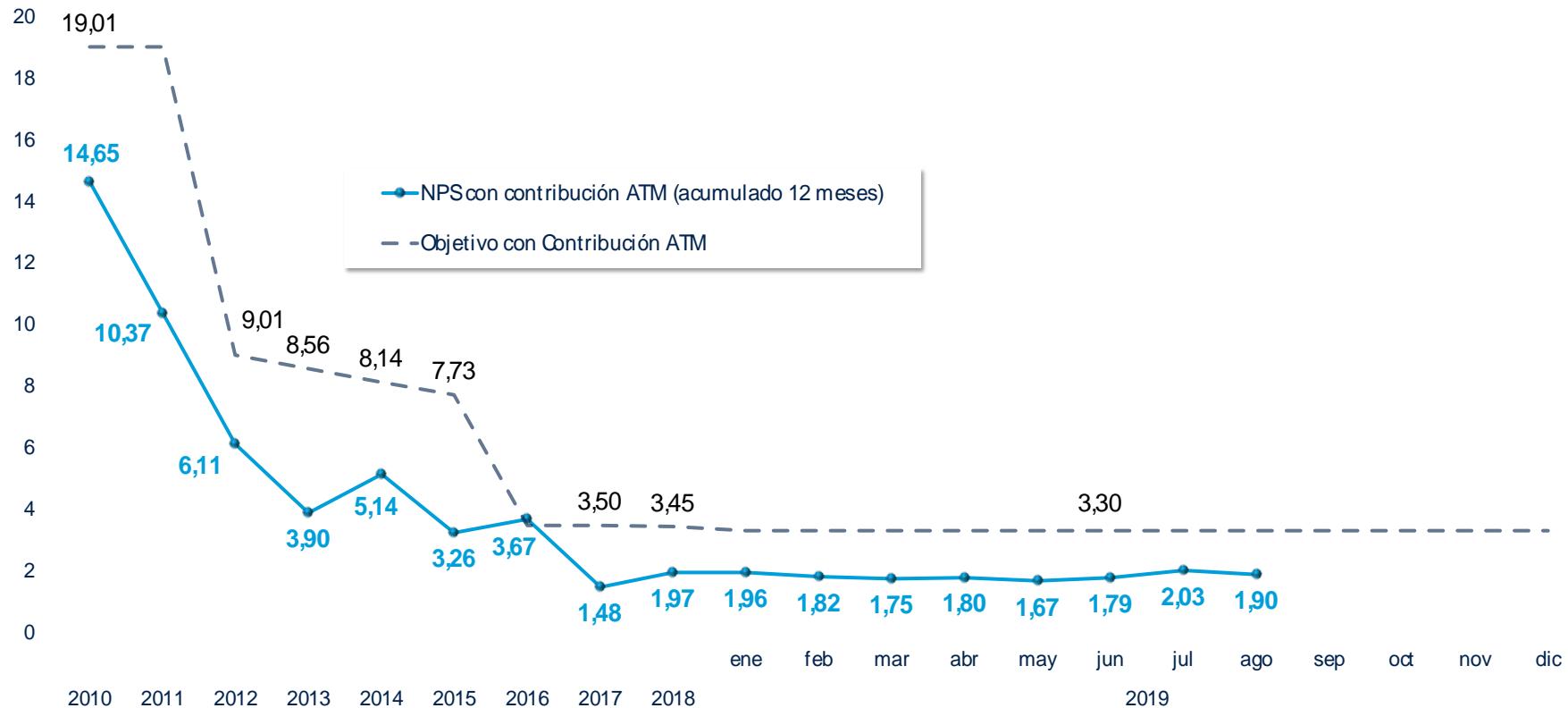


SAFETY MATURITY SCORE





SAFETY MATURITY SCORE





CHANGES ARE COMING



STRATEGIC PLAN



Flight Plan
2020



**The Marvellous Marvel Team:
Wonder Woman,
Captain Marvel and Storm**

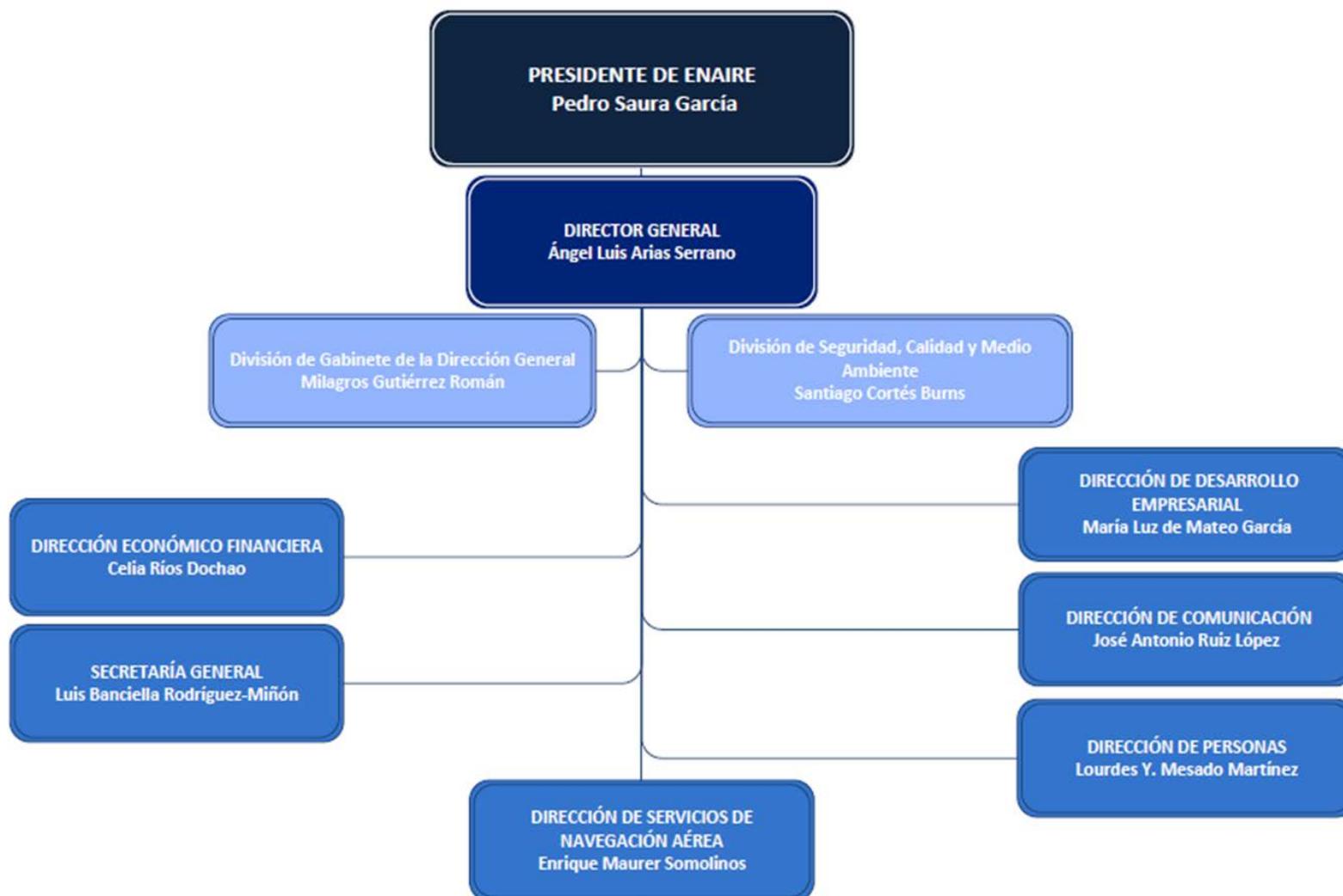


What are we up2?
First steps



Human Factors Department

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FOCUS AREAS

S2. OPTIMIZATION OF THE ORGANIZATION



S1. THE HUMAN COMPONENT



S3. INNOVATION: TECHNOLOGY AND OPERATIONS



S4. SAFETY AND EFFICIENCY



SAT Project – EUROCONTROL



S5. CORPORATE LEADERSHIP





Fatigue Research Pilot Project



Fatigue Assessment Pilot Study

More than 250 ATCOs participated in this project.

A multi faceted approach was considered: roster evaluation, survey, focus group, actigraphy and stress evaluation.

An action plan was designed including EUROCONTROL and ATCOs' recommendations





What will
we be up2?
Youth

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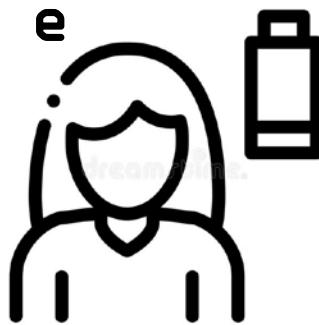
Human Factors Department



- ① FSRMS Implementation
- ② Well-being Programme
- ③ Fatigue Studies and biomathematical modelling
- ④ CANSO (HPM SoE)
- ⑤ Impact of Change in Human Performance



Fatigu



Stress



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FSRMS

Regulation (EU)
2017/373

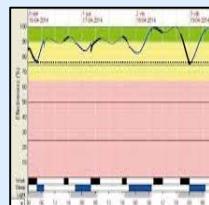
ICAO Standards and
Recommended
Practices

EASA AMCs and GMs -
Industry Best Practices

MANAGEMENT OF FATIGUE AND
STRESS RELATED RISKS

FATIGUE

Scientific approach: bio-mathematical modelling **Further studies on fatigue**



Stress and Fatigue Investigation Tools



STRESS

Stress prevention and mitigation plan



Well-being Programme



CISM Programme



Mindfulness

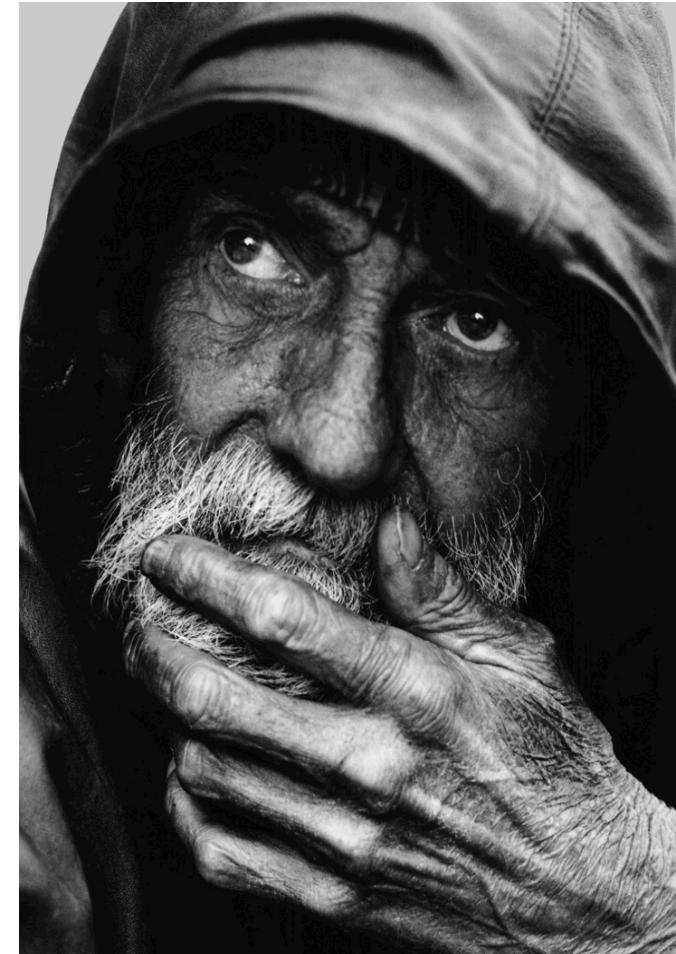




FSRMS IMPLEMENTATION - achieved



- **FSAG** is the reference (safety, human factors, operations, human resources, training and union and professional association).
- **Policy has just been approved and published**
- Other **FSRMS elements** already delivered or coming up soon
 - Training requirements
 - Taxonomy
 - Fatigue and stress reporting procedures
 - Risk evaluation
 - Further studies on fatigue
- **Education programs for staff**
- **Stress prevention and mitigation plan**





Collaboration

Carpark - 1km →

← 2km - Secret to
eternal youth



Thank you

