



ICAO EUR/NAT and ACI EUROPE

REGIONAL GREEN AIRPORTS SEMINAR

**Hosted by the Ministry of Transport
Republic of Kazakhstan**



ICAO



ALA Almaty International Airport



a TAV and Groupe ADP airport

**ALMATY
INTERNATIONAL
AIRPORT**

**PIONEERING TO DESIGN
A NEW MODEL TO GENERATE
FUTURE GROWTH**

Göker KÖSE
President

OUR RAISON D'ÊTRE

Our **raison d'être** remains our compass



To welcome passengers, operate and imagine airports, in a responsible way around the world



A HOSPITALITY GROUP
at the service of travelers

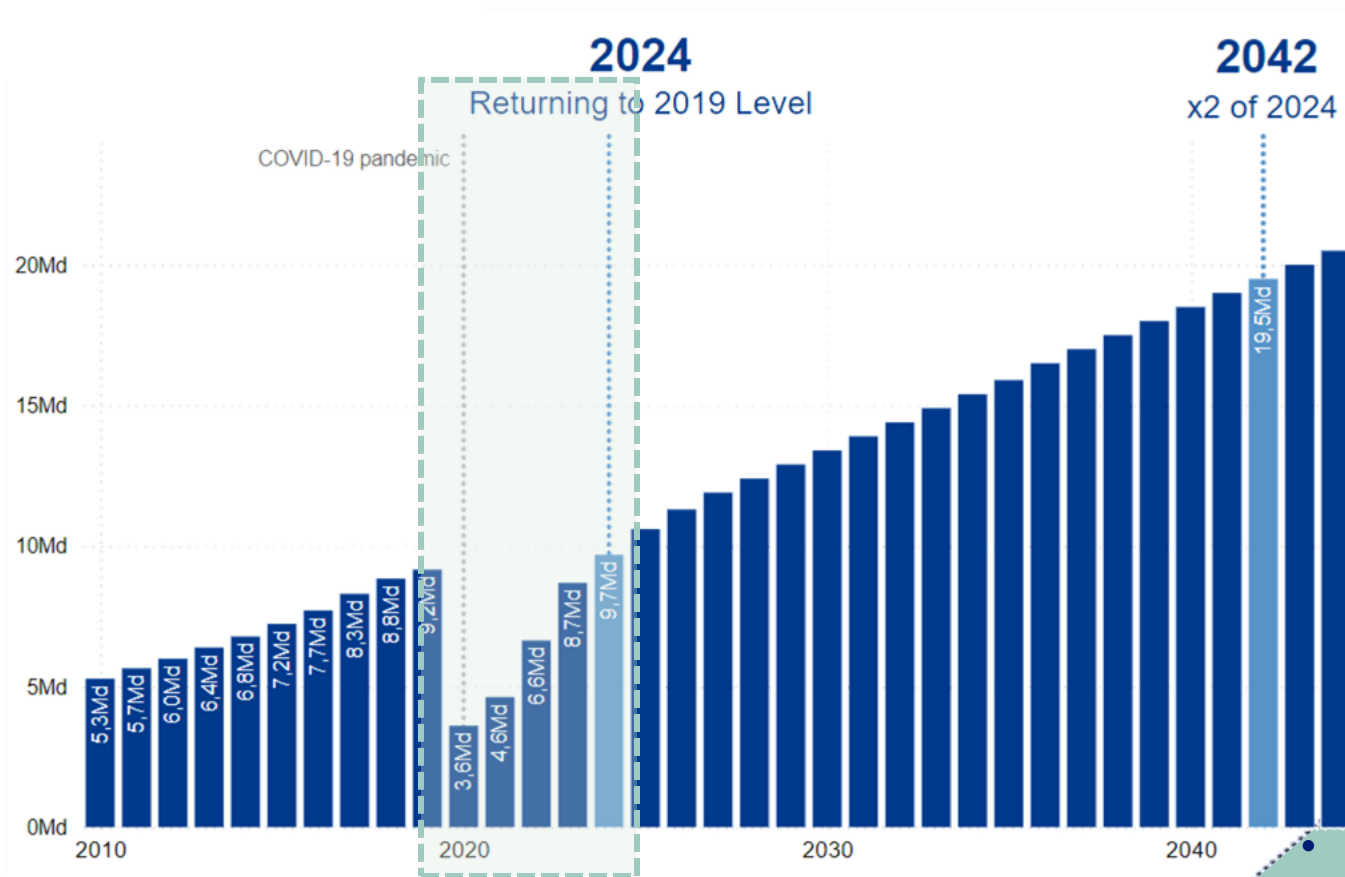


AN INNOVATIVE GROUP
in terms of operations and infrastructure



A MULTI LOCAL GROUP
at the service of communities

AN AIRPORT MODEL PREMISED ON SUSTAINED DEVELOPMENT...



... WHICH MUST ADAPT TO A NEW PARADIGM

- The Covid-19 crisis caused a sudden collapse of air traffic
- The climate crisis is fueling defiance towards air travel
- **Need for long-term adaptation of the model to cope with future hazards and uncertainties**

HEADING TOWARDS

Sharing new horizons for the future

The aviation industry is now at a crossroad and must face two shocks:



A post-Covid paradigm shift that forces players to adjust their models.

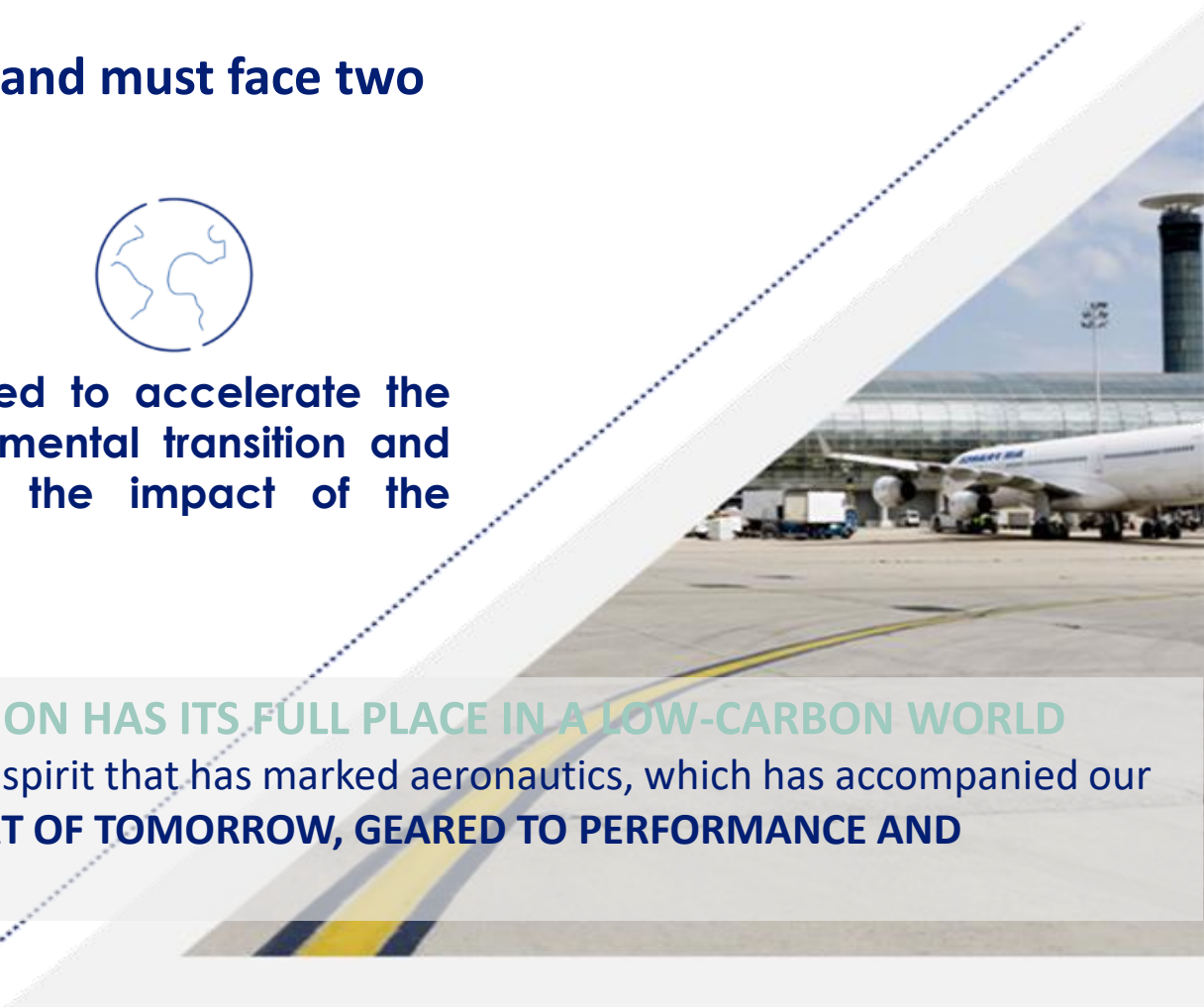


The need to accelerate the environmental transition and reduce the impact of the sector



WE ARE CONVINCED THAT COMMERCIAL AVIATION HAS ITS FULL PLACE IN A LOW-CARBON WORLD

These challenges call on us to maintain the pioneering spirit that has marked aeronautics, which has accompanied our history as an airport group, and **TO BUILD THE AIRPORT OF TOMORROW, GEARED TO PERFORMANCE AND SUSTAINABILITY.**



OUR VISION & AMBITION FOR OUR ACTIVITIES

Towards a transport and energy hub

Tomorrow, the airport will become a hospitality hub...



progressively transitioning to **MULTIMODALITY**



integrated in a holistic **TERRITORIAL** planning strategy



PERFORMANT for the airlines



with **SUSTAINABLE** construction and operational practices



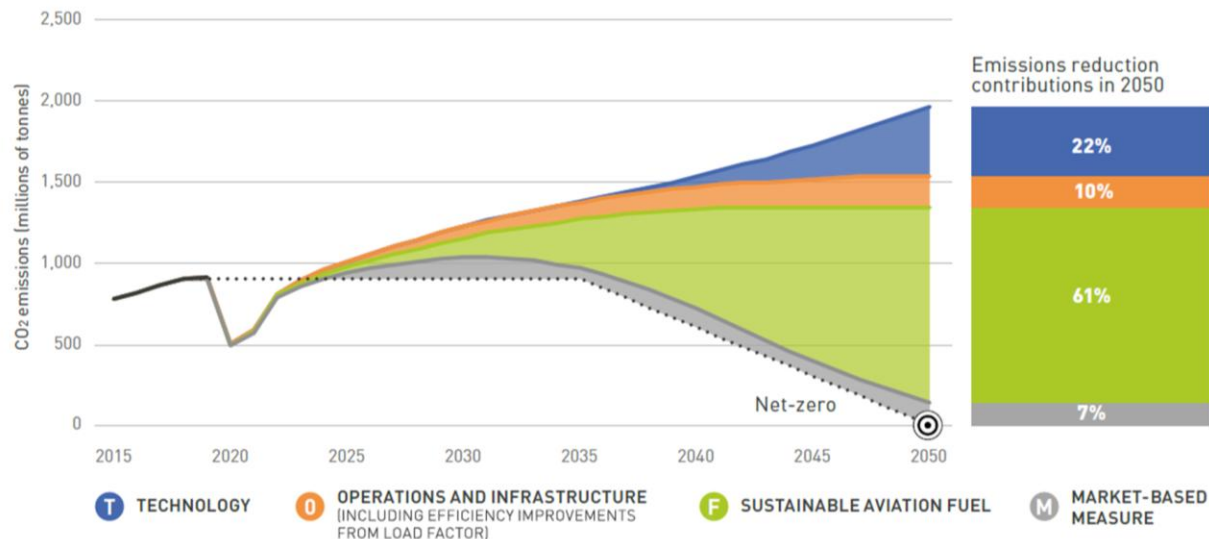
in which **ENERGY** management is becoming a major priority



placing its action **AT THE SERVICE OF THE COMMUNITY**

ENERGY HUB : BE A PIONEER IN THE IMPLEMENTATION OF NEW ENERGIES

1st way to decarbonize air transport



SUSTAINABLE AVIATION FUELS

Infrastructures already able to operate with Sustainable Aviation Fuels in CDG and ORY

Sustainable Aviation Fuel used on a continuous basis in LBG since mid-2021

GMR:

Development of a project in India of sustainable aviation fuel production (FASEP project)

LANZAJET

+

UNITED AIRLINES VENTURES

Investment in UA's Ventures Sustainable Flight FundSM

ENERGY HUB : BE A PIONEER IN THE IMPLEMENTATION OF NEW ENERGIES

7

1st way to decarbonize air transport

Beyond their positioning on SAF, AIRPORTS REMAIN DIRECTLY CONCERNED BY THE LOGISTICAL CONSIDERATIONS OF THESE FUELS

Several key configurations identified:

1

AIRPORT FED BY PIPELINE
SAF BLENDED BY KEROSENE
UPSTREAM OF THE AIRPORT,
<50%

2

AIRPORT NOT FED BY PIPELINE
OR
PHYSICAL DELIVERY OF SAF AT
THE AIRCRAFT

3

SAF 100%

Tradeoff between logistical considerations
and environmental performance when it
comes to pure 100%SAF (starting 2030)

ENERGY HUB : BE A PIONEER IN THE IMPLEMENTATION OF NEW ENERGIES

1st way to decarbonize air transport

HYDROGEN AIRPORT, FIRST JOINT-VENTURE TO SUPPORT THE DEVELOPMENT OF H2 INFRASTRUCTURE IN AIRPORTS

Launched one year ago during 10th Paris Air Forum on 06/16/2023

The first engineering and consulting joint venture specializing in helping airports integrate hydrogen projects within their infrastructures

The range of services provided covers all the challenges of integrating hydrogen energy:

- ◆ The estimation of the volumes required over time.
- ◆ The optimization of logistics based on the specific requirements of the airport and its location.
- ◆ Preliminary safety and carbon impact studies.
- ◆ Cost analysis and investment roadmap development.

In the framework of this joint-venture, **Air Liquide** brings its **expertise in hydrogen**, which ranges from the production of renewable or low-carbon hydrogen, to liquefaction, storage, and the distribution of hydrogen for aircraft. **Groupe ADP** contributes with its expertise in **airport infrastructure and operations**.



Thank You

