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Session 7: Financing Future Energy Hubs





EU policy context

European Green deal: carbon neutrality and 90% reduction in transport-related GHG emissions by 2050.

Sustainable and Smart Mobility strategy: zero emission airports as energy hubs:

- feeding stationary aircraft with renewable power instead of fossil energy
- greening ground movements and operations at airports
- deployment of renewable and low-carbon fuels for aircraft operations
- incentivising the development and use of new, cleaner and quieter aircraft

International Civil Aviation Organization (ICAO):

- A long-term global aspirational goal (LTAG) for international aviation of net-zero carbon emissions by 2050.
- Global Framework for SAF, LCAF and other aviation cleaner fuels with a collective global aspirational vision of 5% emissions reduction by 2030 from fuels.



EU regulatory context

1. ReFuelEU Aviation Regulation:

- to scale up of SAF supply at EU airports and ensuring a level playing field through a harmonised EU rules

2. Trans-European Transport Network Regulation:

- to facilitate transport across Europe and reduce regional, economic and social disparities by developing interconnected infrastructure for air, road, rail and shipping
 - objectives for aviation:
 - rail connections to airports
 - alternative fuels infrastructure
 - pre-conditioned air supply to stationary aircraft
 - increased airport energy and operational efficiency
 - digitalisation and automation processes.



EU regulatory context

3. Alternative Fuels Infrastructure Regulation (AFIR):

- Electricity supply to stationary aircraft – mandatory targets

4. Industrial value chain cooperations:



Alliance for Zero-Emission Aviation (AZE): to prepare the market for the entry into service of hydrogen-powered and electric aircraft.



Renewable and Low-Carbon Fuels Alliance (RLCF): to support the development, deployment, and widespread use of renewable and low-carbon fuels.



EU funding and financing instruments

EU **Green taxonomy** framework

- A classification system of green activities
- Large public-interest entities and large companies (Corporate Sustainability Reporting Directive*)
- Requirement to disclose how and to what extent undertakings' activities are associated with economic activities that qualify as environmentally sustainable under this Regulation ('Taxonomy-aligned activities')
- Possibility to issue European Green Bonds for taxonomy aligned activities

Airport related taxonomy **eligible activities**

- low carbon airport infrastructure, ground handling equipment, SAF production, power generation, ground fleets, charging infrastructure, energy efficient buildings



EU funding and financing instruments

Alternative Fuels Infrastructure Facility

- electricity and preconditioned air supply to stationary aircraft
- electricity & H2 supply facilities for ground operation vehicles/equipment
- related necessary electricity grid connections
- Since 2021: 20 projects, 63 airports, 12 Member States, €160 million

Case studies:

- **eMAGO project by SEA Milan Airports**
 - 84 Aircraft Ground Power Units (aircraft), 94 electric charging stations (vehicles), 100 "Smart Power Sockets (GSE) at **Linate and Malpensa airports**
- **E-handling project by AENA**
 - 60 single rechargers and 388 dual rechargers for GSE at **39 Spanish airports**



EU funding and financing instruments

EU Framework Programme for Research (Horizon 2020 and Horizon Europe)

- Calls for proposals/grants dedicated to research and innovation community.
- EU Green Deal call for green airports and ports of €100 million (2021).

Case study: developing and testing new **technologies to reduce the environmental impact of airports** on the surrounding areas

- ALIGHT (Copenhagen Airport)
- OLGA (Group ADP, with Paris Charles de Gaulle)
- STARGATE (Brussels Airport Company)
- TULIPS (Royal Schiphol Group – Amsterdam)



EU funding and financing instruments

The **InvestEU programme** managed jointly by the Commission, EIB and the implementing partners

- financial instruments (loans, equity, guarantees) for airport green projects under the dedicated windows for **sustainable infrastructure and R&D projects**.

Case studies:

- **TALLINN AIRPORT:** displacement of the runway and the taxiway system to alleviate noise and air pollution, provision of new aircraft aprons, the reconfiguration and refurbishment of the passenger terminal, and a range of other safety and environmental related enhancements (€30 million).
- **BUDAPEST AIRPORT:** construction of the new Pier B, a possible new Terminal 3, the renewal of the airfield ground lighting, the construction of a new cargo city and a range of other landside and airside enhancements (€200 million)



EU funding and financing instruments

Other potential sources

- **ETS Innovation Fund (grants):** break-through demonstration projects for production of SAF, hybrid-electric and H2-powered aircraft.
- **The Climate, Energy and Environmental Aid Guidelines (MS public support):** eligibility of airports for public support for greening projects.
- **EU European Regional Development Fund** and the **Cohesion Fund (implemented via MS):** greening projects only for airports in outermost regions or regional airports.

Thank You

