

## Hamburg Airport and the European Green Deal

Airport Environmental and Carbon Management

## **Example Carbon Management – Tackling Scope 1 and 2 Emissions**



#### **Emissions Reduction from 38,000 t in 2009 to 14,000 t in 2019**

- Building and facilities energy efficiency
  - New chillers
  - Air supply according to number of persons inside buildings
  - New lighting technology
  - New energy management software
  - Small PV- facility
  - New buildings to replace older ones
  - Procurement of climate neutral electricity



- Vehicles using hydrogen, methane (biomethane) or electricity
  - E-cars in short range deployment
  - CNG for longer range deployment, for example shuttle bus operations
  - Hydrogen for test purposes
  - Installation of charging or fuelling stations
- Using synthetic diesel with reduced CO<sub>2</sub> output for vehicles which can't be replaced (fire fighter vehicles etc.)



## **Example Carbon Management – Scope 3 Emissions**

# Hamburg Airport

#### **APU** use reduction policy

- APU operation for energy supply is restricted
- Supply on contact stands from CHP
- Supply on remote stands GPU

#### Apron design with new technology

- Modern LED- Based Lighting system
- Follow the green guidance system for taxiing aircraft
- Electricity supply for aircraft parked on remote stands to replace both APU and GPU operations
- Parallel Taxiways to avoid congestions





Project Kerosyn: Co-operation with a local refinery to use wind energy and atmospheric CO2 to produce climate neutral jet fuel

- New project
- Currently in development stage
- Idea: using electricity from local wind farms for production of carbon based fuels by using CO<sub>2</sub> from ambient air

### **Future Objectives**



#### CO<sub>2</sub> Neutrality by 2021 for all scope 1 and 2 emissions

- Improving current building energy management processes (metering)
- Adjustment of energy production
- Refurbishment of CHP
- Increase number of vehicles using alternative fuels

#### Longer term Goal net zero

- New Buildings with highest efficiency standards
- On- site production of climate neutral energy (Example new baggage handling building using solar power to feed an electrolyser to produce hydrogen for baggage tractors
- Vehicles to exclusively use alternative fuels
- Building energy supply (heat, electricity) from climate neutral sources (including biomethane for on-site electricity production

#### Third party engagement

- Access traffic only on alternative fuels (increased number of charging stations offered)
- Climate neutral flights from Hamburg (first domestic and intra EU, then long-distance) basing upon project Kerosyn and similar initiatives
- Make use of the airport's role as multiplier
- Stringent common reduction plans with other parties