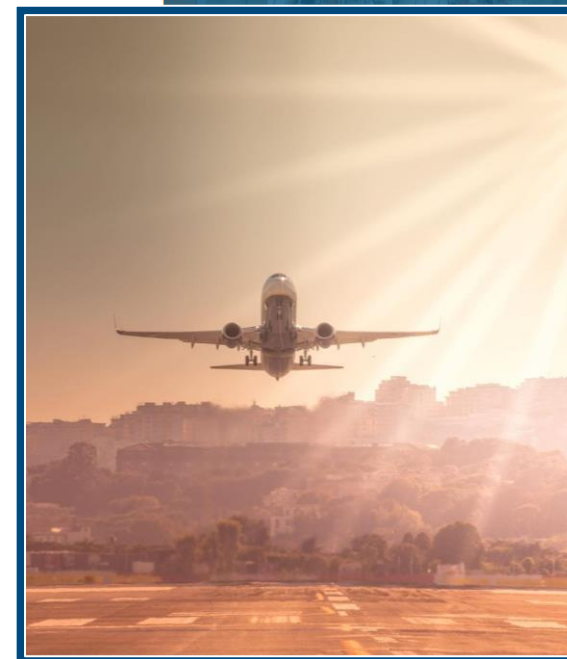
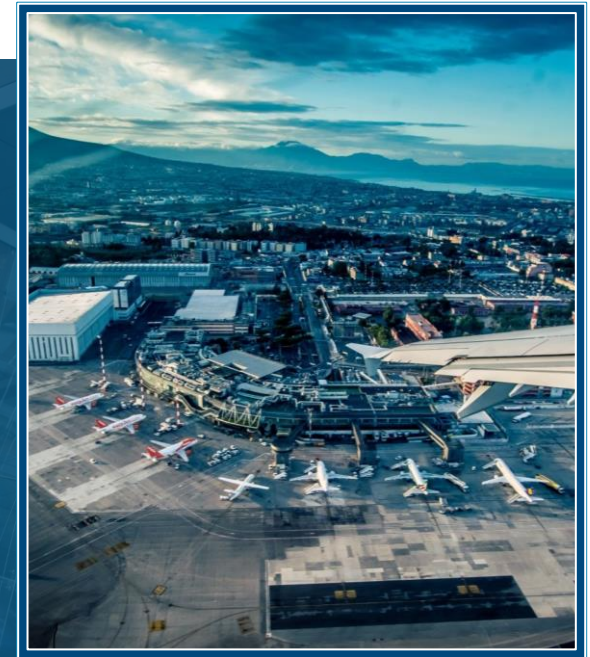


Naples International Airport

Net Zero Action Plan



ACI EUROPE RESOLUTION

European airports committing to net zero carbon emissions by 2050



“ ACI EUROPE and its members reaffirm their commitment (undertaken in 2019) to **net zero carbon emissions from airport operations fully within their own control by 2050 at the latest** - reducing absolute emissions to the furthest extent possible and addressing any remaining emissions through investment in carbon removal and storage ”

Net Zero Carbon Emissions

ACI Europe and its members are committed to achieving Net Zero CO₂ emissions under their control by 2050. Over 270 European airports had individually committed to the 2050 net zero target of which 128 had committed to achieve this by 2030 at the latest

ACI Europe and its members are committed to achieving **Net Zero CO₂ emissions** under their control by 2050. Naples Airport is the first signatories of **Resolution** along with 40 other Airport Operators



- Adopted by the ACI EUROPE Board on **16 May 2019**
- Published at the 29th Annual Congress & General Assembly on **26 June 2019**
- Last updated at the 33rd Annual Congress & General Assembly on **27 June 2023**

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Plan to reach Net Zero Carbon Emissions

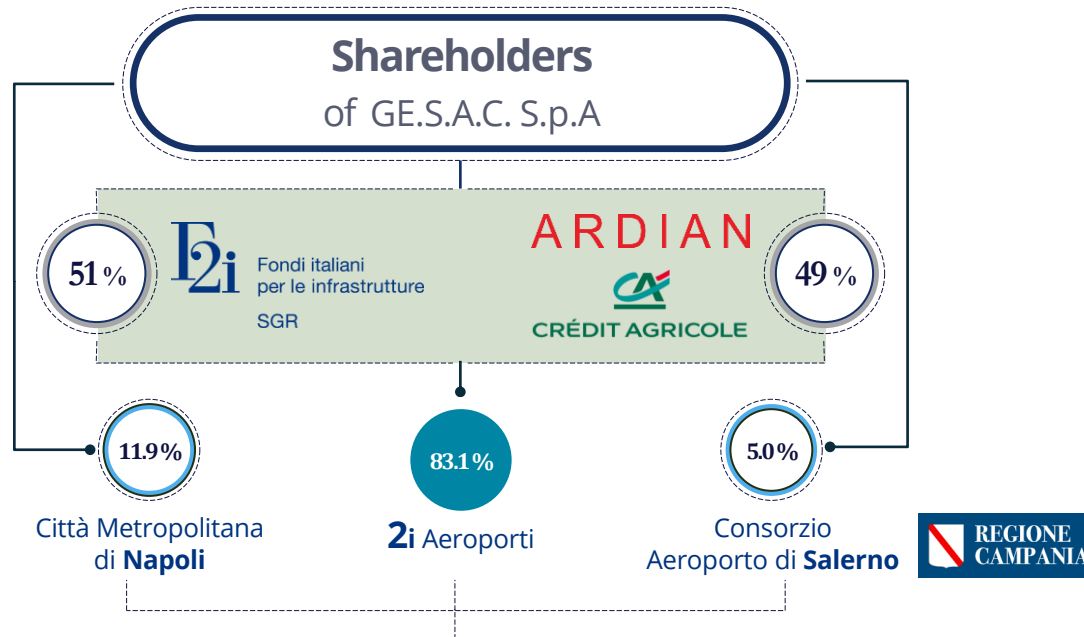
05

SUSTAINABILITY GROWTH

Commitment to reduce scope 3 emissions



GESAC is the Management Company of **Naples** and **Salerno Airports**



GESAC and Regione Campania Airport Network



Naples International Airport



Salerno Costa d'Amalfi Airport

The 2iAeroporti network in Italy



2i Aeroporti's portfolio is very wide and is the main network of airports in Italy, operating more than **65 million passengers** in 2023, that is **30%** of the Italian traffic. The network operates more than **800,000 tons** of goods as well, almost **70%** of the Italian market.

Naples International Airport was the **first Italian airport to be privatized** in 1997, and GESAC has the concession to operate up 2045

Salerno Airport was **acquired in 2019** and, after some major works of renovation, will **re-open** in July 2024

GESAC is an active participant to **all the ACI initiative**

First signatories to ACI's 2050 "Net Zero Carbon"

The Naples International Airport subscribed in 2019 the ACI Europe "**Net zero Carbon Emissions by 2050**" resolution, together with other 194 European airports. GESAC has developed a plan to finance actions to reduce direct emissions to zero and has implemented projects to the small share of CO₂ still produced.

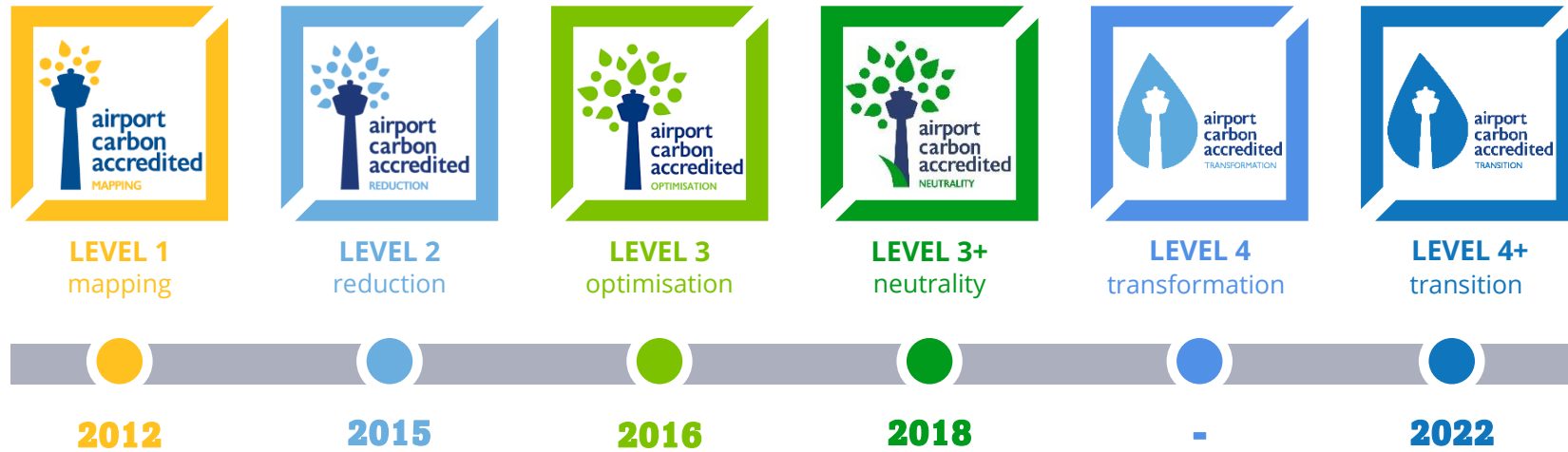


Highlights

- Level 3+ was achieved in 2018, the process for certification at Level 4+ was concluded in 2022
- Among the first signatories to ACI's 2050 "Net Zero Carbon"
- Green CAPEX Plan** (over 12M€) for additional initiatives to reduce emissions is currently ongoing
- Formulation of a long-term absolute reduction target for Scope 1 and 2 carbon emissions, in line with the IPCC 2°C pathways: **-100%** | target Scope 1 and Scope 2 emissions reduction
- Development of a **Stakeholder Partnership Plan**, including emissions reduction targets and/or measures leading to effective reductions of the airport's Scope 3 emissions
- GESAC is adopting new ATC satellite procedures to reduce scope 3 emissions reduction

Our Commitment in the **ACA program**

We achieved Level 4+ «Transition» in the ACI Airport Carbon Accreditation Program reducing direct and indirect emissions



We are working for enduring sustainable growth, reducing direct and indirect emissions: GESAC is planning to focus its efforts on the involvement of the stakeholders for the years 2023-2026 mainly towards:

- > the reduction of **emissions from Aircraft Activity**
- > the reduction of **emissions from Airside Vehicles, Machinery, GSE**
- > CO₂ absorption through an **urban forestry program**



Sustainability strategy | Three-year sustainability plan

based on the 17 Sustainable Development Goals of United Nations



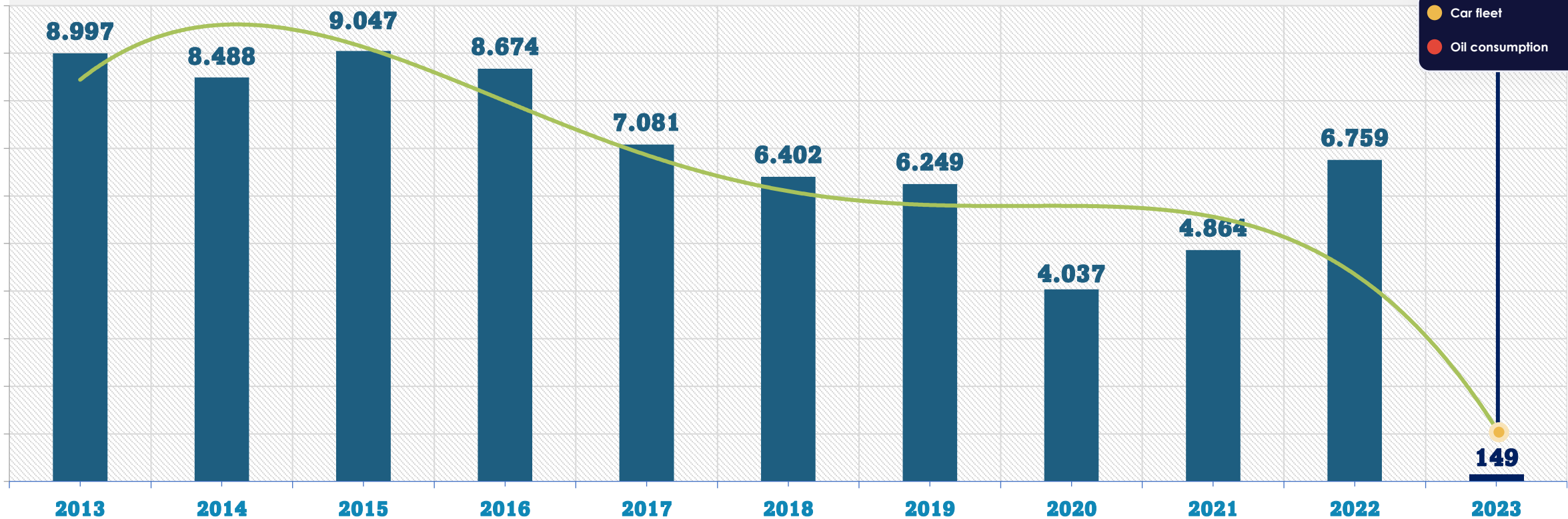
11 sustainability pillars
linked to the **35** material topics

Environmental Policies	<p>1. Land preservation aimed at enhancing local resources and minimizing interference with ecosystems through:</p> <ul style="list-style-type: none"> - efficient and sustainable use of resources - reduction of water consumption - waste management following a circular economy approach - monitoring of the environmental aspects of airport operations - development of new noise impact reduction measures in response to increased traffic at the airport - mitigation of environmental impacts and implementation of appropriate measures to reduce direct emissions
	<p>2. «Green» Transition and achieving Net Zero Carbon by 2024, with a formal commitment:</p> <ul style="list-style-type: none"> - to reduce electricity consumption derived from fossil fuels and use renewable sources as much as possible - to contribute to the decarbonization of all airport activities and promote "zero impact" air transportation - to support the development of low-emission fuels.
	<p>3. Inclusive and sustainable airport growth to:</p> <ul style="list-style-type: none"> - identify appropriate actions to combat climate change - protect and restore natural capital - engage nearby communities and implement urban regeneration projects in areas near the airport - establish the Campania Airport Network to support the development of the regional tourism industry and facilitate the international mobility of citizens and businesses.
Economic Policies	<p>4. Development of sustainable infrastructure to promote:</p> <ul style="list-style-type: none"> - construction of green buildings with environmentally sustainable and low-impact criteria - development of Advanced Air Mobility in Campania - transition to a more modern and eco-friendlier vehicle fleet
	<p>5. Digitalization and technological innovation to provide a unique and rewarding customer experience</p>
	<p>6. Increased connectivity, through:</p> <ul style="list-style-type: none"> - sustainable development of the network and promotion of initiatives to boost traffic at Naples Airport - enhancement and increase in Naples' tourism potential - fleet renewal with the goal of encouraging the use of newer, quieter, and more spacious aircraft models
Governance Policies	<p>7. Work environment focused on the well-being, health, and safety of employees</p>
	<p>8. Ethical and transparent business governance</p>
	<p>9. Enhancing people, aiming to increasingly represent the industry benchmark in health and safety, skill development, ethics, diversity, and inclusion.</p>
Social Policies	<p>10. Social and economic resilience of the entire supply chain: GE.S.A.C. commits to operating efficiently with shareholders and institutional investors to ensure that investment in the company remains stable even during times of significant crisis, and with fairness so as not to jeopardize the stability of the employment structure across the entire airport sector in Campania.</p>
	<p>11. Value for the region, through the implementation of community projects and the growth of tourism, creating direct and indirect income and employment across the entire area</p>

Sustainability growth | plan for Net Zero Carbon

Evolution of the emissions under control of GESAC

GHG EMISSIONS [ton CO₂]



Market based

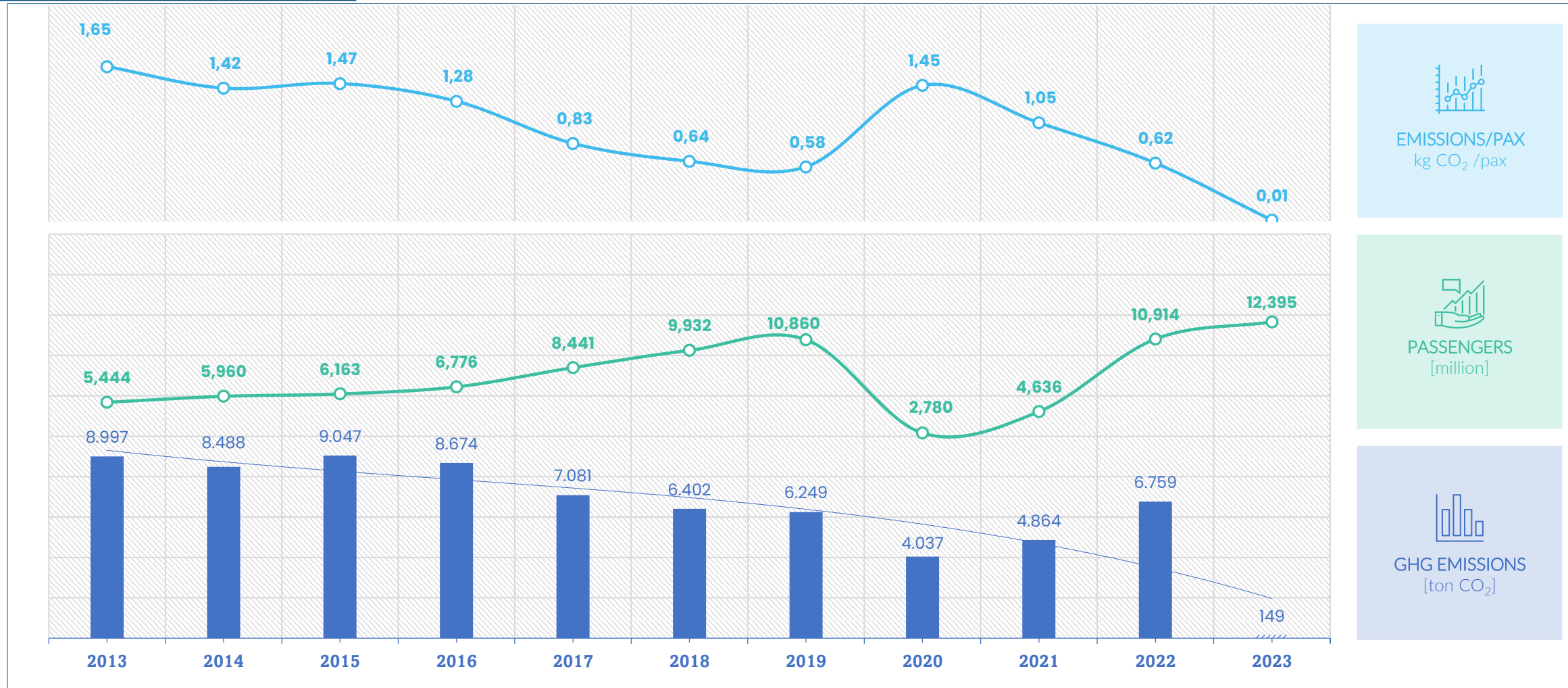
-	-	-	-	-	8,259	8,353	4,903	5,944	6,998	149
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From 2018, emission trends are reported considering both the Location Based approach and the Market Based one for Scope 2 emissions. The Location based represent the usual method of the Company to report its carbon footprint. However, in year 2023, GE.S.A.C S.p.A. switched to the Market Based approach as reference for reporting. This choice is determined by the **commitment of the Company in the full purchase of electricity produced by renewable resources**, with a considerable economic effort determined by this choice.

Sustainability growth | plan for Net Zero Carbon

Evolution of the emissions under control of GESAC

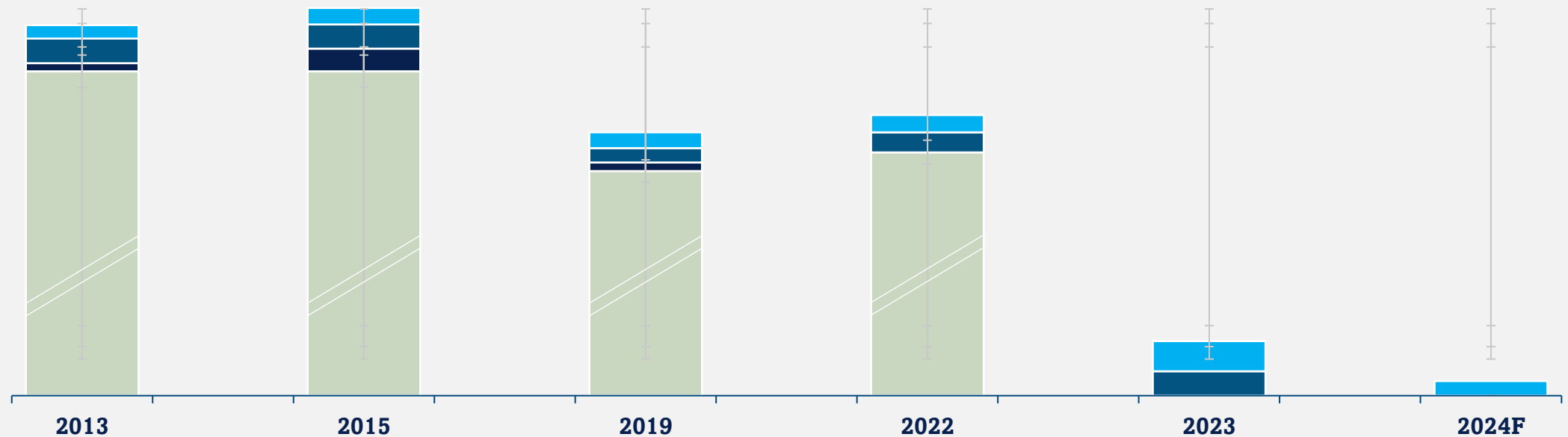
Trend of emissions generated by Naples Airport



Sustainability growth | plan for Net Zero Carbon

Evolution of the emissions under control of GESAC

SCOPE 1 AND 2 EMISSIONS	8.996,56	9.046,86	6.248,76	6.758,98	149,47	40,00
Car fleet	36.962	44.764	43.029	46.859	82.311	40.000
Oil consumption	67.410	65.893	38.936	54.570	67.167	0
Gas consumption	22.082	62.097	23.796	0	0	0
Electricity consumption	8.870.105	8.874.103	6.142.997	6.657.551	0	0



➔ Gesac will to zero emissions in 2024, leaving a **residual part of direct emissions due to car fleet**, which are compensated through the plantation of trees in the surrounding area: the emissions generated by the airport ($\approx 40 \text{ ton CO}_2$) will be much lower than the ones adsorbed ($\approx 150 \text{ ton CO}_2$)

Naples Airport Carbon Footprint [2023]

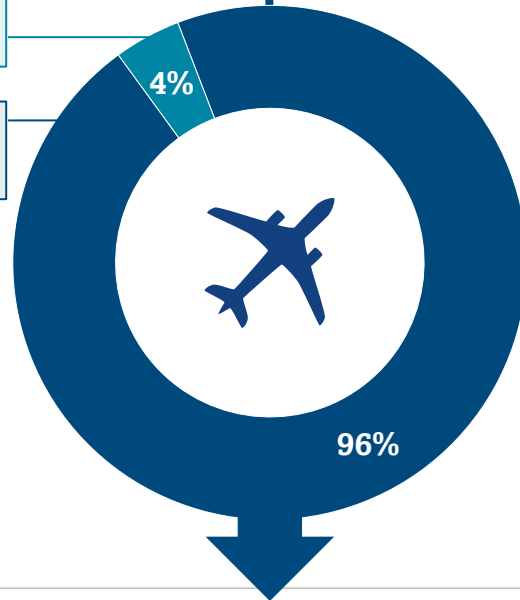
Scope 1, 2 and 3 sources

Napoli Airport Carbon Footprint

749.968,98 ton CO₂

Other Emissions
Sources

Aircraft
activities



Emission Sources	tonnes CO ₂
Aircraft Flight - ½ approach	635.124,1
Aircraft (LTO)	81.422,3
Aircraft APU	1.802,1
Aircraft Engine Run-ups	115,6
Total	718.464,0

Carbon Footprint Level 4+: Transition

Emissions

tonnes CO₂

%

Scope 1 [activity based]

Direct emissions from sources or processes and activities controlled by the airport operator at its facilities

Car fleet	82,31	0,01%
Oil consumption	67,17	0,01%
Gas consumption	0,00	0,00%

TOTAL Scope 1 **149,48** **0,02%**

Scope 2 [market based]

Indirect emissions produced by the generation of electricity or thermal energy acquired and consumed at the airport

Electricity	0,00	0,00%
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TOTAL Scope 2 **0,00** **0,00%**

Scope 3

[ACA Application Manual – Is. 13]

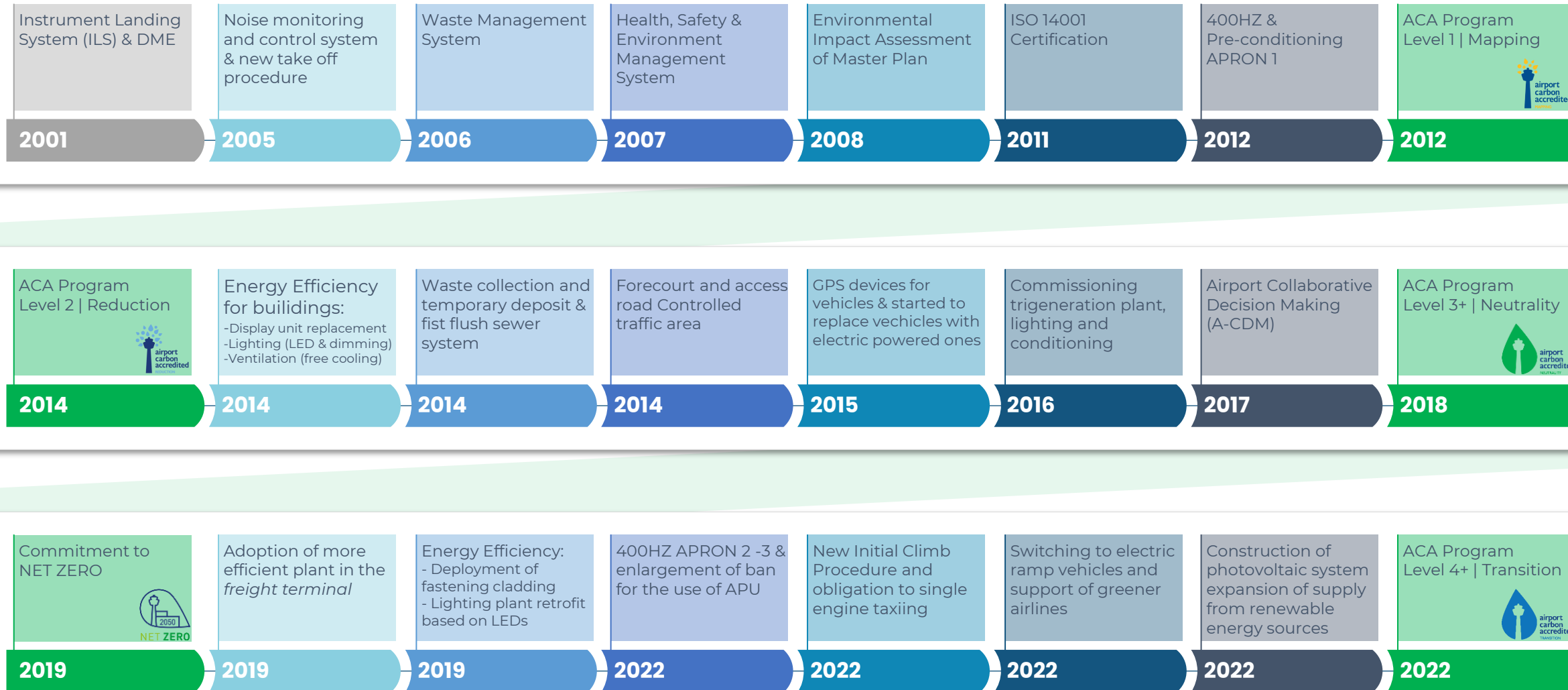
Indirect emissions from airport-related activities from sources not owned or controlled by the airport operator

Aircraft activities (LTO, APU e Taxing)	718.464,10	95,80%
Surface Access	27.636,80	3,69%
Process sources	2.222,10	0,30%
Airside Vehicles, Machinery and GSE	1.460,50	0,19%
Staff Business Travel	20,60	0,00%
Mobile sources – Construction & Plants	15,40	0,00%

TOTAL Scope 3 **749.819,50** **0,00%**

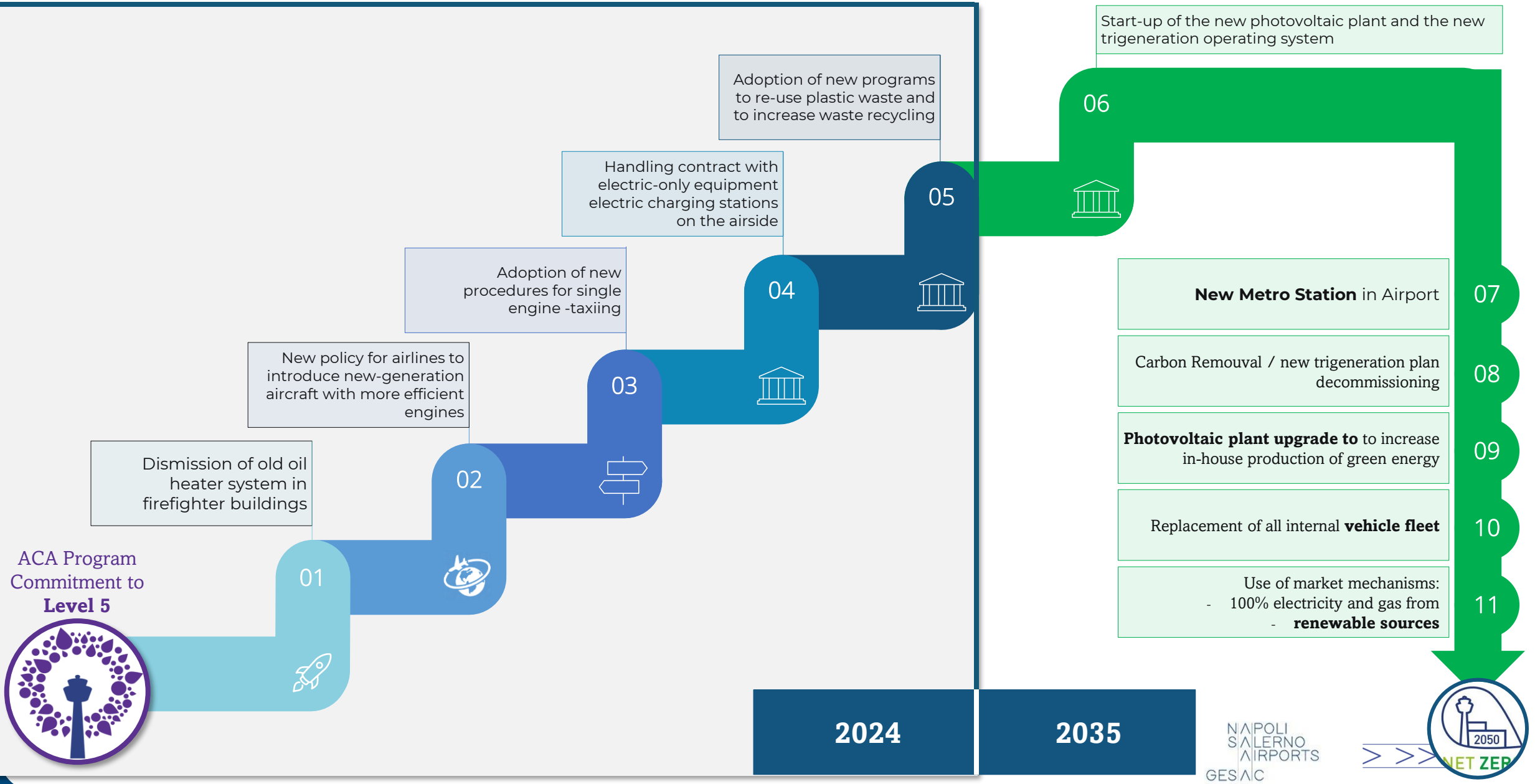
Roadmap to Net Nero

Well deserved Level 4+ «Transition» in 2022



Roadmap to Net Nero

We are working to reach Net Nero in 2035



“Green” Capex Plan to support all planned actions

In 2024 is forecasted a reduction of 99,55% of CO2 emissions

Main initiatives to reduce CO₂ emissions generated by airport



REPLACEMENT OF INTERNAL VEHICLE FLEET

Replacement of vehicle fleet with electric or hybrid vehicles: the fleet of the company will include just 0 emissions vehicles. Recharging stations will be installed in parking areas dedicated to operational vehicles.

Emissions by fleet are then expected to be null within 2030.



ADOPTION OF MORE EFFICIENT PLANT FOR BUILDINGS

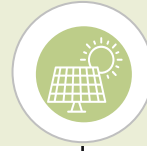
Replacement of the old oil boiler for firefighter buildings with a more efficient solutions. The measure is expected to be implemented within 2026. This will involve the dismiss of oil as fuel.

Emissions by oil are then expected to be null within 2024.



ENERGY EFFICIENCY FOR BUILDINGS

The construction of new buildings, as well as the renewal of existing ones, will be carried out according to energy saving criteria, maximizing the power supply from renewable sources, through the adoption of solar thermal energy. GESAC will complete the replacing of the existing lighting devices with LED technology ones, with lower energy consumption, for buildings, areas, service and airside plants not yet involved.



CONSTRUCTION OF PHOTOVOLTAIC SYSTEM

A photovoltaic system is going to be implemented over parking areas within the airport forecourt, so to autonomously produce electricity. The system is also intended to supply recharging station for electric vehicles. The measure will be implemented by the end of 2023 and a production of 30% of energy needs from photovoltaics is expected.



EXPANSION OF SUPPLY FROM RENEWABLE ENERGY SOURCES

GESAC is going to increase the share of energy produced from renewable sources in the mix of electricity purchased from the grid. This will result in a greater financial commitment in the purchase phase.

Emissions by electricity are null form 2023, also through energy attribute certificates (EACs)



ADOPTION OF MORE EFFICIENT PLANT FOR BUILDINGS

Replacement of all the old refrigeration units installed for the freight terminal

Emissions by gas are null within 2018.

Scope 1 and 2 GHG emission | 2015

62.097
Gas consumption

44.764
Car fleet

65.893
Oil consumption

8.874.103
Electricity

Scope 1 and 2 GHG emission | 2024

0,00
Gas consumption

0,00
Oil consumption

0,00
Electricity

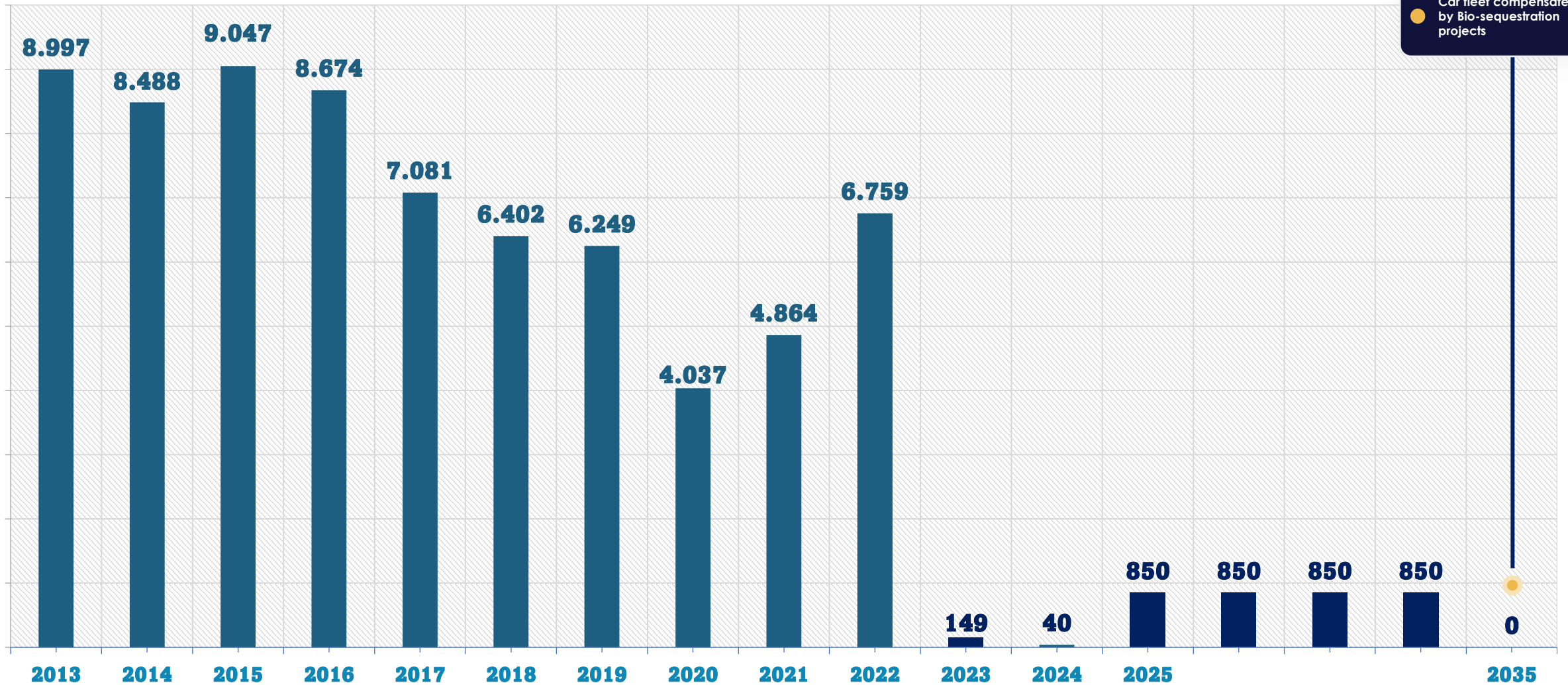
40.000
Car fleet

GESAC aims to reach **zero emissions in 2024**, using Carbon Removal to compensate residual part of direct emissions due to car fleet.

Sustainability growth | plan for Net Zero Carbon

Evolution of the emissions under control of GESAC

GHG EMISSIONS [ton CO₂]



SCOPE 1&2

Main projects to reach e maintain
Net Zero Emissions - Highlights



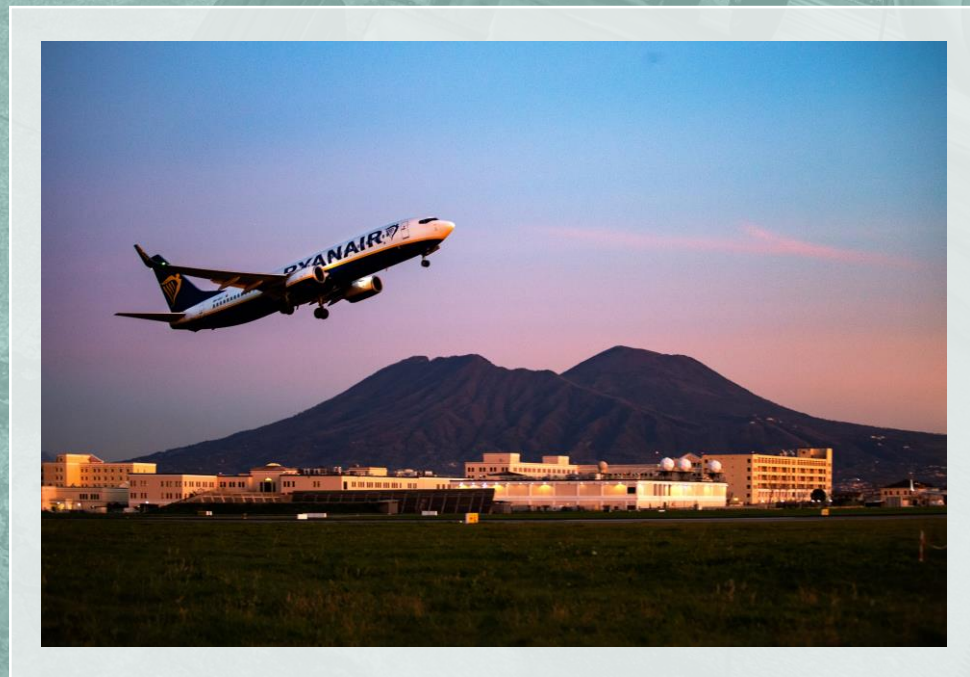
New Photovoltaic plan



Buildings Energy Efficiency



Upgrade of lighting installations with low consumption devices



Main projects to achieve **Net Netto Emissions**

Implemented actions to reduce Scope 1 & 2 sources

01
Replacement of internal vehicle fleet

Implemented a photovoltaic system over parking areas within the airport forecourt, so to autonomously produce electricity. The system is also intended to supply recharging station for electric vehicles

01
Construction of photovoltaic system

Implemented a photovoltaic system over parking areas within the airport forecourt, so to autonomously produce electricity. The system is also intended to supply recharging station for electric vehicles

02
Energy retrofit of the air conditioning system

Replacement of all the electric refrigeration units currently installed for the Terminal and the passengers' areas air conditioning, with a central

03
Expansion of supply from renewable energy sources

Increased the share of energy produced from renewable sources in the mix of electricity purchased from the grid. This will result in a greater financial commitment in the purchase phase.

04
Energy efficiency for Terminal and buildings

Reduce the electricity consumption due to a new airport glass wall with better energy performance in terms of transmittance and heat absorption. Deployment of fastening cladding for Pegaso building.

05
Replacing existing lighting installations with low consumption devices

After the implementation of the measure within the terminal, the replacement has involved the airside plants and other areas, such as the parking ones and the office buildings. This intervention involved over 3,500 compact fluorescent spotlights. An energy saving of about 6,823 MWh/year was assessed

02
Energy efficiency for buildings

Replacement of the old oil boiler for firefighter buildings and old refrigeration units installed for the freight terminal with more efficient solutions. The construction of new buildings, as well as the renewal of existing ones, will be carried out according to energy saving criteria.

06
Installation of monitors for public disclosures with energy-saving technology

New information monitors for the public (Flight Information Display System - FIDS) with lower power consumption than previous were recently introduced

07
Implementation of an automatic adjustment system of the airflow depending on the presence

The control of air conditioning to the actually air circulation needs with continuous variations of overcrowding allows an optimization in the use of energy with a consequent reduction in consumption

08
Installation of electricity local sub-meters

Local electricity meters were installed, able to return a more detailed and more accurate mapping of electricity consumptions

09
Digital control and presence detectors for lighting systems

Devices and sensors to control lighting in places were recently introduced. This measure allows the automatic turning off, reducing possible waste.

10
Partialisation of the perimeter lighting with the aim of exploiting solar lighting

Installation of a digital control system for the lighting of the outside perimeter.

Green investment plan of **over 16 million euros** involves the implementation of a **new photovoltaic plant**

New solar power plant



3.650
solar panels



600-650 Wp
installed power per panel



6.700 MWh/year
energy generated



2.400 tons/year
CO₂ reduction



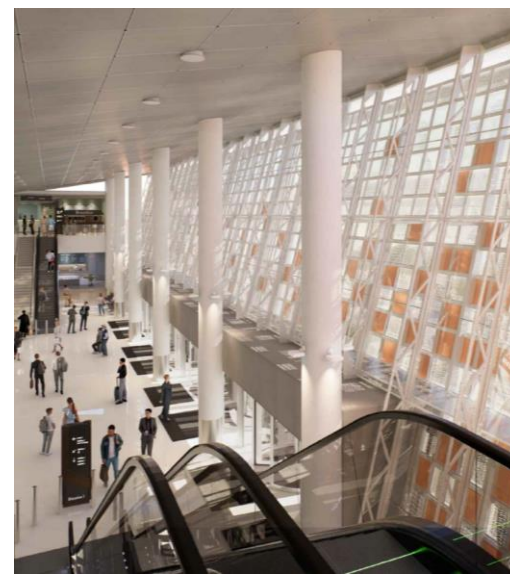
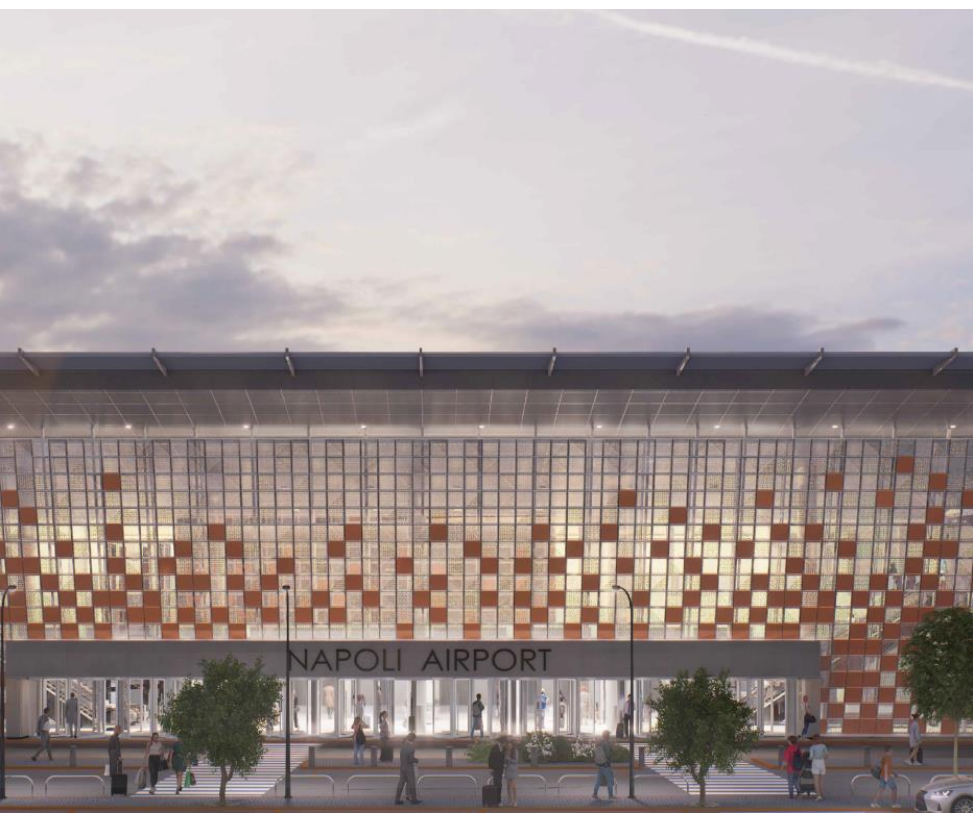
5,00 M€
investments



New solar power plant for the self-production of green energy will be in full use by **July 2024**



- › The unique design of the **Passenger Terminal** façade, entirely made of glass, along with its south-western orientation, results in a significant energy demand for air conditioning in the main hall, which is exposed to full sunlight during the summer months. Therefore, the current glass façade will be upgraded with **glass panels with higher thermal resistance**, allowing for greater efficiency in the air conditioning systems.
- › Similarly, on the side facing the aircraft stand, it is planned to extend the front of the terminal by about four meters, expanding the boarding area on the ground floor of the airport building.
- › This extension includes a system of double doors that creates an airlock between the exterior (*Airfield*) and the interior (*boarding gate room*). The airlock has the dual benefit of creating **energy efficiency by minimizing thermal losses** during passenger boarding/unboarding and allowing for improved and smoother processing as it can be used as a pre-boarding area.



Urban Regeneration | GESAC has built a **new city park** in Casalnuovo, revitalizing an abandoned area of 3,000m²



Planting 300 trees and installing a playground for children, the park was opened on September 21st, 2023

Scope 3

Main projects to reach e maintain
Net Zero Emissions - Highlights



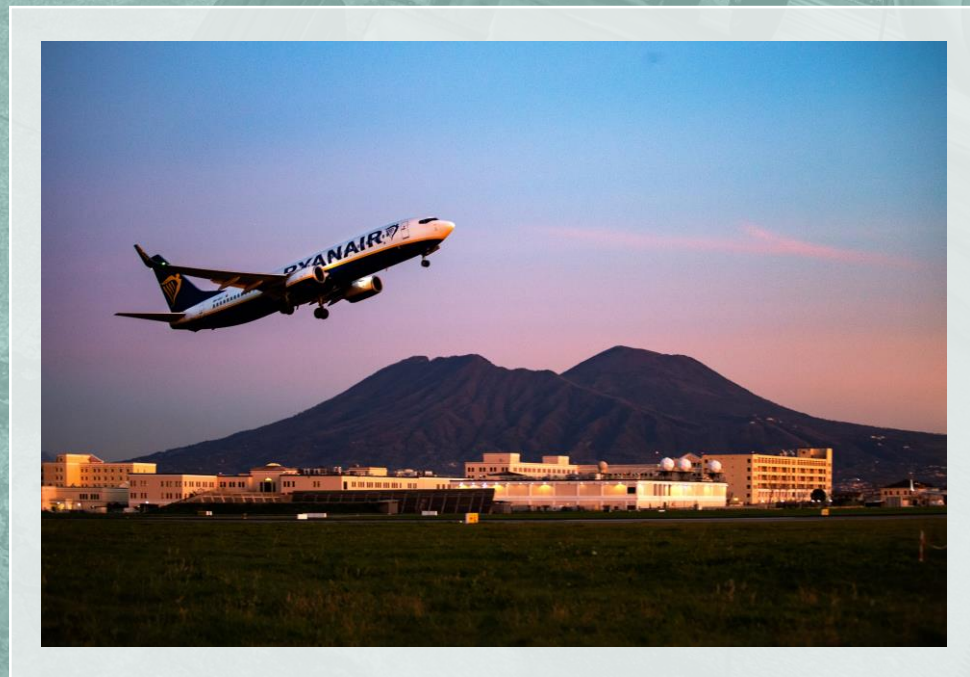
Surface Access: new airport metro station



Airside Vehicles, Machinery and GSE: AeroZero program - replacement of all vehicles in airside with electric



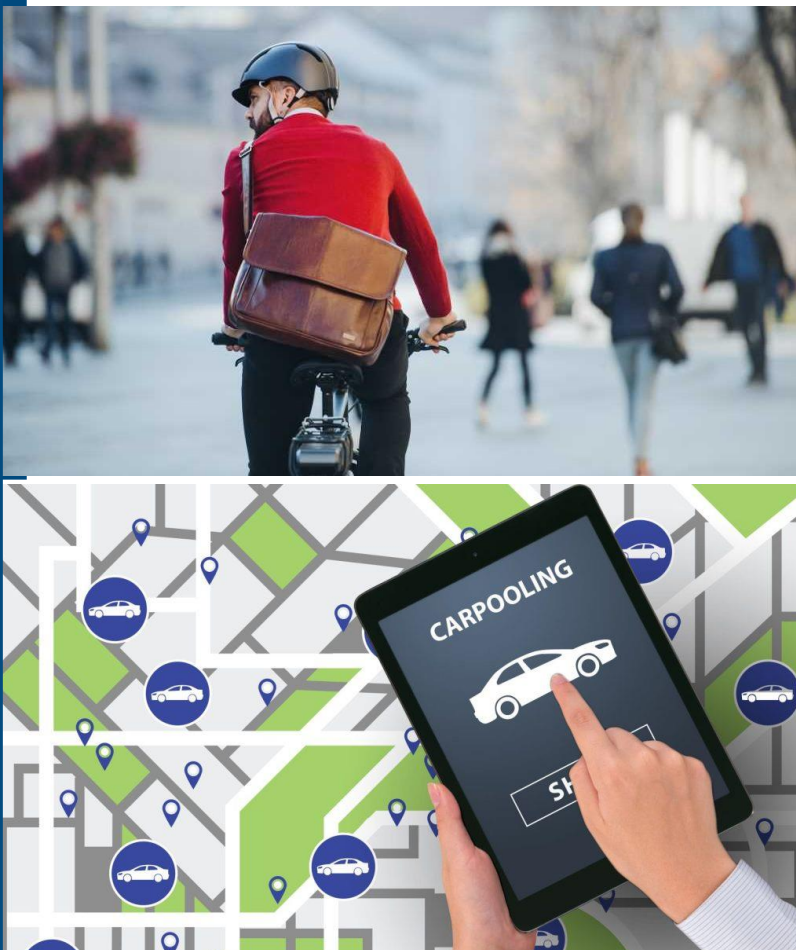
Aircraft activities: New flight procedures, airlines policy for net zero, adoption of SAF and Airlines commitment to Net Zero



Surface access

Multimodal & sustainable **low carbon mobility**

New sustainable mobility program will be in place by 2025



New Metro station will be completed by 2028



New electric charging stations and connection to the bicycle net





Surface Access: The new metro station will be completed by 2028

Airside vehicles & GSE:

GESAC is committed to achieve **net-zero carbon emissions** in **all airport operations**

AeroZero: Net Zero Emissions Program



FLIGHT OPERATIONS

Implementation of new ground and flight **procedures** with involvement of all key stakeholders and supporting airlines that adopt newer and more environmentally efficient aircraft



CARBON-NEUTRAL FLEET

- **Handling tender commits Handlers** to use only electric vehicles and invest in e-mobility
- **Vehicles** powered by gasoline or diesel will be replaced by electric cars in the next four years: over 90% of airport's entire vehicle fleet will be CO₂ neutral
- **A network of charging stations** for electric vehicles has been set up, deployed in numerous airport areas



CHARGING STATION

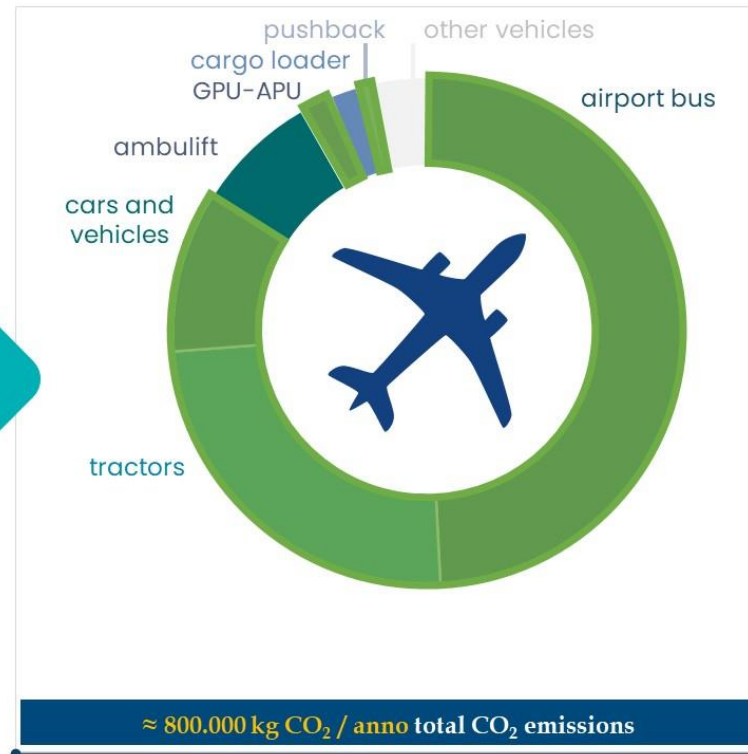
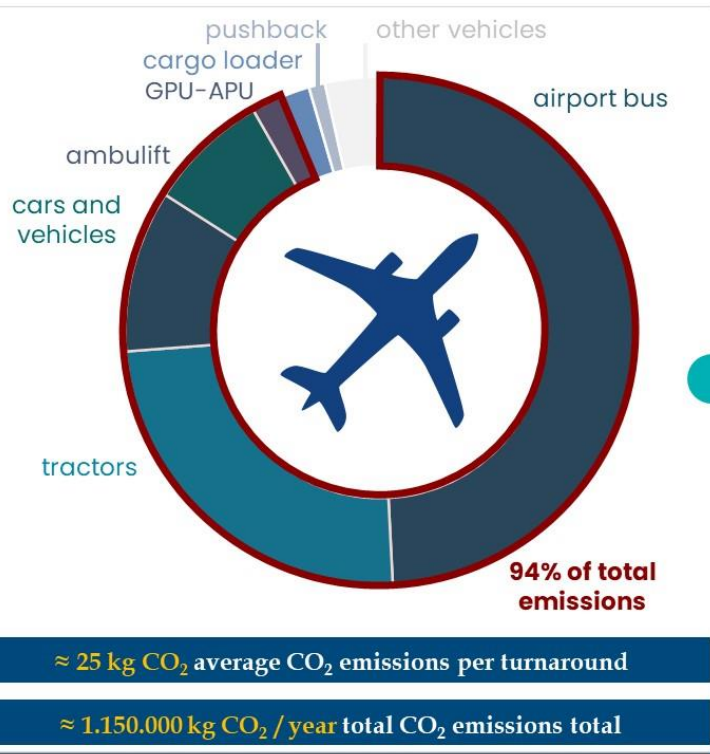


SUSTAINABLE FUEL

- GESAC is encouraging use of Sustainable Fuel for non-electric vehicles in airside, such as emergency vehicles.

Airside vehicles & GSE:

Traditional diesel vehicles will soon be fully replaced in airports for **handling activities with electric vehicles**



In 2024, the **tender for Handling services** related to Class I (Commercial Aviation) requires to adopt environmental sustainability plan:

1. The offer with the **best CO₂ emission reduction plan**, in line with GESAC's plans, will be awarded the highest score.
2. The offer with the **youngest fleet** at the start of operations will also receive the maximum score.
3. The best project in terms of rationalization and optimization of available spaces, decongestion of operating vehicles on the airport grounds, and **decarbonization** will be rewarded.

In 2022, GE.S.A.C. began promoting a **plan to convert ground service providers' ramp vehicles**, positioning itself as a driver for a radical shift with the aim of eliminating CO₂ emissions from ramp vehicles by 2025. Within the plan, priorities for vehicle replacement were established based on emissions produced, average kilometers traveled, and the complexity and cost of the vehicles. Additionally, GE.S.A.C. will directly procure new electric "ambulift" and "special care" vehicles, which operate in the Airfield, to support the transport of passengers with reduced mobility.

Airlines Activities:

Airlines commitment to Net Zero

Airlines based in Naples and operating most of traffic are committed for Net Zero.



At the end of 2022, we committed to reaching net-zero carbon emissions by 2050. In advance of that, we have also committed to reaching an interim, science-based carbon emissions intensity improvement target of 35% by 2035, which has been validated by the Science-Based Targets initiative (SBTi). We've published our roadmap on how we plan to achieve both.



“Ryanair Group’s overall goal for net-zero carbon emissions is expected to be completed by the year 2050, but in the meantime, the firm will implement 12.5% SAF by 2030 and, in the same period, reduce its emissions by 10% We’ve developed a pathway to net-zero emissions by 2050 that aligns to the Paris Agreement and the aviation industry’s Destination 2050 initiative. Ryanair’s pathway shows that decarbonisation and alignment with EU climate targets is possible”

Airlines Activities:

Airlines commitment to Net Zero

Airlines based in Naples and operating most of traffic are committed for Net Zero.



*“Wizz Air is strongly committed to reducing its climate change impact globally and locally. The airline supports the Paris Agreement’s goal of limiting temperature rise below 1.5°C and aligns with the European Green Deal and Destination 2050 guidelines, aiming for net zero emissions by 2050¹. In fact, Wizz Air leads the aviation industry with the **lowest carbon emission per passenger/km** among its competitors.”*



“Volotea has already implemented 50 sustainability initiatives and is committed to achieving 25% carbon offsetting by 2025; it also has a plan for using sustainable fuels in its aircraft in 2022, developing alternative zero-emission technologies, creating a 100% electric aircraft, and working to improve efficiency in air traffic management.”

Airlines Activities:

Airlines commitment to Net Zero

The Industry is committed for Net Zero.



*“**Boston** - The International Air Transport Association (IATA) 77th Annual General Meeting approved a resolution for the global air transport industry to achieve net-zero carbon emissions by 2050. This commitment will align with the Paris Agreement goal for global warming not to exceed 1.5°C.*

“The world’s airlines have taken a momentous decision to ensure that flying is sustainable. The post-COVID-19 re-connect will be on a clear path towards net zero. That will ensure the freedom of future generations to sustainably explore, learn, trade, build markets, appreciate cultures and connect with people the world over. With the collective efforts of the entire value chain and supportive government policies, aviation will achieve net zero emissions by 2050,” said Willie Walsh, IATA’s Director General.

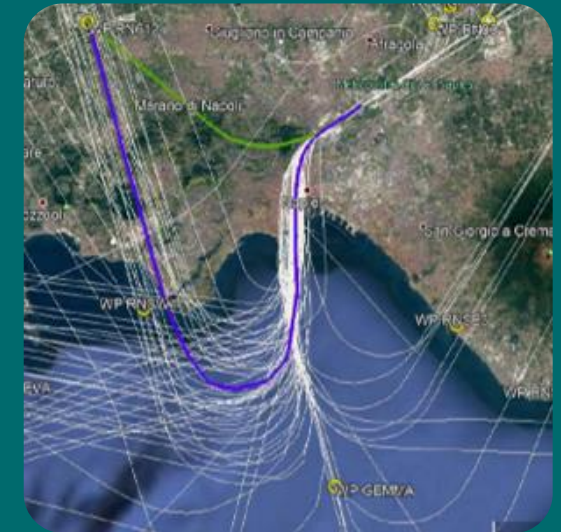
Achieving net zero emissions will be a huge challenge. The aviation industry must progressively reduce its emissions while accommodating the growing demand of a world that is eager to fly. To be able to serve the needs of the ten billion people expected to fly in 2050, at least 1.8 gigatons of carbon must be abated in that year. Moreover, the net zero commitment implies that a cumulative total of 21.2 gigatons of carbon will be abated between now and 2050.

A key immediate enabler is the International Civil Aviation Organization’s (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). This will stabilize international emissions at 2019 levels in the short-to-medium term. Support for this was reaffirmed in today’s resolution.”



Aircraft activities:

GESAC plan to contribute for Airlines Net Zero: new flight and ground procedures to **reduce aircraft activities emissions**



Implemented a fully A-CDM

Full A-CDM was implemented in 2018 and is used to optimize taxi time within Naples Airport, implying also **environmental benefits**.

Reduce the use of APU Operation

The use of **400Hz** systems and **air conditioning** plant will be extended to all push-back stands

Single engine taxiing

Single engine taxiing procedure is currently on test

Initial Climb Procedures

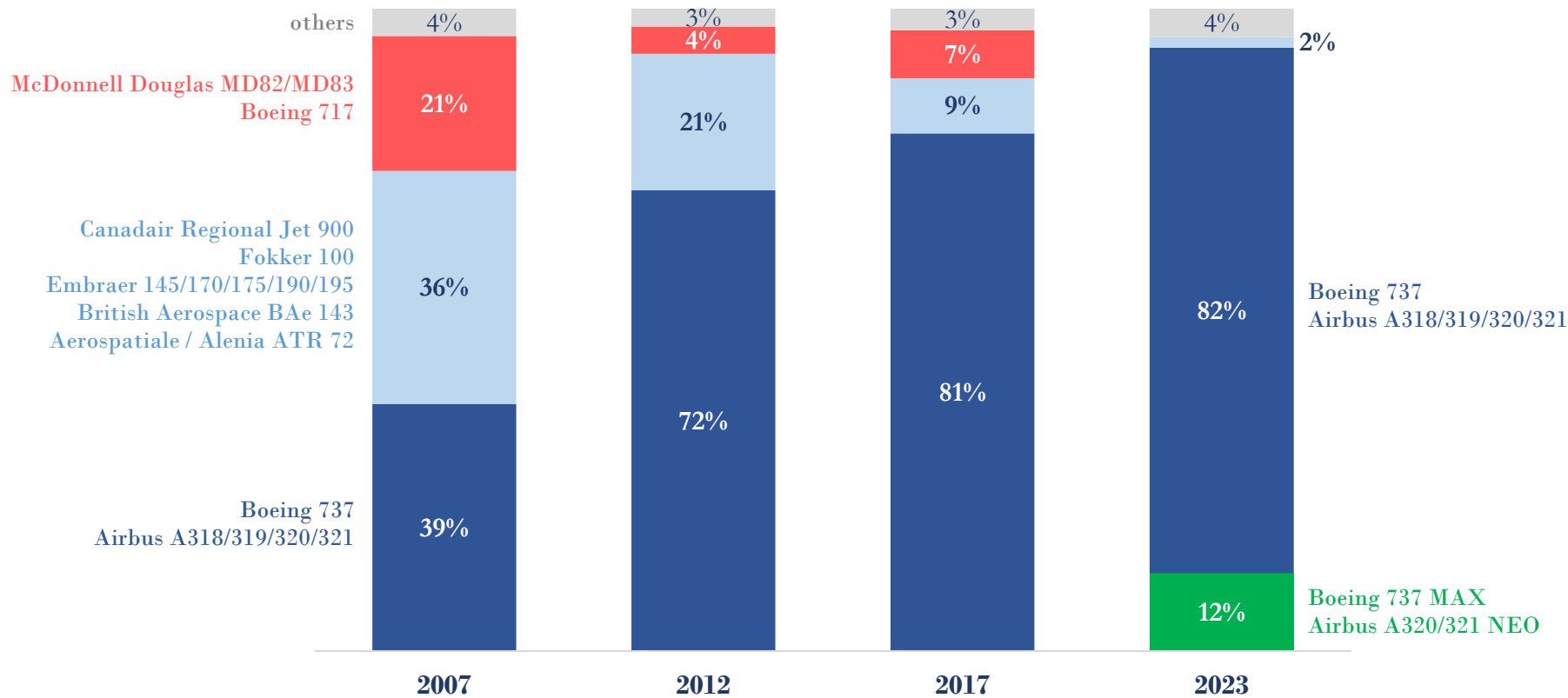
The flight time elapsed for aircraft using the new initial climb procedure will be **50%** than actual. During 2023 a **saving of 13.000 tons/year of CO₂** has been demonstrated

Airside activities:

new **policy for a sustainable aviation** to upgrade fleet mix including modern and quieter aircrafts



Over 94% of flights in 2023 were operated using Airbus A320 or B737 aircraft



in the last 15 years aircraft noise per flight was reduced by del 35%

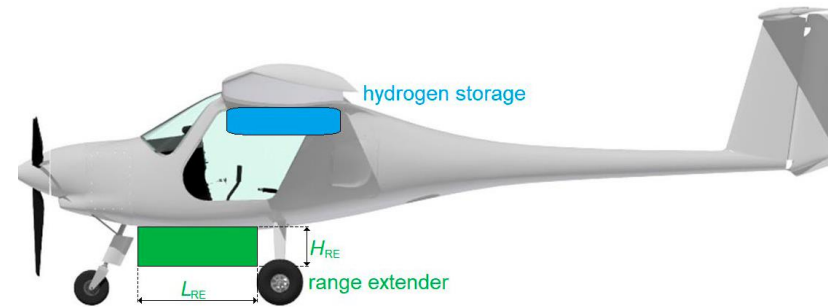


Airside Activities:

Research and innovation for Sustainable Aviation Fuel



Airbus ZEROe program: aircraft fully powered by hydrogen in combination with oxygen, are expected to operate the first commercial flights in 2035



GESAC is carrying out with the NLR (Netherlands Aerospace Centre) preliminary studies for the use of hydrogen as a liquid fuel in Naples and Salerno airport

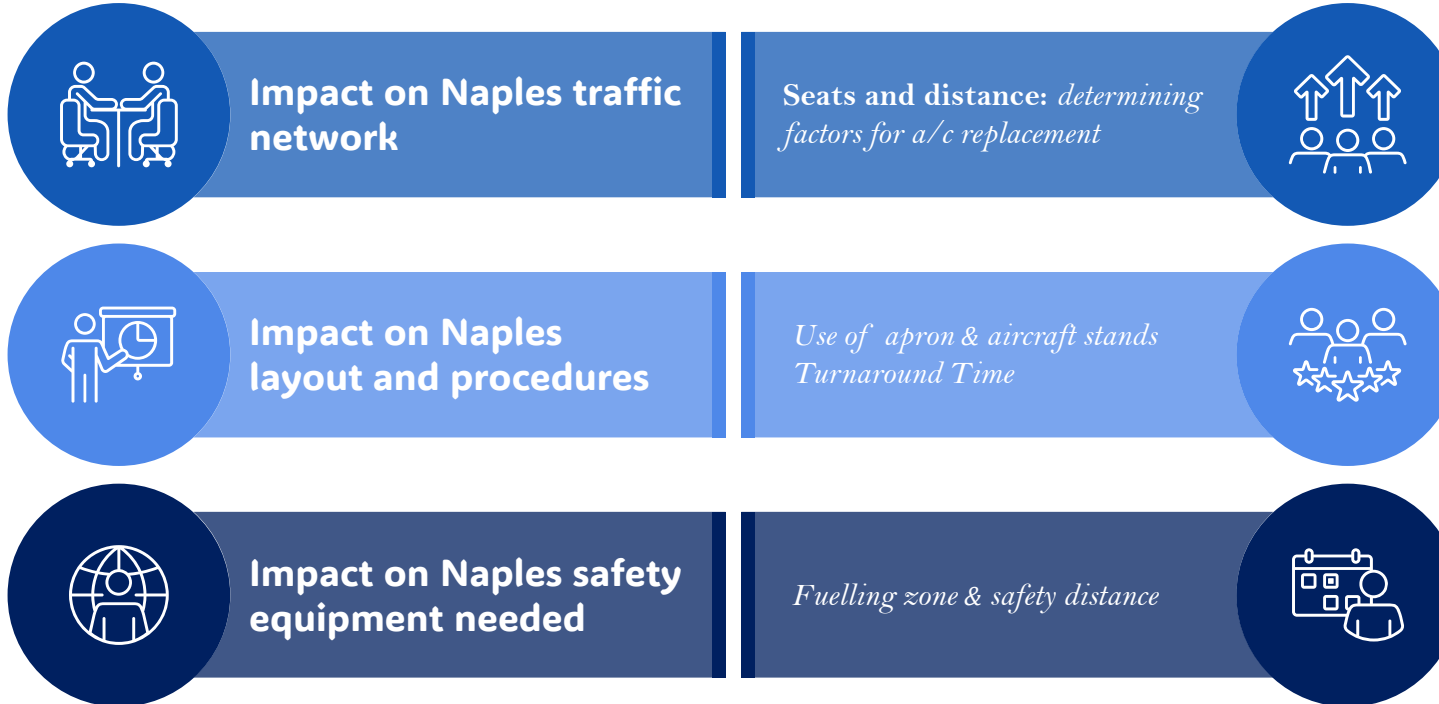


NLR has built a hydrogen-powered remote-guided aircraft (**Hydra**), and GESAC will collaborate in research supporting operational, regulatory and safety challenges

Aircraft activities:

Initial impact assessment of introducing hydrogen (H2) to Naples Airport

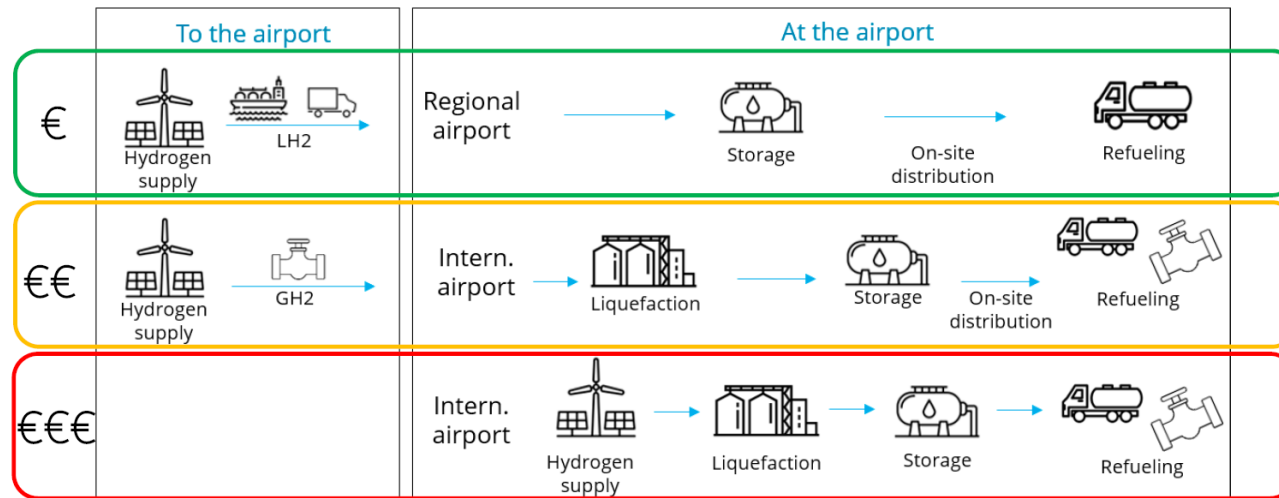
CHALLENGES



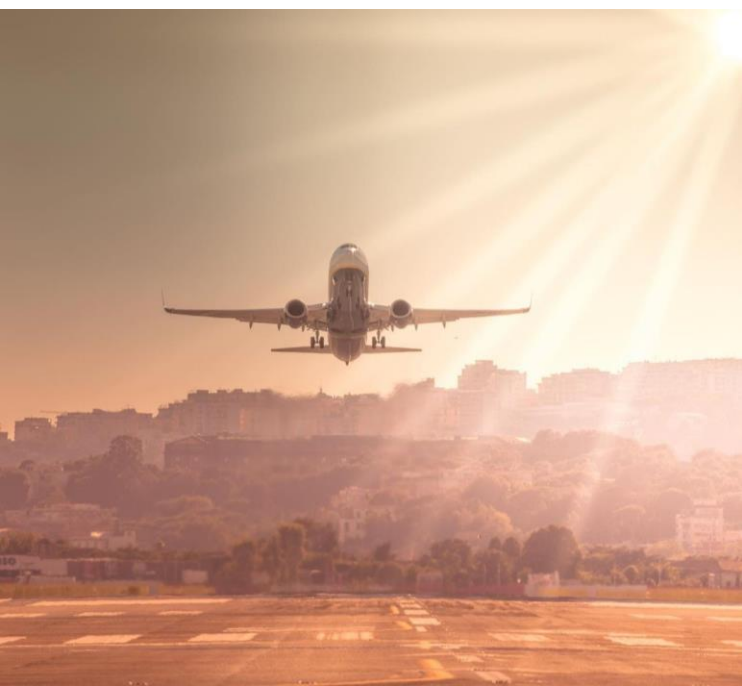
SOLUTIONS

Assignment: H2 airplanes


- ZeroAvia ZA600 & ZA2000 hydrogen-electric - powertrain
- Airbus Zero E turbofan & turboprop: hybrid-H2 (fuel cell)
- Embraer Energia E19 & E30 (LH2 fuel cell)



Source: NLR (Netherlands Aerospace Centre)



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The image shows the interior of an airport terminal with a blue-tinted background. It features a staircase, a statue on a pedestal, and people walking. The text and QR code are overlaid on this background.

