

**2017-2021 Airport Charges Update**

**Users consultation: investments**

**2017 – 2021 Investment Plan, revised**

- **2017 – 2021 Investment Plan**

- **Detail outline for FCO**

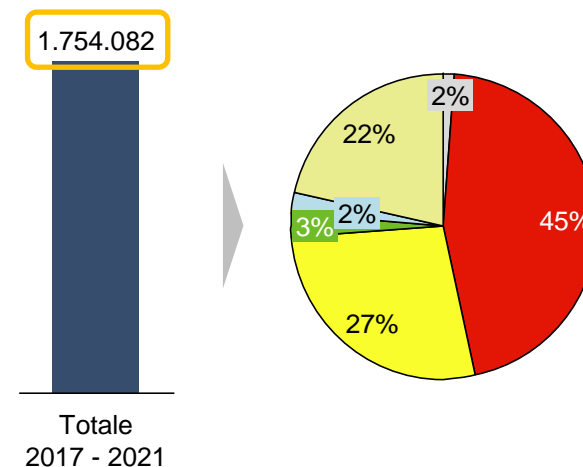
- **Detail outline for CIA**

# 2017-2021 Investment Plan for FCO

€ mgl.	Descrizione	2017	2018	2019	2020	2021	Totale 2017 - 2021
FIUMICINO	1. Attività Urbanistiche FCO Nord	5.306	5.580	7.233	516	7.810	26.445
	2. Infrastrutture di volo FCO Sud	41.366	71.221	28.918	65.672	53.908	261.085
	2. Infrastrutture di volo FCO Nord	7.618	36.468	120.225	184.358	183.363	532.033
	3. Interventi Terminal FCO Sud	63.586	139.518	126.220	49.497	59.614	438.436
	3. Interventi Terminal FCO Nord	4.365	11.242	9.552	9.653	-	34.812
	4. Interventi Landside FCO Sud	11.192	18.252	1.141	1.226	1.706	33.517
	4. Interventi Landside FCO Nord	240	2.456	2.788	5.607	4.525	15.615
	5. Interventi parcheggi FCO Sud	2.304	14.469	16.432	1.382	379	34.965
	5. Interventi parcheggi FCO Nord	-	-	-	-	-	-
	6. Altri interventi FCO Sud	133.748	83.124	63.855	52.510	43.938	377.175
	<b>TOTALE INTERVENTI FCO</b>	<b>269.726</b>	<b>382.330</b>	<b>376.364</b>	<b>370.420</b>	<b>355.242</b>	<b>1.754.082</b>

## Total 2017 - 2021 by type of works

The largest share of the investments in the period is the work on flight infrastructure, terminals and maintenance/restructuring (in "Altri interventi FCO Sud")



- Attività Urbanistiche FCO Nord
- Infrastrutture di volo
- Interventi Terminal
- Interventi Landside
- Interventi parcheggi
- Altri interventi FCO Sud

# 2017 – 2021 Investment Plan for FCO – changes vs CDP

€ mgl	Descrizione	2017		2018		2019		2020		2021		Totale 2017 - 2021	
		PEF	CDP	PEF	CDP	PEF	CDP	PEF	CDP	PEF	CDP	PEF	CDP
FIUMICINO	1. Attività Urbanistiche FCO Nord	5.306	2.042	5.580	33.019	7.233	35.451	516	75.860	7.810	32.083	26.445	178.454
	2. Infrastrutture di volo FCO Sud	41.366	54.997	71.221	8.409	28.918	10.427	65.672	16.069	53.908	-	261.085	89.901
	2. Infrastrutture di volo FCO Nord	7.618	50.388	36.468	67.614	120.225	40.731	184.358	5.730	183.363	10.694	532.033	175.156
	3. Interventi Terminal FCO Sud	63.586	33.809	139.518	56.749	126.220	63.154	49.497	102.623	59.614	62.309	438.436	318.644
	3. Interventi Terminal FCO Nord	4.365	1.021	11.242	25.796	9.552	26.067	9.653	93.772	-	160.413	34.812	307.068
	4. Interventi Landside FCO Sud	11.192	24.729	18.252	72.063	1.141	51.544	1.226	17.377	1.706	44.916	33.517	210.629
	4. Interventi Landside FCO Nord	240	-	2.456	-	2.788	-	5.607	-	4.525	37.404	15.615	37.404
	5. Interventi parcheggi FCO Sud	2.304	6.259	14.469	6.792	16.432	9.454	1.382	15.913	379	7.798	34.965	46.216
	5. Interventi parcheggi FCO Nord	-	-	-	-	-	-	-	-	-	4.375	-	4.375
	6. Altri interventi FCO Sud	133.748	38.425	83.124	35.304	63.855	50.594	52.510	57.655	43.938	80.741	377.175	262.719
	<b>TOTALE INTERVENTI FCO</b>	<b>269.726</b>	<b>211.670</b>	<b>382.330</b>	<b>305.746</b>	<b>376.364</b>	<b>287.420</b>	<b>370.420</b>	<b>384.999</b>	<b>355.242</b>	<b>440.732</b>	<b>1.754.082</b>	<b>1.630.568</b>
<b>Delta Scheda A PEF vs CDP</b>		<b>58.056</b>		<b>76.584</b>		<b>88.943</b>		<b>-14.579</b>		<b>-85.490</b>		<b>123.514</b>	

## FLIGHT INFRASTRUCTURE WORKS: FIUMICINO SUD

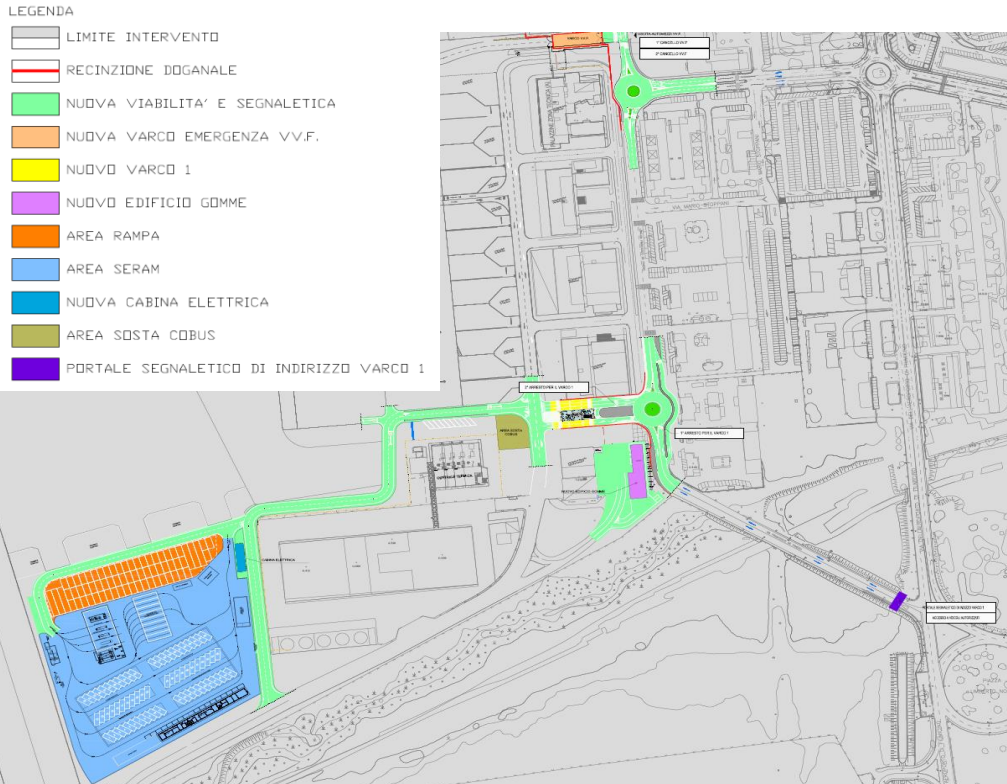
- 2.1 - West Area - SERAM area, new customs gate
- 2.2 - West Area - Expansion of aircraft parking aprons (phases 1-2)
- 2.4 - Expansion of Cargo area aprons
- 2.5 - Completion of doubling Bravo taxiway
- 2.6 - Expansion of aprons of former AZ technical area
- 2.7 - Relocation of engine test bay
- 2.11 - New aprons in East area
- 2.12 - Expansion of aircraft aprons in the former postal area - quadrant 200
- 2.30 - Wide-body aprons in 600 zone
- 2.31 - Works to mitigate the flooding risk in the West Area

# West Area - SERAM area, and new customs gate

See Schedule A: 2.1- Flight Infrastructure Works for FCO Sud

## DESCRIPTION OF THE WORKS:

- Construction of parking areas for vehicles, logistics buildings, oil separator and systems related to the airside storage and distribution of fuel (SERAM company)
- Relocation of customs gate 1 and implementation of new access roundabout;
- Demolition and relocation of the workshop and tires warehouse, to allow the construction of the new gate 1; demolition of the existing gate, modification of the Customs fence and reclamation of the area.



## EXPECTED BENEFITS

- Optimization of the fuel distribution activity
- Improvement of accessibility to the airside area for operators

## STATUS and AMOUNTS

Detailed design in progress

Completion date: 30/06/2018

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 9.2 M	€ 0.0 M	+ € 9.2 M*

\* of which € 5,8 million due to postponements from previous years

# West Area - SERAM area, and new customs gate

## REASONS FOR CHANGES TO THE AMOUNTS IN THE CDP:

See Schedule A: 2.1- Flight Infrastructure Works for FCO Sud

### **POSTPONEMENT OF COMMISSIONING DATE:**

- The measure was postponed from June 2016 to March 2018 due to the reformulation of the plan implemented in 2013 in accordance with ENAC and after consultations with users

### **REGULATORY ADAPTATION:**

- upgrade of structural and seismic class and update of the sizing and calculation of all structural elements
- update of the customs gate equipment to new security standards based on the updated national security program



# West Area, expansion of aircraft parking aprons (phases 1, 2)

**DESCRIPTION OF THE WORKS:**

See Schedule A: 2.2- Flight Infrastructure Works for FCO Sud

- PHASE 1: demolition of freight tunnel buildings and those of former waste treatment area, reconfiguration of 808-812 aprons: 3 "up to E" + 1 "up to C" (alternate configuration: 6 "up to C"), construction of 6 new "up to C" aprons and related taxiway, new ramp vehicles area.
- PHASE 2: new aircraft aprons and related taxiway: 6 "up to E" + 3 "up to C" (alternate configuration: 4 "up to E" + 6 "up to C"), new area for ramp vehicles.



**EXPECTED BENEFITS**

- Increase of capacity of aircraft aprons
- Improvement of operational performance: LVP with RVR<400m, full optional systems: fuel pit, 400 Hz, PCA, VDGS

**STATUS and AMOUNTS**

Phase 1: construction in progress  
 Phase 2: detailed design in progress  
 Completion date: Phase 1: 31/12/2017  
 Phase 2: 30/06/2018

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 43,2 M	€ 14,9 M	€ +28,2 M *

\* of which € 23,9 million due to postponements from previous years



# Expansion of Cargo area aprons

## DESCRIPTION OF THE WORKS:

- Reclamation of the area and archaeological surveys
- Construction of 8 new aircraft parking aprons for "up to C" aircrafts, taxiways and ramp area
- According to operating needs, construction works will be managed in phases, in order to have the aprons progressively available before the final completion date

See Schedule A: 2.4- Flight Infrastructure Works for FCO Sud

## EXPECTED BENEFITS

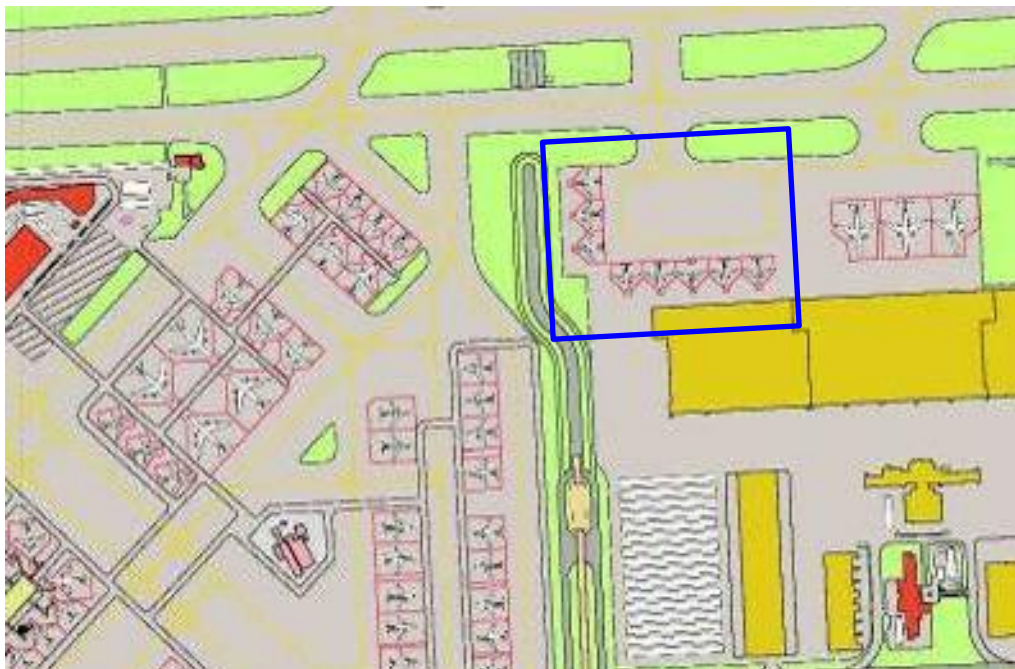
- Increase of capacity of aircraft aprons
- Improvement of operational performance: LVP with RVR<400m, full optional systems: fuel pit, 400 Hz, PCA, VDGS

## STATUS and AMOUNTS

Planning in progress

Completion date: 30/06/2022

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 6,1 M	€ 6,9 M	€ -0,8 M



# Completion of doubling Bravo taxiway

## DESCRIPTION OF THE WORKS:

- Demolition of the existing Bravo taxiway in the stretch between BA and BC connectors as well as between BE connector and A taxiway;
- Construction of two parallel taxiways, to complement the works carried out in 2007 and upgrade of the rainwater drainage system
- Structural adaptation and expansion of roadway underpass under runway 07/25 in order to allow the passage of aircraft.

See Schedule A: 2.5- Flight Infrastructure Works for FCO Sud

## EXPECTED BENEFITS

- **System with three parallel taxiways (doubling of Bravo + Delta) that will be the main airport's main traffic routes, capable of sustaining the expected capacity and managing the forecast traffic demand**
- **Improvement of performance of the infrastructure in terms of flexibility, punctuality and reliability**
- **Improvement of aircraft ground circulation, reducing waiting times and consequently fuel consumption and pollution due to aircraft**

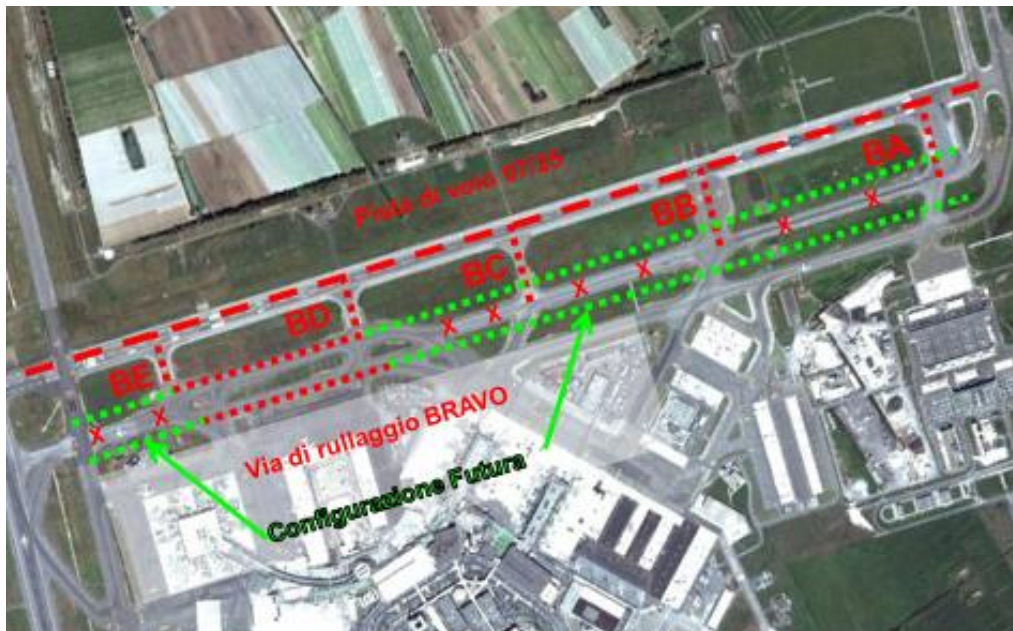
## STATUS and AMOUNTS

Design in progress

Completion date: 30/06/2021

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 79,9 M	€ 21,4 M	€ +58,5 M*

\* of which € 23,1 million due to postponements from the first period



# Completion of doubling Bravo taxiway

## Analyses carried out

**FAST-TIME SIMULATIONS WITH SIMMOD:** tests have confirmed the need for the works and stretches where it is necessary to doubling the taxiways

### **WATER WORKS:**

- Analysis and survey of Fiumicino's water networks
- Input data acquired by the channels and pumps consortium

### **ANALYSIS OF STRUCTURES AND UNDERGROUND UTILITIES UNDERPASS**

### **EASA REGULATION – entry into force of Reg. 139/2014**

### **ARCHAEOLOGICAL SUPERINTENDENCY - Requirements**

### **EIA DECREE AND REQUIREMENTS**

## Works planned

### **FAST-TIME SIMULATIONS WITH SIMMOD:**

- As a result of the findings of the simulation, the doubling of TWY Bravo has been extended to the intersection with Alpha taxiway, making necessary the demolition of existing constructions;

### **WATER WORKS:**

- adaptation and integration of existing water collection and disposal systems

### **ANALYSIS OF STRUCTURES AND UNDERGROUND UTILITIES UNDERPASS**

- maintenance to preserve and modify/reroute existing underground utilities as a result of analyses and specific surveys carried out

### **EASA REGULATION – entry into force of Reg. 139/2014**

- regulatory design adaptations that have allowed an increase of the usage class of the taxiways of the design versus the original design (from ICAO categories "C" and "F" to categories "E" and "F")

### **ARCHAEOLOGICAL SUPERINTENDENCY - Requirements**

- removal of artifacts, to complete the findings of a Roman Villa found in the works area

### **EIA DECREE AND REQUIREMENTS:**

- due to the entry into force of the FCO Sud EIA Decree, in November 2013, the works must take into account a greater cost to build a rainwater collection collector

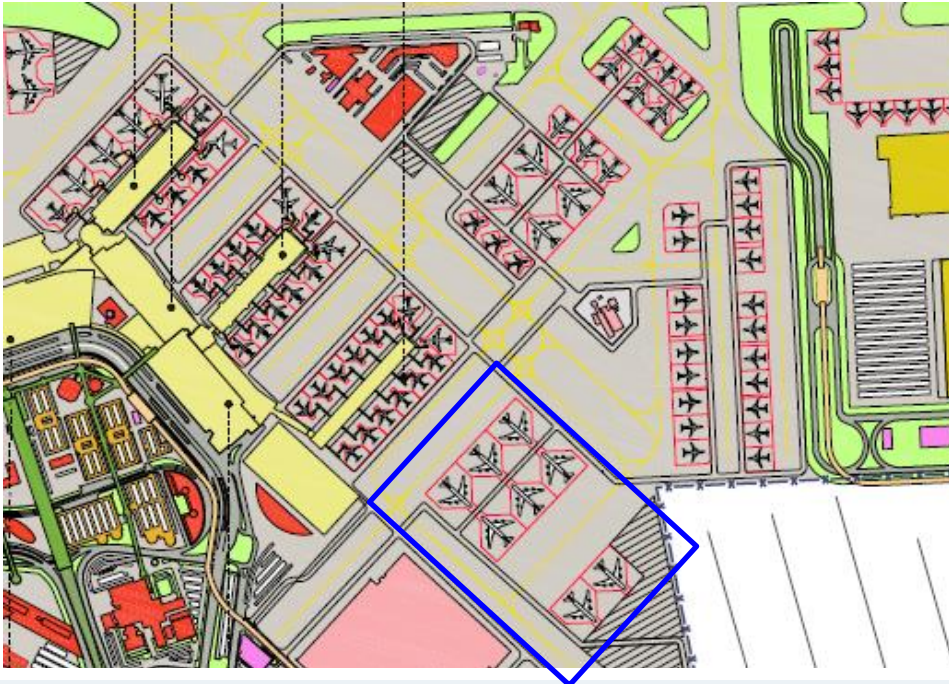


# Expansion of former AZ technical area aprons

See Schedule A: 2.6- Flight Infrastructure Works for FCO Sud

## DESCRIPTION OF THE WORKS:

- Construction of new wide-body aprons: 8 "up to E" (alternate configuration: 3 "up to E" + 8 "up to C")
- Construction of new taxiways
- Construction of new ramp areas
- According to operating needs, construction works will be managed in phases, in order to have the aprons progressively available before the final completion date



## EXPECTED BENEFITS

- Increase of capacity of aircraft aprons
- Improvement of operational performance: LVP with RVR<400m, full optional systems: fuel pit, 400 Hz, PCA, VDGS

## STATUS and AMOUNTS

Planning in progress

Completion date: 31/12/2022

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 15,5 M	€ 5,3 M	€ +10,2 M *

\* of which € 6,5 million due to postponements from previous years

# Expansion of former AZ technical area aprons

## REASONS FOR CHANGES TO THE AMOUNTS IN THE CDP:

See Schedule A: 2.6- Flight Infrastructure Works for FCO Sud

### **POSTPONEMENT OF THE MEASURE:**

- the initiative was postponed in order to take into account the time of conclusion and approval of the ADR-ENAC “Contratto di Programma”. Moreover during 2013 in accordance with ENAC and as a result of consultations with users, the work was postponed, with economic impacts almost completely in the second regulatory period

### **EXTENSION OF THE SCOPE OF WORKS:**

- extension of the scope of works to extend the ramp vehicle parking area
- need for further demolition of existing structures: concrete slabs, sheds, battery charger, construction used for storage, electrical substation

### **TECHNICAL AND ECONOMIC UPDATE:**

- adjustment of unit costs and implementation of systems to reduce the ramp vehicle traffic

# Relocation of engine test bay

## DESCRIPTION OF THE WORKS:

- Construction of the new engine test bay near the hangars of the AZ technical area
- Installation of the barriers that reduce the noise impact and the jet blast from tests;
- Construction of logistical areas related to aircraft engine tests;



See Schedule A: 2.7- Flight Infrastructure Works for FCO Sud

## EXPECTED BENEFITS

- Protection of surrounding areas from jet blast from engine testing
- Reduction of noise pollution in surrounding areas generated by aircraft maintenance

## STATUS and AMOUNTS

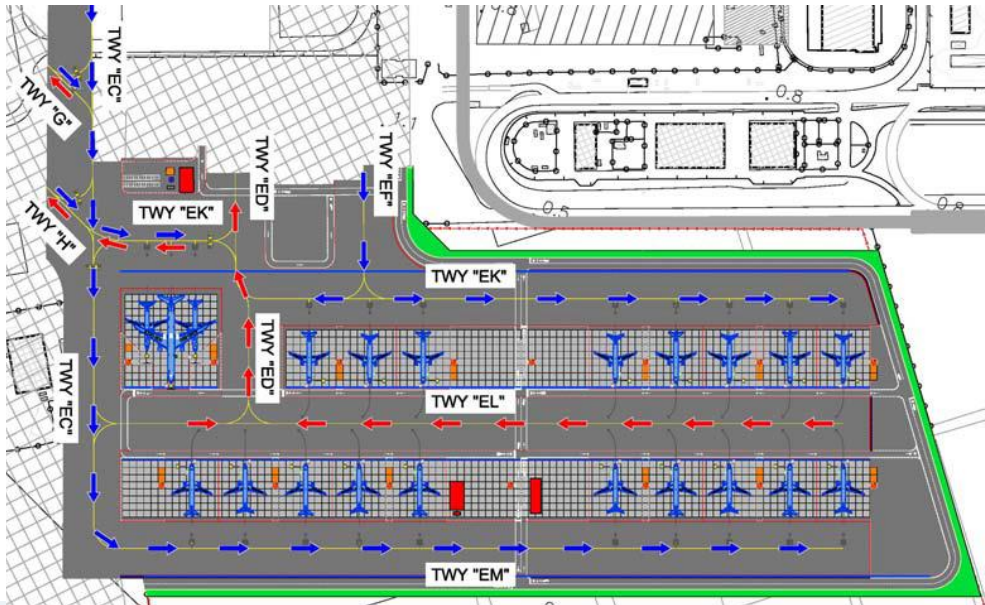
Planning in progress  
 Completion date: 31/07/2018

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 2.0 M	€ 0.9 M	+ € 1.1 M

# New aprons East area

## DESCRIPTION OF THE WORKS:

- Making new aprons in the area close to aprons in the 200 area and near Cargo City: 18 "up to C" + 1 "up to E" (alternate configuration: 20 "up to C"), of which 18 self-maneuvering stands
- Construction of new taxiways
- New ramp areas of (approximately 25,000 m<sup>2</sup>)
- According to operating needs, construction works will be managed in phases, in order to have the aprons progressively available before the final completion date



See Schedule A: 2.11- Flight Infrastructure Works for FCO Sud

## EXPECTED BENEFITS

- Increase of capacity of aircraft aprons
- Improvement of operational performance: LVP with RVR<400 m, full optional systems: fuel pit, 400 Hz, PCA, VDGS

## STATUS and AMOUNTS

Design in progress

Completion date: 31/12/2022

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 59,6 M	€ 28,6 M	€ +31,0 M



# New aprons in East area

## Analyses carried out

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**GEOTECHNICAL SURVEYS:** the surveys carried out under the preliminary project showed the presence of **soils with poor mechanical properties**.

- along the West portion of the future aprons, for about 500 to 550 m towards East, there is slightly silty and silty sand, from ground level to 18÷20 m deep; below which sensitive clays are present;
- along the eastern edge of the future aprons, the stratigraphic profile is mainly made up of fine, silty clay deposits, present starting from the surface, with a depth exceeding 55 to 65 m; between 5 and 15 m depth the fine fractions are interrupted by the presence of fine slightly silty and silty sand.

### **WATER WORKS:**

- Geotechnical surveys
- Analysis and survey of Fiumicino's water networks
- Input data acquired by the channels and pumps consortium

## Works planned

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### **GEOTECHNICAL SURVEYS AND LIGHTWEIGHT MATERIALS:**

- The high compressibility of the soils in the area determines the need for using **lightweight materials** for the layers of the superstructure and replacing part of the natural soil with lightweight material.

### **WATER WORKS:**

- construction of **water treatment and pumping system** using technologies suitable to the poor characteristics of soil and walls
- **upgrade of the water discharge channel** that will flow into the existing Alitalia Channel

# Expansion of aircraft aprons in the former postal area

See Schedule A: 2.12- Flight Infrastructure Works for FCO Sud

## DESCRIPTION OF THE WORKS:

- Demolition of the building of the "NET 6000" system
- Construction of new aprons: 4 "up to E" (alternate configuration: 6 "up to C")
- Construction of new ramp areas



## EXPECTED BENEFITS

- Increase of capacity of aircraft aprons
- Improvement of operational performance: LVP with RVR<400m, full optional systems: fuel pit, 400 Hz, PCA, VDGS

## STATUS and AMOUNTS

Planning in progress  
 Completion date: 31/10/2021

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 13,4 M	€ 11,9 M	+ € 1,5 M

# Wide-body aprons in quadrant 600

## DESCRIPTION OF THE WORKS:

- Demolition of pavement and existing buildings
- Construction of new aprons: 2 "up to E"
- Construction of new ramp area

See Schedule A: 2.30- Flight Infrastructure Works for FCO Sud

## EXPECTED BENEFITS

- Increase of capacity of aircraft aprons
- Improvement of operational performance: LVP with RVR<400m, full optional systems: fuel pit, 400 Hz, PCA, VDGS

## STATUS and AMOUNTS

Planning in progress  
 Completion date: 31/10/2018



2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 8,7 M	-	+ € 8,7 M

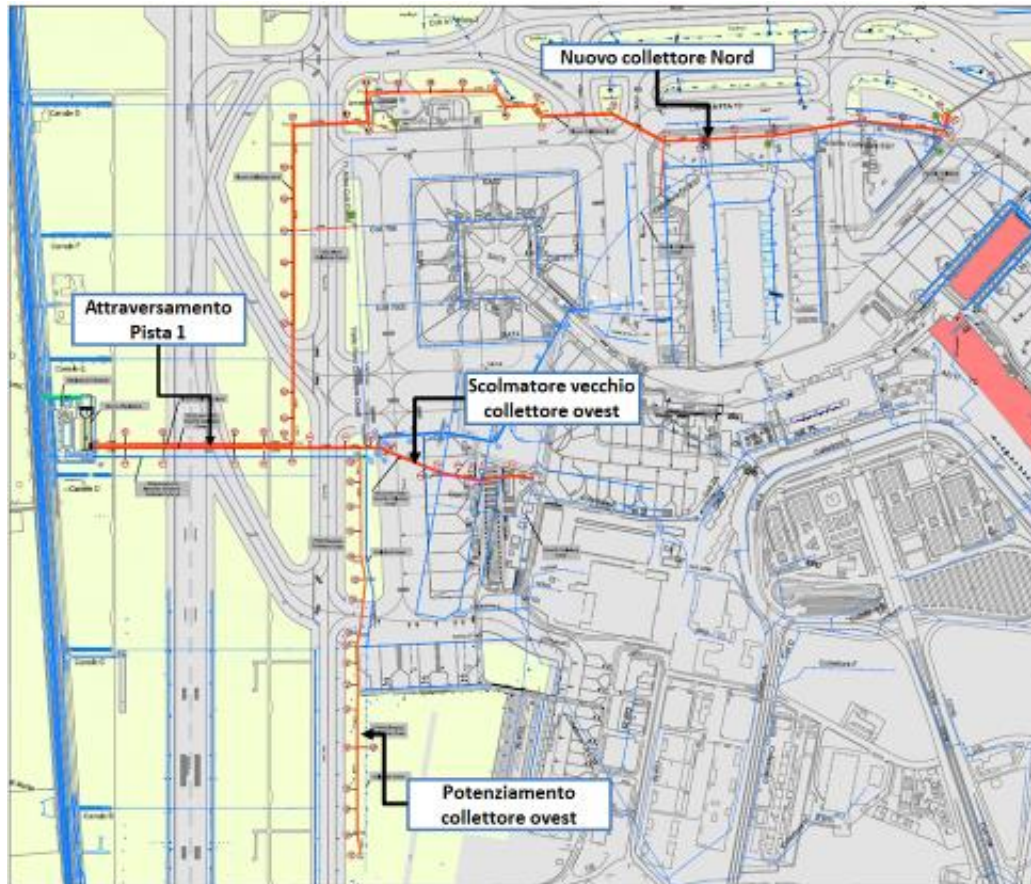


# Works to mitigate the water risk in the West Area

See Schedule A: 2.31- Flight Infrastructure Works for FCO Sud

## DESCRIPTION OF THE WORKS:

- Construction of the new North collector and enhancement of the CA and COS collectors;
- Construction of the spillway of the Old West Collector **and** construction of a new crossing of Runway 1.
- New continuous oil separator to be built upstream of the outlet of the Coccia di Morto channel, to treat the flow coming from the collectors mentioned above.



## EXPECTED BENEFITS

- Mitigation of flooding risk by adapting the airport to a uniform level, with return period of 20 years.
- Improvement of the drainage system for the new paved surfaces (e.g. doubling of Bravo, West aprons second phase, SERAM area)
- Reduction of flow to the Traiano pumping station.

## STATUS and AMOUNTS

Detailed design in progress

Completion date: 30/09/2018

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 23,7 M	-	+ € 23,7 M

# Works to mitigate the water risk in the West Area

## REASONS FOR CHANGES TO THE AMOUNTS IN THE CDP:

See Schedule A: 2.31- Flight Infrastructure Works for FCO Sud

### WATERWORKS SURVEY:

- The survey **assessed the entire drainage system**, to **standardize** the design of all new works and to **adapt**, where possible, the **existing drainage network** considering particularly intense rainfall events as elements determining the sizing of the system, with a return period of 20 years;
- The simulations highlighted the need for a series of measures within the "Works to mitigate the flooding risk in the West Area" to provide adequate drainage, also in relation to climate change, as a result of the completion of all the measures required by the Fiumicino Sud Completion Project;
- The design of the various infrastructure contained in the Fiumicino Sud Completion Project has allowed us to quantify the actual flow rate increase for the drainage system as a result of the transformation of green areas into paved surfaces, also considering the choices included in the EIA Decree, which do not allow drainage of the water into the ground;
- The mitigation measures make it possible to adapt the airport's drainage network to events with return period of 20 years making uniform the system that had been developed, however, over a span of 50 years, and thanks to modeling it will be capable of protecting the airport from the type of precipitation events that have occurred in recent years with **broad safety margins on airport operations**;
- The works also make it possible **to reduce the load on the collectors** which send water **to the Traiano pumping station**, which inter alia **is not handled by ADR**, which presents issues related to management and maintenance, also surfaced as a result of the checks carried out with the help of the values recorded by the monitoring network installed at the airport.

### SOIL CHARACTERISTICS AND OPERATIONS:

- The amount of the work is related **to the extension of areas drained** but also to the **difficulty of construction**, due both to the **geotechnical characteristics** of the soil crossed and to **the construction method** that should lead to **minimal impact on airport operations**.

## FLIGHT INFRASTRUCTURE WORKS: FIUMICINO NORD

2.23 - 4th runway, taxiways and primary networks

2.15 - Water networks and water treatment

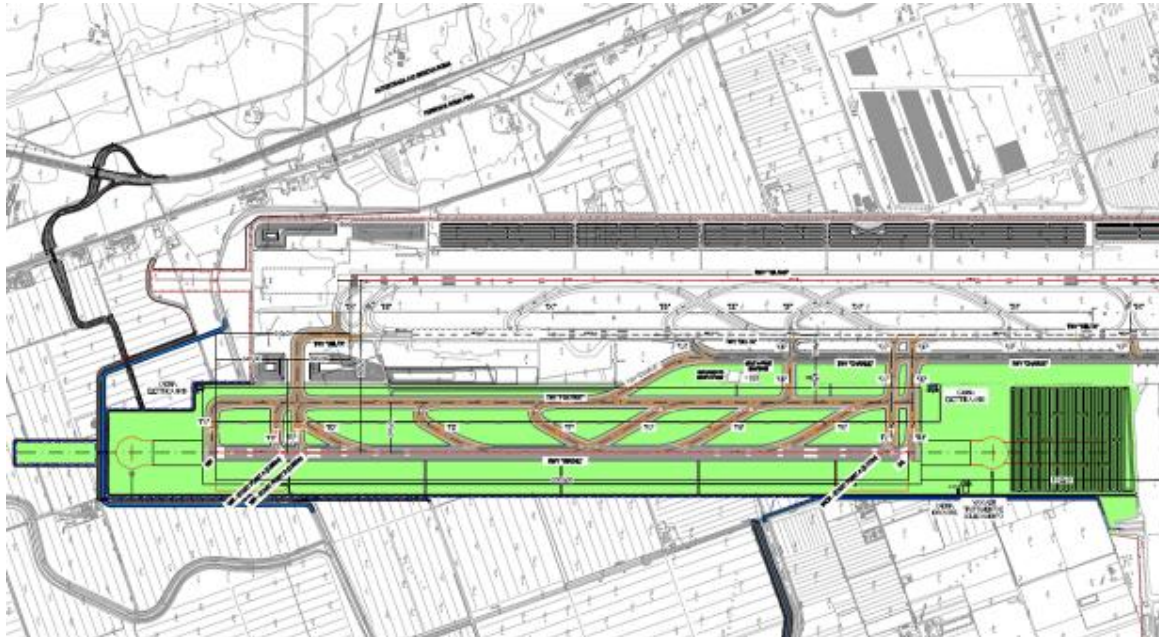
2.17 - Focene pumping station

# 4th runway, taxiways and primary networks

See Schedule A: 2.23- Flight Infrastructure Works for FCO Nord

## DESCRIPTION OF THE WORKS:

- Construction of runway (3,300 m x 60 m) at a distance of 820 m from RWY 16R/34L
- Construction of taxiway parallel to the runway, 5 exit/entrance connectors, 6 rapid exits (RET)
- Construction of new airport grounds fence, water works, perimeter road



## EXPECTED BENEFITS

- Increase in airport capacity, along with aprons in the East area, up to a maximum of 120 mov/h
- Better flexibility in relation to changes of traffic demand

## STATUS and AMOUNTS

Design in progress

Completion date: 31/12/2021

\* without expropriations

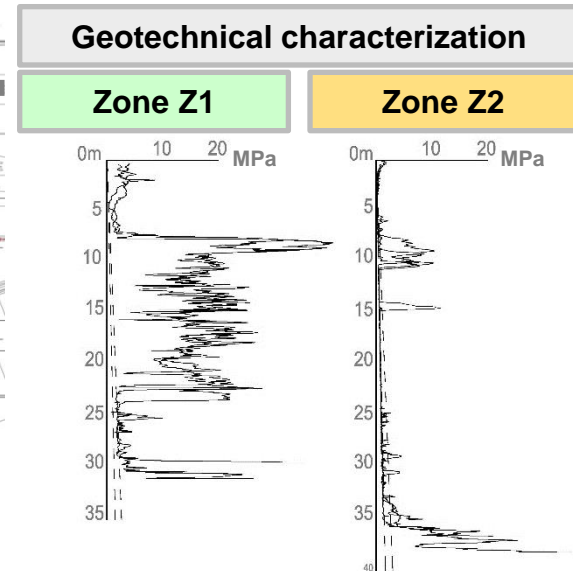
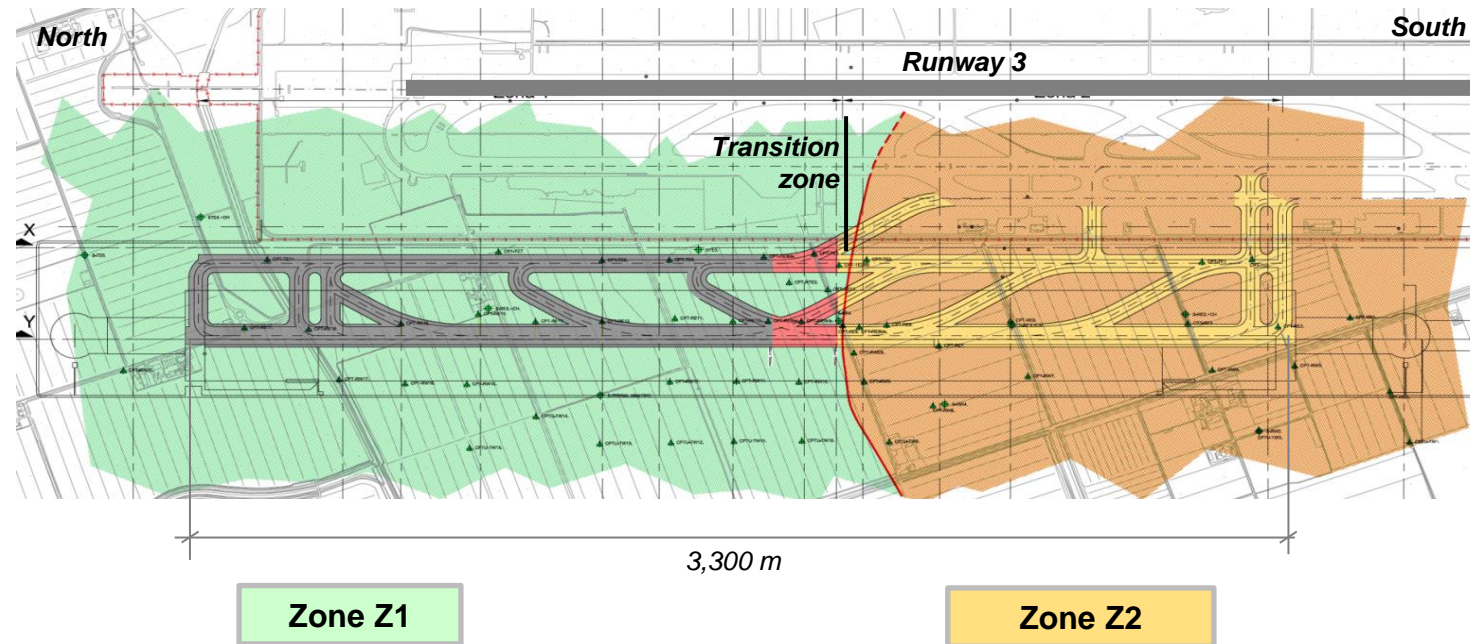
\*\* of which € 97.6 million for expropriations

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 508,5 M	€ 148,0 M *	€ +360,5 M **



# 4th runway, taxiways and primary networks

## Geotechnical survey and lightweight materials



Stratigraphy characterized by the presence of 12-18 meter deep layer of slightly silty sand at about 5 meters deep and "standard" clays above and below it.

Stratigraphy characterized by the presence of very soft "sensitive" clays up to 35 meters deep, with a layer of sand of about 3-6 meters at about 5 meters deep

The graphs represent the diagrams showing resistances (MPa) for the two zones Z1 and Z2, defined with penetration tests (driving a tapered pin to measure the effort needed for penetration).

The geological analysis of the zone shows that in the South (orange) zone of the intervention area, the soil is not strong enough to support the construction of an embankment built with standard materials. For this reason:

- the embankment in that zone (**Z2**) will be made with **lightweight materials that can limit its sagging over time**
- **implementing special construction techniques** will be used that require for different design arrangements in the two zones, Z1 and Z2
- **Settlement gauges** will be installed to provide support for **monitoring during the works**, to compare actual settling with that calculated and so as to calibrate the numerical model and possibly implement corrective measures

# 4th runway, taxiways and primary networks

## Water

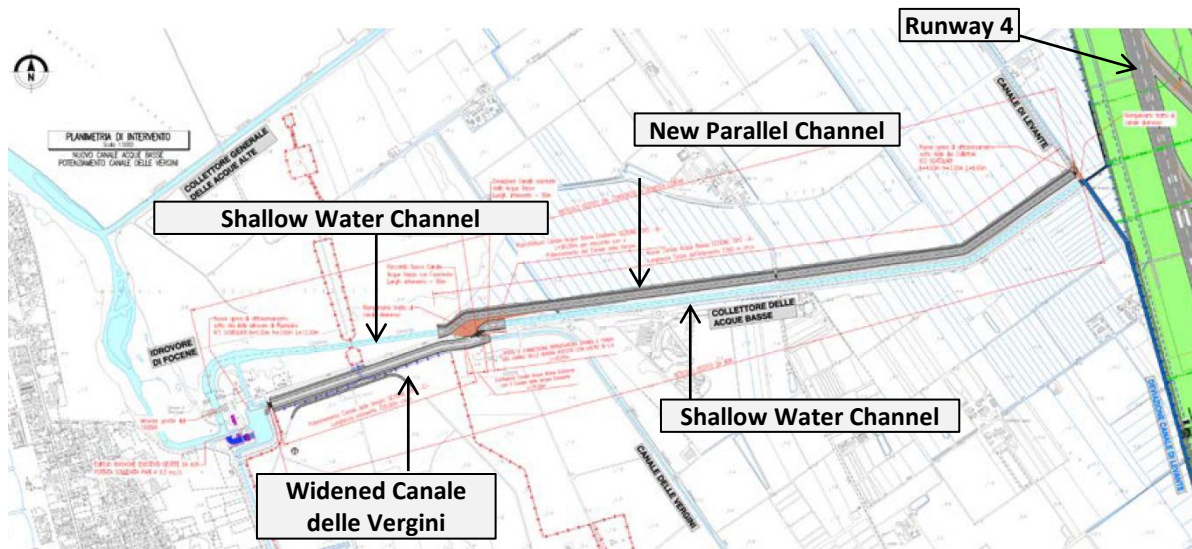
### Analyses carried out

- Geotechnical surveys
- Analysis and survey of Fiumicino's water networks
- Input data acquired by the canals and pumps consortium



### Works planned

- **Water treatment and pumping system** using technologies suitable to the poor characteristics of soil and walls.
- **Upgrade of existing hydrographic network:** it involves the construction of a **new channel alongside the existing shallow water channel**. The new channel will convey the contributions from reclamation areas located to the North and part of the green areas of Runway 4, while the existing shallow water channel will convey the rainwater of the paved areas of the new infrastructure and of the agricultural areas between Runway 2, Runway 3, the existing shallow water channel and the Canale delle Vergini.
- Before flowing into the drainage channel of the Focene water pumps, the existing channel will be diverted and connected to the **Canale delle Vergini**, which will be suitably **widened**, while the new channel serving the consortium will flow into the final stretch of the existing shallow water channel.



# 4th runway, taxiways and primary networks

## Worksite setup and adaptations of related infrastructure

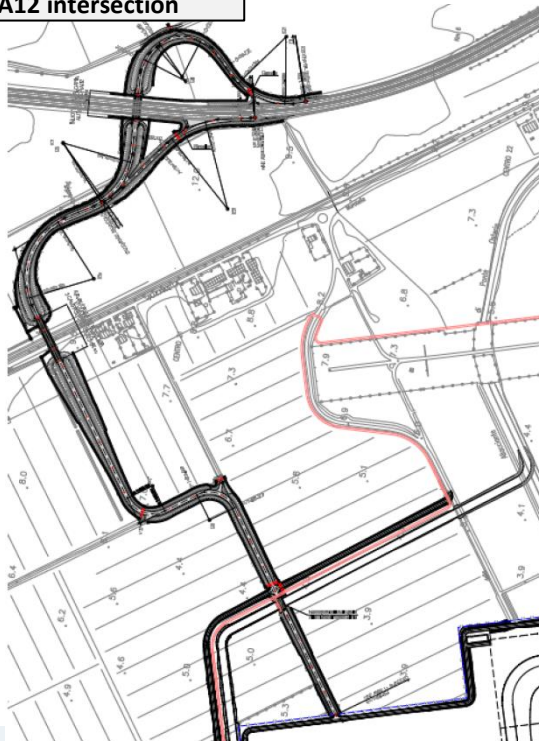
### Analyses carried out

- **CONSTRUCTION SITE SETUP:** the construction site plan and procurement of materials were analyzed to limit the traffic of construction vehicles on local roads
- **Fire Department:** need to operate simultaneously on the two parallel runways (Runway 3 and Runway 4)
- **TAXIWAY:** analysis of expected traffic volume on the existing taxiway system to support the new infrastructure;

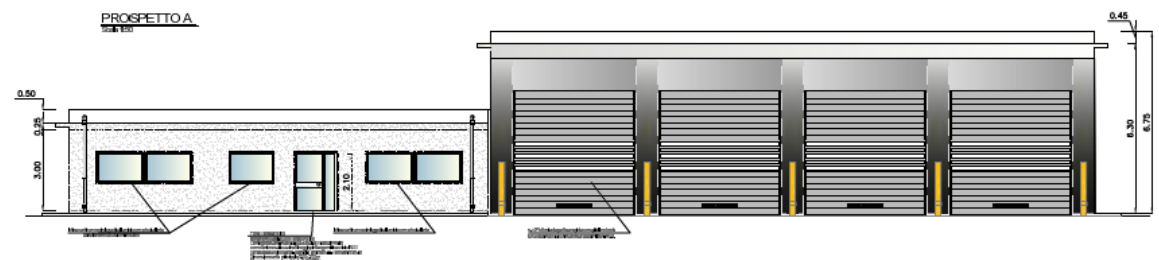
### Works planned

- **CONSTRUCTION SITE SETUP:** a trumpet-type intersection must be built on the nearby A12 motorway with exit ramps only from the A12 coming from Rome and entering the A12 towards Rome. These ramps will be two-way to also allow entrance to/exit from Civitavecchia
- **Fire Department:** upgrade of the station between parallel runways 3 and 4 so as to create a structure that can accommodate a sufficient number of personnel and equipment in case of two simultaneous incidents
- **TAXIWAY:** improvement of the functional characteristics and load bearing capacity of **Charlie and Delta taxiways**

New A12 intersection



Airside Fire Department barracks



# 4th runway, taxiways and primary networks

## Expansion of grounds

### Reference regulatory framework

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- The estimate of expropriations was previously defined on the basis of the so-called **Average Agricultural Value (VAM)**; the Constitutional Court declared the indemnity policy based on VAM **constitutionally illegitimate** since it is independent of the expropriation process, **and disregards any assessment of data pertaining to the specific requirements of the asset**. Compensation must be determined taking into account the crops grown on the land and the value of the constructions legitimately built, also in relation to business of the farm.

### Update of estimates

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- The expropriation indemnity was determined, and then updated, on the basis of **real Agricultural Value**, which was identified as the **average value between the VAM increased by 50%** (pursuant to Italian Law 865/71), the **land values of the market watch published by I.N.E.A.** – National Agricultural Economic Institute and those set by the Chamber of Commerce
- **The amount for extension of the airport grounds, previously entered in row 1.3 of Schedule A, was added to the amount for the works**





# Water networks and water treatment

## REASONS FOR CHANGES TO THE AMOUNTS IN THE CDP:

See Schedule A: 2.15- Flight Infrastructure Works for FCO Nord

### **RESCHEDULING OF THE INVESTMENT:**

- The investment has been rescheduled taking into account the 2044 Masterplan (which obtained ENAC's technical authorization).

### **IMPLEMENTATION METHOD:**

- After in-depth discussions with the CBTAR (Consorzio di Bonifica Tevere e Agro Romano), the measure will no longer be divided in stages, so as to avoid repeated actions on the main backbones of the system, and to ensure continuity of operation;
- The amounts take into account the costs incurred for deviating even temporary channels to ensure continuity to the irrigation of neighboring fields

# Focene Pumping Station

## DESCRIPTION OF THE WORKS:

Improvement of the Focene Pumping Station as a result of the future expansion of the airport grounds, building the fourth runway and related infrastructure services in the North Area. The Focene/Maccarese pumping stations and the new pumps at Focene will be made independent of one another, both as to water flows and from the systems point of view.



See Schedule A: 2.17 - Flight Infrastructure Works for FCO Nord

## EXPECTED BENEFITS

- Improvement of the potential of the discharge infrastructure in relation to the development of new airport infrastructures.

## STATUS and AMOUNTS

Planning in progress

Completion date: 28/2/2021

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 7,0 M	€ 6,6 M	+ € 0,4 M



## WORKS ON TERMINAL: FIUMICINO SUD

3.1 – Relocation of MU buildings and demolition

3.2 – T4 and T5/T3 connections

3.3 – Terminal 3 – restructuring

3.4 – East side Terminal – Boarding area A, T1 Front Building, expansion of T1, extension of quadrant 200 aprons

3.5 – HBS connections in the East/West Hub, recovery of plant at NET

3.7 – Boarding area F (formerly Pier C) and T3 Front Building

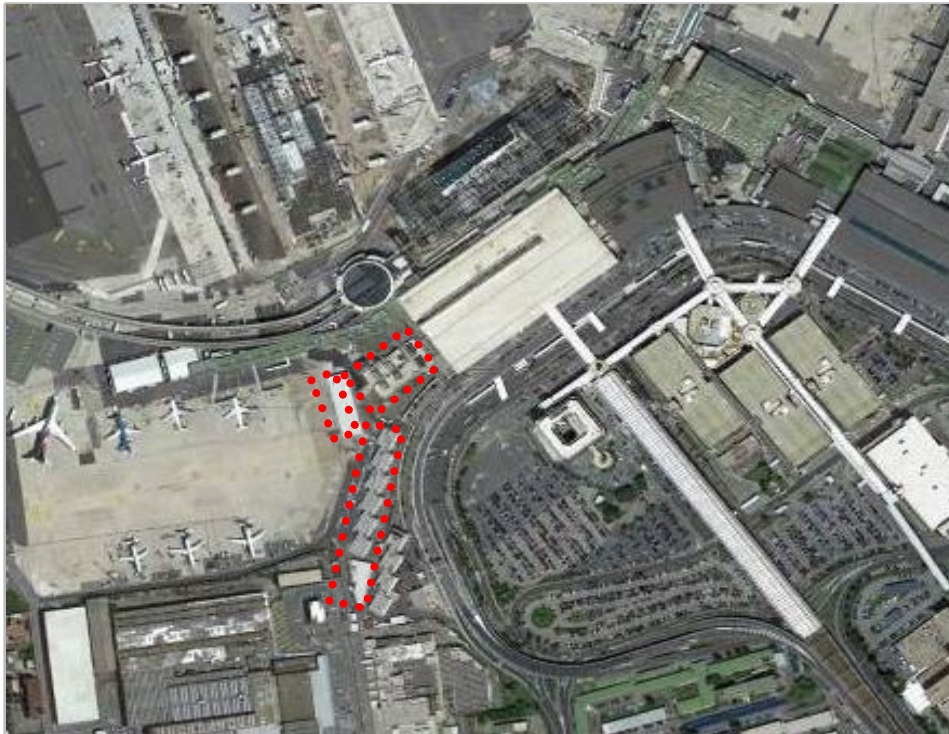
3.13 – Reconfiguration of T5 arrivals and departures

# Relocation of M.U. buildings and demolitions

See Schedule A: 3.1- Works for FCO Sud Terminal

## DESCRIPTION OF THE WORKS:

- Upgrade of the area between Terminal 3 and Terminal 5 (Phase 1: relocation of current functions; Phase 2: demolitions; Phase 3: upgrading)
- Demolition of the HVAC plant after relocating the systems located therein to gate departure area F and Terminal 3



## EXPECTED BENEFITS

- Reorganization and upgrading of the area between Terminal 3 and Terminal 5

## STATUS and AMOUNTS

Design in progress

Completion date: 31/03/2023

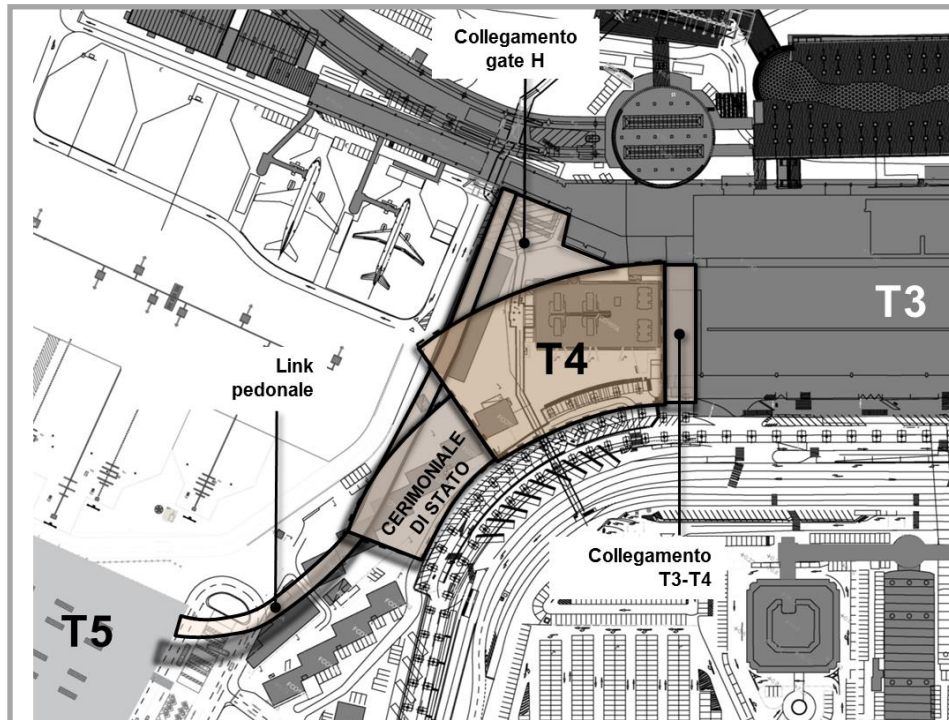
2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 8,9 M	€ 11 M	€ -2,1 M

# Terminal T4 and T3 -T5 connections

See Schedule A: 3.2- Works for FCO Sud Terminal

## DESCRIPTION OF THE WORKS:

- Construction of Terminal T4 with related baggage system and a departure area
- Total area of approximately 20,000 m<sup>2</sup> arranged on two levels to accommodate check-in, security control, baggage handling system and arrivals area
- The Terminal will connect to the ex T5 boarding area and to the current area of T3 after restructuring the areas that are currently operational
- After T4 opening, the demolition of T5 will allow the construction of both 5 additional aprons with loading bridges and the related taxiway.



## EXPECTED BENEFITS

- Increase of the capacity of the terminal system

## STATUS and AMOUNTS

Design in progress

T4 completion date: 2024

Completion of 5 additional aprons with LB: 2026

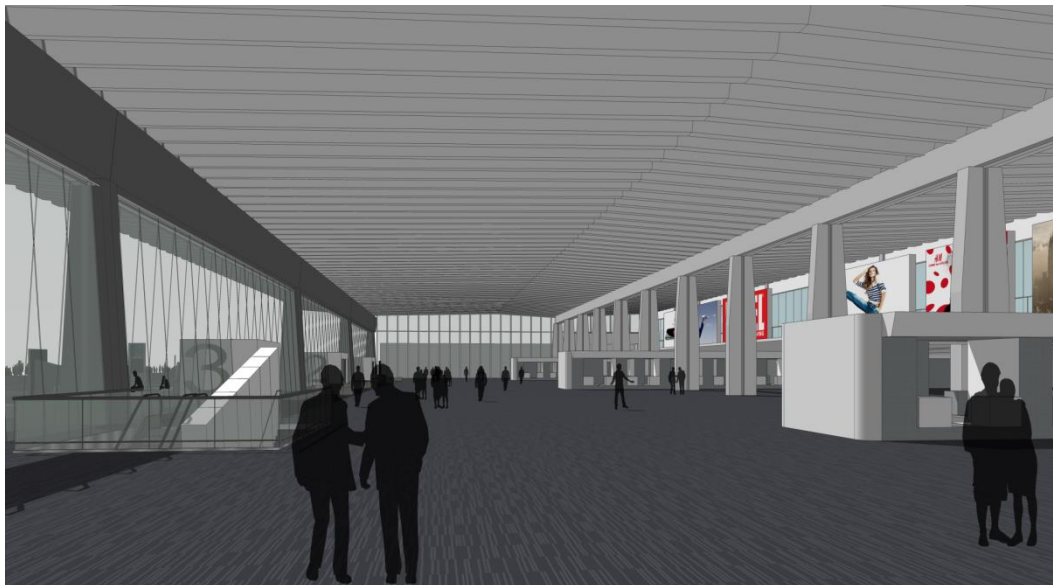
2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 2.9 M	€ 150.5 M	- € 147.6 M

# Terminal T3: Restructuring

See Schedule A: 3.3- Works for FCO Sud Terminal

## DESCRIPTION OF THE WORKS:

- Improvement of the functional layout of the departures area (facade, transit gallery, security checkpoints, baggage check-in islands, take-away collectors, pathway connecting T3 to C departures area)
- Improvement of the functional layout of the arrivals area (upgrade of immigration, dismantling of HBS, expansion of baggage claim hall and centralization of customs gates)
- Upgrade of the functional layout of the mezzanine level (restructuring of offices and of VIP lounges)
- Upgrading of finishings and plant improvement (firefighting, lighting, seismic)



## EXPECTED BENEFITS

- Increase in capacity and functionality of the Terminal
- Improved service level and quality level
- Compliance with fire and seismic vulnerability regulations

## STATUS and AMOUNTS

Design/Construction in progress

Completion date: 31/12/2022

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 53,6 M	€ 12,5 M	€ +41,1M

# Terminal T3: Restructuring

See Schedule A: 3.3- Works for FCO Sud Terminal

## REASONS FOR CHANGES TO THE AMOUNTS IN THE CDP:

- Upgrades to ensure compliance of arrivals, departures and mezzanine areas with the standards defined within the airport concerning fire protection
- Improvement of preliminary estimates for measures on systems, those on lighting and air conditioning systems
- Improvement of internal finishings, in line with other infrastructure being designed and built
- Functional improvements to the mezzanine level that span all portions at + 10.00 m above ground level
- Completion of the final design of the upgrade of the facade of the Terminal 3, that incorporated all the necessary additions in terms of security, comfort and structural issues that surfaced during the discussions with Police and other government bodies
- Implementation of innovative facilities in line with current technological standards
- Functional changes to the airside areas of T3 on the departures level in relation to the Single Hub positioning of the airport: construction of a bridge linking between C departures area and Terminal 3 in the area after security checks in order to increase the capacity of the airside traffic corridors, in particular with regard to passengers in transit from Schengen- to non-Schengen areas and vice versa.

The forecast parametric cost per m<sup>2</sup> is fully in line with references to industry benchmarks and with the other works at the Terminal operations in progress at Fiumicino.

In-depth analysis related to the seismic features of the planned investments are underway.



# East side Terminal: boarding area A, expansion of quadrant 200 aprons, T1 front building, expansion of T1

See Schedule A: 3.4- Works for FCO Sud Terminal

## DESCRIPTION OF THE WORKS:

- Construction of the **T1 Front Building, of boarding area A** and related aprons: +4 M pax capacity increase
- Construction of **T1 West extension** (demolition of T2) and **reconfiguration** of the hub at the **root of boarding areas C and D**. Enlargement of airside terminal passengers' areas and construction of 10 remote gates: **+3 M pax capacity increase.**



## EXPECTED BENEFITS

- **Increase of the operational functional capacity of the infrastructure**

## STATUS and AMOUNTS

Design/Construction in progress

Completion date:

- Expansion of 200 quadrant aprons: **2016**
  - Boarding area A, T1 Front Building: **2019**
- (T1 Expans.: 2021; AIC/AID reconfiguration: 2022)

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 289,2 M	€ 124,5 M	€ +164,7 M

# East side Terminal: boarding area A, expansion of quadrant 200 aprons, T1 front building, expansion of T1

## Variations with respect to the assumptions considered in the CDP

### Analyses carried out

#### FUNCTIONAL LAYOUT:

- Need to ensure maximum consistency of the works to the latest operational/functional requirements

#### ARCHITECTURAL SOLUTIONS:

- Architectural and technological choices as in the solutions used for Pier C and the Front Building.

#### SYSTEM AND ENERGY EFFICIENCY:

- Adaptations to comply with requirement A.19 of the EIA Decree

#### SEISMIC AND FIRE REGULATIONS:

- Entry into force of the new fire safety regulations (Italian Ministerial Decree of 17 July 2014)
- Adaptation to comply with seismic class 4 instead of class 3

#### OPERATIONAL OPTIMIZATIONS:

- Analysis of the division into phases of the work so as to **ensure the operation of the terminal** during the construction work.

### Changes planned

#### FUNCTIONAL LAYOUT:

- Increase of surfaces and volumes by about 11,000 m<sup>2</sup> of additional area and 6,000 m<sup>2</sup> of area to reconfigure in T1

#### ARCHITECTURAL SOLUTIONS:

- Changes to the finishings initially contained in the previous design phases

#### SYSTEM AND ENERGY EFFICIENCY:

- Implementation of engineering and equipment solutions to optimize the energy efficiency to achieve almost "zero energy buildings"

#### SEISMIC AND FIRE REGULATIONS:

- Adaptation of civil engineering and systems works contained in the design
- Greater resistance and strengthening of structures and work on systems

#### OPERATIONAL OPTIMIZATIONS:

- Temporary works, relocation and reclamation of underground utilities, and charges related to the stages of the worksite
- Relocation of CBC AZ and L&F AZ

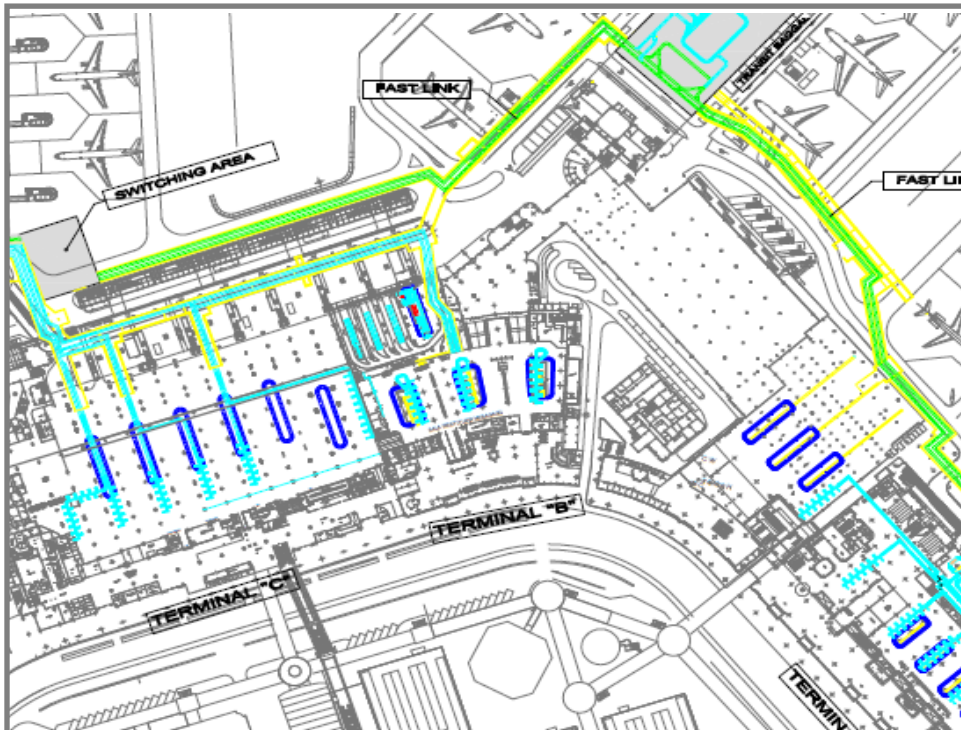


# Connection of East/West HBS hubs and recovery of facility at NET

See Schedule A: 3.5- Works for FCO Sud Terminal

## DESCRIPTION OF THE WORKS:

- Construction of a connecting LINK between the baggage handling systems of T1 and T3 by the partial recovery of the current automated baggage sorting facility installed at the building of the "NET 6000" system
- Expansion of the existing underground utility tunnel and upgrade of the existing tunnel



## EXPECTED BENEFITS

- Decrease of the airport's minimum connecting time
- Faster baggage transfer;
- Decrease of traffic in the airside roads;

## STATUS and AMOUNTS

Design in progress

Completion date: 30/11/2022

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 2,2 M	€ 20,1 M	- € 17,9 M

# F Departures area and T3 Front Building

See Schedule A: 3.7- Works for FCO Sud Terminal

## DESCRIPTION OF THE WORKS:

- Construction of the new infrastructure for non-Schengen flights and management of *call forward* boarding (maximizing use loading bridges)
- 132,000 m<sup>2</sup> of new terminal surfaces, of which approx. 86,000 m<sup>2</sup> for F departures area and approx. 46,000 m<sup>2</sup> for the Front Building; 14 stands served by loading bridges and 8 remote gates in the Front Building
- New baggage handling system (BHS/HBS) for Terminal 3



## EXPECTED BENEFITS

- Increased capacity of the Terminal system
- Increase of service level

## STATUS and AMOUNTS

Initial operation: December 2016

Date of completion of F departures area: February 2017

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 35,6 M	€ -- M	+ € 35,6 M

# Terminal 5 upgrade and optimization of Terminal 4



**Terminal 4 and Boarding Area J  
(As foreseen in CDP)**



**Terminal 5 upgrade and optimization of Terminal 4**

## OVERVIEW

- **Required by the FCO Sud Completion Project**
- It is the construction of an **arrivals and departures terminal** on two operational levels with a **BHS for originating baggage**. The airlines allocated are **P2P-type that do not belong to the main alliance**
- Opening in July 2021; completion of aprons and loading bridges on the south side of boarding area J in July 2025 (ex CDP)

- **Capacity enhancement in 3 phases:**
  - **1st phase, T5 only departures. Completion in Summer 2017**
  - **2nd phase: construction of arrivals area and gates area T5 with loading bridges, measures for accessibility and access/exit roads from the terminal; completion due in the Summer of 2019**
  - **3rd phase, construction of Terminal 4 linked to the gates area previously constructed at T5. Further connection to T3 (pedestrian pathway). With T5 demolition possible availability of other 5 gates with loading bridges.**

## AREAS

- **37,000 m<sup>2</sup> (Terminal), 22,000 m<sup>2</sup> (Boarding Area J)**

- **Phase 1: 9,000 m<sup>2</sup>; Phase 2: up to at least 20,000 m<sup>2</sup> gross; T4: 20,000 m<sup>2</sup> in addition to the gates area**

## GATES

- **20, including 11 in contact**

- **Phase 1: 8; Phase 2: 5 additional with loading bridges; Phase 3: 5 additional with loading bridges**

## CAPACITY

- **7 million passengers**

- **Phase 1: about 2.5 M pax; Phase 2 / T4: up to + 5/6 M pax**

## CAPEX

- **€ 178,1 M (ex CDP)**

- **€ 131,6 M of which:**
  - **Phase 1: € 16,5 M**
  - **Phase 2: € 40,9 M**
  - **Phase 3: € 74,2 M**

- **Effective response to short-term capacity/service needs.** New Terminal in West area offers a back-up capacity for Terminal system. It ensures higher level of service for central Terminals (Terminal 1 and Terminal 3) during work in progress on Terminals East / demolition T2 and Terminal 3 refurbishment
- **Shorter time to be operational** (phase 1 by Summer 2017, phase 2 by Summer 2019; T4 optimized in 2024)
- **Lower cost of construction, approx. € 47 million cheaper than T4 "Full" assumption** with lower charges for users
- **A link will be provided to the main body of the Terminal via a pedestrian pathway between the ex T5 departure area and the current area of T3**

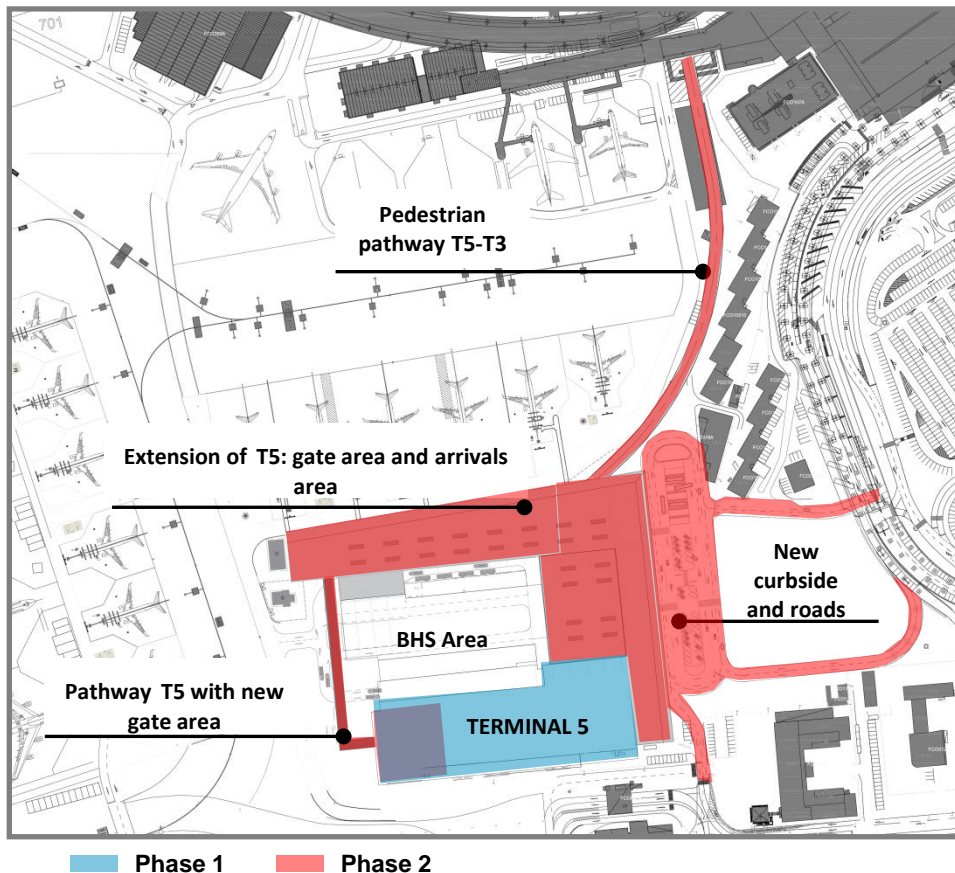


# Reconfiguration of T5 arrivals and departures

See Schedule A: 3.13 - Works on FCO Sud Terminal and 5.8

## DESCRIPTION OF THE WORKS:

- First phase: upgrading of the T5 for departures only and construction of 8 gates (activity part of the Recovery Plan of T2)
- Phase 2: construction of a new gate area equipped with loading bridges and new arrivals area; upgrade of landside area after demolishing the former west catering building and adapting the ex vehicular terminal entrance/exit road.



## EXPECTED BENEFITS

- Increase in capacity and infrastructure optimization in West Area;
- Less implementation complexity and lower interference to airside operations, resulting in faster commissioning.

## STATUS and AMOUNTS

Design in progress

Completion date: 30/06/2019

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 54,2 M(*)	€ -- M	+ € 54,2 M

(\*) of which € 8.3 million for roads



## **WORKS ON TERMINAL: FIUMICINO NORD**

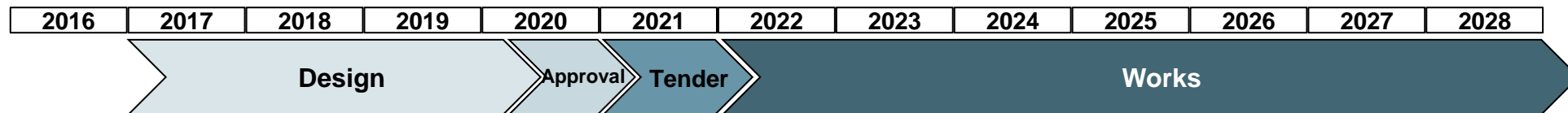
3.9 – Fiumicino Nord, passenger terminal

# Fiumicino Nord: passenger terminal

See Schedule A: 3.9 - Works for FCO Nord Terminal

## DESCRIPTION OF THE WORKS:

- In 2017 – 2021 period the North Terminal will be designed
- The North Terminal will have an ultimate process capacity of 50 MPPA in 2044 and will be constructed in two phases ending in 2028 and 2034



## EXPECTED BENEFITS

- Increase of the airport's capacity
- Increase of service level
- Improvement of passenger experience

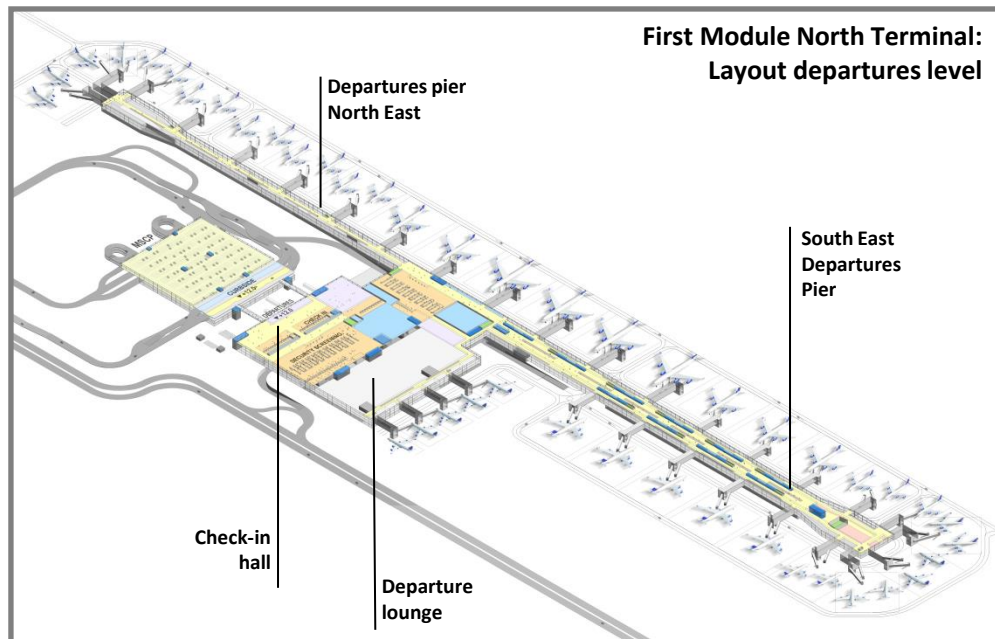
## STATUS and AMOUNTS

Design activities in the 2017-2021 five-year period

Works planned starting from 2022

Completion date: 2028

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 34,8 M	€ 307,1 M	€ - 272,3 M



## LANDSIDE WORKS: FIUMICINO SUD

- 4.1 – Optimization of technical systems and equipment
- 4.3 – Access roads, Cargo City area intersection
- 4.4 – Office building for ADR's new headquarters
- 4.6 – GRTS People Mover

# Optimization of technical systems and equipment

See Schedule A: 4.1- Landside Works for FCO  
Sud

## DESCRIPTION OF THE WORKS:

- Technological innovation of technological systems with particular reference to electrical, electromechanical and control systems
- Given the complexity of the works, 6 phases are planned.

## EXPECTED BENEFITS

- Improved reliability and performance of systems
- Improved service level offered to passengers

## STATUS and AMOUNTS

Design/Construction in progress

Completion date: 30/11/2025

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 3,4 M	€ 17,6 M	- € 14,2 M

# Roads: Cargo City area intersection

## DESCRIPTION OF THE WORKS:

- Construction of the ramps connecting the south roadway of A91 to the Cargo City area using an indirect ramp (for traffic coming from Fiumicino) and a semi-direct ramp (for vehicles from the economy parking lot to Rome).

See Schedule A: 4.3- Landside Works for FCO Sud



## EXPECTED BENEFITS

- Improved management and distribution of traffic flows in the east area of the airport,
- Decongestion of the technical area
- Connection of the Cargo City area and of the economy parking lot with Rome.

## STATUS and AMOUNTS

Design in progress

Completion date: 31/07/2018

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 20.3 M	€ -- M	+ € 20.3 M*

(\* ) Of which: € 3,2 M due to postponements from the first sub-period, € 1,1 € M for expropriations (previously entered in a different row of Schedule A).



# Roads: Cargo City area intersection

See Schedule A: 4.3- Landside Works for FCO Sud

## REASONS FOR CHANGES TO THE AMOUNTS IN THE CDP:

### **GEOTECHNICAL SURVEYS:**

- the geotechnical surveys highlighted the need to adapt the foundation work, considering the poor characteristics of the soil.

### **ANAS REQUIREMENTS:**

- as a result the opinion of ANAS on the project, a number of design requirements surfaced, especially concerning electrical systems (i.e. adding a video surveillance system connected to the ANAS operations center to prevent theft of electrical equipment, etc.), which led to a project review, and an increase of the final amount

### **SEISMIC COMPLIANCE:**

- all structural work contained in the design has been adapted to new seismic standards, considering the structure to belong to seismic class IV

### **DESIGN LAYOUT:**

- special detailed analysis on the functionality and flows of the works was carried out during the design phase: the need was found to add an extra lane on the return ramp from the East Area, also considering the requirements arising from the protocol signed by ANAS and the Fiumicino municipality
- the overpass has been optimized to minimize interference with the existing highway
- renovation of existing ramps not initially planned
- to make the design as compatible as possible with the planned airport accessibility infrastructure, the project will include preparatory work for the construction of the fourth lane of the A91 highway and the connection with the new slip roads

### **ACQUISITION OF AREAS**

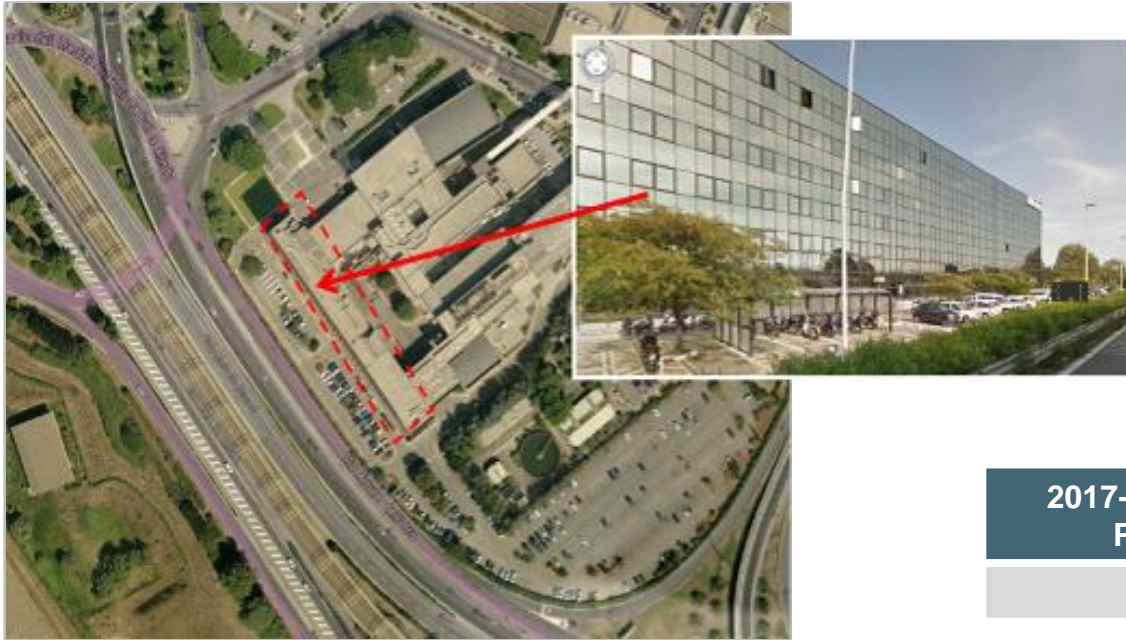
- the estimate of expropriations was previously defined on the basis of the so-called **Average Agricultural Value (VAM)**; the Constitutional Court declared the indemnity policy based on VAM **constitutionally illegitimate**, since it is independent of the expropriation process, and ignores any given evaluation data pertaining to the specific requirements of the asset, i.e the real estate market.

# ADR's new headquarters building

See Schedule A: 4.4- Landside Works for FCO Sud

## DESCRIPTION OF THE WORKS:

- Improvement of the existing office building used for AZ offices (11,000 m<sup>2</sup>) to be used as ADR's new headquarters
- The upgrade of state-owned assets significantly reduces the cost and time planned for the work



## EXPECTED BENEFITS

- Centralize the offices of the main functions of the Airport Operator in a building suitable for carrying out its activities

## STATUS and AMOUNTS

Construction in progress

Completion date: 31/05/2017

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 6,8 M	€ 22,1 M	€ -15,3 M

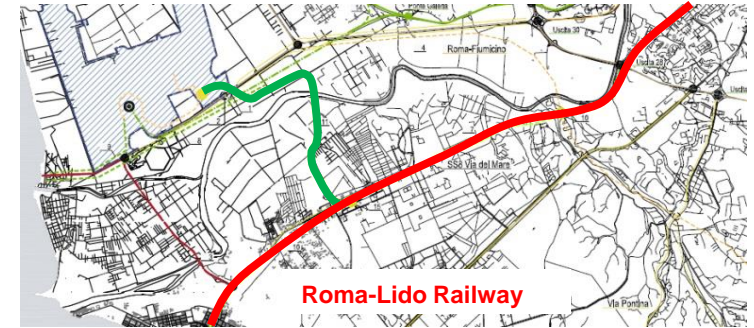
# The People Mover, planned for 2021, has been postponed until after the five-year period, taking into account the necessity to examine more deeply the wider mobility scenario

## Objectives

### 2012 SCENARIO

- Creation of the East Area/Rome Lido Railroad interchange (light rail link to be built by third parties)
- Construction of a link to the East remote parking areas for operators as a result of a significant real estate development plan

## Construction of People Mover in March 2021



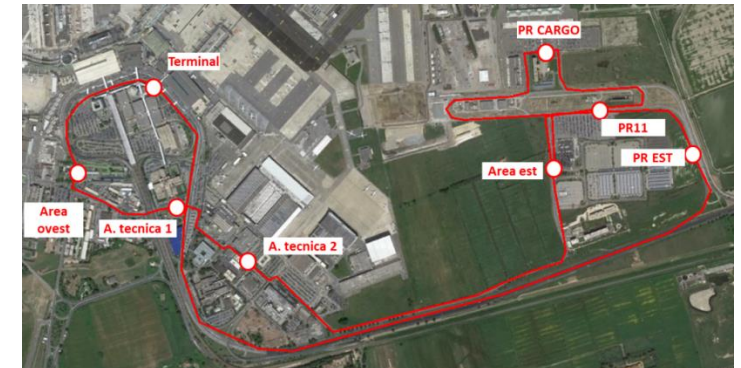
## Changes

### CURRENT SCENARIO

- Only design activities aimed at defining the best options for development of access to the terminals are planned for the five-year period
- At the moment, there is no certainty on the construction of the light rail link
- Possible real estate developments based on the MiBACT requirements
- The recent curbside works (e.g. ZTC/ZTL) have improved the quality and the capacity of the system and have decongested the area in front of the terminal

## Shuttles during peak hours

Based on current transportation study, on current scenario. People Mover postponed to 2028



2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 3,0 M	€ 156,8 M	€ -153,8 M

## LANDSIDE WORKS: FIUMICINO NORD

4.8 – Technical plants and utilities

4.13 – Environmental compensation works

4.18 – infrastructure works and complementary buildings

# Technical plants and utilities

See Schedule A: 4.8- Landside Works for FCO Nord

## DESCRIPTION OF THE WORKS:

- Design and implementation of technical plants for the construction sites and work in preparation for construction of the new infrastructure required by the expansion area to the North (1st development phase).
- Construction of thermal and electric power plants, the underground utility tunnel, the high-voltage power grid and its primary distribution and renewable energy plants.

## EXPECTED BENEFITS

- Meeting the energy requirements of airport infrastructures related to the first phase
- Reduction of energy consumption by using renewable energy sources

## STATUS and AMOUNTS

Planning in progress

Completion date: 17/03/2032

Completion of phase 1: 01/12/2026

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 0,6 M	€ 21,2 M	- € 20,6 M



# Environmental compensation works

## DESCRIPTION OF THE WORKS:

See Schedule A: 4.13- Landside Works for FCO Nord

- Mitigation and compensation measures, as pertains to building Runway 4, for the integration of the infrastructure into context, to reduce its environmental impact
- Renovation of sound level meters that detect exceeding the limits set by Italian Ministerial Decree 29/11/2000: south threshold of Runway 1 (A), north threshold of Runways 3 and 4 (B and C), south threshold of Runway 3 (D)
- Replanting of trees (works to compensate reduction of green areas)

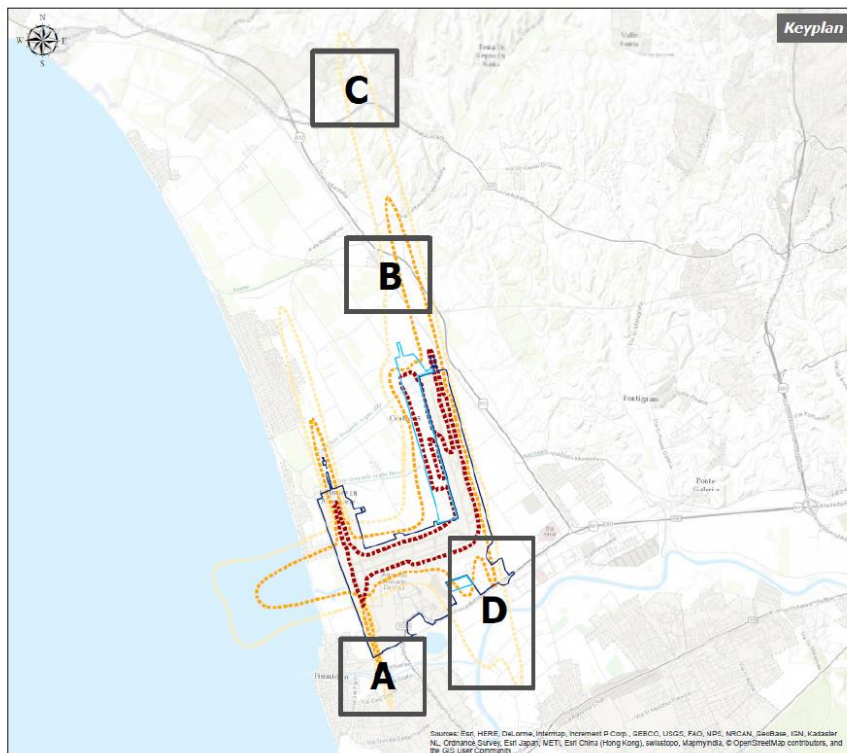
## EXPECTED BENEFITS

- Enhancement of the territorial context to mitigate the potential environmental impact of new airport infrastructure

## STATUS and AMOUNTS

Design/Construction in progress

Completion date: 31/12/2030



2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 9,8 M	€ -- M	+ € 9,8 M

# Infrastructure works and complementary buildings

See Schedule A: 4.18- Landside Works for FCO Nord

## DESCRIPTION OF THE WORKS:

- Access roads to the first module of the North terminal (main road approx. 3 km long, approx. 20 m wide and a secondary road approx. 4 km long partly at grade and in part on a viaduct)
- Curbside in front of terminal access on multiple levels (separate access depending on type of vehicle)

## EXPECTED BENEFITS

- Provides access to the new North terminal
- Optimization of flows to limit the presence of vehicles in front of the terminal

## STATUS and AMOUNTS

Planning in progress

Completion date: 31/12/2034

Completion of phase 1: 31/12/2026

2017-2021 amount Actual	2017-2021 amount CDP 2011	Delta
€ 5,2 M	€ 5.7 M	- € 0,5 M

## FIUMICINO SUD PARKING WORKS

- 5.1 – Parking at ground level in the East Area
- 5.2 – Central area, multi-level parking garage F
- 5.3 – East Area (long term parking), multilevel parking garage G
- 5.8 – T5 roads and parking lots

# Parking lots at ground level in the East Area

## DESCRIPTION OF THE WORKS:

- The expansion involves an area of about 25,000 m<sup>2</sup> between Via Caduti dell'Aviazione Civile and the existing Economy Parking
- Construction of the access road and the deceleration ramp for direct highway access



See Schedule A: 5.1- Parking lot works for FCO

Sud



## EXPECTED BENEFITS

- Increased parking capacity in the East Area
- Reduction of parking lot access route for vehicles coming off the highway.

## STATUS and AMOUNTS

Design/Construction in progress

Completion date: 31/05/2018

2017-2021 amount Actual	2017-2021 amount CDP 2011	Delta
€ 3,9 M	€ -- M*	+ € 3,9 M

(\*) € 2,3 M included in the first sub-period



# Central area: Multi-level parking garage F

See Schedule A: 5.2- Parking lot works for FCO Sud

## DESCRIPTION OF THE WORKS:

- Construction of a new multi-level parking garage with 1,600 stalls (5 levels above ground + usable roof). The footprint of the building is approximately 8,200 m<sup>2</sup>, for a total of 48,800 m<sup>2</sup>.
- The works will be carried out in a built-up urban area, where there are several underground utilities, and a 400 car parking lot (PR3) to relocate and archaeological surveys must also be carried out



## EXPECTED BENEFITS

- Adapting the parking availability in accordance with the demand arising from airport traffic forecast

## STATUS and AMOUNTS

Design/Construction in progress

Completion date: 30/09/2019

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 21,2 M	€ 11,0 M*	+ € 9,9 M

(\*) Additional € 6,2 M in the first sub-period



# East Area (long term parking): Multi-level parking garage G

See Schedule A: 5.4- Parking lot works for FCO

Sud

## DESCRIPTION OF THE WORKS:

- Design and implementation of a multilevel parking unit for vehicles in the East Area of Fiumicino's current grounds (to be reachable by the GRTS from Fiumicino Nord)
- The multilevel parking garage will be built on multiple operating levels providing a total capacity of 1500 car stalls



## EXPECTED BENEFITS

- Adapting the parking availability in accordance with the demand arising from airport traffic forecast

## STATUS and AMOUNTS

Design/Construction in progress

Completion date: 30/09/2023

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 1,8 M	€ 17,4 M	- € 15,6 M

## OTHER WORKS PLANNED FOR FIUMICINO SUD

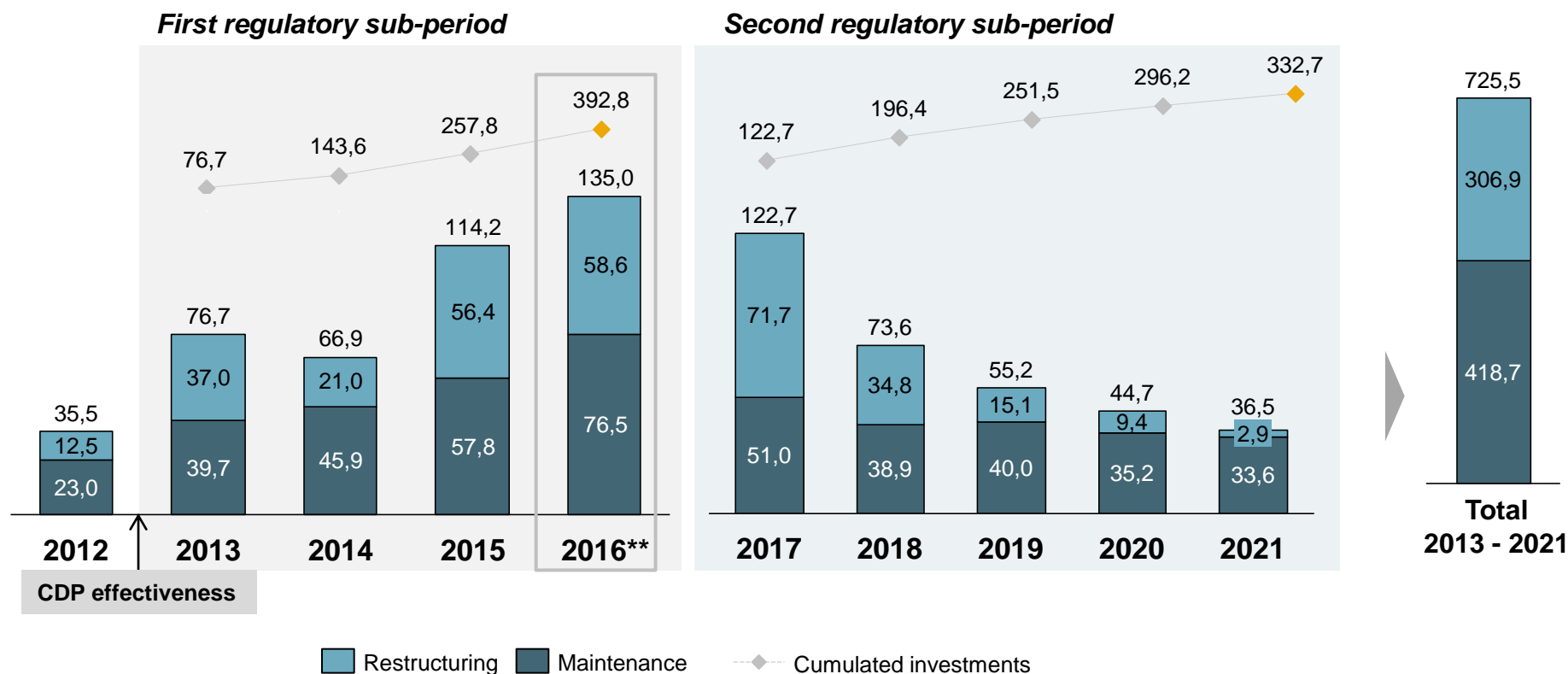
6.1 – Restructuring Fiumicino Sud

6.2 – Maintenance Fiumicino Sud

6.3 – Information systems and miscellaneous

The CDP includes resumption of investments for maintenance and restructuring of FCO\* to restore quality (€ 393 million for 2013/2016); in the second sub-period, reduction of the capex planned, in relation to the investments already implemented and the infrastructure development program

Trend of maintenance and restructuring investments 2012-2021, € millions



\* Investments described in lines 6.1 and 6.2 of Schedule A

\*\* Values for the 6+6 forecast

# Restructuring works at Fiumicino Sud

## New electrical network for runways

### DESCRIPTION OF THE WORKS:

- Centralization of UPS for electrical runways equipment.
- Replace the existing airside emergency supply powercenter.
- Reorganization MV to ensure the supply redundancy.
- Revamping of existing electrical powercenter

Rif. Scheda A: 6.1- Altri Interventi FCO Sud

### EXPECTED BENEFITS

- Increased efficiency and reliability of the runways electrical system

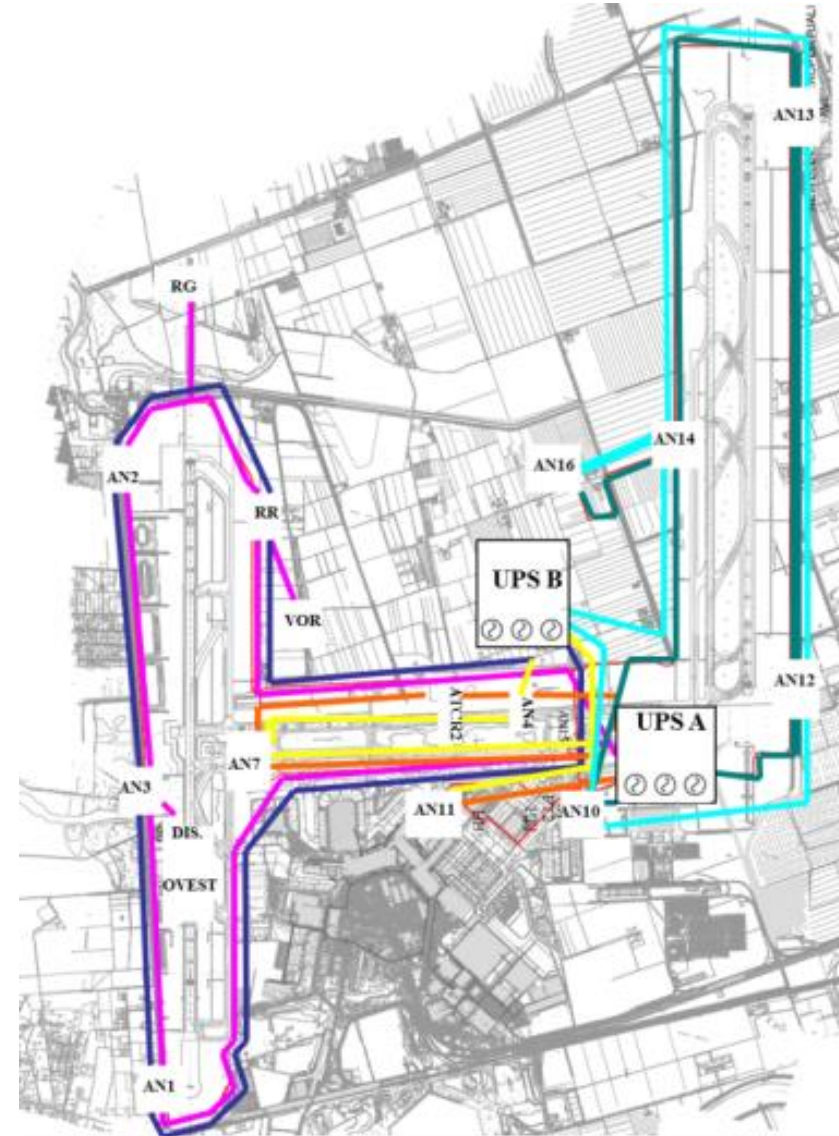
### STATUS and AMOUNTS

Construction in progress

Completion date: 2017

2017-2021 amount  
PEF 2016

11,5 € milioni



# Restructuring works at Fiumicino Sud

## Renovation of electrical substation and MV switching center

### DESCRIPTION OF THE WORKS:

Rif. Scheda A: 6.1- Altri Interventi FCO Sud

- Construction of a new electrical transformer High/Medium Voltage substation, to ensure greater reliability of the airport system.
- Use of four High/Medium transformers to divide the network into four sectors.
- New High voltage plant allowing greater safety protection, better fire compliance and lower electromagnetic emissions.



### EXPECTED BENEFITS

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- Reduced recovery time failure;
- Achieve greater system protection, best fire compartmentation and lower electromagnetic emissions

### STATUS and AMOUNTS

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Construction in progress

Completion date: 2017

2017-2021 amount  
PEF 2016

10,3 € milioni



# Restructuring works at Fiumicino Sud

## Upgrade of runway system 16R/34L

### DESCRIPTION OF THE WORKS:

- Pavement upgrading to ensure the runway gradients and visual aids:
  - runway edge,
  - runway centreline,
  - TDZ

### EXPECTED BENEFITS

- Pavement management system to guarantee compliance with EASA standards

### STATUS and AMOUNTS

Planning in progress

Completion date: 2017

2017-2021 amount  
PEF 2016

9,6 € milioni



# Restructuring works at Fiumicino Sud

## Airside - Other works

### DESCRIPTION OF THE WORKS:

- **TAXIWAY DELTA refurbishment (7,6 € M)**  
Pavement management of the taxiway Delta from the progressive 0+540 to 2+010 and structural works (also lights) to be compliant to Code "F" (Airbus A380)
- **ULD storage area in the East zone (2,3 € M)**  
New ULD area, located in East airport area.
- **CCTV SYSTEM FOR THE AIRPORT PERIMETER (8,0 € M)**  
Implementation of a CCTV system all around Fiumicino airport perimeter, to improve security level.
- **NEW «CONTINGENCY» APRONS IN AZ TECHNICAL AREA (5,4 € M)**  
Construction of three aprons self-in / push out in East area, close by the hangar in AZ technical area.
- **REWAMPING LIGHT TOWERS (4,6 € M)**  
Rewamping / substitution of the light towers, in order to improve aprons lighting.
- **OTHER WORKS (13,2 € M)**

### EXPECTED BENEFITS

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- **Ensure the infrastructure functional characteristics**
- **Improvement in operating performance**

### STATUS and AMOUNTS

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Design/Construction in progress

2017-2021 amount  
PEF 2016

41,1 € milioni

# Restructuring works at Fiumicino Sud Terminal

## DESCRIPTION OF THE WORKS:

See Schedule A: 6.1- Other works for FCO Sud

- **AIRPORT TERMINALS - FIREFIGHTING IMPROVEMENTS (€ 11.3 M)**  
Adaptation of airport terminals to Italian Ministerial Decree 151 of 1 August 2011
- **REPLACEMENT/ACQUISITION OF X-RAY SCANNER FOR BAGGAGE CHECK (€ 8.4 M)**  
Update of X-ray scanners of the terminal to current technical/security standards
- **BHS BOARDING AREA F BAYS INCREASE (7,8€M)**  
Increase number of bays at aprons level
- **REFURBISHMENT OF BOARDING AREA G (3,2€M)**  
New layout; furniture, upgrading of finishings, lighting and furniture
- **UPGRADE OF BOARDING AREA G FOR A380 OPERATIONS (3,1€M)**  
New loading bridge and related apron systems for A380
- **NEW PASSENGER SIGNAGE (€ 3.0 M)**  
Complete renovation of the signage within the terminal, along the sidewalk in front of the airport terminal, at the Bus Hub and of the pedestrian tunnels; renovation of the signage of the terminals.
- **T1 –UPGRADE ARRIVAL CUSTOMS CHANNELS (2,8€ M)**  
Unificazione of customs channels and upgrade adjoining areas
- **T3 - RESTORING FIRE DAMAGED AREAS (€ 2.2 M)**  
Remedial measures for "roof boats" in T3 and in the former McDonalds area (Mezzanine of T3)
- **OTHER WORKS (€ 6.7 M)**

## EXPECTED BENEFITS

- Improvement of existing subsystems/structures to comply with applicable quality requirements and regulations
- Restoration of areas damaged by fire

## STATUS and AMOUNTS

Design/Construction in progress

2017-2021 amount  
PEF 2016

€ 48,5 M

# Restructuring works at Fiumicino Sud

## Land Side

See Schedule A: 6.1- Other works for FCO Sud

### DESCRIPTION OF THE WORKS:

- UPGRADE OF CENTRAL CAFETERIA (€ 4,6 M)  
Restructuring of the building granted as concessionaire
- BURYING POWER LINES (€ 2,6 M)  
Burying a Terna power line that interferes with construction of the Cargo City area intersection; it is needed to maintain the minimum height margin between the new overpass on the Rome Fiumicino highway, the access ramp of which is above current road grade, and the high voltage power lines.
- OTHER WORKS (€ 5,3 M)  
Works related to the new ceremonial office, extraordinary landside maintenance and accessibility.

### EXPECTED BENEFITS

- Enhancement of the asset in concession
- Eliminate the interference for the construction of the Cargo City area intersection

### STATUS and AMOUNTS

Design/Construction in progress

2017-2021 amount  
PEF 2016

€ 12,5 M

### Total amount of row 6.1 Schedule A

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 133,9 M	€ 44,8 M	€ +89,1 M

# Maintenance of Fiumicino Sud

See Schedule A: 6.2- Other works for FCO Sud

## DESCRIPTION OF THE WORKS:

ADR's strategy aimed at improving the quality of supply and service standards involves not only the activities aimed at ensuring the proper operation of essential services such as electricity, baggage handling systems, roads, public lighting, etc., but also the extraordinary maintenance works needed to ensure comfort in airport terminals and to improve the travel experience for passengers.

The macro areas of the works are:

- Energy Saving measures and alternative energy sources - **(€ 11,4 M)**
- Air conditioning and plumbing - **(€ 19,7 M)**
- Electrical systems- **(€ 33,3 M)**
- Electromechanical systems- **(€ 47,0 M)**
- Special Systems- **(€ 20,6 M)**
- Civil infrastructure- **(€ 66,8 M)**

## EXPECTED BENEFITS

- Modernization and improved reliability of the systems;
- Higher company standards and quality;
- Optimization of electric energy consumption and improvement of temperature and humidity comfort of pax.

## STATUS and AMOUNTS

Planning/design in progress

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 198,8 M	€ 191,3 M	€ +7,5 M



# Information systems and miscellaneous

See Schedule A: 6.3- Other works for FCO Sud

## DESCRIPTION OF THE WORKS:

### • DEVELOPMENT OF AIRPORT OPERATING SYSTEMS – 6.3.1 (€ 20,6 M)

- Improve passengers' Customer Experience
  - Automation of crossing points (FAST TRAVEL)
  - Travel simplification by providing services and information as customized as possible (SMART TRAVEL)
  - Implementations to achieve EASA certification.

### • ICT TECHNOLOGICAL INFRASTRUCTURE – 6.3.2 (€ 13,7 M)

- Ensure service levels required in line with business requirements:
  - ICT Security
  - Business Continuity
  - Technological support to infrastructural development
  - Service levels monitoring

### • DEVELOPMENT OF MANAGEMENT SYSTEMS – 6.3.3 (€ 4,8 M)

Implementation of the information systems needed to improve processes by making information available in real time, by simplification and standardization.

### • OTHER - 6.3.4 (€ 5,3 M)

Installation of advertising facilities within the new infrastructure that will be implemented in the plan, and purchase of basic goods and/or equipment for limited amounts.

## EXPECTED BENEFITS

- Increased automation of security and passport checks;
- Increase of corporate standards and quality;

## STATUS and AMOUNTS

Planning in progress

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 44,4 M	€ 26,6 M	€ +17,8

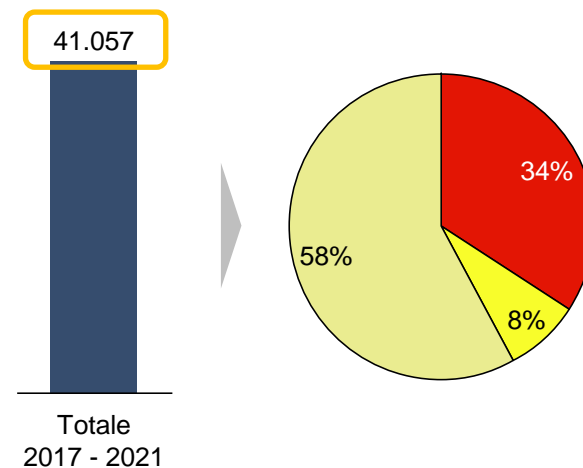
- **2017 – 2021 Investment Plan**
  - **Detail outline for FCO**
  - **Detail outline for CIA**

# 2017-2021 Investment Plan for CIA

€ mgl	Descrizione	2017	2018	2019	2020	2021	Totale 2017 - 2021
CIAMPINO	1. Infrastrutture di volo	5.656	6.218	82	1.356	735	14.047
	2. Interventi Terminal	1.817	1.077	98	310	-	3.303
	3. Altri interventi	8.516	3.922	6.482	2.641	2.145	23.707
	<b>TOTALE INTERVENTI CIA</b>	<b>15.990</b>	<b>11.217</b>	<b>6.662</b>	<b>4.308</b>	<b>2.880</b>	<b>41.057</b>

## Total 2017 - 2021 by type of works

The largest share of the investments in the period is the work on maintenance / restructuring (in «Altri interventi»).



- Infrastrutture di volo
- Interventi Terminal
- Altri interventi

# 2017 – 2021 Investment Plan for CIA – changes vs CDP

€ mgl	Descrizione	2017		2018		2019		2020		2021		Totale 2017 - 2021	
		PEF	CDP	PEF	CDP	PEF	CDP	PEF	CDP	PEF	CDP	PEF	CDP
CIAMPINO	1. Infrastrutture di volo	5.656	-	6.218	2.115	82	14.281	1.356	5.557	735	-	14.047	21.953
	2. Interventi Terminal	1.817	15.317	1.077	10.318	98	7.679	310	9.661	-	-	3.303	42.975
	3. Altri interventi	8.516	960	3.922	2.791	6.482	980	2.641	743	2.145	2.674	23.707	8.147
	<b>TOTALE INTERVENTI CIA</b>	<b>15.990</b>	<b>16.276</b>	<b>11.217</b>	<b>15.225</b>	<b>6.662</b>	<b>22.940</b>	<b>4.308</b>	<b>15.960</b>	<b>2.880</b>	<b>2.674</b>	<b>41.057</b>	<b>73.076</b>
<i>Delta Scheda A PEF vs CDP</i>		<b>-287</b>		<b>-4.008</b>		<b>-16.278</b>		<b>-11.652</b>		<b>206</b>		<b>-32.019</b>	

## AIRSIDE MAIN WORKS

Refurbishment taxiway Alfa

Refurbishment Aprons 100, 200, 300 e SB, SD, TC

Riqualfica Aprons 400 e 500

## TERMINAL MAIN WORKS

Refurbishment of the Commercial Aviation Terminal



# Ciampino – Airside main works

Rif. Scheda A: C.1 – CIA - Riqualifica sistema airside

## DESCRIPTION OF THE WORKS:

- **Apron refurbishment:**
  - Area 100, 200, 300 and SB, SD, TC: functional upgrading of the pavement wherever constituted by concrete slabs and replacement of the flexible pavement with rigid pavement; surface and structural upgrading of SA and SB
  - Area 400, 500: pavement upgrading
- **Taxiway Alfa:** pavement refurbishment according to Pavement Management System

## EXPECTED BENEFITS

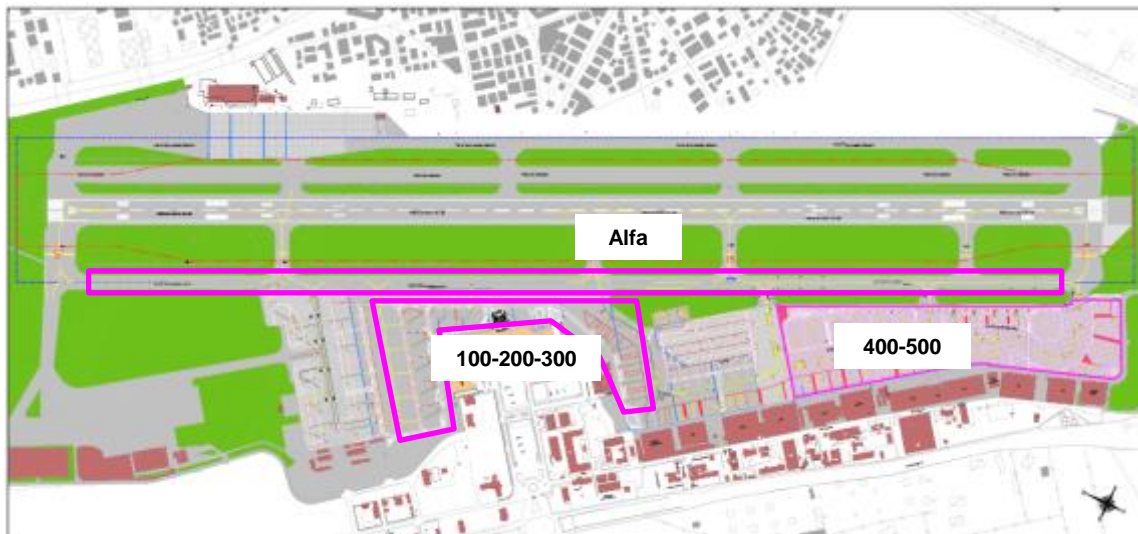
- **Guarantee the functional characteristics of the infrastructure in compliance with EASA rules;**
- **Enhance the apron floodlighting;**
- **Reduce carbon emission and ramp equipment in the apron**

## STATUS and AMOUNTS

Planning/Design in progress

Completion date: 31/05/2021

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 14,0 M	€ 9,9 M	€ +4,1 M



# Ciampino – Terminal main works

## DESCRIPTION OF THE WORKS:

- The refurbishment of the Commercial Aviation Terminal will be organized in different phases. It will be completed after the reduction of traffic foreseen in the approved Masterplan
- During 2017-2021 check-in hall and airside arrival area will be refurbished
- Works includes functional layout, finishes, equipment and plant systems.



*Render: Terminal – Commercial Aviation*

Rif. Scheda A: C.5 – CIA - Terminal Aviazione  
Commerciale e Generale

## EXPECTED BENEFITS

- Increase of level of service and quality standards
- New technological standard

## STATUS and AMOUNTS

Planning/Design in progress

Completion date of Terminal refurbishment : 30/06/2023

2017-2021 amount PEF 2016	2017-2021 amount CDP 2012	Delta
€ 3,3 M	€ 43,0 M	€ -39,7 M