

2018 Charges Update

Consultation with the Users

Progress of Investment Plan

August 2017





ENAC - ADR Economic Regulation Agreement

Investments in 2017

- Fiumicino
- Ciampino





ENAC - ADR Economic Regulation Agreement

Investments in 2017

- Fiumicino
- Ciampino

Plan referred to in consultations of 2016 for the second regulatory period

In '000 di euro

	Classe di intervento	Area di intervento	2017	2018	2019	2020	2021	Totale 2017-2021
	1	Attività urbanistiche Fiumicino Nord	5.306	5.580	7.233	516	7.810	26.445
	2	Interventi infrastrutture di volo Fiumicino Sud	41.366	71.221	28.918	65.672	53.908	261.085
	2	Interventi infrastrutture di volo Fiumicino Nord	7.618	36.468	120.225	184.358	183.363	532.033
N	3	Interventi terminal Fiumicino Sud	63.586	139.518	126.220	49.497	59.614	438.436
FIUMICINO	3	Interventi terminal Fiumicino Nord	4.365	11.242	9.552	9.653	0	34.812
FI	4	Interventi land side Fiumicino Sud	11.192	18.252	1.141	1.226	1.706	33.517
	4	Interventi land side Fiumicino Nord	240	2.456	2.788	5.607	4.525	15.615
	5	Interventi parcheggi Fiumicino Sud	2.304	14.469	16.432	1.382	379	34.965
	6	Altri interventi Fiumicino Sud	133.748	83.124	63.855	52.510	43.938	377.175
		Totale Fiumicino Sud	252.197	326.584	236.566	170.287	159.544	1.145.177
		Totale Fiumicino Nord	17.529	55.746	139.798	200.134	195.698	608.905
		Totale Fiumicino	269.726	382.330	376.364	370.420	355.242	1.754.082
	C	Ciampino	15.990	11.217	6.662	4.308	2.880	41.057
		Totale Capex ADR	285.715	393.547	383.026	374.729	358.122	1.795.138



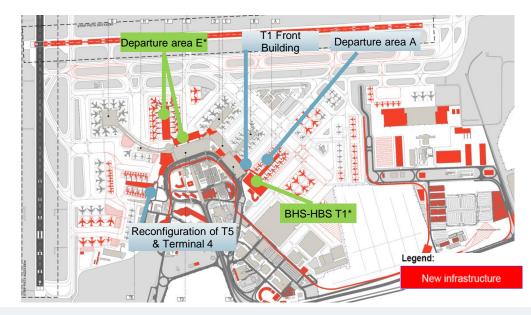
The Project to Complete Fiumicino Sud



FCO Sud Completion Project The completion project for FCO Sud outlines **the infrastructural organization** of the airport within its current premises. **ENAC** issued **its technical authorization** on **22/07/2011** The main **objectives** of the project:

- To ensure the relaunch and completion of the Development Plan for Fiumicino Sud
- To improve the quality level of the infrastructure and of the services provided to users
- To ensure respect for the environment

Environmental Impact Assessment (EIA) Decree FCO Sud Completion Project The Environmental Impact Assessment (EIA) Decree 236 of 8 August 2013, published in the Official Gazette on 9 November 2013, concerning the environmental compatibility of the Fiumicino Sud Completion Project contains a number of requirements made by the Environmental Impact Assessment Commission of the Italian Ministry of the Environment and Protection of Land and Sea (MATTM) and by the Italian Ministry of Cultural heritage and activities and tourism (MiBACT) for which ADR, also on ENAC's behalf as "applicant", is carrying out compliance audits with the Reference bodies in order to start construction of the works.



Development to the North and Ciampino



FCO's Masterplan until 2044

FCO's

Masterplan

until 2030

The Masterplan for FCO defines the infrastructural organization until the end of the concession of the FCO terminal. It involves the construction of new flight infrastructure, passenger terminals, accessibility and related infrastructure. ENAC issued its technical authorization in October 2015.

In April 2016, ENAC asked ADR to prepare its Masterplan until 2030.

The airport's organization in **MP 2030** (runway 4, first phase of the north terminal and related works) was **discussed with ENAC in February 2017.**

The EIA and urban compatibility procedure of the works of MP 2030 were initiated on 31 March 2017.

The **Masterplan** for CIA defines **the airport's infrastructural organization**. It includes the upgrade of flight infrastructure and of the commercial and general aviation terminal, under a 'secondary airport' management model, geared towards environmental sustainability.

ENAC issued its technical authorization in October 2015. The EIA and urban compatibility procedure of the works of the MP were initiated on 04 February 2016. The additions requested by the EIA Commission were filed in December 2016.

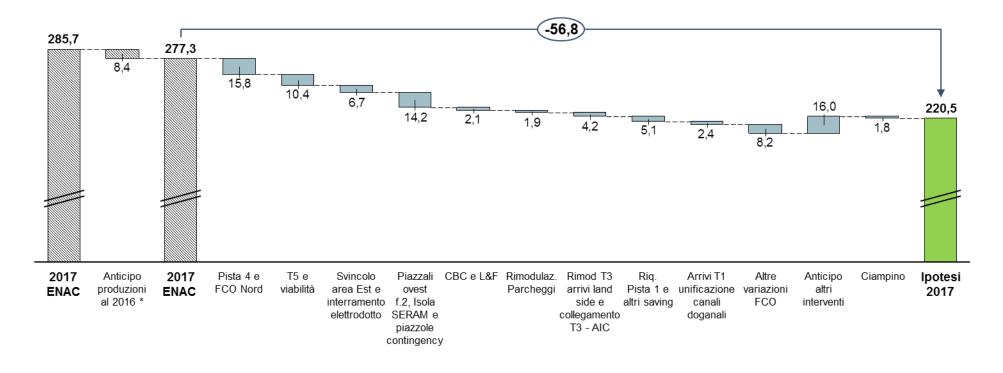




CIA's Masterplan

M€ of investment are planned for 2017 with some modifications and optimisation versus the original plan





- Advances for work in 2016 1)
- 2) Pending outcome of the EIA procedure
- Rescheduling to assess the actual short-term need in relation to the 3) market scenario
- Pending definition of limits of competence of MIT/ANAS/ADR 4)
- 5) SERAM area and reassessment of some interventions on pitches
- 6) Further investigation to identify lower impact solutions to relocate the spaces for CBC / L&F
- 7) Further investigation to assess the actual short-term need against market scenario

- Remodulation and optimization of work on T3 8)
- Lower cost from final design of apron 1, savings for the agreements for 9) signage to the passenger, new gates for Boarding Area B, upgrade of the Taxiway "Alfa"
- 10) Rieassessment of interventions
- Start of phase 2 west aprons in the second half, rescheduling of move of 11) Other investments previously planned for 2018 brought forward in 2017 (no impact in 2018 tariffs)
 - 12) Rescheduling of measures for upgrade aprons, advance to purchase standard "3" X-ray machines for hold baggage

221 M€ of investment are planned for 2017 (-65,2 M€) with some modifications and



E = Estimate

optimisation versus the original plan

		17,5	
Fiumicino North	 Environmental impact assessment («VIA») still underway 	-15,8	1,7
		2017 ENAC	2017 E
Fiumicino South airside	 In the wake of ENAC's approval of the project in June, in September ADR started the second phase of aircraft parking aprons Other activities brought forward in 2017 (originally planned in 2018) for future expansion for apron capacity 	41,4 -4,5 2017 ENAC	36,8 2017 E
Fiumicino South terminal	 ADR opted to temporarily halt operations aimed at T5 refurbishing whilst anticipate expansion of T1 west to better reflect short-term traffc trend Earlier-than-anticipated production for pier E and T3 facade (2016 instead of 2017) 	63,6 -26,9 	36,7 2017 E
FCO South Landside and parking	 Delayed start of the new area east road junction (legal dispute underway) Delayed start of new interventions for car parking facilities 	13,5 -6,5	7,0
		2017 ENAC	2017 E
Restructuring, Maintenance and ICT	 Runway 1 restructuring completed at a lower-than-anticipated cost Re-planning of expansion of parking aprons in east area Delayed works to ground to electricity transmission facilities (end intervention that is correlated to the new road junction in est area) 	133,7 -9,5	124,2
	 Other changes for savings achieved through tenders, modifications and optimization 	2017 ENAC	2017 E
Ciampino	 Optimization on airside and terminal projects Anticipated acquisition of X-ray machines for hold baggages 	16,0 T-1,8	14,1





ENAC - ADR Economic Regulation Agreement

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- Ciampino

Investments in 2017

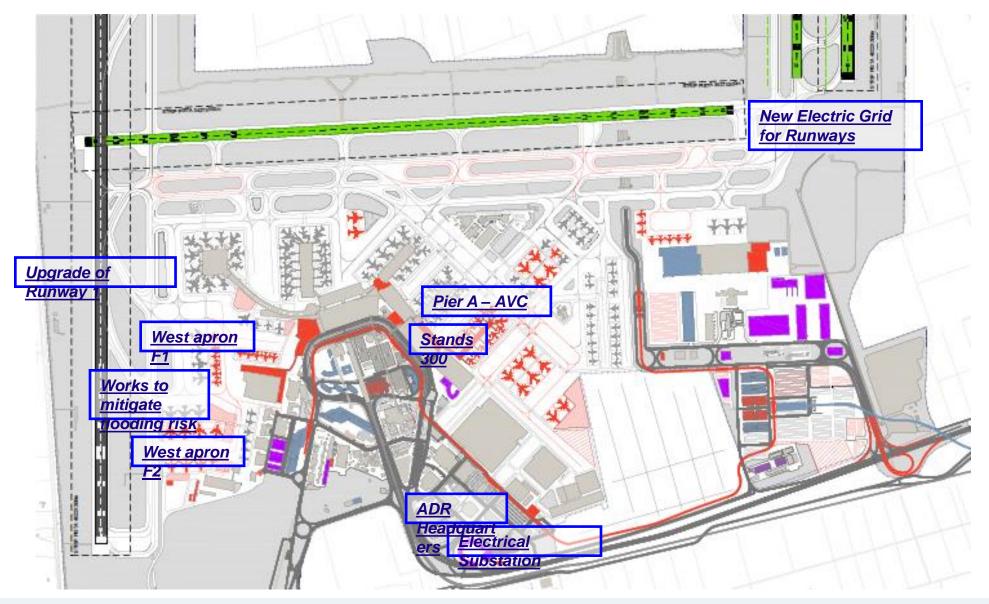


Fiumicino

- West Area, expansion of aircraft parking aprons (phases 1, 2)
- Upgrade of runway system 16R/34L
- Works to mitigate the flooding risk in the West area
- East Airport System: departures A, expansion of quadrant 200 apron, expansion and front building
- Adaptation for sensitive flights Terminal 1 and Terminal 3
- New signage to direct passengers
- New layout of passport control at Terminal 3 Departures
- Measures for T3 arrivals landside
- New gates in Departure Area B
- New toilet facilities in T1 (C8-C16)
- Reconfiguration of gates C8-C16
- New electric grid for runways
- Renovation of electrical substation and MV switching center
- Perimeter protection system
- ADR's new headquarters building

Development of FCO in 2017 - the main works





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

ADR

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 stands 808-812: 3 "up to E" + 1 "up to C" (alternate configuration: 6 "up to 6 C"), construction of 6 new "up to C" stands and related taxiway, new ramp vehicles area.
- PHASE 2: new aircraft stands 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 stands
- Improvement of operational performance: LVPs with RVR <400 m, full optional systems: fuel pit, 400 Hz, PCA, VDGS

STATUS and AMOUNTS

Phase 1: Works close to completion 31/05/2017 (opening of code E stands)

July 2017 (opening 6 new code C stands)

Phase 2: final design approved on 19/06/2017

Completion date: September 2018

2016 actual	2017 estimate		
9.1 € million	19.8 € million		

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





DESCRIPTION OF THE WORKS:

- Upgrade of surface and restoration of slopes of the entire flight infrastructure by:
- milling of the existing wear layer, milling deeper in the areas where it has been found necessary for regulatory compliance of slope rates;
- reconstruction of the bituminous layers that have been removed, replacing them with the same thickness of those previously milled.
- The measure also affected the electrical flight assistance equipment in the area of the works, such as signals along the runway, runway centerline, touchdown area, etc. and the horizontal signage of the entire runway:
- removal and installation of LED visual aids after replacing the recessed bases;
- provision of secondary power to the affected visual aids;
- refurbishment of the entire runway signage using thermo-plastic sprayed material.

EXPECTED BENEFITS

• To ensure the maintenance of the geometrical characteristics of the superstructure, in terms of longitudinal and transverse slope, in respect of the EASA standards

STATUS and AMOUNTS

Work completed: runway re-opened on 3 March 2017

2016 actual	2017 estimate
0.3 € million	7.3 € million



See Schedule A: 6.1- Other works for FCO Sud



Upgrade of runway system 16R/34L



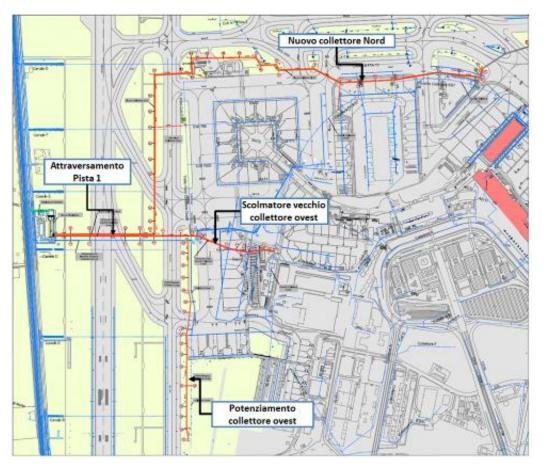


Works to mitigate the flooding risk in the West area

ADR

DESCRIPTION OF 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 canal, 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 future paved surfaces;
- Reduction of flow to the Traiano pumping station.

STATUS and AMOUNTS

construction in progress

Completion date: October 2018

2016 actual	2017 estimate		
0.2 € million	10.7 € million		

Works to mitigate the flooding risk in the West area





Crossing under runway 1 - pile driving, excavation and housing of collectors



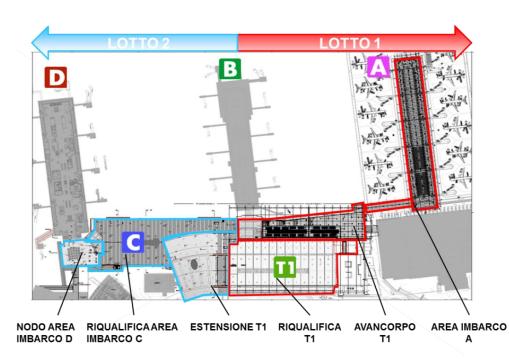
East Airport System: departures A, expansion of quadrant 200 apron, expansion and T1 front building



See Schedule A: 3.4 - Works for FCO Sud Terminal

DESCRIPTION OF THE WORKS:

- Construction of the Front Building of T1, of the departure area A and related aprons: + 4 MLN pax/year of capacity
- Construction of the West extension of T1 (T2 demolition) and reconfiguration of the hub of the Boarding area D. At Boarding area C, the airside traffic areas and services will be expanded, 10 remote gates will be created: + 3 MLN pax/year of capacity



EXPECTED BENEFITS

• Increase of the operational and functional capacity of the infrastructure

STATUS and AMOUNTS

Lot 1: economic approval in progress

Lot 2: detailed design being completed

Completion date of Plan:

- Expansion of quadrant 200 apron: Work completed during 2016
- Quadrant 300 apron: Work in progress with expected completion in March 2018
- A Departure area, T1 Front Building: October 2019
- (T1 Expans.: 2021; AIC/AID adaptation: 2022)

2016 actual	2017 estimate		
12.2 € million	8.9 € million		

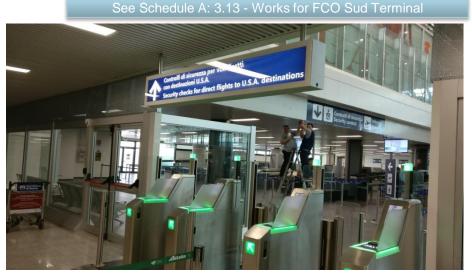
Adaptation for sensitive flights Terminal 1 and Terminal 3



DESCRIPTION OF WORKS:

- Preparatory works to move the check-in counters of American and Israeli airlines flights to Terminal 1 and Terminal 3
- Segregation of areas for the flights of the above airlines with dedicated security check channels.
- Introduction of specific security measures agreed with police, ENAC and TSA.

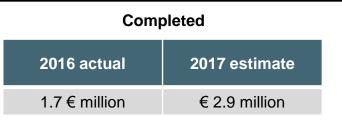




EXPECTED BENEFITS

- Preparatory activities to centralize check-in operations in the central Terminal system
- Improvement of quality, avoiding the need for passengers to transfer by bus to boarding areas

STATUS and AMOUNTS



DESCRIPTION OF WORKS:

New passenger directions signage is being installed at the Fiumicino airport, with new panels characterized by greater message clarity and energy saving.

The graphic and typeface characteristics are in line with the panels installed at the new pier and front building in order to ensure complete homogeneity and uniformity.

Main features:

- Different typefaces to differentiate operational and service signs
- Maximum versatility with panels of different heights depending on the heights between floors and spatial characteristics
- Better graphic presentation and looks by eliminating frames to maximize the surface area of the message
- Durability and energy savings by adopting LED technologies and monitoring systems
- Solutions that increase maintainability



EXPECTED BENEFITS

- Improved quality and ease of orientation for passengers
- Technological update

STATUS and AMOUNTS

Works in progress

Completion date: November 2017

AMOUNT

2016 actual	2017 estimate
€ 0.3 million	€ 1.4 million





New layout of passport control at Terminal 3 departures area



See Schedule A: 6.1- Other works for FCO Sud



DESCRIPTION OF WORKS:

- As a result of changes in the legislation on border regulations, the passport control area for departure and transit at Terminal 3 has been reconfigured
- Enlargement of the buffer area (+300 m²), enhancement of control stations:
 - +7 pax departure stations
 - +4 pax transit stations
- Enhancement of automated e-gates (+4 modules)



EXPECTED BENEFITS

- Regulatory compliance
- Capacity increase of passport control system

STATUS and AMOUNTS

completed

AMOUNT

2016 actual	2017 estimate
€ - million	€ 1.3 million

First phase of works for Terminal 3 Arrivals land side



DESCRIPTION OF WORKS:

- Expansion of the passage section between Terminal 3 East and Terminal 3 West to facilitate passenger flow;
- New area for Car & Driver hire



See Schedule A: 3.3 - Works for FCO Sud Terminal



EXPECTED BENEFITS

 Improvement of the management of passenger flow, increasing its crosssection

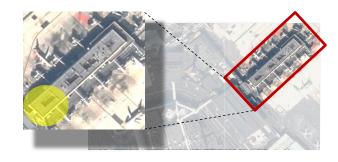
STATUS and AMOUNTS

Works in progress Completion date: September 2017 AMOUNT

2016 actual	2017 estimate
€ 0.1 million	€ 0.5 million



See Schedule A: 6.1- Other works for FCO Sud



EXPECTED BENEFITS

- Increase of passenger capacity airside
- Improvement of quality with a new group of toilet facilities for boarding area B

STATUS and AMOUNTS

Works in progress

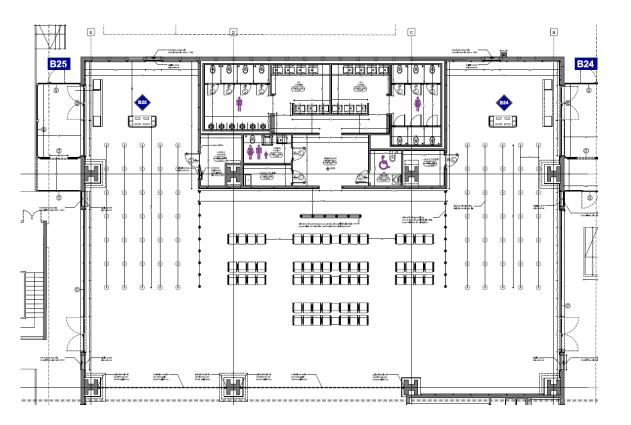
Completion date: August 2017

AMOUNT

2016 actual	2017 estimate
€ 0.1 million	€ 1.9 million

DESCRIPTION OF WORKS:

• Construction of two new remote gates and a new group of toilet facilities at the departure area B at 2.00 m above ground, after reallocation of airline support rooms.



Note: Capex as per ITA GAAP



See Schedule A: 6.1- Other works for FCO Sud

DESCRIPTION OF WORKS:

• Construction of a new group of toilet facilities at the departure area C at 6.00 above ground near the gate, after rearranging the transits desk and support rooms.







EXPECTED BENEFITS

• Improvement of quality with a new group of toilet facilities for departure area C

STATUS and AMOUNTS

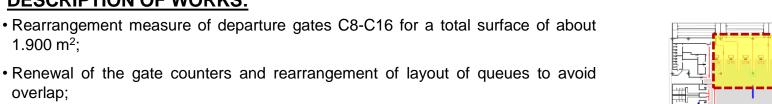
completed

AMOUNT

2016 actual	2017 estimate
€ 0.1 million	€ 0.3 million



See Schedule A: 6.2- Other works for FCO Sud



Creation of pre-boarding areas.

1.900 m²;

overlap;

DESCRIPTION OF WORKS:





EXPECTED BENEFITS

- Improvement of the functionality of the • area for queuing
- Improvement of comfort by defining a ٠ hierarchy new of spaces and characterization thereof

STATUS and AMOUNTS

completed			
AMOUNT			
2016 actual 2017 estimate			
€ - million € 0.4 million			

DESCRIPTION OF WORKS:

ADR

- Centralization of absolute reliability of the electrical power supply network for runway equipment;
- Use of high power rotating units to be installed in two new cabinets to ensure power supply continuity, replacing the existing medium size rotating units, installed locally in individual medium voltage/low voltage transformer cabinets;
- Reorganization of the medium voltage electrical network, reconfiguring from individual rings to double rings to maximize the reliability of the power supply;
- Revamping of systems in existing substations.

EXPECTED BENEFITS

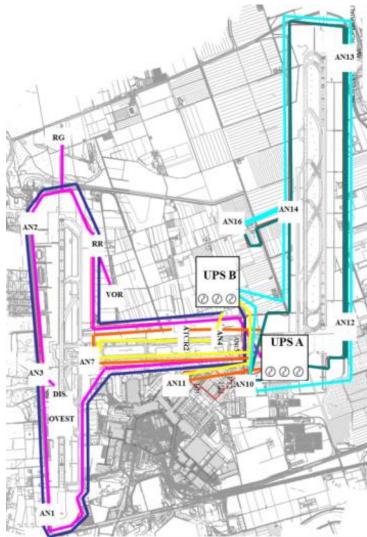
• Increase of efficiency and reliability of the electrical system of the runways

STATUS and AMOUNTS

Works in progress

Completion date: March 2018

2016 actual	2017 estimate
9.9 € million	11.3 € million



Renovation of electrical substation and MV switching center



See Schedule A: 6.1- Other works for FCO Sud

DESCRIPTION OF THE WORKS:

- Construction of a new high-voltage/medium voltage electrical substation, located near the existing facility, so as to ensure greater reliability of the entire electrical grid.
- Physical breakdown at the high/medium voltage transformer level by using four smaller transformers, which are also totally redundant, which divide the network into four sectors;
- Adoption of gas rather than air insulated high voltage systems, to provide greater plant protection, better compartmentalization for fire prevention and smaller amounts of electromagnetic emissions.



EXPECTED BENEFITS

- Reduction of recovery times from failures by dividing the network into sectors;
- Greater protection of the system, better segmentation for fire protection and lower electromagnetic emissions

STATUS and AMOUNTS

Works in progress Completion date: January 2018

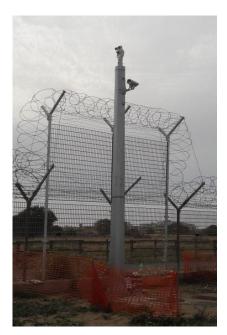
2016 actual	2017 estimate
0.8 € million	11.6 € million



DESCRIPTION OF THE WORKS:

This initiative consists in **building of an intrusion prevention system** along the perimeter fence of the airport (about 35 km)

- Control system for the perimeter fence with a function to prevent physical intrusion, consisting of triaxial accelerometers
- Installation of video surveillance system consisting of 140 thermal imaging cameras and corresponding dome/PTZ cameras equipped with IR illuminators for night vision
- Central data system for processing, alarm and diagnostics management, archiving of data flows with operator stations to manage detections





EXPECTED BENEFITS

- Availability of an effective system to ensure high security standards, making it possible to view, record and perform intelligent video analysis of the areas of interest. The primary objective of intelligent analysis is to eliminate "false positives" by selecting the "alerts" for which it is actually necessary to activate measures, drastically reducing the time required for evaluation and response;
- The system will also be used for airfield area safety (which includes apron areas and connectors), monitoring the flow of aircraft, the flow of vehicles and persons in these areas so as to be able to document specific events using systems with multifocal sensors.

STATUS and AMOUNTS

Works in progress

Expected completion date: December 2018

2016 actual	2017 estimate
€ 0.4 million	€ 2.9 million

Note: Capex as per ITA GAAP

DESCRIPTION OF THE WORKS:

- Improvement of the building previously used for AZ offices (11,000 m²) to be used as ADR's new headquarters
- The upgrade of state-owned assets significantly reduces the cost and time originally planned for the work

EXPECTED BENEFITS

See Schedule A: 4.4 - Landside Works for FCO Sud

• More efficient distribution of the corporate functions between central and remote offices

STATUS and AMOUNTS

Works in progress

Completion of infrastructure works: September 2017

2016 actual	2017 estimate
4.3 € million	7.0 € million









ENAC - ADR Economic Regulation Agreement

Investments in 2017

- Fiumicino
- Ciampino

Investments in 2017



Ciampino

- Restructuring of General Aviation Terminal
- Standard 3 X-ray machines

Restructuring of General Aviation Terminal



DESCRIPTION OF THE WORKS:

- Complete upgrade of the building
- Renewal of the layout and interior trim, to align the passenger experience to the specific traffic target of General Aviation

STATUS Completed* AMOUNT				
			2016 actual	2017 estimate
€ 2.5 million	€ 1.1 million			

See Schedule A: C.5- Works on Ciampino Terminal



Restructuring of General Aviation Terminal





Standard 3 X-ray machines



DESCRIPTION OF THE WORKS:

- Construction of new foundation bollard
- Implementation of new antivibration structures for X-ray machines
- Replacement of the entire set of STD2 equipment for hold baggage checks with 4 STD3 machines (Smith Heimann)

See Schedule A: C.6 - Other works Ciampino

STATUS and AMOUNTS

Construction in progress

Date of completion civil works: September 2017

Operation of first 2 X-ray machines: August 2017

Operation of remaining 2 X-ray machines: September 2017

2016 actual	2017 estimate
€ - million	€ 4.1 million





Note: Capex as per ITA GAAP