

# REPORT ON PERFORMANCE OF THE THIRD YEAR OF THE QUALITY AND ENVIRONMENTAL PROTECTION PLAN FOR THE ROME AIRPORTS FIUMICINO AND CIAMPINO



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# **Annex 1**

REPORT ON PERFORMANCE OF THE THIRD YEAR

OF THE QUALITY AND ENVIRONMENTAL PROTECTION PLAN

FOR THE ROME AIRPORTS FIUMICINO AND CIAMPINO



## INTRODUCTION

The need to combine economic growth with protection of the environmental heritage and constant improvement of the quality of services is a strategic priority of ADR. In this perspective, in 2012 the Company started a course of profound transformation that places "environmental sustainability" and customer satisfaction at the centre of its corporate activities. The programme called "Copernico" emerges from a number of projects that each ADR Department has singled out within them to increase service quality, while at the same time lessening the business's mark on the surrounding environment. In the wake of what has been presented in the previous reports, a number of activities that have led to the considerable improvement of customer experience compared to the past have been carried out with a view to bringing the quality of the services that the Fiumicino airport offers into line with the leading European airports. With a view to spreading the corporate social responsibility principles and to promoting the initiatives carried out, this year ADR has drawn up its first sustainability report. It is the point of reference of the commitment made to the sustainable development of the Rome airport system.

In consideration of the fire that broke out at Fiumicino on the night of 6-7 May 2015 and the resulting problems with operations, the quality surveys at the airport were interrupted. Therefore, the quality perceived and supplied indicators pertaining to the Fiumicino airport (indicators included in the Economic Regulation Agreement under numbers 1 to 9) state 1 July 2014 to 6 May 2015 as being the analysis period. The period established in the Economic Regulation Agreement was confirmed for all of the other indicators, up until 30 June 2015.

The quality indicators regarding Fiumicino in the period described above point out the effectiveness of the measures taken in improving the standards of the levels of services offered. Ten out of the 12 indicators monitored are clearly better than the set goals, and two stray from the minimum value targets with a difference of less than 2%.

Environmental performance was particularly significant for both the Fiumicino and Ciampino airports, with levels that the indicators reached considerably better not only for the goals of this year, but for the next one as well.



## QUALITY

#### ORGANISATIONAL CHANGE

ADR's important and challenging project to pursue change has required continuing to reflect on the organisational structure of the Group already started in 2012, which was explained in the previous edition of this report (September 2014).

The organisational action of 2014 was developed according to two main drivers:

- 1. Support given to improving the quality of the service supplied. Mentioned to this regard: the new organisation of the Terminal Managers, the ADR Security organisational restructuring and the organisational planning of the newly formed Airport Cleaning. In particular, the organisational action in the first half of 2015 was focussed on customer experience by forming an organisational unit dedicated to passenger management, for which an operations room for monitoring and supervising the services supplied was provided.
- 2. **Compliance for airport certification** for both the Fiumicino and Ciampino airports by defining the structure of the Deputy Post Holders in line with the recommendations of the ENAC (National Civil Aviation Authority) Certification Team

With reference to the newly formed company Airport Cleaning (wholly owned subsidiary of ADR) whose purpose is to guarantee standards of excellence for the cleanliness of the terminals, the second phase was started. In addition to the East area of the FCO airport (T1, pier B, entrance shelters at the airport arrivals and departures, etc.) that was described in detail in the previous report, the West area of the Fiumicino airport and the cleaning of the Ciampino airport were also taken over starting from 1 March 2015. Airport Cleaning was also assigned management of the baggage cart collection and distribution service at the Fiumicino airport starting from 1 December 2014. These activities were internalised on the basis of the facts that emerged from a specific comparison started up with the Munich and Frankfurt airports.

As for the figure of "Terminal Manager", disclosed in the previous report, a specific training course has been carried out to support this new position, with specific regard to the methods of managing decorum and the quality of the services supplied.

In order to define the sustainability policies necessary for adapting the corporate strategic plans to the best practices in the field of corporate social responsibility, the activity of the Environmental Sustainability



Steering Committee that was officially formed in 2013 continued. The main issues that the committee handled in recent months concerned:

- Definition of the methods for managing the sorting of waste and implementation of the "Porta a Porta" (Door to Door) project.
- Planning the environmental archaeological park initiative.
- Analysis of the "Smart Grid" project relating to the procurement of energy from renewable sources, and monitoring of the progress stages.
- Identification of initiatives to implement to reduce CO2 consumption and attainment of the ACA certificates in 2014.
- Discussion on collecting and treating rainwater and industrial water and on the hydrogeological risk for the airport.





The integrated system of certifications that ADR implements is an important tool for supporting ongoing improvement of quality and the management of environmental issues. The structure of the management



systems of the Aeroporti di Roma Group companies and the relevant rules of reference are schematically represented as follows:







Quality – ISO 9001	✓	$\checkmark$	<b>√</b>
Environment – ISO 14001	$\checkmark$		
Energy – ISO 50001	$\checkmark$		
Safety – OHSAS 18001	$\checkmark$	$\checkmark$	$\checkmark$



## COORDINATION AND CONTROL ACTIVITY

In view of the transversality of the coordination and control activities that impact the levels of services offered to passengers, the impression of the airport in the surrounding district and compliance with current regulations, the attention that ADR pays to these questions has been further intensified.

Analysis of the risks at the operations areas of the Fiumicino hub affected by safety issues has already been described in previous reports. This activity is performed with the support of consultancy companies of well-established international experience (Ineco, Airport Research Center, Air Claims).

The analysis has confirmed that the congestion in the air side areas appointed to airport vehicle parking and movement has increased over the years along with the growth in number of certified handlers. Moreover, the exceeding competitiveness between the handlers - marked by lower and lower fees and the inevitable low quality of service - has made the situation even more complex. ADR has proposed the adoption of restrictive measures to cope with this difficulty, in order to ensure that the "quality" and "quantity" of the parties involved in managing the operations processes in the air side areas are consistent with the needs for safety, efficiency and quality of the most important national airport.

Action was taken on two fronts to support the improvement process:

- the control and stimulation action carried out towards the handlers was strengthened in terms of compliance with the standards regarding baggage reclaim wait time and check-in procedures;
- the requests for sanctions due to non-compliance with the airport standards progressively increased: 373 were made in 2014 compared to 241 in 2013.

In this light, ADR identified additional tools for controlling the activities performed by the handlers at the Fiumicino airport to attain immediate improvement in the process, which turned into a set of proposals to amend and supplement the Airport Regulations. Also note that ADR has already implemented a system of random checks on the running airport vehicles and equipment (over 800 units), whose results are also sent every three months to the ASL Roma D local health authority.



#### **OUALITY IMPROVEMENT PROGRAMMES**

ADR considers the quality of service and of environmental protection issues as fundamental points of reference and priority objectives for defining corporate strategy. The Company addressed its activity to achieve a quality of services at the two Rome airports equal to that of the leading European airports ahead of the scheduled deadline set out in the Economic Regulation Agreement. Focus was primarily placed on Fiumicino. Therefore, ADR undertook to radically change its approach to operational processes in order to quickly close the customer perception gap that over the years has marked the comparison with the continental airports of reference.

ADR interviews passengers and takes objective surveys of the performance of the key processes in which passengers are involved in order to constantly monitor the service levels offered to them. More specifically, also following collaboration with the faculty of Management for Quality of the Roma Tre University, started

in 2014, the monitoring system was extended with the aim of measuring the passenger's entire travel experience by checking the quality of the main services supplied daily: check-in, carry-on baggage check, baggage reclaim, tax refund, availability of trolleys, punctuality of departing flights, cleanliness and functioning of the rest rooms and terminals, food & beverage service and duty free.



The steps taken to improve the customer experience allowed the goals regarding the indicators included in the Economic Regulation Agreement to be attained. As far as the Fiumicino airport is concerned, the activities initiated during the observation period led to a considerable improvement in Quality performance at the airport. The following aspects are given by way of example:

- sharp improvement in performance detected while waiting at the carry-on baggage check, with 05:05 minutes compared to a goal of 08:30 minutes (90% of cases);
- also highlighted is the waiting time in the check-in queue, recorded at 12:22 minutes, below the 19:20 minutes set as the goal (90% of the cases).

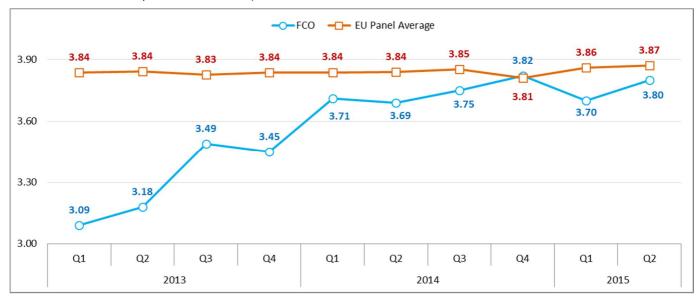


In line with the improvement trend shown by the ERA indicators, the results that are emerging from the survey conducted by Airport Council International (ACI), participated in by over 250 airports around the world, confirm that change is in progress at the Fiumicino airport and that there is sharp discontinuity with the past.

The chart provided below shows the growth trend Fiumicino has held over recent quarters regarding the overall opinion given by passengers. As described in the chart, the gap between Fiumicino and its primary European peers<sup>1</sup> has been progressively diminishing.

The second quarter of 2015 includes the ACI assessments of April only due to the fire that took place at the airport on the night of 6-7 May.

**CHART** assessments of the overall opinion of the Fiumicino airport given by passengers - Source: ACI (scale of assessments between 1-poor and 5-excellent).



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<sup>&</sup>lt;sup>1</sup> European panel: Amsterdam Schipol (AMS), Paris Charles De Gaulle (CDG), Paris Orly (ORY), Copenhagen (CPH), Frankfurt (FRA), Madrid (MAD), London Heathrow (LHR), Munich (MUC), Milan Malpensa (MXP), Zurich (ZRH).



#### CITY-AIRPORT ACCESSIBILITY

In October 2014 the area with "Kiss and Go" controlled traffic and the area with "Stop & Go" limited traffic were implemented and put into operation in order to increase the efficiency of airport access and make reaching the terminals more comfortable. The two projects mainly provide for:

- **ZTC** "**Kiss&Go**" **Area:** access allowed to passengers and people accompanying them going to terminals 1, 2 and 3 with 15 minutes of free parking.
- ZTL "Stop&Go" Area: access allowed only to authorised vehicles using an electronic detection system..

  A maximum time period for authorised vehicles to stop (45 minutes, plus 15 minutes tolerance) was also established. Installation of ZTC cameras to monitor the time parked was completed in October 2014.



One of the initiatives completed to improve practicability at the airport was the setting up of collection areas set aside for the non-

sub-concessionaire car hires with driver on the multiple-level car park ground levels B and D to make secondary access near the arrivals landside area easier. The initiative allowed 95 extra parking spaces to be made for passengers and people accompanying them.

#### **Internal mobility**

With regard to mobility inside the airport, the tender for assigning the free shuttle bus service was concluded. Two different courses will be arranged at the Fiumicino airport. One will be for passengers, with one shuttle bus running every 5 minutes, and one will be for airport operators, with one shuttle bus running every 15 minutes.

As for the Ciampino airport, the shuttle bus service connecting the airport car parks and airport was started in July 2015. The planned schedule is one shuttle bus every 12 minutes.



#### Car parks

As part of the measure taken to replace the Parking Management System (PMS) for both Fiumicino and Ciampino, all car park entrance and exit lanes, ticket machines and automatic tills have been replaced. New payment systems and channels have also been implemented. More specifically, starting from December 2014 passengers can pay with credit cards or debit cards directly in the car park exit lanes and with a view to offer

passengers special promotions, QR code readers installed in the automatic tills and entrance lanes have been implemented.

With reference to the
"Car Parking
Revitalization" Project
aimed at improving some
architectural aspects of
the multi-level car parks
at Fiumicino by



upgrading internal areas, the design of the first stages has been completed (building works to re-paint and upgrade the interiors, new electric systems and new interior lighting). The project involves adopting high standards published by the EPA (European Parking Association) and will be started in the second half of 2015 (with works to end in the first quarter of 2016).

#### **Intermodality**

For an airport like Fiumicino the development of accesses is of the utmost importance in order to best address the mobility and accessibility needs connected to the demand of air transport for Rome. Therefore, two daily high-speed train services ("Frecciargento" type) connecting the Fiumicino airport to the cities of Florence, Bologna, Padua and Venice have been put into operation. Again with a view to improving and boosting railway transport, the connection between Fiumicino and the Termini station in Rome has been reinforced since December 2014 with 22 additional runs a day for the "Leonardo Express" direct train.



## COMFORT/INFRASTRUCTURES

The initiatives adopted to improve both the image of the airports and the comfort and infrastructures for the passengers play an essential role in the airport redevelopment project. With reference to the infrastructural works also aimed at improving internal road signs and ease of orientation for the passengers, upgrading and aesthetic and functional improvement works have been carried out at Terminal 1 airside arrivals and Terminal 3 Schengen airside arrivals. The following activities at the landside area are also reported:

- three new multifunctional desks servicing passengers were installed, one of which at departures in Terminal 1 and two at the mezzanine floor of Terminal 3;
- the project to renovate the Fiumicino airport toilet facilities by upgrading them in keeping with the new concept has been completed;
- the actions were completed for the aesthetic and functional improvement of the arrivals corridor of departure area D, with the reactivation of the 6 moving floors that had not been used for a long time;
- the works to upgrade the coverings at the areas of departure gates C8-C16 were completed; similar works at the Satellite are being completed;
- the works to adjust the landside arrivals hall of Terminal 3 were completed, towards both the west side, where the areas for the reallocation of the operating offices were upgraded, a closed area to host the trolleys was created and the chapel was improved, and the east side, where the works were completed on the routes and road signs to improve the flow of passengers leaving the baggage reclaim area;
- the works to improve the flooring at the baggage reclaim area of Terminal 3 were carried out;
- new tour operator desks were built at Terminal 2 as part of the preliminary tasks to clear the façade of Terminal 3 in order for it to be totally replaced, as requested by the MIBACT (Italian Ministry of Cultural Heritage, Activities and Tourism);
- LED technology lighting was set up in the hall of Terminal 1 and in the entire departure area B.

As regards Ciampino airport, the first phase of the restyling works of the General Aviation Terminal was completed. The works involved the remaking of the floor and false ceiling of the communal areas and the remaking of the toilet facilities at the bar area according to the new concept adopted at Fiumicino airport. A footpath platform protected against the elements was created in quadrants 100 and 200 in the airside area to allow passenger to board and disembark also in adverse weather conditions.



#### PASSENGER SERVICES

ADR has achieved significant results along the path it has taken in recent years to improve and increase the services offered to its passengers by placing the customer at the centre of the improvement programmes. The most important initiatives put into effect include:

- 40 stations to recharge electronic devices such as mobile phones, tablets and PCs were installed near the departure gates of Terminal 1 and Terminal 3 in Fiumicino and 4 stations at the Schengen and Extra-Schengen gates at Ciampino; 7 workstations were installed (panels fitted with plugs, offering passengers extra space to use and recharge their mobile devices) at the Schengen and Extra-Schengen areas of Fiumicino Terminals and one at the Schengen area of Ciampino;
- a fast office service was activated by installing eight multifunctional machines to send and receive faxes and make photocopies, available to passengers free of charge;
- ADR has been offering free and unlimited internet access (free wi-fi) to its passengers at Fiumicino airport. Since the end of December 2014 a similar service has been made available to passengers at the Ciampino airport as well. The existing wi-fi networks have been enhanced to be able to provide these services. Eight fixed stations have also been put into operation in the first half of 2015, and each station has eight complimentary tablets connected to the corporate wi-fi network to offer Internet access to those passengers who do not have their own devices free of charge;
- The Pax Track system, already used at Fiumicino, was implemented at Ciampino airport. It is used for the automatic reading and validation of boarding passes at the security point.





#### "Airport Helper" Project

On 13 November 2014, coinciding with Courtesy Day, the figure of "Airport Helper" was officially introduced at Fiumicino after having set it up at Ciampino the previous year in order to promote and spread the values of passenger courtesy and hospitality by involving the entire airport community (operator, restaurants, shops, security, police, etc.) on a voluntary basis. Specific classroom training is given to those people who join the initiatives so that all "Airport Helpers" become aware of all the information that passengers may require.



## **Airport Cleaning and Rest Rooms**

As previously stated, ADR paid special attention to cleanliness issue both in the terminals and in the rest rooms, and internalising the cleaning activity by establishing Airport Cleaning is proof of that. The findings that emerged from the customer satisfaction surveys conducted at the Fiumicino airport by an external company showed a sharp improvement compared to the previous period (observation period 01/07/14-06/05/15 compared with 01/07/13-06/05/14):

- passenger satisfaction with airport cleanliness significantly increased, to the point that 89% of passengers were satisfied versus 74.4% surveyed in the previous period;
- as for rest room cleanliness, the increase recorded was noteworthy: 87.5% of the passengers were satisfied compared to 70.6% in the previous period.

#### **Security and Check-in**

The project to reconfigure the airport security points by installing new baggage transfer and passenger flow management systems (Manchester module) with the goal of cutting the time waiting to go through the security point and of improving passenger satisfaction was completed. At the same time the behavioural and passenger orientation training programme for front line personnel continued. These initiatives led to outstanding results in terms of perceived quality, with 95.1% satisfied passengers (observation period 1/7/14-6/5/15), which confirms the excellent performance recorded in the same period of the previous year, 94.9%.





Similar to what has been illustrated for Security, also the Check-in process confirms the excellent performance recorded previously. Considering the same time intervals used for Security, 92.3% of the passengers were satisfied in the period under review, while that percentage was 91.8% in the corresponding period of the previous year.

The measurements of quality provided concerning carry-on baggage check waiting time and check-in queue waiting time show a positive trend consistent with the perceived quality as described in the "quality improvement programmes" section above.

#### **The ADR Service Charter**

The ADR Group updated the Fiumicino and Ciampino Service Charter by adopting the new specifications required by ENAC in its new "GEN-06" circular during the first six months of 2015. The new Service Charter, which ADR presented during the first half of 2015, was approved on 26/06/15.

With respect to the previous version, the new version of the document contains changes, and more specifically:

 FCO: increase in the standard envisaged for overall perception of the people and carry-on baggage security check service, which rose from 90% satisfied passengers to 95% in connection with 2014 ADR performance of 96% satisfied passengers.



- FCO: increase of the standard envisaged for overall perception of the regularity of the services received at the airport by two percentage points, set at 92% on the basis of 2014 ADR performance of 91.7% of satisfied passengers.
- CIA: reduction of the standard envisaged for time waiting at the security checks, dropping from 10 to 8 minutes, calculated in 90% of cases.



#### COMMUNICATION

To stimulate communication with passengers and to encourage cultural change both inside and outside the company, ADR paid particular attention to communication also in the third year of the Economic Regulation Agreement.

#### **Passenger information**

Also in the third year ADR continued to publish the most important data on the quality provided to passengers on the main operating processes in order to maintain a transparent approach with its passengers. This information, brought up to date every month, is published both at the Fiumicino and Ciampino terminals and on the corporate website.

Following are some examples of the actions taken to boost the information placed at the passengers' disposal:

- Implementation of the new FIDS (Flight Information Departure System) was completed to provide
  passengers with more information (time need to reach the gates, weather forecasts at destinations,
  etc.).
- The monitors for public information continue to be replaced with new LED technology screens that, in addition to being brighter, save about 50% of energy.
- A large (63 sq. m) information board was installed in a central position in the Terminal 1 departures hall. The board, made with LED technology and legible from a distance between 10 and 60 metres, is one of the best airport information devices at European level in terms of size and image quality.
- Four mobility information hubs (train and bus schedules, motorway traffic) were installed at the arrivals areas.





## Awareness and involvement of the operating structures and operators

With regard to behavioural training, actions aimed at improving the quality of the service of the airport staff were carried out and the "Addetti itineranti" (Wandering Staff) project was launched to improve interaction between airport staff and customers. In order to spread and promote commitment to improvement, the second Quality Day was held during this year, with which ADR presented the actions taken and the programmes in progress having an impact on the quality of the services to all airport operators.



## QUALITY INDICATORS

## Indicators from 1 to 9: July 2014 - 6 May 2015 Indicators from 10 to 12: July 2014 - June 2015

			Fiumicino	
		Performance	Objective	Status
1) Waiting time for carry-on baggage security check *	Time in 90% of cases	0.05.05	0.08.30	ок
2a) Delivery of last bag *	Waiting time in 90% of cases	0.38.45	0.38.22	NO
2b) Reclaim of first bag *	Waiting time in 90% of cases	0.30.16	0.32.38	ок
3) Waiting time in check-in queue *	Waiting time in 90% of cases	0.12.22	0.19.20	ок
4) Overall perception of the comfort level *	% satisfied passengers	93.3%	86.0%	ОК
5) Perception of the level of cleaning in the terminal *	% satisfied passengers	89.0%	78.0%	ок
6) Perception of the efficiency of the operating info points *	% satisfied passengers	85.7%	82.0%	ок
7) Presence of clear, understandable and efficient internal signs *	% satisfied passengers	87.9%	85.0%	ок
8) Perception of efficiency of the passenger transfer systems *	% satisfied passengers	93.2%	86.0%	ок
Assistance to passengers with reduced mobility #	% satisfied passengers	97.9%	87.0%	ОК
10) Availability of operating info points #	TPHP/No.info points	23.57	23.21	NO
11) Efficiency of the passenger transfer systems #	% of operating time out of 18 h	99.5%	99.1%	ок
12) Reliability of the baggage reclaim systems #	% of operating time out of 18 h	99.2%	98.8%	ок

#### KEY

\* Data supplied by PRAGMA (refer to the specific report annexed)

# Data supplied by ADR

Perceived quality

= % of satisfied passengers:

scores 6+5+4 (6-point scale)

- Average Q.E. time

= "mm.ss":

minutes/seconds



# QUALITY INDICATORS July 2014 - June 2015

			Ciampino	
		Performance July 2014 / June 2015	Objective	Status
1) Waiting time for X-ray baggage security check *	Time in 90% of cases	0.07.31	0.08.20	ок
2a) Delivery of last bag time *	Time in 90% of cases	0.26.00	0.26.00	ок
2b) Reclaim of first bag time *	Time in 90% of cases	0.21.07	0.20.00	NO
3) Waiting time in check-in queue *	Time in 90% of cases	0.17.38	0.22.00	ок
4) Overall perception of the comfort level *	% satisfied passengers	79.3%	90.0%	NO
5) Perception of the level of cleaning in the terminal *	% satisfied passengers	86.3%	90.0%	NO
6) Perception of the efficiency of the operating info points *	% satisfied passengers	80.4%	80.0%	ок
7) Presence of clear, understandable and efficient signs *	% satisfied passengers	84.8%	80.0%	ок
8) Perception of the level of rest room cleanliness and functioning *	% satisfied passengers	79.5%	90.0%	NO
Assistance to passengers with reduced mobility #	% satisfied passengers	98.6%	87.0%	ок
10) CREWS up time (1) #	% of operating time out of 17 h	100%	99.5%	ок
11) Availability of operating info points #	TPHP/No.info points	32.1	33.6	ок
12) Reliability of the baggage reclaim systems #	% of operating time out of 8 h	99.5%	99.3%	ок

(1) The CREWS system was replaced with the CUTE system on 1 January 2014 as per notice dated 7/4/14

KE	ΞΥ		
*	Data supplied by PRAGMA (refer	to the specific report annexed)	# Data supplied by ADR
-	Perceived quality  Average Q.E. time	= % of satisfied passengers: = "mm.ss":	scores 6+5+4 (6-point scale) minutes/seconds



## **ENVIRONMENT**

ADR is constantly committed to supplying quality services in continuous observance of the environment, aware of the need to combine increase in value and economic growth with protection of the environmental heritage. With a view to continuously improve and reduce our impacts on the environment and on the surrounding communities, the ADR Group is investing more and more (in terms of economic and other resources) to switch over from a purely regulatory compliance approach to pro-active management of environmental problems.

In the third-year period, i.e. July 2014-June 2015, the environmental indicators regarding both the Fiumicino and Ciampino airports reported a growth trend comparable to the one seen in the previous periods, except for the sixth environmental indicator of Fiumicino, "*Utilisation of renewable energy sources*". All of the environmental indicators included in the Economic Regulation Agreement show performance fully above the goals, except for the parameter concerning the amount of energy coming from renewable sources that deviates from the objective by just 0.6%.

## WASTE MANAGEMENT

The foremost indicator to be pointed out is "Separate waste treatment" regarding Fiumicino, whose performance not only allowed the set goal to be achieved for the third year, but which places the "Leonardo da Vinci" airport among the most virtuous in Europe. As proof of the importance that the Group assigns to the waste issue, in October 2014 the operational stage of the new "porta a porta" (door to door) separate waste collection service called "la raccolta differenziata vola" (separate waste flies) was started at the Fiumicino airport. By implementing integrated management, the initiative requires that



all waste produced at the airport (coming from activities regarding the commercial services, sub-concessionaires, institutional bodies, ADR offices, etc.) be collected by a single party using special equipment placed at the users' premises (containers, plastic and wooden cases, bags). A fee varying according to the amount and type of waste produced and the size of the service the user selects (large, medium or small) is associated with the "door to door" collection service in order to make airport users aware of the issue and to reduce waste production.



The goals of the project are:

- 1. increase the percentage of separate collection
- 2. reduce the non-separate waste sent to disposal
- 3. improve the product quality of the collected waste

Because of the attention that ADR pays to the waste management issue, the corporate goal set for 2015 is to reach 80% separate collection at Fiumicino.

With a view to pursuing the course taken to increase the percentage of waste sent for recycling, two recycling areas supervised by the contractor's personnel were completed and put into operation in the first half of 2015 at the Ciampino airport. Proof of the effectiveness of the steps taken lies in the percentage of separate collection recorded at Ciampino in the first half of 2015, 30%, up 9% compared to the final figure recorded in 2014.

## WATER QUALITY

With reference to the waste water (COD, BOD5 and SST) quality indicators, the performance recorded fully meets the goals set out in the Economic Regulation Agreement so that observance of the corresponding legal limits was guaranteed.

ADR's commitment in reducing the impact of airport activities in the local environs is also demonstrated by the presence of four oil extraction plants whose purpose is to purify the water collected on the runways and aprons from any pollutants before putting it into the receiving body of water. Construction of another 14 oil extraction plants that will increase the effectiveness of the rainwater treatment system is also planned in 2015.

### CO2 EMISSIONS

As confirmation of the pro-active approach that the company adopts, which goes beyond simply observing current regulations, since 2011 ADR has voluntarily subscribed to the certification system called *Airport Carbon Accreditation* (ACA) promoted by ACI Europe (Airport Council International). This certification system envisages four increasing accreditation levels depending on the mapping and quantification of the emissions produced and the relevant actions taken to reduce them:



- "1 MAPPING": estimate of the direct CO2 emissions;
- "2 REDUCTION": reduction of direct emissions;
- "3 OPTIMISATION": estimate and steps taken to reduce direct and indirect emissions;
- "3+ NEUTRALITY": compensation of direct and indirect emissions which ADR controls.

In November 2014 the Fiumicino airport obtained the maximum accreditation level, "3+ NEUTRALITY", by compensating the direct and indirect emissions (about 65,000 tons of compensated CO2) with the purchase of "carbon credits" coming from renewable energy production projects and from projects to

eliminate polluting gases (HFC) at industrial level in developing countries. Of the European airport of Fiumicino's<sup>2</sup> panel of reference, only another two airports attained this accreditation level (source: ACA).

During the first half of 2015 the ACA confirmed maintenance of the accreditation level "2 - REDUCTION" for Ciampino airport. At the same time ADR completed the documents necessary to move Ciampino





up to the next accreditation level, "3 OPTIMISATION", which demands not only the requisites for the previous levels, but also calculation of the indirect emissions generated by third parties and the setting out of programmes to reduce emissions, to be carried out with the participation of external parties, such as airlines and handling companies. The report that ADR drew up was validated by an external inspector recognised by the international body that supervises issue of certifications. Moving up to the third accreditation level will be formalised for Ciampino with the corresponding certificate, which is

expected to be received in the upcoming months.

<sup>&</sup>lt;sup>2</sup> European panel: Amsterdam Schipol (AMS), Paris Charles De Gaulle (CDG), Paris Orly (ORY), Copenhagen (CPH), Frankfurt (FRA), Madrid (MAD), London Heathrow (LHR), Munich (MUC), Milan Malpensa (MXP), Zurich (ZRH)



## NOISE POLLUTION

Airport noise has continued to be monitored at both Fiumicino and Ciampino, in compliance with the text of the Economic Regulation Agreement and legal requirements. The relevant indicators, "Noise detection central units" and "Noise monitoring network uptime", have revealed performance at both airports better than the objectives stated in the ERA. In 2015 modernisation of the noise detection central units with new software tools will continue.

In order to curb the environmental impact in terms of noise pollution, ADR entrusted La Sapienza University of Rome with creating a simulation model with the objective of predicting the acoustic "climate" and promptly taking the steps necessary to prevent exceeding the set limits in the first half of 2015. Drafting of the "Fiumicino and Ciampino noise pollution mitigation plan" is also in progress, and will be shared with ENAC.

## **ENERGY CONSUMPTION**

A decreasing energy consumption trend has been recorded at Fiumicino in the last few years due to significant action taken to improve energy efficiency, implemented on an on-going basis over the years. On a consistent basis with previous years, activities continued for the replacement of the lighting units using LED or low consumption technology in numerous areas of the terminal and on the runways and aprons; work also continued for the placement of the motors with the high-efficiency ones of the electromechanical installations and the baggage sorting system, as well as the installation of inverters and extraordinary maintenance work on the refrigeration units and the cooling towers.

At Ciampino airport, during the past year the conventional light bulbs were replaced by new generation, high-efficiency LED technology in the departures area and external areas. Inverters have been installed in the air-conditioning system on the air treatment units and the so-called freecooling system that, by using outside air, reduces energy consumption of the air-conditioning system has been implemented. A system was also installed to monitor air-conditioning and heating at the airport in order to allow for the automated management of the internal temperature, thus shortening the time necessary to intervene and saving on management costs.

In the first half of 2015, the actions to cut consumption managed to lower its growth to 0.65%, against a rise in passenger traffic at Fiumicino of 6.7%; indeed, the kwh/passenger consumption indicator decreased by



5.7% compared to the first half of 2014. In the half-year actions were taken to adjust the air-conditioning systems to save energy as well as to revamp the systems in keeping with the investment plan. In recent months lighting units in various terminal areas have been replaced with those featuring LED technology, which have played an important role in saving electricity.

With a view to making it business increasingly sustainable, ADR started the pilot project Smart Grid in 2014. It involves the creation of an energy island that accumulates electricity from systems having renewable sources (photovoltaic and micro-mini wind). The project will get under way in the forthcoming months and will contribute to reducing energy consumption and to mitigating environmental impact.



# ENVIRONMENTAL INDICATORS July 2014 - June 2015

		FIUMICINO		)
		Performance July 2014 / June 2015	Objective	Status
1) Noise detection central units #	No. fixed detection central units for noise/aircraft movements x 100,000	6.04	5.83	ок
2) Noise monitoring network uptime #	% time operating out of airport opening hours	93.9%	92.0%	ок
3) Separate waste treatment #	100 kg units of waste collected separately/total 100 kg units of waste	73.0%	35.0%	ок
4) a. Waste water treatment - COD (mg/L of O2) #	% compliance with the Legal Limit (125 mg/L) of the average annual concentration of oxygen necessary for the chemical oxidation of the organic and inorganic compounds in the waste water samples of the treatment plants	35.6%	45.0%	ок
4) b. Waste water treatment - BOD5 (mg/L of O2) #	% compliance with the Legal Limit (25 mg/L) of the average annual concentration of oxygen necessary for the biochemical oxidation of the organic compounds in the waste water samples of the treatment plants	54.0%	64.00%	ок
4) c. Waste water treatment - Total Suspended Solids (mg/L) #	% compliance with the Legal Limit (35 mg/L) of the average annual concentration of total suspended solids in the waste water samples of the treatment plants	17.1%	22.0%	ок
5) Energy efficiency #	KWh of energy used in the terminal / m3 of terminal	148.75	163.0	ок
6) Use of renewable energy sources **#	KWh of energy not produced by renewable sources/kwh of energy used by the airport	1.000	0.994	NO

<sup>\*\*</sup> value "0" at base year – the unit of measurement was reversed as to the one set out in the guidelines in order to remedy the "leverage effect".

* Data supplied by PRAGMA	# Data supplied by ADR
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# ENVIRONMENTAL INDICATORS July 2014 - June 2015

		Ciampino		
		Performance July 2014 / June 2015	Objective	Status
1) Noise detection central units #	No. fixed detection central units for noise/aircraft movements x 100,000	19.47	17.91	ок
2) Noise monitory network uptime #	% time operating out of airport opening hours	96.4%	92.0%	ок
3) Separate waste treatment # (1)	100 kg units of waste not collected separately/total 100 kg units of waste	75.5%	90.0%	ок
4) Waste water treatment #	% average annual concentration of oxygen necessary for the chemical oxidation of the organic and inorganic compounds in the waste water samples of the treatment plants	100%	100%	
5) Energy efficiency #	KWh of energy used in the terminal / m3 of terminal	122.25	156.00	ок
6) Use of renewable energy sources #	KWh of energy not produced by renewable sources/kwh of energy used by the airport	1.00	1.00	

\* Data supplied by PRAGMA # Data supplied by ADR

<sup>&</sup>lt;sup>1</sup> value 1% at base year – the unit of measurement was reversed as to the one set out in the guidelines in order to remedy the "leverage effect".



# Annex 2

CERTIFICATION OF THE COMPANY THAT COLLECTS
THE DATA - PRAGMA





Roma, 6 Agosto 2015

Oggetto: CONTRATTO DI PROGRAMMA ADR-ENAC: LE PERFORMANCE DEI DUE SCALI

ROMANI

(FCO: luglio 2014-6 maggio 2015 / CIA: Luglio 2014-Giugno 2015)

Pragma srl, l'Istituto incaricato da Aeroporti di Roma (ADR) di monitorare la qualità percepita (attraverso interviste ai passeggeri) e la qualità erogata (attraverso rilevazione oggettiva dei processi aeroportuali) presso gli aeroporti Leonardo da Vinci a Fiumicino e G.B.Pastine di Ciampino, nel presente documento riporta con validazione i risultati emersi nel periodo

- Luglio 2014-6 maggio 2015 presso lo scalo di Fiumicino
- Luglio 2014-Giugno 2015 presso lo scalo di Ciampino per gli indicatori contrassegnati da "\*", così come previsto dal Contratto di Programma ADR-Enac.

Si fa notare che gli indicatori di qualità percepita (che fanno riferimento alla % di passeggeri soddisfatti) sono stati applicati opportuni fattori di ponderazione in funzione del traffico passeggeri e che agli indicatori di qualità erogata (che fanno riferimento ai "tempi" di erogazione di alcuni servizi) sono stati applicati opportuni coefficienti di espansione nel rispetto metodologico.

Pragma S.r.I. Il direttore di ricerca Rossella Ceccattini



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## INDICATORI DI QUALITA' Luglio 2014 - 6 Maggio 2015

## Aeroporto Leonardo da Vinci di FIUMICINO

		Unità di misura	Risultati Luglio 2014 / 6 Mag 2015	Obiettivo	Status
	1) Tempo di attesa al controllo bagaglio	Tempo nel 90% dei	0.05.05	0.08.30	ок
	a mano	casi			
	2a) Riconsegna ultimo bagaglio	Tempo di attesa nel 90% dei casi	0.38.45	0.38.22	NO
	2b) Riconsegna primo bagaglio	Tempo di attesa nel 90% dei casi	0.30.16	0.32.38	OK
10	3) Tempo di attesa in coda al check-in	Tempo di attesa nel 90% dei casi	0.12.22	0.19.20	OK
	Percezione complessiva sul livello di comfort	% pax soddisfatti	93,3%	86,0%	OK
	5) Percezione sul livello di pulizia in aerostazione	% pax soddisfatti	89,0%	78,0%	ОК
	Percezione dell'efficacia dei punti informazione operativi	% pax soddisfatti	85,7%	82,0%	OK
10	7) Presenza di segnaletica interna chiara, comprensibile ed efficace	% pax soddisfatti	87,9%	85,0%	OK
	Percezione dell'efficienza dei sistemi di trasferimento passeggeri	% pax soddisfatti	93,2%	86,0%	OK
	9) Assistenza PRM #	% pax soddisfatti	97,9%	87,0%	OK
	10) Disponibilità punti informazione operativi #	TPHP/N° punti informazione	23,57	23,21	NO
	11) Efficienza dei sistemi di trasferimento pax#	% di tempo di funzionamento su 18 h	99,5%	99,1%	ок
	12) Affidabilità impianti riconsegna bagagli #	% di tempo di funzionamento su 18 h	99,2%	98,8%	ок

#### LEGENIDA

Dato fornito da PRAGMA (si veda specifica relazione allegata)

# Dato fornito da ADR

- Qualità percepita Tempi medi Q.E. = % di pax soddisfatti: = "hh.mm.ss": voti 6+5+4 (scala a 6 punti) ore/minuti/secondi





## INDICATORI DI QUALITA' Luglio 2014 - Giugno 2015

## Aeroporto G.B. Pastine di Ciampino

		Unità di misura	Performance Luglio 2014 / Giugno 2015	Obiettivo	status
	Tempo di attesa al controllo radiogeno dei bagagli	Tempo nel 90% dei casi	0.07.31	0.08.20	OK
81	2a) Tempo riconsegna ultimo bagaglio	Tempo nel 90% dei casi	0.26.00	0.26.00	OK
•	2b) Tempo riconsegna primo bagaglio	Tempo nel 90% dei casi	0.21.07	0.20.00	NO
*	3) Tempo di attesa coda check-in	Tempo nel 90% dei casi	0.17.38	0.22.00	OK
*	Percezione complessiva sul livello di comfort	% pax soddisfatti	79,3%	90,0%	NO
*	5) Percezione sul livello di pulizia in aerostazione	% pax soddisfatti	86,3%	90,0%	NO
*	Percezione dell'efficacia dei punti informazione operativi	% pax soddisfatti	80,4%	80,0%	OK
*	Presenza di segnaletica chiara, comprensibile ed efficace	% pax soddisfatti	84,8%	80,0%	OK
*	8) Percezione del livello di pulizia e funzionalità toilettes	% pax soddisfatti	79,5%	90,0%	NO
	9) Assistenza PRM #	% pax soddisfatti	98,6%	87,0%	OK
	10) Up time CREWS (1)#	% tempo di funzionamento su 17H	100%	99,5%	OK
	11) Disponibilità punti informazione operativi #	TPHP/N° punti informazione	32,1	33,6	OK
	12) Affidabilità impianti riconsegna bagagli #	% tempo di funzionamento su 8H	99,5%	99,3%	OK

(1) Dal 1º gennaio 2014 il sistema CREWS è stato sastituito con il sistema CUTE, come da comunicazione del 7/4/14

LEC	SENDA			
+	Dato fornito da PRAGM	A (si veda specifica relazione allegata)	# Dato fornito da ADR	
2	Qualità percepita	= % di pax soddisfatti:	vati 6+5+4 (scala a 6 punti)	
-				