

ENAIRe 

  
2015

Report



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# 01 Letter from the chairman





The air transport sector is a strategic sector for any country, in terms of structuring, cohesion, mobility, connectivity, accessibility and financial impact.

In the case of Spain, this relevance, if possible, is even more important, due to its transcontinental geographic location, its peninsular and island singularity and its tourism leadership, which would be unthinkable without some of the infrastructure that we have: railways, highways, ports and above all aeronautical infrastructure.

For this reason it is so important that we continue to make maximum efforts in order to be able to ensure at all times the highest standards of safety, operational efficiency, quality and sustainability.

This is the commitment that has been the hallmark of ENAIRE's staff's efforts in 2015, which has seen a year of growth in traffic (3%), with more than 1.7 million operations managed, and has helped provide continuity after the positive turning point that began in November 2013.



Thanks to the efforts that we continue to make in relation to management efficiency, ENAIRE has become the second-largest European air navigation supplier, with the most competitive tariffs. Our route and approach tariffs have been frozen since 2013 and, specifically, the aforementioned route tariff is below the average of the Top five ANSPs.

At ENAIRE we are also very satisfied with the advances we have been making in relation to environmental sustainability, which has given us savings of 3.5 million nautical miles, 38,900 tonnes of fuel and 123,000 tonnes of CO<sub>2</sub> between the years 2012 and 2015.

All this, within the Single European Sky framework, as well as the commitment we have made to R&D and international cooperation that can be seen, for example, through our active participation in the SESAR agreement (**Single**

**European Sky ATM Research**) and iTEC (common control position), as well as the A6 Group Alliance made up by the main European air navigation service providers.

We are also part of the EAD Group (**European AIS Database**), the European aeronautical information database, and in the ESSP (**European Satellite Services Provider**), we are the supplier of the European Geostationary Navigation Overlay Service (EGNOS).

We are quite aware of our responsibility in relation to the control of more than 2,000,000 km<sup>2</sup> of airspace, as well as being the fourth largest air navigation services supplier on the continent.

At ENAIRE, we also are involved in the shared commitment we have towards each part of the air transport value chain, in terms of

contribution to GDP (7%), of the invigoration of the productive fabric and generation of jobs at airports, control centres, airlines, handling companies, manufacturers and providers of all types of services.

None of this would be possible without our main asset: our air traffic controllers, our technicians and administration and management staff that make up our valuable ENAIRE team to whom I would now like to extend my deepest appreciation and gratitude.

**Julio Gómez-Pomar**

**Chairman of ENAIRE and Secretary of State for Infrastructure, Transport and Housing.**

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## 02 Institutional Information



## A. Board of Directors

The ENAIRE Board of Directors on 31/12/2015 was made up by the following members:

### CHAIRMAN

**Mr Julio Gómez-Pomar Rodríguez** Secretary of State for Infrastructure, Transport and Housing  
MINISTRY OF DEVELOPMENT

### SPEAKERS

**Mr Raúl Medina Caballero** Managing Director of Civil Aviation  
MINISTRY OF DEVELOPMENT

**Ms Cristina Carcelén Hurtado** Associate Director Secretary of State Office Budget and Costs  
MINISTRY OF TAXATION AND PUBLIC ADMINISTRATION

**Mr Mario Díaz Millán** Technical General Vice Secretary  
MINISTRY OF DEVELOPMENT

**Ms Pilar Garrido Sánchez** Director of Office of Secretary of State for Infrastructure, Transport and Housing  
MINISTRY OF DEVELOPMENT

**Mr Luis Izquierdo Labella** Director of Communication of Minister's Office  
MINISTRY OF DEVELOPMENT

**Mr Miguel Ángel Jiménez Martín** Sub delegate of the Government for Highway Toll Roads Concessions Companies  
MINISTRY OF DEVELOPMENT



<b>Mr Eugenio López Álvarez</b>	Technical General Secretary MINISTRY OF DEVELOPMENT
<b>Mr Juan Antonio López Aragón</b>	Parliamentary Adviser of the Minister of Development MINISTRY OF DEVELOPMENT
<b>Mr Miguel Ángel López González</b>	Chairman of the State Meteorological Agency MINISTRY OF AGRICULTURE, FOOD AND THE ENVIRONMENT
<b>Mr Pedro Guerrero Messeguer</b>	Sub director General of Sectoral Analysis MINISTRY OF ECONOMY AND COMPETITIVITY
<b>Mr Álvaro María Nadal Belda</b> Government	Director of the Economic Office of the President of the PRESIDENCY
<b>Mr Eduardo Zamarripa Martínez</b>	Director General of Infrastructure MINISTRY OF DEFENCE
<b>SECRETARY</b>	
<b>Mr Luis Banciella Rodríguez-Miñón</b>	Secretary General ENAIRE

Also belonging to the Board **Mr Ángel Luis Arias Serrano**, who left on 8 June 2015;  
**Mr Ignacio Mezquita Pérez-Andújar**, who left on

17 July 2015, and **Mr Jesús Fernández Rodríguez**, who resigned on 5 October 2015.



## B. Management Committee

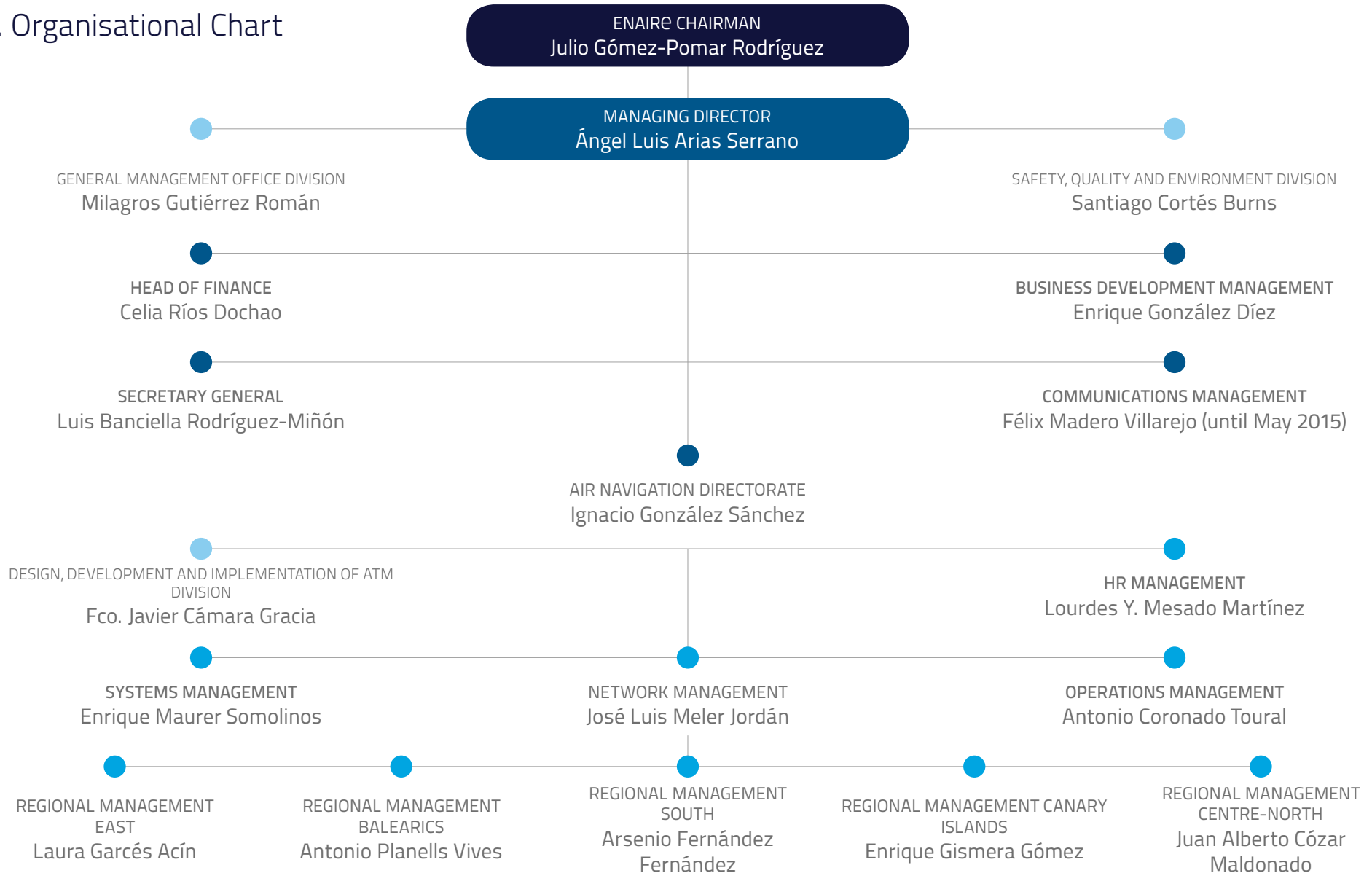
On 10 November formal approval was given for the document regulating Government Institutions for the Organisation, amongst others of the ENAIRE Management Committee, made up by the following representatives:

CHAIRMAN	SECRETARY	MEMBERS
ENAIRE Managing Director	General Management Cabinet Head of Division	<ul style="list-style-type: none"> <li>- Managing Director.</li> <li>- Secretary General.</li> <li>- Finance Director.</li> <li>- Business Development Director.</li> <li>- Air Navigation Director.</li> <li>- Systems Director.</li> <li>- Operations Director.</li> <li>- HR Management Director.</li> <li>- Network Director.</li> <li>- Communications Director.</li> <li>- Head of the Division Managing Directors Office.</li> <li>- Head of Safety, Quality and Environment Division.</li> </ul>





## C. Organisational Chart



## 03 About ENAIRE



## A. Presentation

ENAIRE in Spain is one of the main air navigation service and aeronautical information suppliers, appointed by Law 9/2010 for the exclusive provision of air traffic services for air control and approach control, as well as flights, alerts and advisory information for Spanish airspace.

The Spanish Airports and Air Navigation Public Company (Aena), became ENAIRE on 4 July 2014 (article 18 of Royal Decree - Law 18/2014). Since the publication of this Royal Decree, Aena Foundation was absorbed by ENAIRE.

**ENAIRE is the main shareholder of Aena, S.A. (51%)** and hold shares in INECO (45,85%), CRIDA (66,66%), EMGRISA (0,08%), GEAD (36%), GNSS, S.L (19,3%) and GROUP EAD (36%). It is also the owner of the Aena Foundation.

It is the **fourth-largest air navigation services provider in Europe by number of movements** and actively participates in all of the European Unions projects related to implementation of the Single European Sky project. Due to our geographical location **we manage our traffic that originates and has its destination in four different continents** (Europe, America, Asia and Africa), as well as being the main gateway for South American flights.

ENAIRE is certified as an organisation that provides air navigation services, as well as a supplier of air traffic controller training.

ENAIRE's mission is to "provide safe, quality, efficient and environment-friendly air navigation services that meet the needs of our customers and society in general, all the while paying special attention to the training of our staff as well as contributing to the development of air transport".

ENAIRE is responsible for air navigation services that include management of **Spanish airspace**, which covers **2,190,000 km<sup>2</sup>**. **Compliant with the International Civil Aviation Organisation (ICAO), it is split into three Flight Information Regions (FIR):** Madrid, Barcelona and Canarias.

- As the main supplier of aerodrome air traffic services in Spain: **it manages 22 towers**, which include the five towers with the highest level of traffic in Spain. We exclusively provide **approach services to all civil airports** in Spain.
- It is also the **supplier of communications, navigation and surveillance services for all aerospace** and airports within the Aena S.A. network as well as for Lleida-Alguaire.



On an international level, ENAIRE is also **an active member of various work groups and associations**, with its main focus being the achievement of a standardised and efficient international framework for all air navigation matters.

In relation to this we are also **members of the A6 Alliance** (alliance of six main European air navigation service suppliers), actively participating in the consolidation of initiatives related to the implementation of the Single European Sky. We are also **part of the SESAR Joint Undertaking**, in whose work programme we participate in more than 60 projects that are designing the required technology in order to

achieve the Single European Sky, as well as being **members of the iTEC consortium** along with DFS (German supplier), LVNL (Dutch supplier) and NATS (British supplier) which develops the new generation of the controller work position as well as the future Common Flight Treatment Plan.

Another point that bears mentioning is ENAIRE's participation in the (SW FAB - South West Functional Airspace Block), sharing operational requirements irrespective of national frontiers, which improve the efficiency of the European network between Spain and Portugal.



## B. Safety and Regulatory Framework

### SES Regulatory Framework

In 2004 the European Union launched the Single European Sky initiative (**SES, Single European Sky**). In the regulatory development process that took place in 2015 in relation to the SES initiative framework, we should highlight the following items:

- Publication in the Official Journal of the European Union (OJEU) of the following regulations:
  - **Regulation (EU) 340/2015**, that establishes the technical requirements and administrative procedures related to licences and certificates of air traffic controllers.
  - **Regulation (EU) 1018/2015**, that establishes a list classifying mandatory notification civil aviation events.
  - **Amendments to Regulations (EU) in force**: Regulation (EU) 310/2015 that amends Regulation (CE) 29/2009 that establishes requirements related to data link services for the Single European Sky,

delaying the application dates for three years for ground equipment (in other words, until 05/02/2018).

- Publication in the Official Journal of the European Union of the following European Commission decisions:
  - **Decision 347/2015**, that declares the incoherence of specific objectives included in the plans for functional airspace blocks for the 2015-2019 period.
  - **Decision 348/2015**, that declares the coherence of specific objectives included in the plans for functional airspace blocks for the 2015-2019 period.
- At the Single European Sky Committee headquarters, a new common requirement for air navigation services Regulation **has been voted for by EU Member States**, meaning we can presume it will come into force during 2016, although it will not be fully applicable until 2019. Said Regulation will replace current Regulations (EU) 1034/2011, (EU) 1035/2011 and (CE) 482/2008.

### Air navigation performance at a European level

2015 was the first year of the second period of reference (2015- 2019) established by the European Commission under the Single European Sky framework, for the implementation of a performance system that sets objectives both on a European and national level.

In compliance of Regulation UE 390/2013, the SW FAB prepared a Performance Plan (SOWEPP) that contained objectives and update plans for Spain and specifically for ENAIRE, agreed by both the European Commission and the airspace users. During 2015, ENAIRE carried out, in coordination with AESA and the SWFAB, a follow-up of the indicators established in the SOWEPP, as well as the main planned projects in areas of Security, Capacity, Costs and Environment.

## SESAR

Within the **SESAR (SES ATM Research) programme**, in May 2013, the (EU) N° 409/2013 Regulation was published, which defined the Common Projects, containing details of the government mechanisms and established incentives for their deployment. Furthermore, during the first half of 2014, the formal consultation phase took place in relation to the contents of the Pilot Common Project (PCP), which culminated in the approval of Regulation (EU) N° 716/2014, which defined the functions of the ATM, their mandatory deployment dates and placements, constituted the first coordinated deployment within the SESAR framework, to be carried out under governance of the Deployment Manager.

In addition, approval of Regulation (EU) N° 721/2014 of June 2014, has provided an extension to the life of the SJU until 2024, enabling the framework for the development of the SESAR 2020 R&D Program.

## Certification of air navigation management as supplier of services

As of 10 December 2015, AESA replaces the **ENAIRE certificate as a supplier of air traffic controller training**, adhering to Regulation (EU) 340/2015. The issue of the certificate enables ENAIRE to provide and give unit training, continuous training, practical instructor training and air traffic controller evaluator training in accordance with the requirements of said Regulation, in the event of them complying with the aforementioned approval conditions and attributes.

The certificates will be valid as long as ENAIRE complies with the mandatory legal requirements, as well as those related to Regulation (EU) 340/2015, the contents of Regulation (CE) N° 216/2008, Royal Decree 1516/2009 and FOM Order 1841/2010, amongst others.

## Spanish regulatory framework

In 2015, the following regulations were adopted:

- **Law 48/2015 of the State General Budget for 2016.**  
Establishes the approach rate for each tariff zone in Spain.
- **Royal Decree 520/2015.**  
Amends Royal Decree 1133/2010, that regulates the provision of flight information services for aerodromes (AFIS), establishing a transitory period for the completion of aeronautic safety studies.
- **FOM Order 16/2015.**  
Approves the tariffs to be applied for use of the help network for air navigation and amends the interest rate for delayed payment of said tariffs.

- **Resolution of 15 April 2015 of AESA.**  
Approves the Operational Safety Action Plan valid for three years, once the State Program for Civil Aviation Operational Safety is established in accordance with the Council of Ministers on 23 January 2015.
- **Resolution of 26 June 2015 of AESA.**  
Approves the delay of the application of Annexes I to IV of the Regulation (UE) 340/2015 (licences and certificates of air traffic controllers) through its partial and progressive application up to 31 December 2016.







## C. ENAIRE in numbers

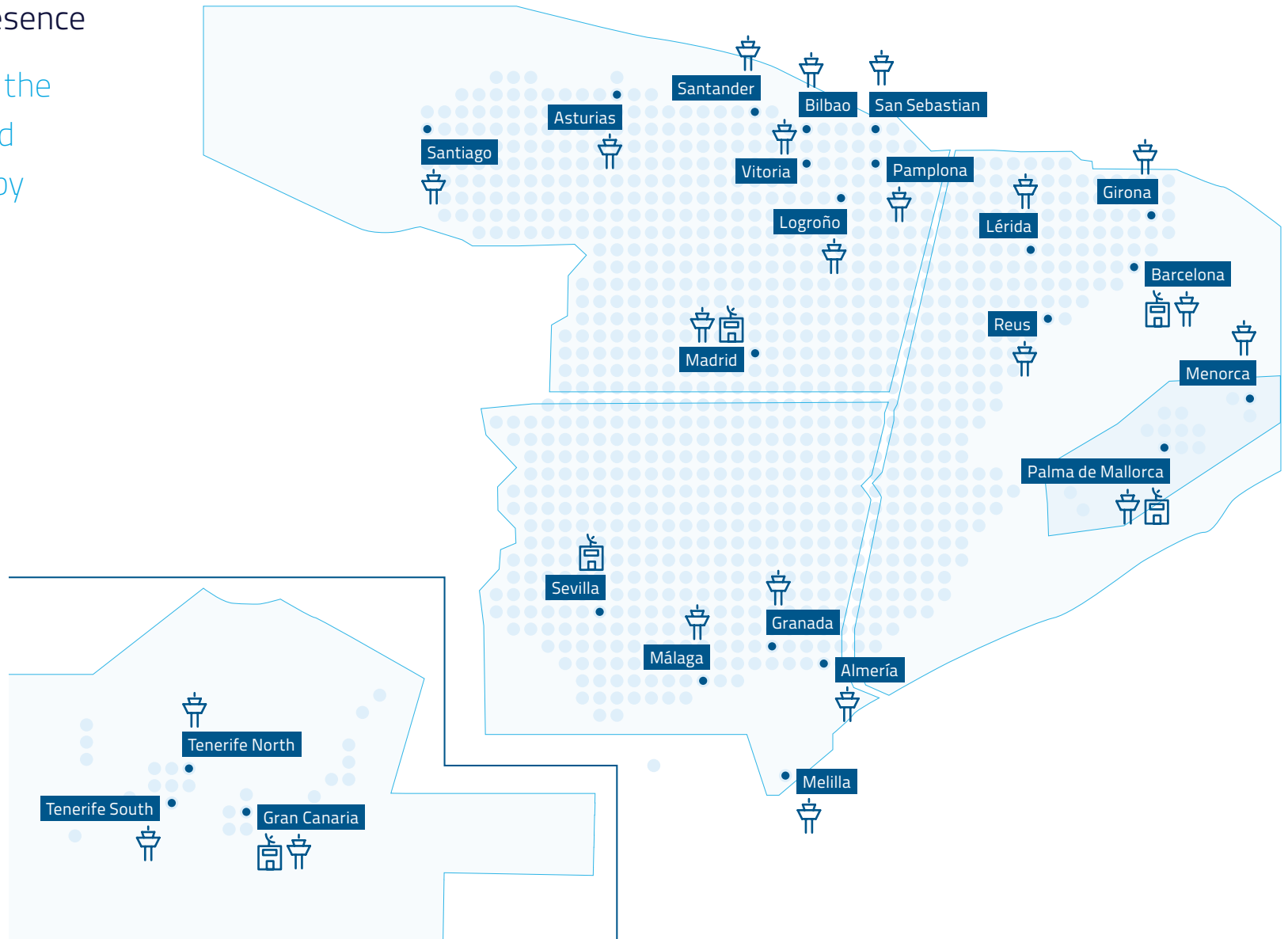
INDICATORS	2012	2013	2014	2015
Total Managed Flights (thousands of flights)	1,814	1,766	1,830	1,894
Managed IFR Flights* (thousands of flights)	1,657	1,618	1,681	1,730
Average delay by flight en route	0.48	0.41	0.30	0.33
EBITDA (thousands of €)	147,711	191,894	194,121	277,333
Number of employees	4,011	3,723	3,701	3,732
Staff I Group Agreement	1,901	1,659	1,663	1,718
Staff II Group Agreement	2,110	2,064	2,038	2,014

\* IFR flights of those that operate under instrument flight regulations; they mainly include commercial flights.



## D. Geographic Presence

Below we can see the control centres and towers managed by ENAIRE:





Air navigation services are provided via **five Air Navigation** Regional Directorates: Centre-North, East, South, Canaries and Balearics, whose headquarters are located respectively at the Madrid, Barcelona, Seville and Gran Canaria control centre (ACC) as well as at the air terminal control centre of Palma de Mallorca (TACC).

Through these, air traffic, navigation, communications and surveillance services are provided for all en route air traffic as well as approach traffic at the airport within their area.

**Centre-North Regional Management:**



**435.000 Km<sup>2</sup>**  
wide



**963.713**  
Managed IFR Flights/Year



**71** radio  
assistance



**19** surveillance  
systems



**53** communication  
centres

**East Regional Management:**



**266.000 Km<sup>2</sup>**  
wide



**797.784**  
Managed IFR Flights/Year



**32** radio  
assistance



**11** surveillance  
systems



**19** communication  
centres

**South Regional Management:**



**179.000 Km<sup>2</sup>**  
wide



**333.178**  
Managed IFR Flights/Year



**33** radio  
assistance



**7** surveillance  
systems



**30** communication  
centres



Air Navigation Five  
Regional Directorates:  
Centre-North, East,  
South, Canaries and  
Balearic Islands

Canary Islands Regional Management:



1.370.000 Km<sup>2</sup>  
wide



279.248  
Managed IFR Flights/Year



28 radio  
assistance



10 surveillance  
systems



23 communication  
centres

Balearic Islands Regional Management:



51.400 Km<sup>2</sup>  
wide



266.614  
Managed IFR Flights/Year



19 radio  
assistance



5 surveillance  
systems



10 communication  
centres



## E. History

### 1991

Creation of Spanish Airports and Air Navigation Business Entity (Aena), (Law 4/1990, of 29 June of State General Budgets), and approval of their statutes in Royal Decree 905/1991 of 14 June.

### 2004

In April 2004, the first implementation phase of the Single European Sky initiative began, known as SES I, with the four community regulations that make up the regulatory pillars of said European international project coming into force.

### 2009

The SES II regulatory package came into force in December 2009. It widened the objectives of the Single European Sky initiative, detailing some of the SES I provisions as well as addressing environmental questions and cost efficiency matters.

### 2010

Law 9/2010, liberalisation of aerodrome control service.

### 2011

Effective separation between Aena Aeropuertos S.A. and the Aena Public company.

Agreement for the provision of services between Aena Aeropuertos S.A. and Aena.

### 2013

Agreement signed between Spain and Portugal for the development of the SW FAB functional block.

### 2014

Aena becomes ENAIRE in the partial privatisation context of Aena, S.A. in accordance with Royal Decree Law 8/2014, of 4 July.

### 2015

Inflow of private capital of 49% of Aena, S.A.

ENAIRE maintains 51% of the shares of Aena, S.A.

## F. Business activity model

### ATS Description

Main supplier of aerodrome air transport services in Spain: 22 towers, amongst which the five busiest in terms of Spanish traffic can be found. In Spain we exclusively provide approach services at 16 of these 22 towers and to the rest from the corresponding control centres.



**94**

control tower operational positions



**118** control centre operational positions

### CNS maintenance and technical operation description

At the same time, it provides communications, navigation and surveillance services for all airspace, as well as maintenance and technical operation of our control centres in the Aena, S.A. airport network and Lleida-Alguaire.



**309**

radio assistance that provides support to the route guidance and TMA, as well as approach to airports.



**52**

surveillance systems for routes, TMA and surface



**135**

communication centres



**100**

REDAN nodes for voice and data communication for air navigation applications



## AIS Description

The **Aeronautical Information Service (AIS)** provided by ENAIRE collects aeronautical information related to Spanish territory and the airspace that falls within its responsibility.

AIS provides aeronautical information necessary for air operations to be carried out with operational safety, consistency, economy and efficiency. All this information is published and distributed from the ENAIRE Air Navigation Central Services globally, as an "integrated documentation package of aeronautical information" made up of:

- AIP Spain: Publication of Aeronautical Information.
- Supplementary information and amendments to AIP.
- Aeronautical Information Circulars (AIC).
- NOTAMs.

## SACTA

Technological development and automation of the air navigation system has led to the creation of various excellent systems for air traffic control; one of these is the **Air Traffic Control Automated System (SACTA)**.

The aim of this project is the integration of systems for all Spanish routes and approach control centres, in order for them to manage coherent data and work in a coordinated fashion, as well as increasing capacity of air-traffic control. It also aims for standardisation of control systems on a national scale.

In the international arena, **SACTA** facilitates automatic communication between Spanish and foreign control centres. To do this, it uses international standards for the exchange of data, it reduces manual intervention to a minimum, it automatically detects possible conflicts and provides flexibility for the resetting of operational airspace with the aim of minimising the effects of traffic peaks.



## Navigation rates

ENAIRE's main source of income comes from air navigation tariffs (routes and approach). These tariffs are in payment for services provided to the airlines.

(See the 2016 Guide for air navigation tariffs [www.enaire.es](http://www.enaire.es))

**Route tariff:** is the payment for costs incurred under the items related to facilities and en route air navigation services. Spain participates in the EUROCONTROL route tariffs system, and delegates the invoicing and payment to this organisation. Its calculation includes distance flown by aircraft that enter Spanish airspace as well as their weight, items which are listed as "units of service", upon which the services provided are invoiced.

Formula of the tariff to be paid is therefore:

$$r_1 = t \times N$$

Where:

**r<sub>1</sub>** is the total rate.

**t** the Spanish unit price of the tariff (set in Euros). As can be seen in the following table, it would be different if the routes go through the Mainland and the Balearic Islands ("Mainland") or the Canary Islands ("Canary Islands").

**N** as the number of route «**service units**» for a specific flight. It is calculated as the coefficient

of the distance multiplied by the coefficient of the weight of the aircraft in question ( $N = d_1 \times p$ , with  $d_1$  the distant coefficient (great circle distance / 100), and  $p$  weight coefficient ( $(MTOW / 50)^{0.5}$ ).

**The quantity to be paid for the use of en route air navigation services is calculated by multiplying the service units by the units tariff.**

The **approach tariff** is payment for air navigation services provided for the safety and fluidity of movements during this phase of the flight. Invoicing and payment of the approach tariff is delegated to EUROCONTROL for flights that take place as of 1 January 2014.

The approach tariff is applicable for all airports and air bases open to civil traffic, to which ENAIRE provides approach air navigation services. Approach and take-off operations are considered as a single service for the effects of this tariff.





The rates formula to be paid is:

$$R = t \times (P/50)^n$$

Where:

**R** = Total tariff to be paid by operation.

**t** = Unit tariff.

**P** = Maximum take-off weight (MTOW).

**(P/50)** = Units of service

**n** = Weight coefficient: 0.7

TARIFFS (€)		2015	%15-14	UDS 2015	%15-14
Route	Mainland Route	71.80	0.0% <sup>(1)</sup>	8,997,417	2.6%
	Canary Islands Route	58.47	0.0% <sup>(1)</sup>	1,402,349	-6.0%

<sup>(1)</sup> 2015-2014 variation without taking into account the administrative tariff.

<sup>(2)</sup> Totals without VFR.

TARIFFS (€)		2015	%15-14	UDS 2015	%15-14
Approximate figure	Category I	18.72 <sup>(1)</sup>	0.0%	1,033,910 <sup>(2)</sup>	3.6%
	Category II	16.84 <sup>(1)</sup>	0.0%		
	Category III	14.04 <sup>(1)</sup>	0.0%		

<sup>(1)</sup> Value with the formula change applied to the approach tariff according to the European Commission Tariffs Regulations. An equivalent tariff value to that of 2014 is maintained.

<sup>(2)</sup> Total figure of approach units of service. The unit of service figure for the five airports included in the SES tariff zone (Madrid-Barajas; Barcelona; Málaga; Palma de Mallorca and Gran Canaria) is 680,549, an increase of 4.4% in relation to the previous year.



In 2015 the route **units of service** for the mainland have progressed positively, with a 2.6% increase in relation to the previous year.

In the Canary Islands progress has not been positive. In 2015 units of service were down 6% when comparing to 2014.

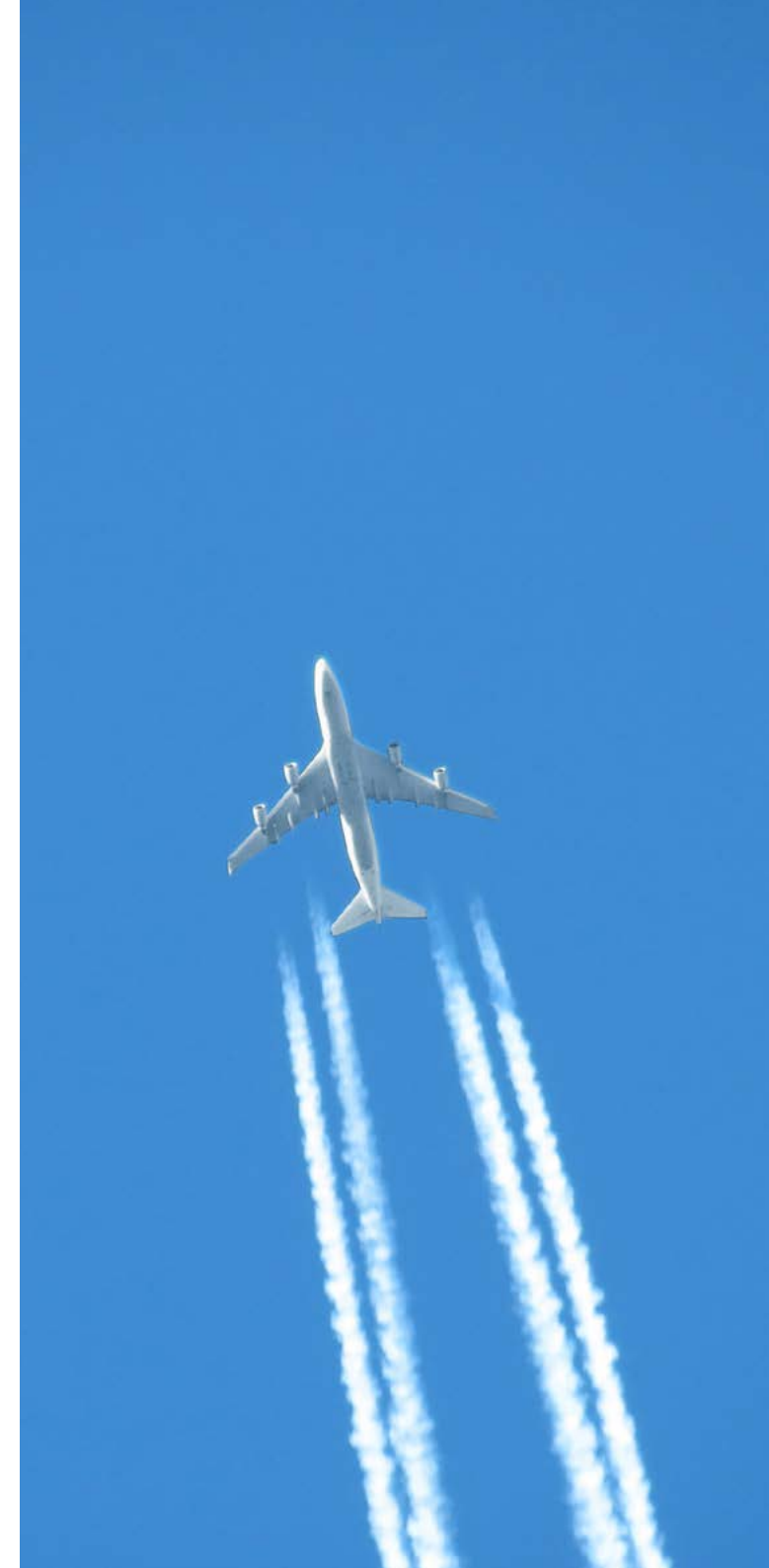
The positive progress of the **approach units of service** for 2015 in relation to 2014, is higher for the five airports (Madrid-Barajas, Barcelona, Palma de Mallorca, Málaga and Las Palmas) in the SES tariffs zone in relation to the remainder, with growth of 4.4% and 3.6% when taking into consideration all the airports.

The **route tariff has been frozen since 2012**, with ENAIRE being the second most important air navigation services provider in relation to the main European providers, with the lowest tariff. The plan is to keep them frozen until 2019.

The performance plan defined in the community regulation in relation to the Single European Sky (SES), EU Regulations N° 390/2013 and N° 391/2013, establishes the sharing of risks amongst service suppliers and users, associated with the diversions between real traffic and that which appears in the Performance Plan (South West, FAB Performance Plan, SOWEPP 2015-2019), expressed in units of service.

The Performance Plan, in accordance with the established requirements, includes cost efficiency targets as well as an expected traffic scenario with units of service.

The risk distribution plan foresees that the traffic diversions, expected at between 30% and 70% for the supplier and users, may give rise to tariff calculation adjustments for future years.



# 04 Business development

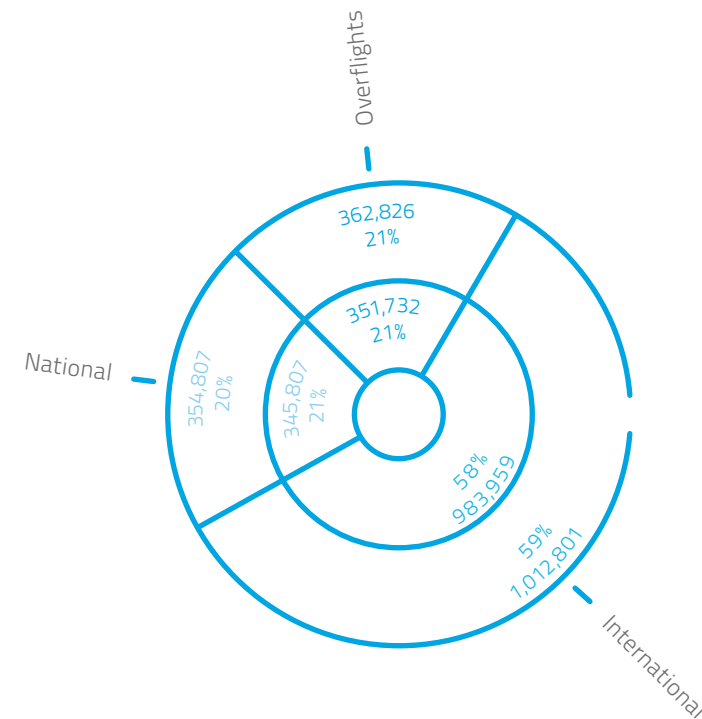


## A. Managed IFR flights

The close relationship, that in the case of Spain, exists between air traffic trends in the European and the Spanish economic cycle, has conditioned the progress of national and international traffic, with international traffic and overflights having performed better during the economic crisis period. As of November 2013, after two years of continual drops, traffic began to recover to close 2014 figures, with a rise of 3.9% continuing with this change of growth tendency, by growing in **2015 by 2.9% reaching 1,730,434**, which accounted for 48,936 more operations.

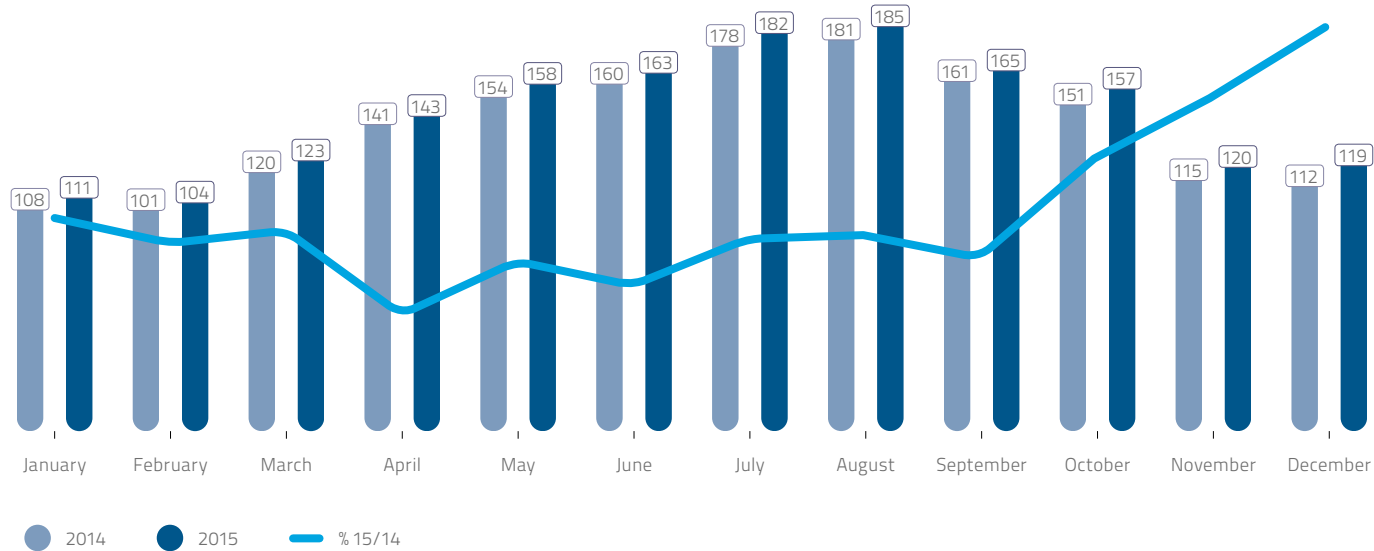
**Spain continues to be the country with the fourth largest European traffic figure**, thanks to the increase in movement, in excess of the European average, which was 1.5%. In the case of the Canary Islands, traffic had dropped almost 1% due to a decrease in international flights and overflights, while the mainland increased by 3%, with the increase of national flights being a highlight.

Distribution of Spanish Traffic 2015 versus 2014





Managed IFR Flights 2015 versus 2014 by month



In relation to the origin of traffic with Spanish airports as their destination, or flights that go through our airspace during 2015, we should highlight traffic from Northern Europe (France and Germany mainly) to Portugal, as well as Catalonia and Madrid, with the inter-island Canary Islands domestic traffic being the largest in terms of volume.

Main countries originating traffic in 2015:

- **United Kingdom:** 17% of total traffic (77% to/from Spanish airports and y 23% overflights).
- **Germany:** 12% of total traffic (81% to/from Spanish airports and y 19% overflights).
- **France:** 14% of total traffic (46% to/from Spanish airports and y 54% overflights).



TYPE	MAIN FLOWS 2015	TOTAL 2015	2015 VS 2014 (%)	2015 QUOTA
Overflights	Northern Europe- Portugal	100,457	<b>7.7%</b>	 6%
International	Northern Europe- Catalonia	89,556	<b>1.7%</b>	 5%
International	Northern Europe- Balearics	83,969	-1.3%	 5%
International	Northern Europe- Madrid	80,233	<b>9.0%</b>	 5%
Overflights	Northern Europe- Western Africa	70,709	-2.2%	 4%
International	Northern Europe- Canary Islands	69,046	-1.5%	 4%
Domestic	Canaries- Canaries	61,888	-3.7%	 4%
International	British Isles- Canaries	52,610	<b>0.6%</b>	 3%
Overflights	British Isles- Portugal	51,227	<b>4.1%</b>	 3%
International	British Isles- Balearics	48,295	<b>0.2%</b>	 3%





The following table contains volume of IFR flights in Spain 2015 and their growth in relation to 2014:

YEAR 2014	INTERNATIONAL	DOMESTIC	OVERFLIGHTS	TOTAL
SPAIN	1,012,801	354,807	362,826	1,730,434
% 15 vs. 14	<b>2.9%</b>	<b>2.6%</b>	<b>3.2%</b>	<b>2.9%</b>
MAINLAND	993,210	294,202	349,056	1,636,468
% 15 vs. 14	<b>2.9%</b>	<b>4.1%</b>	<b>3.3%</b>	<b>3.2%</b>
ACC CANARIES	148,722	104,831	25,695	279,248
% 15 vs. 14	-0.8%	<b>0.1%</b>	-5.7%	-0.9%
ACC MADRID	505,418	181,390	276,905	963,713
% 15 vs. 14	<b>4.3%</b>	<b>2.0%</b>	<b>3.9%</b>	<b>3.8%</b>
ACC BARCELONA	552,637	155,216	89,931	797,784
% 15 vs. 14	<b>1.9%</b>	<b>2.0%</b>	<b>4.4%</b>	<b>2.2%</b>
ACC SEVILLA	157,173	95,619	80,386	333,178
% 15 vs. 14	<b>0.4%</b>	<b>4.4%</b>	-3.2%	<b>0.6%</b>
ACC PALMA	175,657	90,070	887	266,614
% 15 vs. 14	<b>0.3%</b>	<b>11.8%</b>	-14.1%	<b>3.8%</b>



The following table contains total managed volume of flights at the control towers where ENAIRE is the Aerodrome Traffic Service Provider 2015 and its growth compared to 2014:

TOWERS	IFR	VFR (*)	TOTAL	% 15/14
Madrid-Barajas	365,935	0	365,935	<b>6.90%</b>
Barcelona	288,995	0	288,995	<b>1.73%</b>
Palma de Mallorca	177,945	752	178,697	<b>3.20%</b>
Málaga	107,140	4,013	111,153	<b>0.58%</b>
Gran Canaria	97,405	7,858	105,263	-1.96%
Tenerife South	56,467	2,631	59,098	-2.78%
Tenerife North	48,063	5,901	53,964	<b>1.42%</b>
Bilbao	40,683	3,011	43,694	<b>2.32%</b>
Menorca	28,351	341	28,692	<b>16.06%</b>
Girona	14,090	7,814	21,904	-4.73%
Santiago	19,318	1,792	21,110	<b>6.61%</b>
Reus	5,833	10,074	15,907	-8.91%
Granada	8,755	2,451	11,206	<b>7.32%</b>
Santander	8,741	2,023	10,764	<b>4.93%</b>
Asturias	9,995	768	10,763	-8.22%
Almería	8,424	1,727	10,151	-4.38%
Melilla	8,154	254	8,408	-5.10%
San Sebastián	4,908	1,958	6,866	<b>13.88%</b>
Vitoria	6,512	331	6,843	<b>15.20%</b>
Pamplona	3,487	2,216	5,703	<b>3.71%</b>
Lleida	471	939	1,410	<b>9.57%</b>
Logroño	691	274	965	<b>7.10%</b>

(\*) **VFR Flights** are those that operate under visual flight regulations, they mainly include general aviation, air work and other types of flights.



## B. Safety & Security

Operational Safety is the maximum priority in relation to the provision of air navigation services by ENAIRE. Via the safety management system implemented at **ENAIRE**, supervised by the national supervision authority (AESA), **it ensures the safety of all processes in all areas of the organisation, always prioritising the provision of a safe service.**

### Operational Safety Interventions

#### Safety Level

Includes interventions to increase levels of safety.

**General risks:** operational standards were improved for the south approach to Madrid-Barajas airport, with non-stabilised approach training given (EAPPRE) to controllers, providing information to Madrid-Barajas Airport and the airlines.

#### Safety Maturity

Interventions associated with the improvement of Safety Maturity include various organisational areas:

**Safety Culture:** implementation of the automated monitoring tool for separation losses en route and approach above 10,000 feet, except approach and take-off sectors. In addition, the remaining interventions planned for the improvement of communication with control personnel were completed, with the collaboration of APROCTA (Professional Association of Air Traffic Controllers).

**Safety Policy:** interventions took place related to the distribution of the Safety Culture to control staff and engineers.

**Safety Guarantee:** a competency evaluation protocol has been created, used during 2015 by the Regional Safety Departments for the design and implementation of changes.

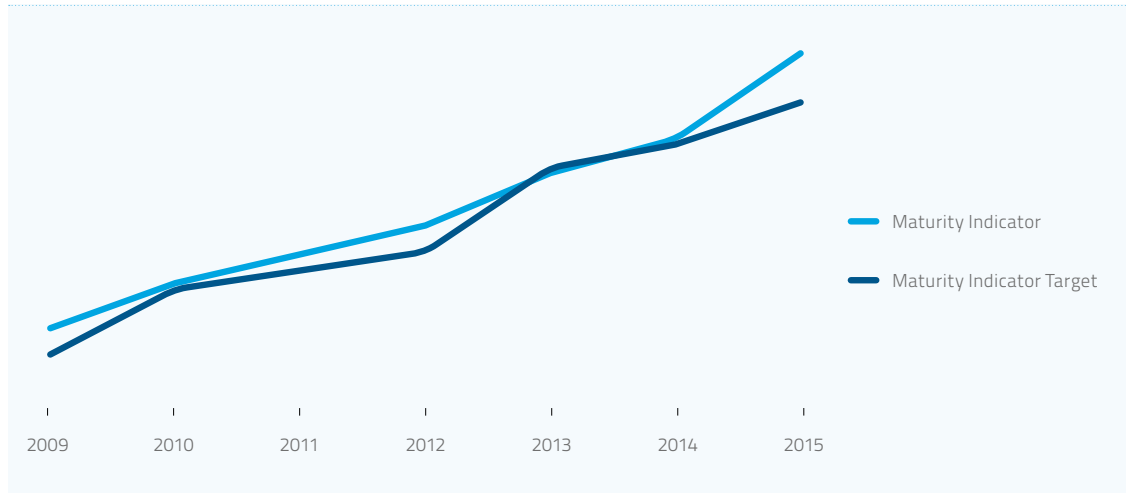
**Risk Management:** development of the fatigue management tool was completed (FAST), with its approval planned for 2016. The "Aerospace Performance Factor" (APF) 2.0 was installed in the preproduction environment in approval phase, delaying production until March 2016.

**Safety Development:** distribution of the visual flight regulations (VFRS, Visual Flight Rules) took place in 2015, as well as Regulation 376/2014 related to the notification of civil aviation events. The pilot project for implementation of the "Team Resource Management" began at the Barcelona Control Centre and at the Barcelona Airport, which will be completed in 2016.

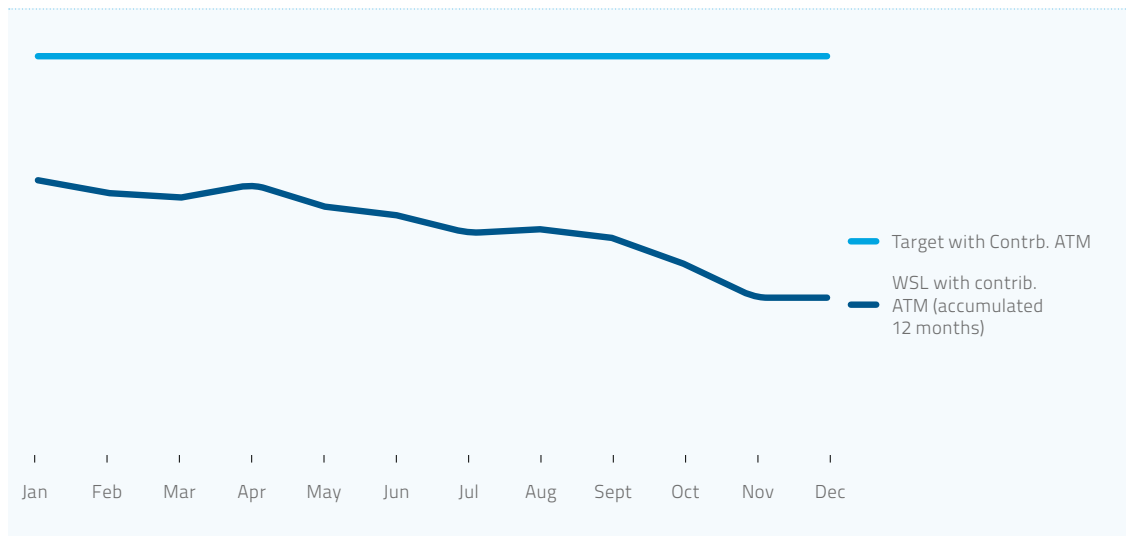
During recent years progress of the **maturity indicator has been improving**, always achieving **values that exceed set targets.**



2009- 2015 maturity indicator progress



Weighted Safety Level Progress (WSL) 2015



The **decrease in the NPS** with ATM contribution for 12 months, which can be seen in the previous graph is **due to a gradual decrease in more significant/relevant incidents** throughout the year.

The indicator known as WEIGHTED SAFETY LEVEL (WSL) is defined as the "number of safety incidents that occurred in airspace for which ENAIRE is responsible, weighted according to its severity, in relation to the total number of flight hours controlled in Spanish air space throughout the year". Incidents considered as A and B severity are those where it is considered that an ATM contribution exists, directly



or indirectly by ENAIRE, via the application of the following formula:

$$WSL = \frac{2 * \text{incidents A} + \text{incidents B}}{\text{Hours of Controlled Flights}}$$

ENAIRE, in its commitment to maintain and improve the highest safety standards in the provision of its services, have implemented and signed the **Just Culture Policy**. This policy contains the principles and commitments of the organisation, both on an individual and organisational level, in relation to Just Culture matters.

This is one of the fundamental pillars of safety management. It promotes notification of safety incidents, in order to provide recommendations based on their analysis that prevent their repetition, contributing to the improvement of safety levels by the creation of an atmosphere of trust "where operators or other first-line staff are not punished for their actions, omissions or decisions made when based on their experience

and ability, but does not tolerate flagrant negligence, intentional bad practices or destructive acts" (Just Culture).

The achievements of the aims of this policy go further than just its publication, but include the development and adoption of a series of procedures that sustain it.

## Security

### Physical Safety

Within ENAIRE's Security Programs, there has been continual work in relation to the development and update of **Security Programs** for Air Navigation facilities.

The Security Program contains a diagnosis, which details the real situation and physical safety targets for a facility or dependency in relation to the provision of a service.

As a result of works carried out throughout 2015, the number of facilities and dependencies with the Security Program has increased.

As an essential part of this diagnosis, the **Risk Level** of a facility or dependency is determined based on its criticality and vulnerability. In relation to the Risk Levels, there are no facilities with an Unacceptable level.

### Cyber security

In relation to **Cyber security**, in 2015 ENAIRE completed a ENAIRE Network Map which contained the status of the various systems that provide the Air Navigation Service. Based on said Network Map, the Air Navigation Systems Risk analysis and its related Action Plan were carried out, whose implementation will take place in 2016.

## C. Technical/Operational developments

### Operational Efficiency Interventions



### Sector and interface improvements

**East Region:** separation of the Central sector (CCC) of the LECB into two new sectors: CCU (overflights) and CCL (arrivals LEPA/LEIB – Palma de Mallorca and Ibiza airports–), **with the aim of reducing delays in the sector and increasing safety.**

**Balearic Region:** as of summer 2015 the use of the new sector which entered into service in 2014 **allowed the improvement of traffic flows from/to Ibiza.**

**Canary Islands Region:** the GCCRC2 sector was split into the GCCRCE and GCCRCW sectors, reaching the maximum capacity of 10 sectors, which contributed to the **reduction in delays.**

**Free Route:** in May 2015 the first intervention of the Free Route (FRA) Madrid/Brest took place, with the update of **direct routes** (DCT) in FRASAI airspace, and in November 2015 the second intervention, with implementation of direct TURDO-BEXAL.

### Navigation based on performance (PBN)

**Almería:** in May 2015, new approach procedures **entered into service** (RNP APCH) in the Almeria Airport 25 head.

**Canary Islands:** in June 2015 the first phase of the PBN Plan for the Canary Islands TMA was completed with entry into force of the **four new SID RNAV1 DME-DME** from Lanzarote and Fuerteventura.

**INEA CEF / TENT:** throughout the year the corresponding bids were prepared for **PBN implementation projects financed** with INEA CEF 2014 funds (RNP APCH in Palma de Mallorca) and CEF 2015 (RNP APCH in Madrid and Barcelona).

In relation to the IDP RNP APCH project financed with TENT funds, the action plan was carried out in 2015 focusing on the targets commitment on an international level to validate on land and in-flight RNP APCH procedures of the existing ILSs in 19 Spanish airports. During 2016 the



corresponding safety studies were carried out in order to make it operational.

### Route network

During 2015 **new VFR procedures** were published at Seu De Urgell-Andorra as well as new ILS/LOC (Instrument Landing System / locator) manoeuvres on runway 03 at Lanzarote.

New **SID** (Standard Instrument Departure) and **STAR** (Standard Arrival Route) were implemented at Tenerife North, Tenerife South and Gran Canaria, with a new SID for runway 36R North configuration at Madrid-Barajas.

### AMAN/DMAN/A-CDM

**Barcelona:** in March 2015 the arrival management service entered into service **AMAN** at Barcelona airport, allowing the arrival sequence to be optimised. The implementation of the **A-CDM function** (Airport-Collaborative Decision Making) took place in October 2015.

### Environmental Efficiency

During 2015, various measures were adopted to improve the use of the route **network**, aimed at a more direct planning, **which allows the reduction of flight time and contaminating emissions.**

### Improvements in air space

The Route Availability Document **review date was completed** (RAD) **as well as** modification of level capping restrictions (setting of flight levels that should be used by aircraft when going through specific airspace, with the aim of avoiding excesses of demand that require implementation of more restrictive measures).

Modification of the **route section** VJF<>MGA of the UN-851 in order to make it bi-directional and thus provide a new connection at FIR Seville between the North East of the mainland and Europe with the Canary Islands and South America.

In March, **the dangerous GCD79 area was restructured** at FIR Canarias and in December **the departure from the Madrid-Barajas airport via the BARDI point was reviewed and updated.**

### Update of Efficiency of the Air Navigation System

#### SIRA/ORION

The deployment of centralised supervision and control systems via the SIRA (Radio assistance Integration System) and ORION (Communications Supervision Integration System), will lead to a more flexible system in line with new technologies.

- After the deployment in 2014 of the **ORION servers** at the East and Balearic Regions, its deployment continued in 2015 at DRNA Canaria, which entered into service in 2016.



## Radio assistance

As a contribution to the improvement in efficiency of the air navigation system, within the **facility replacement** programme, during 2015 the A Coruña DVOR/DME system entered into service and made frangible the Malaga airport DVOR/DME in compliance of the OACI Annex 14 regulation.

A new **DME was installed**, which was stationed at NDB Fuerteventura, with the aim of supporting alternative procedures that allowed the replacement of the DVOR Fuerteventura counter antenna in 2016; as well as replacing the DVOR/DME Santander and San Sebastian systems.

## Communications Improvement Interventions

### Air / Ground Communications

As part of the interventions associated in compliance of the CE 1079/2012 Regulation

(**8.33 kHz**), the renewal of equipment at the Linares communication centre was initiated.

**Implementation of the Air/Ground communication systems for the pilot- controller datalink (DATALINK):** after the publication of Regulation (EU) 310/2015 that modifies the Implementation Regulation 29/2009, interventions planned for 2015 were delayed until 2016.

### Ground / Ground Communications

During 2015 the following planned interventions took place:

- Signing of the contract for the progress and adaptation of the Centre for Automatic Retransmission of Integrated Messages (**CRAMI**).
- Operational transition of communications equipment at Gran Canaria Airport, which completed the **fibre optic ring** between air navigation locations.

- **REDAN (phase V):** after ensuring availability of services of the two communications operators, local node tests for the control centres and the SCNA were completed, making available the central net for tests prior to the transition.
- In relation to the operational costs optimisation project, 60% of transitions to new equipment for the radio link **deployment project was exceeded** in the Centre-North, East, South and Canary Islands regions.

### Digitalisation of communications

**COMETA at ACC Canarias:** in relation to the Voice over IP protocol Communications System(SCV) under the **COMETA project** (VOIP at SACTA), put the 03.01.24l version into operation, completed the dismantling of chain A of the old SDC-91 system, and initiated commissioning of the COMETA-B chain, with the commissioning of version 03.02.25 (COMETA A+B0 version being planned for 2016 and its integration into SACTA (COMETA V2).



## Interventions for Surveillance Systems Progress

### Surveillance Systems

In the field of surveillance improvements, during 2015, 20 digital receivers and management equipment for primary and secondary radar was supplied for Alcolea, Alicante, Solórzano, Begas, Paracuellos, Gran Canaria, Tenerife South and Palma de Mallorca. In order to supervise this equipment, the management systems for the four implemented control centres were replaced: ACC Madrid, ACC Barcelona, ACC Palma and ACC Canarias.

**Multi-lateration:** completed the implementation at Tenerife North.

### S-Mode

During the S-Mode radar coverage widening process, during 2015 surveillance systems were improved with the commissioning of the **S-Mode radars** at Fuerteventura and As Pontes.

The primary and secondary radar data combiner elements as well as the digital receivers for the radar placements at Gran Canaria, Tenerife South and Palma de Mallorca were updated. These were integrated during 2015 in the ENAIRE air traffic control automated system (SACTA).

S-Mode radar coverage maps have been integrated in the INSIGNIA application.

### ADS-B

In relation to **ADS-B**, after signing the agreement with the suppliers (Thales and Indra) in April

2015 regarding to permission for temporary use of two extended squitter ADS-B stations, in September said stations were installed at ENAIRE's Centre for Experimentation and Development (CED) placement, with tests being initiated and analysis of the data collected taking place. The aim was to achieve approval of their technical capabilities in 2016 as well as to obtain their certification before commencing the introduction phase of the ADS-B in the Air Navigation safety network, in accordance with the provisions of the European Operational Regulations 1207/11 and 1028/14. The technical validation linked to the acquisition of ADS-B analysis tools was planned for 2016.

Furthermore, placement analysis for the primary ADS-B locations took place, taking into account radar coverage information or aircraft equipment, which served as information for the review of the **ADS-B** Implementation Plan, in which, aspects relative to integration into SACTA were taken into account.

## D. AIS

The **Aeronautical Information Service (AIS)** continues forward in relation to transition towards an aeronautical information service model based on information digital services, as well as adapting the processes to the new regulations that are appearing in the national and SES field.

In this context, advances have been made in the **establishment of the digital data exchange primary formats between data originators and the AIS service**. This is an important first step in the direction of a completely digital management system (in all its stages), that will allow the improvement of the efficiency in the processing and use of information, ensuring the highest levels of quality.

In addition, the **INSIGNIA map web viewer** continues to be the main AIS information consultation tool used, greatly increasing the number of users that use it on a daily basis as well as integrating ever increasing volumes of information.

### Quality of aeronautical information systems – ADQ

Regulation (EU) 73/2010 of the Commission set a deadline in 2017 for air navigation service providers to meet the quality requirements for aeronautical data and information in relation to the provisions of said regulation.

In accordance with this regulation, ENAIRE continued their interventions planned during 2015 for the deployment of the **ADQ project**, setting the date for total deployment to 2017.

### ICARO

With respect to the meteorological and aeronautical information management system (**ICARO**), to achieve the presentation of the flight plan via the Internet, in 2015 one of the milestones for the year was completed with the installation of version 5.1A, which allowed its adaptation of Release 9 of the AIS European

Database (EAD), successfully achieving connection of the Barcelona CDM platform to ICARO, including a new database repository that allows the separation of the ICARO messaging service from the A-CDM function.

Version 5.1B was also installed, which allowed the presentation of the flight plan via Internet, which allows the system to be available for all users, favouring their tasks for the presentation of the flight plan. Furthermore, it includes the generation of statistics related to the use of the main components system (BOL, GPV and AIS).



## E. International activity

ENAIRe continued its participation in **SESAR deployment activities during 2015** via various mechanisms and processes put into operation by the Commission. ENAIRe contributed in the:

- Update of the SWFAB Operational Board Common Plan (OBCP) in June 2015.
- Update of the AEFMP agreement in line with SWFAB in June 2015.
- Closure of the national LSSIP 2014 databases in February 2015, including the contributions of AESA, EMA, Aena and ENAIRe, as well as the review by EUROCONTROL experts.
- Update of the ATM Master Plan (2015 Edition), the coordinated participation of A6 (joint contributions and comments at the three levels of the Master Plan), and coordinated participation in the ANSPs in governing bodies.

- Commissioning the Deployment Manager, collaborating in the creation of the Deployment Program versions (PDP v1 March 2015, PD v1 June 2015 and DP 2015 September 2015).
- Participation in the Deployment Manager Supervisor Counsel, acting as spokesperson for the air navigation service suppliers.

### Development of international business

During 2015, follow-up of the compliance of the ESSP SAS and GroupEAD administrative concession agreements took place, while publication of the **European ATM Information Management** bid was delayed by EUROCONTROL until 2016.

Within the CEF 2014 Proposal framework, the **Grant Agreement was formalised in December**

**2015**, taking into account the implementation projects to be carried out by ENAIRe in the 2014-2017 period. This intervention will continue in 2016 with the submission of implementation projects within the CEF 2015 Proposal framework (published in November 2015), whose results will be released in the third and fourth quarter of 2016. The remaining planned interventions, which have the aim of obtaining EU finance, will be completed on the expected dates.

In December 2015 ENAIRe submitted a joint offer with other companies in the sector relating to the **Call for Tender** for the CS 6-7, while for 2016, the publication of the "Call for Tender" by EUROCONTROL is expected for the CS 5.

## F. Milestones

ENAIRE's main milestones during 2015 have been the following:

- As the privatising agent, ENAIRE carried out all the actions necessary to facilitate the private capital inflow process at Aena, S.A., which culminated in **February 2015** with the sale of 49% of shares. ENAIRE consolidated itself as owner of 51% of the shares.
- **10 March 2015:** celebration for the third consecutive year in Madrid of the World ATM Congress (WAC), event promoted by CANSO, Air Navigation Services Civil Organisation, of which ENAIRE is a founding member, that groups together air navigation service suppliers throughout the world, as well as ATCA, organisation that unites the air traffic sector industry in the United States.
- Signing on the **11 March 2015** of the iTEC agreement (DFS – German supplier–, NATS – British supplier–, LVNL – Dutch supplier – and ENAIRE) for development of the controllers single work position.
- ENAIRE has been confirmed as one of the key participants in the **bidding consortium for one of the largest contracts** awarded by the Commission for the **air traffic sector** for the following six years. ENAIRE forms part of the Board of Directors and holds key positions in the organisation that will allow it to influence European development.
- During **2015** implementation of technological solutions **and** convergent operational measures took place using the Single European Sky standards: **S-Mode** radars (As Pontes-Galicia in three in the Canary Islands); **satellite navigation**, approach manoeuvres based on satellite navigation (RNP Approach) in Almería and Collaborative Decision Making at (A-CDM) Barcelona airport.
- On the **29 May 2015** the first Managing Director of ENAIRE is appointed, Mr Ángel Luis Arias Serrano, who up to that point was the Managing Director of Civil Aviation.
- **September 2015:** ENAIRE is appointed in September 2015 as Critical Operator, in accordance with Law 8/2011, that establish measures for the protection of critical infrastructures. This appointment includes reinforcement of measures in relation to the following areas:
  - **Security:** protection of buildings and facilities.
  - **Logical Security:** cyber security measures.
  - **Technical and Operational Security:** improving the robustness of the technical- operational system.
- On the occasion of the holding of the United Nations Framework Convention For Climate Change (COP21) in Paris, aimed at slowing climate change, ENAIRE joined on the **fourth of December 2015** the One Million Climate **initiative**, led by the Ministry of Agriculture Food and Environment in Spain. As a business capable of reducing the environmental impacts of aviation, ENAIRE commits to following the reduction of flight distances and improving air routes networks,



which has meant that from 2012, there has been a saving of 123,000 tonnes of CO<sub>2</sub>.

- **17 December 2015:** ENAIRE and the Air Controllers Union (USCA) signed an agreement which was updated by the Second Collective Agreement for these workers up to 31 December 2020, thus ensuring a stable framework for five years.



# 05 Business activities





## A. Customer forum

The Annual Air Navigation Customer Cooperation Forum constitutes an annual meeting point for ENAIRE's Directorate with its customers and other organisms of the Administration in order to exchange information of mutual interest regarding the provision of air navigation service.

The Customer Forum meeting corresponding to the year 2015 took place on the seventh **of April** 2016, and after a welcome for attendants made by ENAIRE's general director, information was provided throughout the meeting regarding performance of the air navigation system (traffic, financial efficiency, safety, delays, efficiency plan), about the conclusions of the perceived quality survey, and about the organization's main actions and plans and future projects.

As in previous years, said Forum was attended by representatives of airlines, general aviation, and airline company associations as well as other organizations involved in the aeronautical sector. Among them are: Aena, AEMET, Aeroports de Catalunya (Territori i Sostenibilitat. Generalitat de Catalunya), State Agency for Air Safety (AESa), Association of Airlines (ALA), Air Transportation Company Association (ACETA), Spanish Airline Company Association (AECA), Spanish Light Aircraft Pilot Association (AEPAL), General Civil Aviation Directorate (DGAC), Director of Air Staff (EMA), International Air Transportation Association (IATA), Iberia, Iberia Express, Ryanair, Andalusian Airborne Sports Federation (FEADA) and Royal Spanish Air Club.

All of them had the chance to personally ask ENARE directors questions.



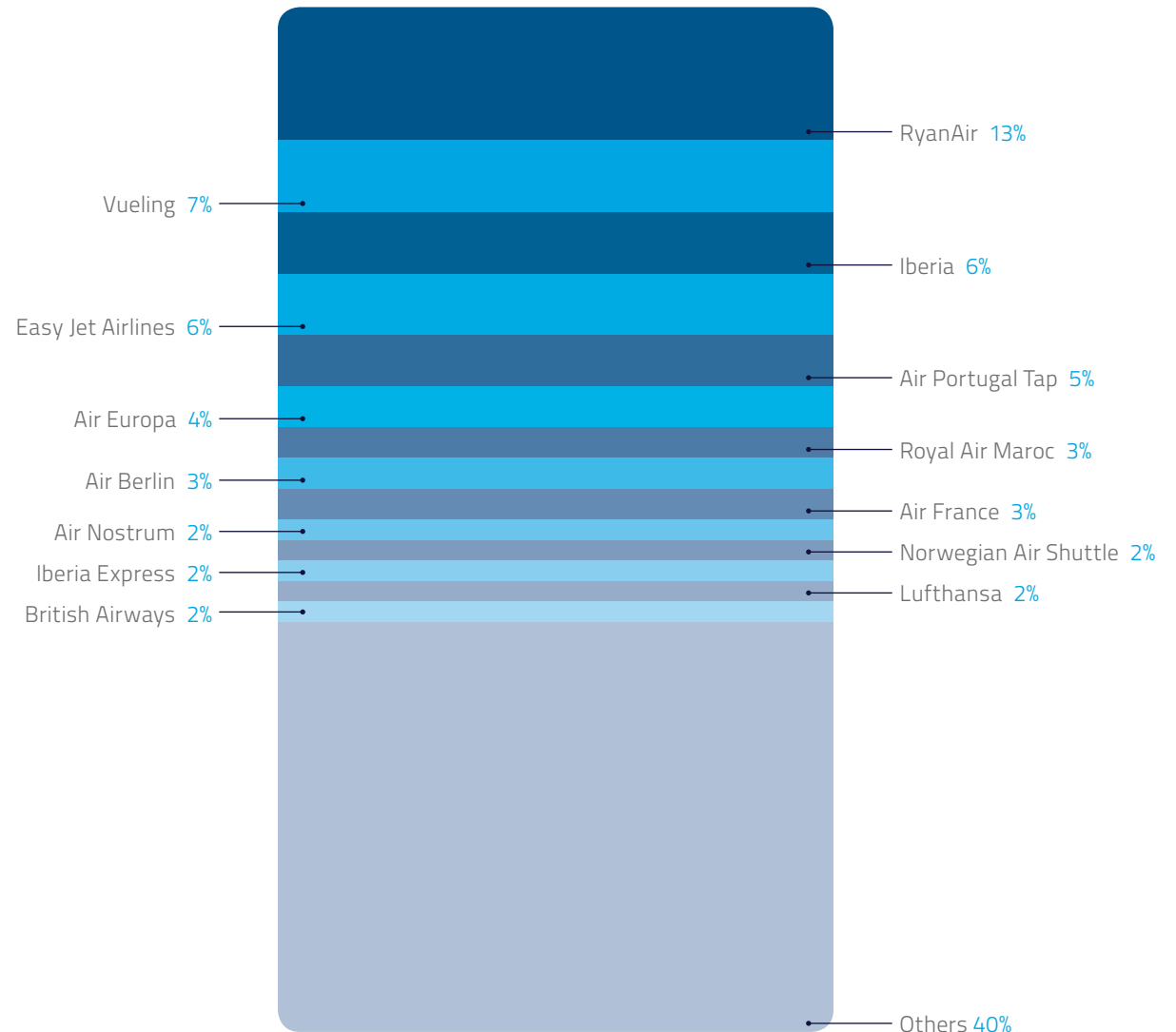
## B. Airlines

In order to continue with ENAIRE's objective of reinforcing customer orientation, as was planned, **meetings were held during 2015 with airline company associations**, to inform them about news that might interest them, and several committees were held with **representatives of General Aviation** throughout the year, including the **Annual Customer Cooperation Forum** mentioned before, which was held in April of 2016, and the participation of ENAIRE in the **Airport Punctuality and Air Navigation Group** in May of 2015.

The meeting planned by the Airline Company Operations Committee, was finally not possible, and the Safety Committee's Annual meeting was moved to January 2016.

Airlines **are our main customers, since invoicing route rates implies 80% of ENAIRE's income.**

Airline Invoicing 2015



# 06 Aena Foundation



These have been the main activities carried out during 2015 by the Aena Foundation.

The Aena Foundation is a cultural institution associated with the ENAIRE public business entity. Its objectives include promoting aeronautical culture and conservation, expansion and promotion of its artistic heritage. Said heritage is made of an outstanding collection of Spanish and Iberian-American art which, chronologically, begins in the second half of the 20th century and continues until now, and includes more than 1,700 works of art, sculpture, photography, and work on paper.

These have been the main activities carried out during 2015 by the Aena Foundation:

- **Aena Foundation Awards (XX edition).** Meetings called annually since 1995 with the purpose of promoting studies and investigations related to air transportation, airports, and aeronautics in general, as well as their broadcast through the communications media.
- **Aeronautical Historic Studies Sessions (XIX edition).** With the purpose of promoting thought, analysis, and debate on matters directly related with air navigation and transportation, as well as aeronautics in

general. This time they were about **Air safety**.

- **Exhibits**
- **Collection of Models:** entitled **One century of Spanish aeronautical history**, throughout 2015 this exhibit has been presented at the airports of Pamplona, San Sebastián and Santander.
- **Contemporary Art Collection:** three exhibits were made: at the Vigo Maritime Museum, at the Old Santa María La Rica Hospital in Alcalá de Henares and at the Valencia Carmen Centre.
- **Graphic Works Collection:** this exhibit has been presented at the San Sebastián Airport.
- **Publications:**

The following works have been edited:

- **Monographies:**
  - Airport intermodality (XVIII Historic Aeronautical Study Sessions).





- Airport monography, in collaboration with the ETSIAE.
- Miquel Buades Socias's Hidros School in Porto Colom, first private school in Spain (1922). (Sponsorship).
- **Catalogues:**
  - Aena's Contemporary Art Collection Exhibit (CAAC) at the Maritime Museum in Vigo.
  - CAAC Exhibit at the Old Santa María La Rica Hospital in Alcalá de Henares.
  - CAAC Exhibit at the Centro del Carmen in Valencia.
  - 2015 Aena Foundation Photography Award.
- **Periodic Publications:**
  - Aena Art magazine, editions 38 and 39.
  - Cultural Heritage and Law (n°19) in collaboration with the Hispania Nostra Association.
- **Environment**
  - **Birds, Travellers with no Frontiers** – A didactic exhibit to increase awareness of migratory travel that brings certain birds to our Peninsula. This exhibit has been held at the airports of Málaga, Jerez de la Frontera, and the Algeciras heliport.
  - **Green Airports** (5th edition): Educational project with the purpose of increasing awareness in Primary Education students regarding the importance of air transportation and the effort made to minimize the impact of its activities on the environment. A total of 4,500 students of Spanish schools participated in this program in which the airports of Zaragoza, Girona, Reus, Ibiza and Menorca collaborated.



## 07 Financial Results



## A. Economic Efficiency

The ENAIRE Entity has made an enormous effort and carried out a deep transformation in the last few years, through the Rationalization and Efficiency Plan, setting the foundations for its future growth.

Our service improvement strategy, whose final purpose is to offer our customers greater efficiency, is based on the development of different action programs in the areas related to said services. Carrying out these programs requires the use of financial resources reflected in the following figures:

Operational **expenses in 2015 have** decreased by -110,5 million Euros regarding the previous year. The total Operational Income decreased to 874,8 in 2015, which implies a 13,4% (-110,5 million) decrease in regards to 2014.

The total investment made in the ENAIRE Public Entity in 2015 (according to payment criteria) is 59,7 million Euros, an amount that implies a 17,5% (+8,9 million) growth with regards to 2014. This increase is derived from the objective of updating and modernizing the air navigation



Investments

59.7

million € (payment criteria)



Income

874.8

million €



Expenses

713.7

million €

system through technological progress and the development of new procedures and functionalities.

Below, we point out the main actions performed by the Air Navigation Directorate to achieve improvement in our services and achieve of the proposed performance.

### Cost Reduction

During the last few years, the Entity has **developed an ambitious plan for lowering expenses, as well as measures for improving operational efficiency and productivity which have yielded results.**

This effort in the matter of cost reduction is reflected in savings close to 95,4 million Euros in the current expenses for 2015 regarding 2014, which implies a 13.8% decrease.



Figures in millions of €.

ITEM	2015	2014	VARIATIONS	
Provisions	34.9	53.5	-18.5	-34.7%
Staff Expenses	469.3	526.0	-56.7	-10.8%
Other Operational Expenses	93.8	114.0	-20.1	-17.7%
Total Current Expenditure	598.0	693.4	-95.4	-13.8%

As shown in the table above, the efficiency and operative measures initiated in 2011 are maintained in 2015 with the rationalization and efficiency plan, although additional events have occurred in the 2015 fiscal year that have caused minor expenses, such as the reversal of 56.1 million Euros of staff provisions, and the impact of the General Taxation Director Entity's decision that determines that route and approach services are subject to VAT (implying a very significant reduction in the amount of

expenses and immobilization activations registered in the 2015 fiscal year).

### Investments

The total investment made in the ENAIRE Public Entity in 2015 (according to payment criteria) is **59.7** million Euros, an amount that implies an increase of 17.5% (+8.9 million) with regards to 2014.



An increase in investment is due to the implantation of the measures required to comply with the European regulatory framework in the matter of Single Airspace (SES).

The increase in investments regarding the previous fiscal year is derived from the **objective** of updating and modernizing the aerial navigation system, through technological development and the development of new procedures and functionalities, with the ensuing increase in the system's efficiency and improvement in the quality of the service provided. This progress comes, mainly, from incorporating new technology currently available on the market, once the required level of technological maturity is reached, and from participation at the European level, together with other service providers, in the different groups established for that purpose (SESAR, EUROCONTROL, etcetera).

Another reason for the increased investments is the implantation of the measures required to comply with the European regulatory framework in the matter of Single Airspace (SES), both recently published, such as, for example, the common pilot project (PCP) published in 2014, or another regulation already in effect, such as Datalink, separation of voice channels (8,33 kHz) or monitoring performance and interoperability (SPI).

Additionally, several projects are being developed for the integration of equipment and functionalities, as well as centralized supervision and control of some systems. Specifically, we can point out:

- Regarding the ATM system, several actions have been carried out with the purpose of modernizing, improving and harmonising the systems that depend on the automation area: SACTA, COMETA and ICARO. Commissioning of the A-CDM functionality and the AMAN arrivals sequencer at the Barcelona Airport must be pointed out, as well as starting service of the CF-2 functionality in the North-Central, East and Balearic regions. The first phase of the IP voice communication system service has been completed, under the COMETA project, at the Canary Control Centre and, within the iTEC International Consortium the development of a common control position has been initiated and progress has been made in the new version of the Flight Plan treatment functionality.
- The necessary investments in the regulatory realm have been identified and the first



actions have been started in line with deploying the PCP European project.

- In regards to communications, activities related to progress of the ENAIRE (REDAN) data network continued, through the necessary tests and validations in the Centre for Experimentation and Development model, as well as the installation and local tests of the nodes in the central grid. Actions for evolution and adaptation of the Integrated Message Automatic Retransmission Centre (CRAMI) have also been started.
- In the area of navigation and monitoring, deployment of the technological development program has been increased by commissioning the new S-Mode radars in As Pontes and Fuerteventura, as well as through several maintenance and improvement actions on primary and secondary radars, and integration of several heads into the SACTA system, in addition to substituting the management systems in the four control centres involved: Madrid,

Barcelona, Palma de Mallorca and Canarias. Deployment of Phase I of the Radio Help Supervision System (SIRA) has also been finalised in all regions, as well as the implementation of PBN approach procedures in Almería.

- In the matter of technical operation, implantation of the ORION system has been consolidated in the East and Balearic regions, for supervision and control of communication systems, and activities have been started for deployment in the Canarias region.
- In regards to infrastructure, actions have been carried out directed towards improving, standardising and updating buildings and auxiliary facilities for aerial navigation.
- In the area of Information Systems, activities destined to separate the Aena, S.A., and ENAIRE, systems have continued, apart from implementing certain technological renovation and improvement actions in the realm of communications and storage.

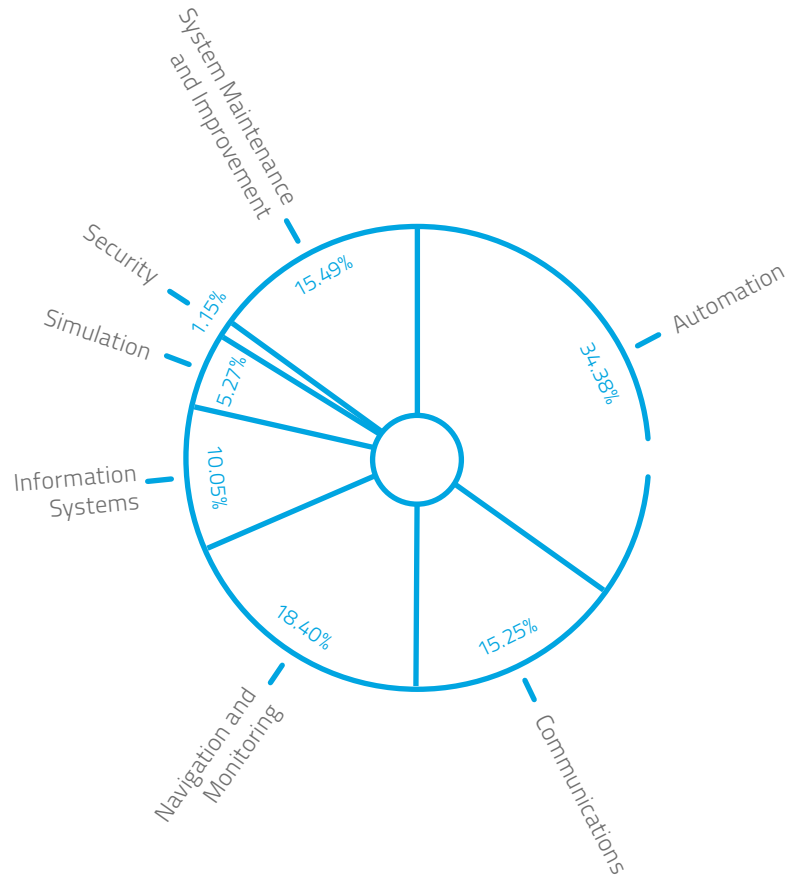
## The list of investments by item is as follows:

Figures in millions of €.

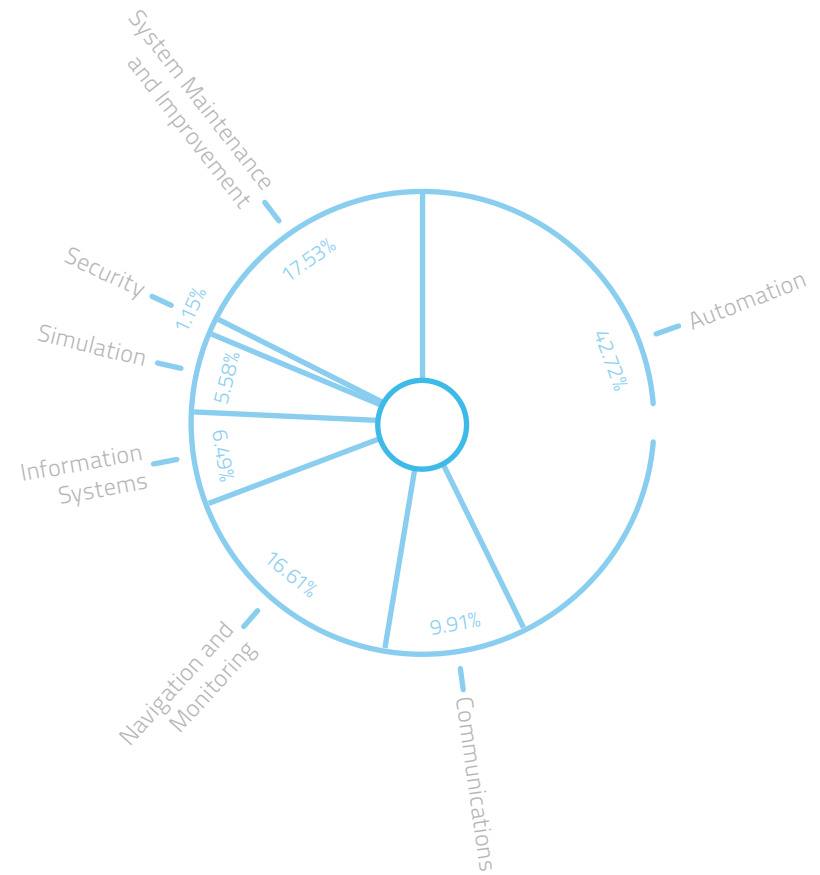
	<b>2015</b>
Automation	20.6
Communications	9.1
Navigation and Monitoring	11
Information Systems	6
Simulation	3.1
Security	0.7
System Maintenance	9.2
<b>Total</b>	<b>59.7</b>



2015



2014



## B. Analysis of Results

### Results Account

Figures in millions of €.

ITEM	2015	2014	VARIATIONS		
Volume of Business	864.7	885.6	-20.9	-2.4%	•
Other Income	10.1	3.8	6.3	166.0%	—
Operational Income	874.8	889.4	-14.5	-1.6%	•
Provisions	34.9	53.5	-18.5	-34.7%	—
Staff Expenses	469.3	526.0	-56.7	-10.8%	•
Other Operational Expenses	93.8	114.0	-20.1	-17.7%	•
Amortizations	116.2	129.0	-12.8	-9.9%	•
Wear, exceptional expenses and other results	-0.5	1.8	-2.4	-128.9%	—
Operational Expenses	713.7	824.3	-110.5	-13.4%	•
Operational Result	161.3	65.1	96.0	147.5%	—
EBITDA	277.3	194.1	83.2	42.9%	—
Financial Result	-3.5	-10.0	6.5	64.7%	—
Result before taxes	157.6	55.1	102.5	186.0%	—
Tax on profits	-43.3	-51.8	-8.5	-16.4%	•
Tax Year Result	114.3	3.3	94.0	3,338.0%	—
Aena's 49% OPV Result	2,972.6				
Aena's 49% OPV Tax on Profits	-500.0				
Tax Year Result with Aena's 49% OPV	2,586.9				



## Other Operational Income has increased fundamentally as a consequence of receiving operational subventions from the European Union in the amount of 5.3 million Euros.

The total income for Entity Operation decreased to 874.8 million de Euros in 2015, which implies a 1.6% (-14.5 million) decrease in regards to 2014.

The main reason for the deviation is that in spite of recovering traffic, this does not transfer to income for route service, because the part corresponding to the Ministry of Defence' tariff was included in it up until the month of July, 2014. Starting in that month, said Ministry began to manage it directly with EUROCONTROL, and therefore in 2014 the loss of income for this item was 19.4 million Euros.

Other Operational Income has increased fundamentally as a consequence of receiving operational subventions from the European Union in the amount of 5.3 million Euros.

The operational expenses reflect a significant reduction promoted by the savings measures initiated in previous years (see Other Operational Expenses), which have given rise to their general classification. The most important variations in the expense item correspond to:

- Provisions: these expenses include the payment agreement with the rest of

organizations (Ministry of Defence, AEMET and AESA) which have decreased by 18.5 M€ (-34.7%). This decrease comes about because the Ministry of Defence has directly managed the services for the part of the tariff that corresponds to it since August of 2014, and the Entity does not have to assume its reimbursement.

- Staff expenses: 469,3 million Euros in 2015, compared to 526 in 2014.

As decreases we must point out that the number of controllers has been decreased, which implies a reduction of -5,M€; the LER equipment has been decreased (-1,8 M€) and Aena, S.A.'s Corporate Unit staff allocation was changed in July of 2014. On the other hand, 50.27% of extra payment made in 2012 was returned and the remaining 49.73% was made into reserves in 2015.

- Other operation expenses - which have decreased from 17.7% (-20.1 million Euros) to 93.8 million Euros in 2015, as a result of the of efficiency and operational measures, consumption savings measures, record

centralization, ownership of services and contract renegotiation which has lowered items and amounts, as well as the reduction of central services performed by Aena, because starting in July of 2014, these services were assumed directly by the Entity.

- Real estate amortization: Was 116.2 million -12.8M€ (-9.9%) in 2015 compared to 2014, and this reduction was caused by the Optimization and Reduction Plan for Investments performed.
- Deterioration, writing off real estate and other results: This expense was -0.5 million in 2015 compared to 1.8 million in 2014.

The Operational Result is 161.1 M€ in the Results Account in 2015, improving by 147.5% (96

M€) regarding 2014, because the better behaviour of traffic and the significant reduction in operational expenses compensate for the loss of operational income, because the Ministry of Defence's tariff is not included in income for Route Services, and due to the decrease in services provided by the Corporate Unit to Airports since the month of July, 2014.

The Financial Result is -3,5 M€ in 2015, a 64,7% (6,5 M€) improvement motivated by a better financial result for the debt due to a lowering of interest and less pending capital, and an improvement in income due to placement of OPV funds.

On 23 January, 2015 the Council of Ministers approved the sale of 49 percent of the Aena, S.A. subsidiary through Public Sale Tender, and starting to have its shares quoted on the

Continuous Market on the four Spanish stock exchanges on 11 February, 2015. Aena's IPO implies that the dominant Entity ENAIRE will become holder of a 51 percent participation in this company, compared to the one hundred percent it had before, maintaining control therein.

Income derived from this transaction has reached 4.263 billion Euros, and related expenses to 15.9 million Euros.

The net result for 2015 without taking into account the impact of the sale of Aena, S.A. would be 114.3 million Euros, compared to 3.3 million Euros in 2014.

The total result, including the transfer of 49% of Aena S.A.'s shares, reaches 2 billion 586 million 900 thousand.



## Balance, capital structure and cash flow statement.

### Net Assets and Capital Structure

ENAIRE BALANCE	2015	2014	VARIATION
Non-Current Assets	10,684.0	13,363.4	<b>-2,679.4</b>
Current Assets	2,021.3	1,596.2	425.1
<b>Total Assets</b>	<b>12,705.3</b>	<b>14,959.6</b>	<b>-2,254.3</b>
Net Equity	2,464.3	3,315.9	<b>-851.5</b>
Non-Current Liabilities	8,849.5	10,118.7	<b>-1,269.2</b>
Current Liabilities	1,391.4	1,525.0	<b>-133.6</b>
<b>Total Liabilities</b>	<b>12,705.3</b>	<b>14,959.6</b>	<b>-2,254.3</b>

Total assets decrease in 2015 compared to 2014, as a consequence of the descent in investments in long-term group and associated companies, motivated by:

- Aena's IPO, which implied that the dominant ENAIRE would become the holder of a 51% participation in this company, vs the hundred percent which it had before, maintaining control thereof.

The decrease of non-current Assets is compensated, in part, by an increase in the current asset, due to, among other reasons, the increase in cash and other equivalent liquid assets.

The increase in current assets, as a fundamental consequence of the generation of cash, has contributed to a considerable change in the working capital, going from +71.2 million Euros in 2014 to +629.8 million in 2015.

Net equity also decreases as a consequence of the IPO, through a 49% OPV of Aena, S.A.'s



capital and ENAIRE will go on to have a participation of 51% in Aena, S.A., vs 100% previously.

Non-current liability decreases mainly due to repayment amortisation of Debt with credit entities.

Current liability decreases mainly as a consequence of the rupture of the fiscal group derived from the sale of Aena's 49%, which implies that the Entity does not recognize debts with the Aena Group regarding fiscal credits it included in the balance as of 31 December 2014, as well as the application of part of these credits in the liquidation of 2014 definitive company taxes presented in July of 2015.

### Clarifications of entity's cash flow statements

Figures in millions of €.

	2015	2014	VARIATION
Operational activities cashflow	<b>(391.8)</b>	134.2	<b>(526.0)</b>
Cash flows for investment activities	5,281.7	798.8	4,482.9
Cash flows for financing activities	<b>(4,588.1)</b>	<b>(930.1)</b>	<b>(3,638.0)</b>
Net Cash or Equivalents Increase/Decrease	321.8	2.9	318.8
Cash or Equivalents at the Beginning of the Fiscal Year	212.8	209.9	2.9
Cash or Equivalents at the End of the Fiscal Year	534.6	212.8	321.8



### **Net cash flows for operational activities**

The main collections for operations correspond to collections made to customers (mainly EUROCONTROL and Aena, S.A.), while the main operating payments correspond to payments to creditors for providing several different services, staff, and local and state taxes.

Interest paid, which mainly responds to the payment of interest for debt, undergoes a decrease caused by a decrease in the average amount of debt, as well as its average type.

On the one hand, payment for Company Taxes in 2015 was in the amount of 558.2 million Euros and includes the 49% fiscal impact on income into Aena, S.A.'s sales account, estimated at 601 million Euros.

Without this effect, a collection of 43.8 million Euros would appear under this heading, which would translate to a Cash Flow for Operational Activities of 210.2 million Euros.

As a consequence of all the above, the cash flow for operational activities has decreased to

-391,8 million Euros, from 134,2 million Euros in 2014.

### **Net cash flows for investment activities.**

The main payments relative to investment flows correspond to purchases and repositions of non-financial real estate relative to IT applications and technical facilities, both relative to air navigation.

These payments decreased significantly in 2015, to 50.2 million Euros from 200.8 million Euros in 2014, because there was a provision of 150 million Euros for new debt for Aena, S.A. in 2014.

Keeping in mind the above, the net cash generated for investment activities has increased to 5 billion 281 million 700 thousand Euros, from 798.8 million Euros in 2014.

### **Cash flows for financing activities**

An amortisation of equity instruments is reflected in 2015, as a consequence of the sale of 49% of Aena, S.A.'s shares and based on the reduction of Entity Equity.



On the one hand, long-term bank debt amortisations have reached 1 billion 128 million 400 thousand Euros (1 billion 016 million 300 thousand Euros in 2014) due to its own compliance with the payment schedule established according to contract. No bank debt has been refinanced.

As a consequence of the sale of 49% of Aena, S.A.'s shares, a payment has been made to the account for the benefit of the net sale of taxes to the Public Treasury for the amount of 2,165.3 million Euros.





## C. Contracting

During the 2015 fiscal year the total value volume of goods and services awarded by ENAIRE went up to 74.26 million Euros (taxes excluded).

The centrally awarded contracting volume implied 92% (68.36 million Euros) of the total, compared to 8% (5.90 million Euros) contracted by all peripheral centres.

The distribution of the centralized expenses contract amount, by nature, was as follows:

### Support and Services

16.14

millions of Euros

### Supplies

1.16

millions of Euros

The distribution of the amount of **centralized investment** contracts awarded, by nature, was as follows:

### Support and Services

25.16

millions of Euros

### Works

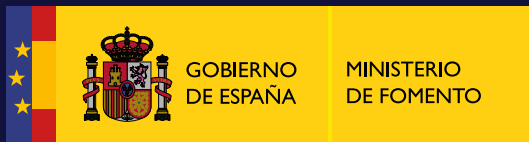
2.23

millions of Euros

### Supplies

23.67

millions of Euros



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