

The logo features a stylized blue wing or arrow pointing upwards and to the right, positioned behind the text. The background of the entire image is a light blue gradient with various abstract elements: a satellite in the top left, a rocket in the top right, a globe in the center, and a circuit board pattern at the bottom. Binary code (0s and 1s) is scattered across the lower half of the image.

MADRID AEROSPACE

CLUSTER



Aerospace industry is a high added-value industry in which the Madrid Region holds a leadership role.

The Community of Madrid is the engine of the Spanish aeronautics and space sectors.

Madrid Region



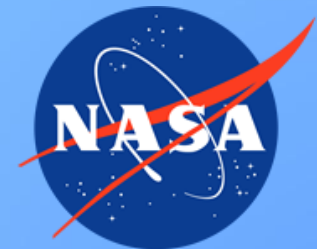
SPACE

92% of the space national turnover

Main facilities of space agencies are located in Madrid Region:

- ESA European Space Astronomy Centre (ESAC)
- ESA Business Incubation Centre Madrid Region
- NASA Madrid Deep Space Communications Complex (MDSCC)

esac
european space astronomy centre



 **esa** business incubation centre
Madrid Region

Space sector in Spain

TURNOVER

(MILLION EUROS)

2017

FACTURACIÓN

851

2007

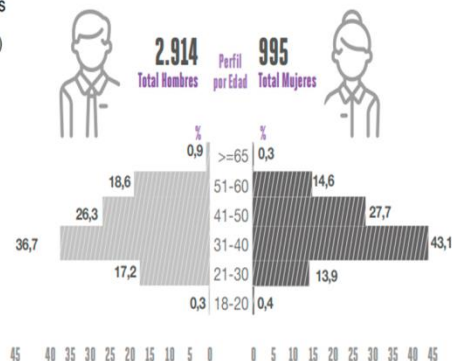
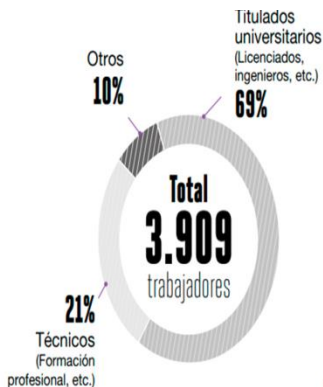
FACTURACIÓN

493

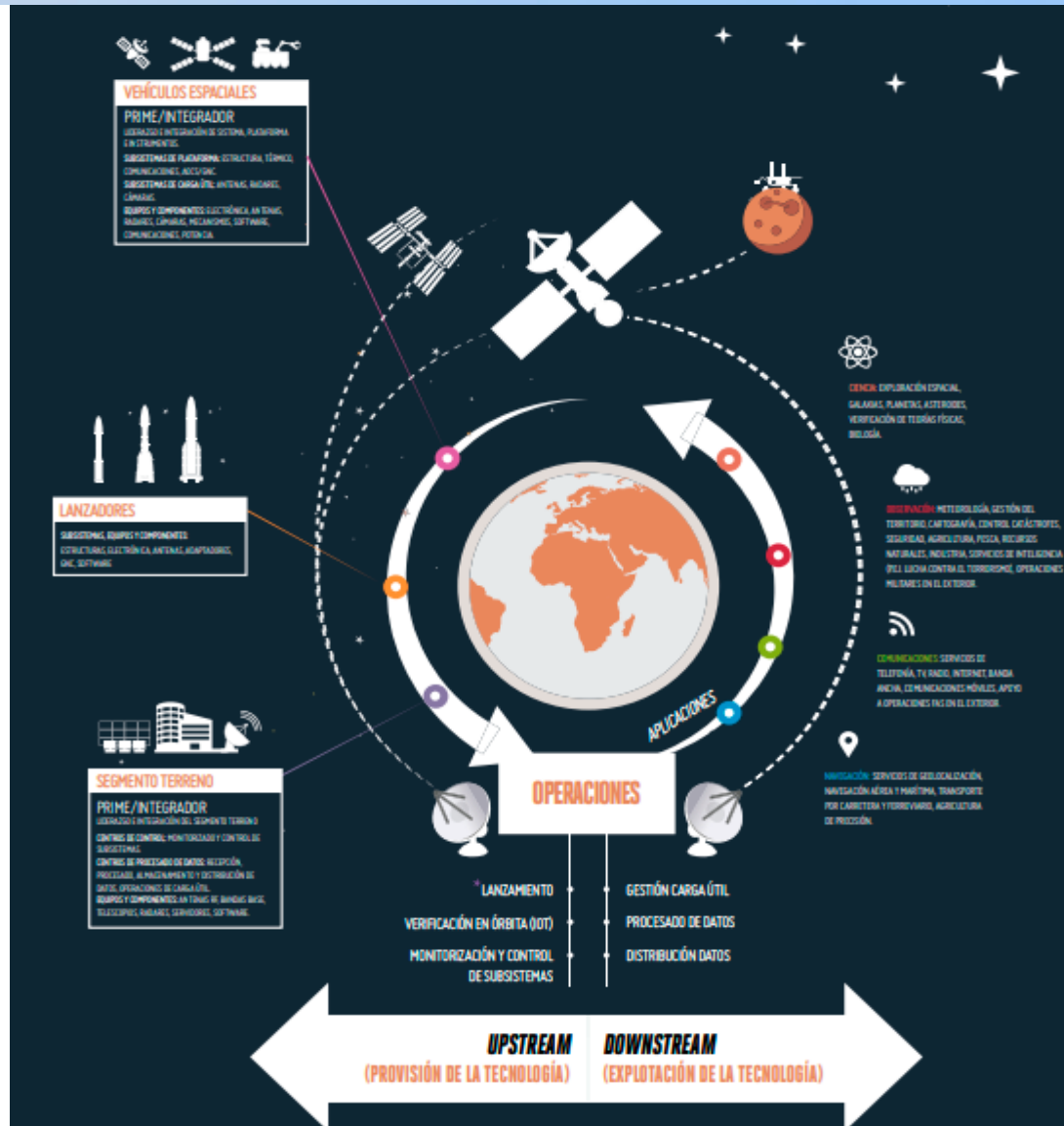
EMPLOYMENT

qualification

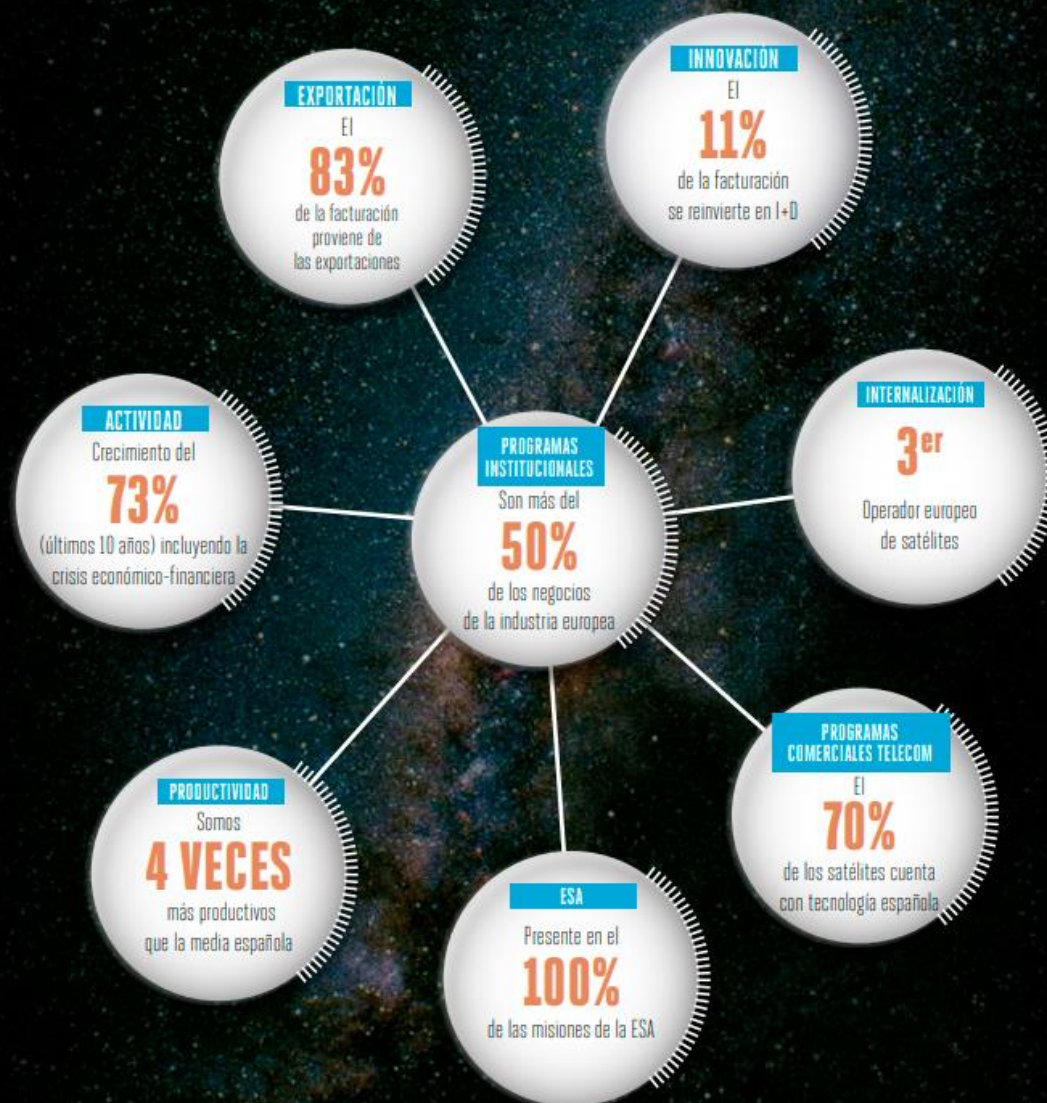
age & gender



Fuente: TEDAE



Space sector in Spain



Madrid Region



AERONAUTICS

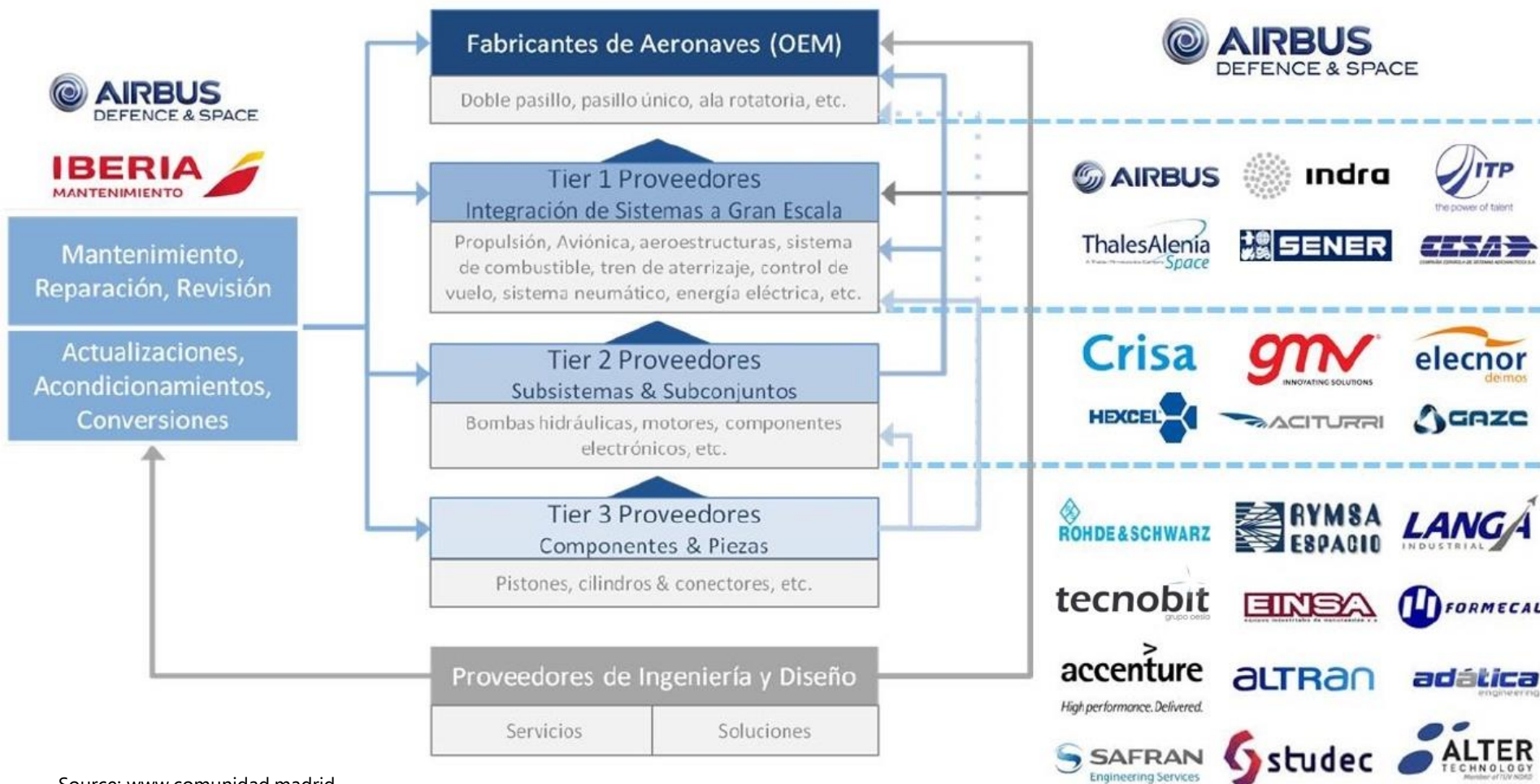
62% of the aeronautics national industry

Madrid Region is base of:

- Industry actors covering all the value chain
- Certification and testing centres
- ENAIRE- AENA

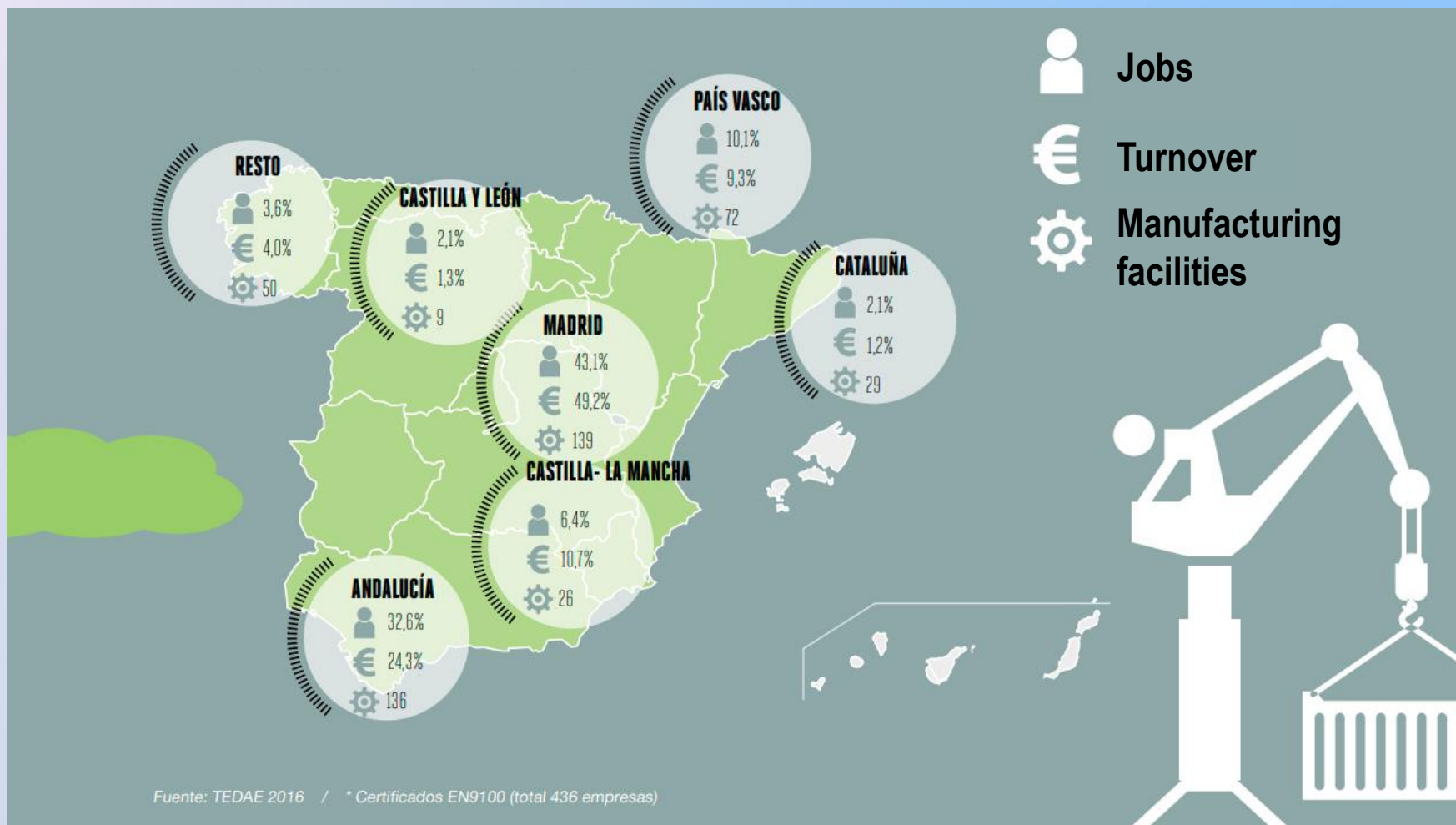
➤ 1st Spanish Airport in number of passengers

Aeronautics Value Chain



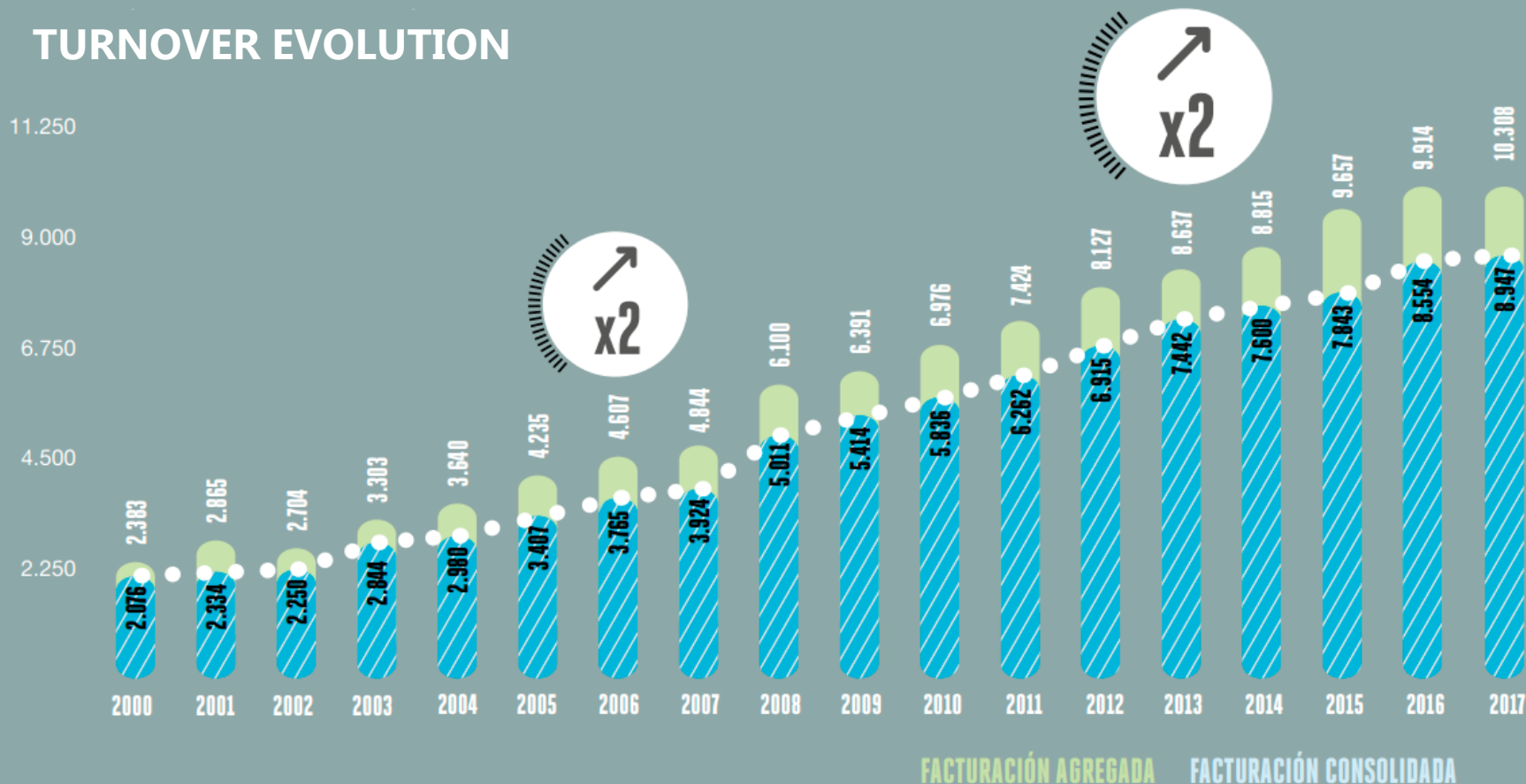
Source: www.comunidad.madrid

Aeronautics industry by regions



Aeronautics in Spain

» TURNOVER EVOLUTION

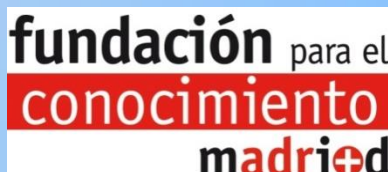


Miles de millones de euros / Fuente: TEDAE

Madrid Region



Base of the main
Universities
and
Research
Centres:



Madrid Region

Competitive advantages of Madrid: the vision of companies

Four companies set up in the region tell us why Madrid is an optimal destination for investment in the aerospace sector.



Cluster mission



Contribute to the development of the aerospace sector in the Madrid Region



Promote innovation and technical development of the aerospace industry



Help aerospace companies get involved in European Projects



- Natural liaison of innovative companies
- Neutral liaison with universities and research & technology centres.
- Institutional contact facilitator:
 - **National**
 - **Regional**
 - **Local**
- Members compete and cooperate with each other
- Highly professionalized management



More than **70**
highly innovative and technological **partners**



PUBLIC
ADMINISTRATION

2,6%



LARGE
COMPANIES

15,6%



SMEs

67,5%



UNIVERSITIES &
RESEARCH CENTRES

9,1%



OTHERS

5,2%

European Networks



Member of the
**European
Aerospace
Cluster
Partnership**



Representative of
Madrid Regional
Government at the
**Network of European
Regions Using Space
Technologies**



Helping companies
innovate and grow
internationally



Member of the Panel
of **Space SMEs
Associations of
the ESA Member and
cooperating States**



Honorary member of
the **Supply chain
Progress towards
Aeronautical
Community
Excellence**



Member of
the **European
Network of
Defence-
related Regions**

Granted as a Copernicus Relay

The only Spanish cluster in this Network of Copernicus Ambassadors established by the European Commission



European Aeronautics Industry

Major contributor to Europe's economic welfare

JOB CREATION

> **550.000** skilled people
directly employed

> **1,5 million** jobs created
indirectly

BOOST GROWTH AND COMPETITIVENESS

Development of cutting
edge products and services
worth **160 Billion €**

Those put Europe is at the forefront of global aviation industry

Clean Sky Joint Undertaking



Public Private Partnership between:

EUROPEAN UNION

EUROPEAN AERONAUTICS INDUSTRY

Clean Sky mission:

To foster and coordinate research to deliver the best innovations and technologies to reduce CO₂ & NO_x, and noise levels by 2050

4 Billion € budget cofinanced by:



Clean Sky



To date, the program has **1290 participations** in **open calls** from **27 countries**, coming from:

INDUSTRIAL LEADERS
309

RESEARCH CENTRES
326

UNIVERSITIES
292

SMEs
363

Additionally, Clean Sky is developing **bilateral cooperation** with **110 aeronautics focused regions** to underpin smart specialization strategies

Clean Sky

Beyond the limits of conventional aeronautics, **Clean Sky** leaders, members and partners are **delivering results in all key areas of aircraft development**

PROPULSION EFFICIENCY

Fuel efficiency

AERODYNAMIC & EFFICIENT WINGS

Lower emissions

INNOVATIVE STRUCTURES & PRODUCTION SYSTEMS

Solutions for a more sustainable aircraft lifecycle

FUTURE COCKPIT & GUIDANCE SYSTEMS

Enhance safety and connectivity of flight operation

IMPROVED PASSENGER ENVIRONMENT

Better flight experience

MORE ELECTRIC AIRCRAFT & SYSTEMS

Optimize energy performance

NOVEL AIRCRAFT & SYSTEMS CONFIGURATION

Disruptive approaches to shapes and geometries

Towards the future

Beyond the distant future



Photo: ESA

aeronautics industry is actively researching on new ways to minimize the impact of flight operation...

Towards the future

AIRBUS is currently working on hydrogen-powered commercial aircrafts (ZEROe) to be operational by 2035

Introducing Airbus ZEROe

| | | | |
|-------------------|---|---|---|
| Turboprop |  |  <100 Passengers |  1,000+nm Range |
| | |  Hydrogen Hybrid Turboprop Engines (x 2) |  Liquid Hydrogen Storage & Distribution System |
| Blended-Wing Body |  |  <200 Passengers |  2,000+nm Range |
| Turbofan |  |  Hydrogen Hybrid Turbofan Engines (x 2) |  Liquid Hydrogen Storage & Distribution System |

AIRBUS

Photos: AIRBUS



AIRBUS is also developing a prototype of electric-powered aircraft (e-fanX)

Thank you!



www.madridaerospace.es



@MadridAeroSpace



Madrid Aerospace Cluster



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