# CSIC

Consejo Superior de Investigaciones Científicas



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## Introduction



Rafael Rodrigo President of the CSIC

*"Our mission is to generate and transfer knowledge to society"*  The Spanish National Research Council (CSIC) continues working to achieve the quality science and technological development that Spain deserves.

The year 2010 saw the start of the new Action Plan 2010-13 which, like the previous Action Plan 2006-09, was fully assessed by scientists external to the institution. This time round the Action Plan includes all CSIC functional units, this being the first time it caters for a research institution with such characteristics. Furthermore, the new Action Plan includes novel elements designed to measure the achievement of objectives, such as the quality of publications, science communications and internationalization.

Within this scenario of achieving goals, which places greater emphasis on the attainment of results, our activity in scientific-technical fields rose for all performance indicators, attaining even higher values than expected. This reflects the fact that investment in research over the past years has paid off, as well as the willing endeavour of our researchers.

An institution like the CSIC, which encompasses over 130 centres and institutes, is bound to make a significant contribution to the advancement of science and to play a role in activities of both national and international relevance. Accordingly, the CSIC participates in nineteen Spanish University Campuses of International Excellence as sponsoring partner / collaborator. This verifies that our cooperation with universities is moving in the right direction, attaining actual integration and excellence.

Our century-old institution harbours a workforce committed to science, who believes in the value of continued investment in generating knowledge and transferring know-how to society, as this is a driving force of development.

# Presentation

The State Agency CSIC (National Research Council) comprises 136 Centres and Institutes, which are located throughout the Autonomous Regions of Spain, apart from one based in Rome. Of these, 75 belong to the CSIC alone while 53 are joint centres, and eight are service centres (which account for several Institutes). It manages eight Singular Science and Technology Infrastructures (ICTs), including the Antarctic Research Station Juan Carlos I, the research vessels Hespérides and Sarmiento de Gamboa, the Microelectronics clean-room and the Reserva-Estación Biológica de Doñana (Doñana Biological Station).

Multidisciplinary scientific and technical research

Scientific and technical advice

Transferring research outputs to business

Contributing to the creation of technology-driven companies

Training specialised personnel

Managing infrastructure and large facilities

Promoting scientific culture

# 136 Research centres and institutes

CSIC-only Centres 75

Joint Centres

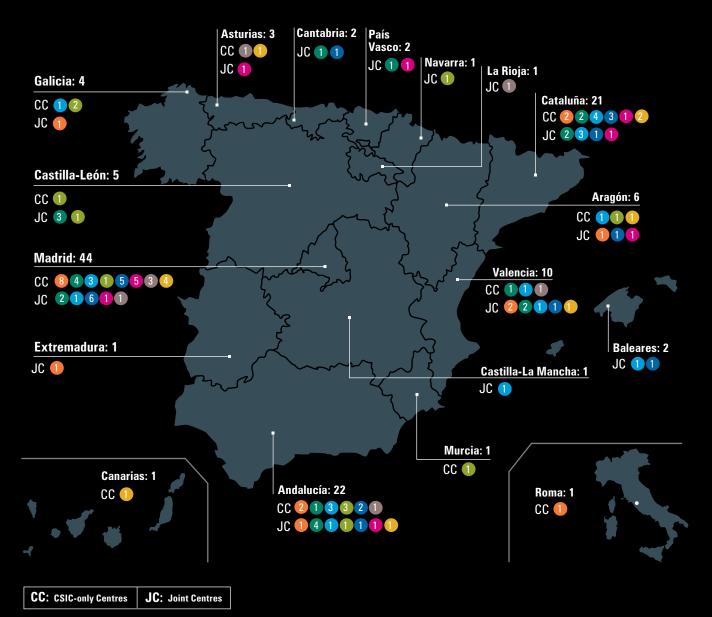
Service Centres

8

are located throughout the Autonomous Regions of Spain, apart from one based in Rome.

- AREA 1: Humanities and Social Sciences
- AREA 2: Biology and Biomedicine
- AREA 3: Natural Resources
- AREA 4: Agricultural Sciences
- AREA 5: Physical Science and Technology
- AREA 6: Materials Science and Technology
- AREA 7: Food Science and Technology
- AREA 8: Chemical Science and Technologies





## Human resources

14,144

# **People** work at the CSIC



## Women and Science

The Gender Equality in Scientific Careers Plan and the CSIC's Women and Science Committee promote equality of opportunity between men and women.

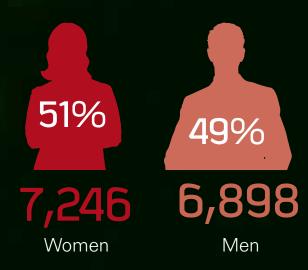
4,382

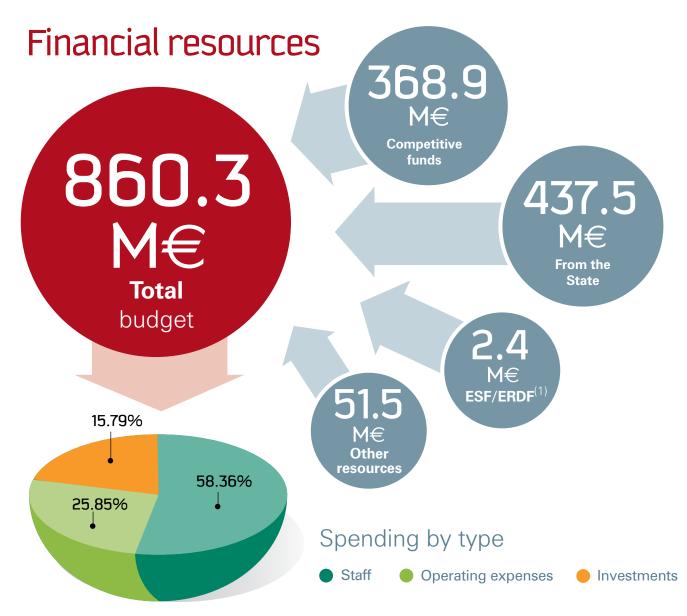
Scientist Doctors

# 3,116

Trainee researchers

Postgraduate and specialisation courses





(1) ESF: European Social Fund. ERDF: European Regional Development Fund.

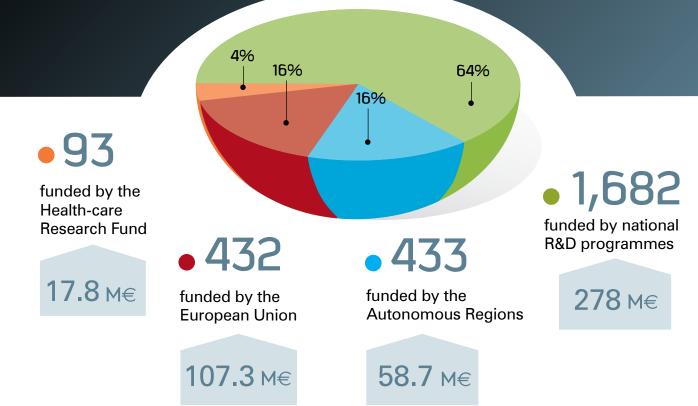


# **Research projects**

# 2,640

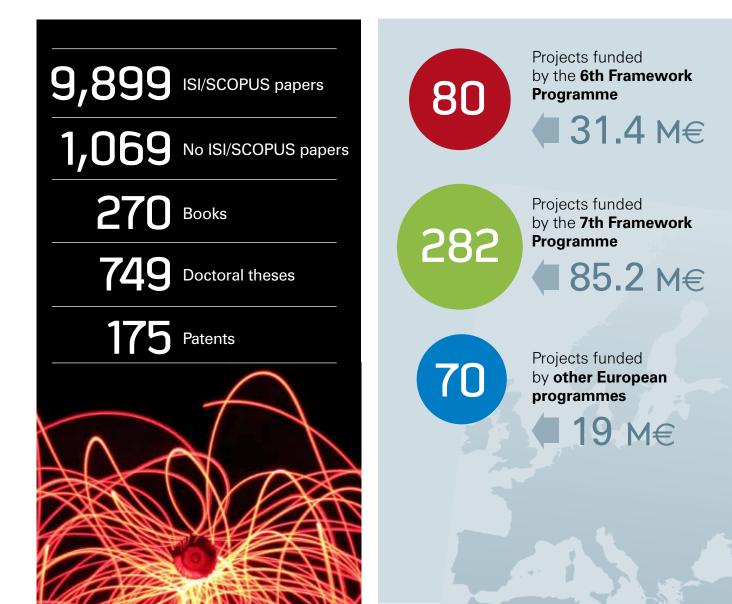
## **Research projects**

in all areas of knowledge with funding of **461.8 million euros** 



# Scientific output

## European projects



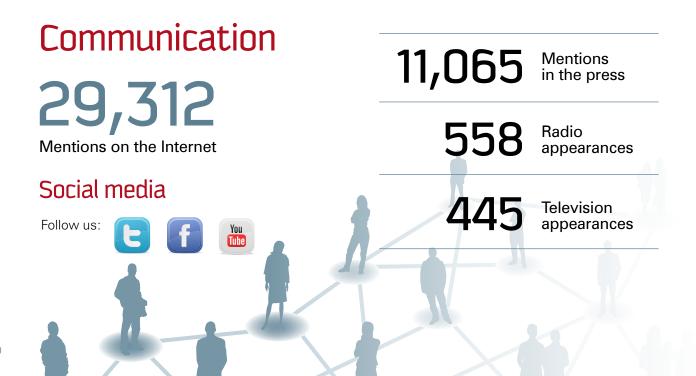
# Knowledge transfer

# 3,099

contracts and agreements with companies and institutions, with funding of

78.6 M€





## Scientific culture

#### Celebrations

International year of biodiversity

100th anniversary of jae centres

International women's day

Preparations for the international year of chemistry 2011

#### The Malaspina Expedition

Expedition 2010-2011 of the research vessels hesperides and sarmiento de gamboa

Conferences, website, exhibitions

Preparations for the 2012 universal expo in Yeosu

#### Movilab

Travelling laboratory to popularise science

#### Internationalisation

Comscience events at the museum of natural history

Scientific dissemination debating groups

Latin american states cooperation organization

# Popular science publications

Fotciencia competition (csic-fecyt) (photography competition)

**Ibercivis** Distributed computing platform International science race

# Science and technology week

#### Science fairs

Science weekend in the MUNCYT

Madrid book fair

Murcia science fair Empírika

#### Science Education and Teaching

The csic goes to school

#### Estalmat

Internal training courses (science popularisation and communication)

Dissemination course (advances in chemistry and impact on society)

# Publications 12,000

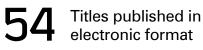
in the publications collection











120 **Total collections** 

6 Live collections



Journals, which can be consulted online at:

http://revistas.csic.es/index.html

# Library network





Databases of bibliographical records prepared in-house (ICYT, ISOC, IME)

28,800

**Digital documents available for open access at Digital.** CSIC, the institutional

repository which keeps an archive of the intellectual output of the CSIC's research activity.



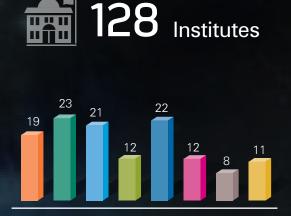
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# Scientific Areas



# **CSIC** Scientific Areas

The CSIC is a multidisciplinary organisation, covering the whole range of fields of knowledge, from basic research through to the most advanced technology development. It is organised into eight Scientific/Technical Areas. AREA Humanities and Social Science AREA **Biology** and 2 Biomedicine AREA Natural 3 Resources AREA Agricultural 4 Sciences AREA Physical Science and Technology 5 AREA Materials Science 6 and Technology AREA **Food Science** 7 and Technology AREA **Chemical Science** 8 and Technologies



14,144 People





# **3,924**

International and national research project/actions





\* General administration and other expenses

## **CSIC** Scientific Areas

## AREA 1 Humanities and Social Science



#### Scientific output

SCI/SSCI papers	333
Non-SCI/SSCI papers	415
Books	152
Doctoral theses	46
Patents	1

#### Knowledge transfer

**137** contracts and agreements with companies and institutions, with annual funding of **5.6** million euros.

#### Lines of research

Anthropology, political science, economics, philosophy, geography, history, linguistics and sociology.

# AREA 2 Biology and Biomedicine



#### Scientific output

SCI/SSCI papers	1,692
Non-SCI/SSCI papers	58
Books	5
Doctoral theses	197
Patents	36

#### Knowledge transfer

**607** contracts and agreements with companies and institutions, with annual funding of **16.7** million euros.

#### Lines of research

Structural biology, biotechnology, the molecular and cellular basis of cancer, developmental biology, plant biology, physiopathology, functional genomics and genetics, microbiology and virology, immunology, neurobiology.

## **CSIC** Scientific Areas

# AREA 3 Natural Resources







**130.1** м€

Expenditure



International and national research projects/actions funded , at a total cost of

87.2 M€

#### Scientific output

SCI/SSCI papers	1,760
Non-SCI/SSCI papers	260
Books	41
Doctoral theses	110
Patents	8

#### Knowledge transfer

**362** contracts and agreements with companies and institutions, with annual funding of **13.3** million euros.

#### Lines of research

Biology of organisms and terrestrial systems, sciences of the earth and atmosphere, marine sciences and aquaculture, and global change.

# AREA 4 Agricultural Sciences



#### Scientific output

SCI/SSCI papers	795
Non-SCI/SSCI papers	64
Books	8
Doctoral theses	66
Patents	13

#### Knowledge transfer

**321** contracts and agreements with companies and institutions, with annual funding of **6.0** million euros.

#### Lines of research

Water in agriculture, soil quality and organic material, plant nutrition, photosynthesis, fruit growing and forestry, genetic enhancement, plant pathology and stock rearing.

## **CSIC** Scientific Areas

## AREA 5 | Physical Science and Technology



#### Scientific output

SCI/SSCI papers	1,930
Non-SCI/SSCI papers	138
Books	30
Doctoral theses	118
Patents	26

#### Knowledge transfer

**254** contracts and agreements with companies and institutions, with annual funding of **7.4** million euros.

#### Lines of research

Astrophysics, atomic and molecular physics, particle physics, nuclear physics, optics, mathematics, nano-science and nanotechnology, physical technologies, computational sciences, complex systems, integrated micro and nano systems.

## AREA 6 | Materials Science and Technology



#### Scientific output

SCI/SSCI papers	1,661
Non-SCI/SSCI papers	61
Books	20
Doctoral theses	91
Patents	26

#### Knowledge transfer

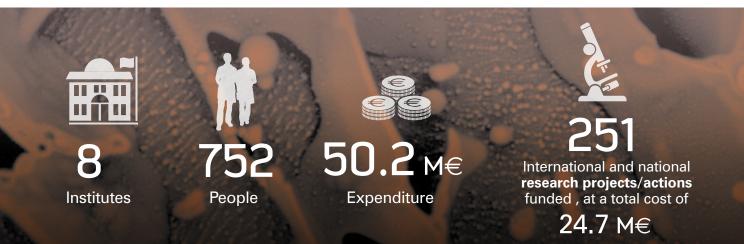
**710** contracts and agreements with companies and institutions, with annual funding of **12.1** million euros.

#### Lines of research

Functional and multifunctional materials; structural materials for sectors of high industrial interest; materials and engineering for construction; theory and engineering of materials: design, modelling and simulation; new methods of synthesis and processing; properties of materials on the nanometric scale.

## **CSIC** Scientific Areas

## AREA 7 | Food Science and Technology



#### Scientific output

SCI/SSCI papers	560
Non-SCI/SSCI papers	15
Books	8
Doctoral theses	39
Patents	20

#### Knowledge transfer

**274** contracts and agreements with companies and institutions, with annual funding of **4.1** million euros.

#### Lines of research

Food quality and safety, development of new food production and conservation techniques, development of new active packaging and products, biotechnology of edible plants and micro-organisms of nutritional interest, and production of functional ingredients and foods.

# AREA 8 Chemical Science and Technologies



#### Scientific output

SCI/SSCI papers	1,168
Non-SCI/SSCI papers	58
Books	6
Doctoral theses	82
Patents	45

#### Knowledge transfer

**373** contracts and agreements with companies and institutions, with annual funding of **12.1** million euros.

#### Lines of research

Chemical synthesis, biological chemistry and medical chemistry, environmental chemistry and technology, organo-metallic chemistry, catalysis, physical chemistry, chemistry of materials and nanotechnology.

#### www.csic.es/web/guest/memorias

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