STUDY & RESEARCH
IN PORTUGAL

"

PORTUGAL, A LAND OF KNOWLEDGE
A PLACE TO EXPERIENCE

Maria Fernanda Rollo
Secretary of State for Science,
Technology and Higher Education
02/06/2018

Portugal / U.S. Higher Education and Science Forum

WHY KNOWLEDGE IS IN THE HEART OF PORTUGAL

Now that you know the inspiring ecosystem that we live in, you need to understand why Knowledge is in the heart of Portugal.
Centuries of history and culture, and a prime location and Mediterranean lifestyle, assert Portugal as the right place to learn and do science.
Portugal is the perfect place to overcome new frontiers of knowledge. From fifteenth-century challenges and voyages that brought the world together, we now look at the future to face artificial intelligence ventures.

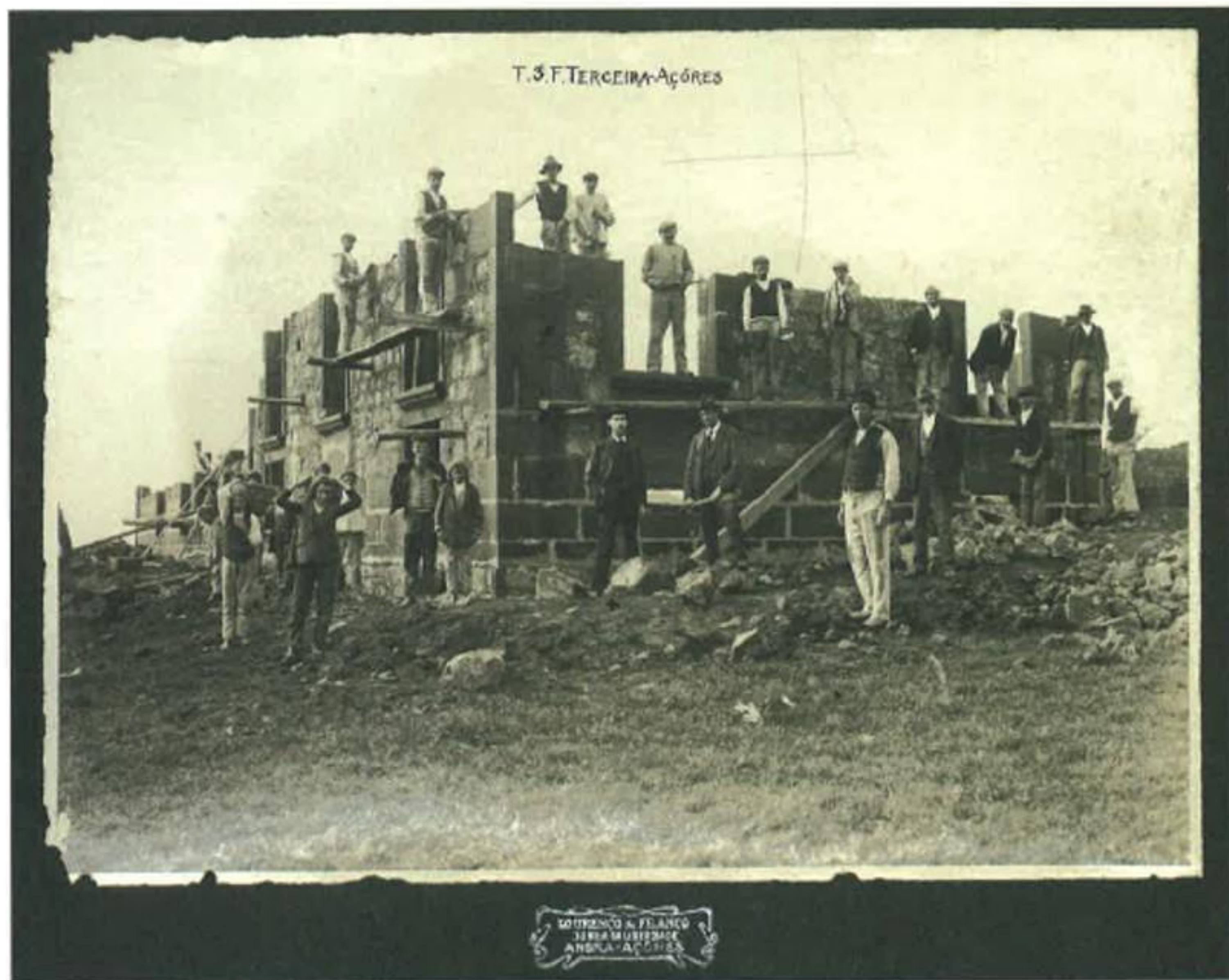■ Keep scrolling and find some facts and figures
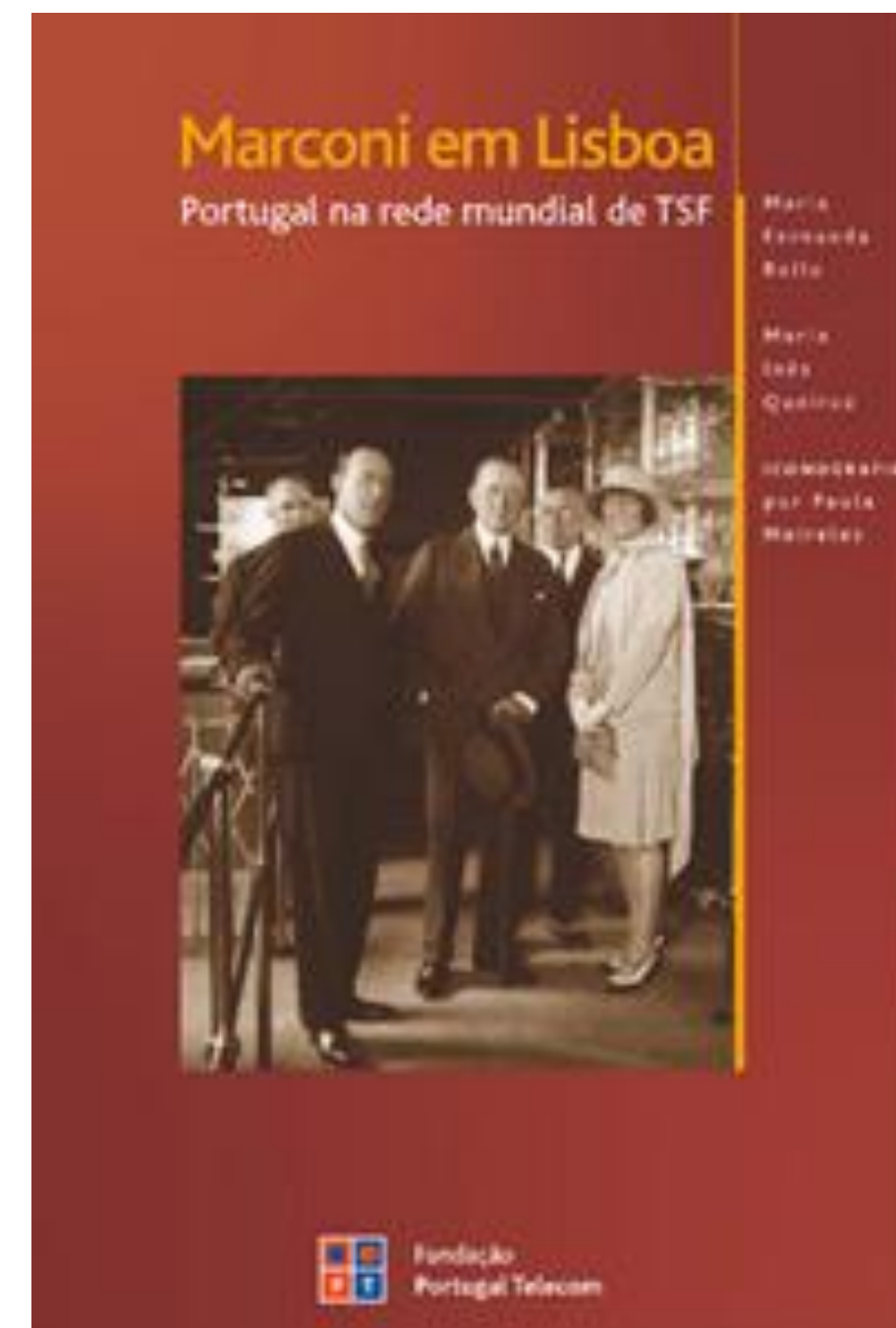
Açôres

SERVENTS

Inauguração do Cabo Submarino

As Primeiras Noticias!

ESTAÇÃO DO CABO SUBMARINO, EM CARCAVELLOS — Chegada da Familia Real á Estação, 27 de agosto de 1893

Construção do edifício para instalação de TSF na Terceira — Açores.
AFPC

MARCONI EM PORTUGAL
Ciência e Engenharia na Génese das Radiocomunicações

Marconi em Lisboa
Portugal na rede mundial de TSF

Maria Fernanda Rollo

Maria Inês Queiroz

Iconografia por Paula Meireles

Fundação
Portugal Telecom

GUGLIELMO MARCONI: O pioneiro das radiocomunicações

Higher Education Institutions

36
Public Institutions

Universities

Polytechnics

INSTITUTO POLITÉCNICO DE BRAGANÇA

INSTITUTO POLITÉCNICO
DE VIANA DO CASTELO

INSTITUTO POLITÉCNICO DO CÁVADO E DO AVE

UNIVERSIDADE DO MINHO

UNIVERSIDADE DO PORTO
INSTITUTO POLITÉCNICO DO PORTO
ESCOLA SUPERIOR DE ENFERMAGEM DO PORTO

UNIVERSIDADE DE TRÁS-OS-MONTES E ALTO DOURO

UNIVERSIDADE DE AVEIRO

INSTITUTO POLITÉCNICO DE VISEU

UNIVERSIDADE DOS AÇORES

INSTITUTO POLITÉCNICO DA GUARDA

UNIVERSIDADE DE COIMBRA
INSTITUTO POLITÉCNICO DE COIMBRA
ESCOLA SUPERIOR DE ENFERMAGEM DE COIMBRA

UNIVERSIDADE DA BEIRA INTERIOR

INSTITUTO POLITÉCNICO DE CASTELO BRANCO

INSTITUTO POLITÉCNICO DE LEIRIA

INSTITUTO POLITÉCNICO DE TOMAR

INSTITUTO POLITÉCNICO DE SANTARÉM

UNIVERSIDADE ABERTA
UNIVERSIDADE DE LISBOA
UNIVERSIDADE NOVA DE LISBOA
ISCTE - INSTITUTO UNIVERSITÁRIO DE LISBOA
INSTITUTO POLITÉCNICO DE LISBOA
ESCOLA SUPERIOR DE ENFERMAGEM DE LISBOA
ESCOLA SUPERIOR NÁUTICA INFANTE D. HENRIQUE
ESCOLA SUPERIOR DE HOTELARIA E TURISMO DO ESTORIL
INSTITUTO SUPERIOR DE CIÊNCIAS POLICIAIS E SEGURANÇA INTERNA
INSTITUTO UNIVERSITÁRIO MILITAR

INSTITUTO POLITÉCNICO DE PORTALEGRE

UNIVERSIDADE DE ÉVORA

INSTITUTO POLITÉCNICO DE SETÚBAL

INSTITUTO POLITÉCNICO DE BEJA

UNIVERSIDADE DO ALGARVE

UNIVERSIDADE DA MADEIRA

Foreign students in Portugal

12%

Foreign students

Inscritos de nacionalidade estrangeira

119%

Increase of foreign students

Increase by 119% the number of foreign students in the last 8 years

06%

Foreign Graduates

Foreign graduares in 2015-2016

The role of the Portuguese "diáspora"

13000

Portuguese students abroad (estimate)

Associations

AGRAFr (Association des Diplômés Portugais en France)

APEI BeLux (Associação Portuguesa de Estudantes e Investigadores na Bélgica e Luxemburgo)

ASPPA (Associação de Pós-Graduados Portugueses na Alemanha)

PAPS (Portuguese American Postgraduate Society)

PARSUK (Portuguese Association of Researchers and Students in the UK)

Enrollment by the International Student Statute, 2014/15 to 2016/17
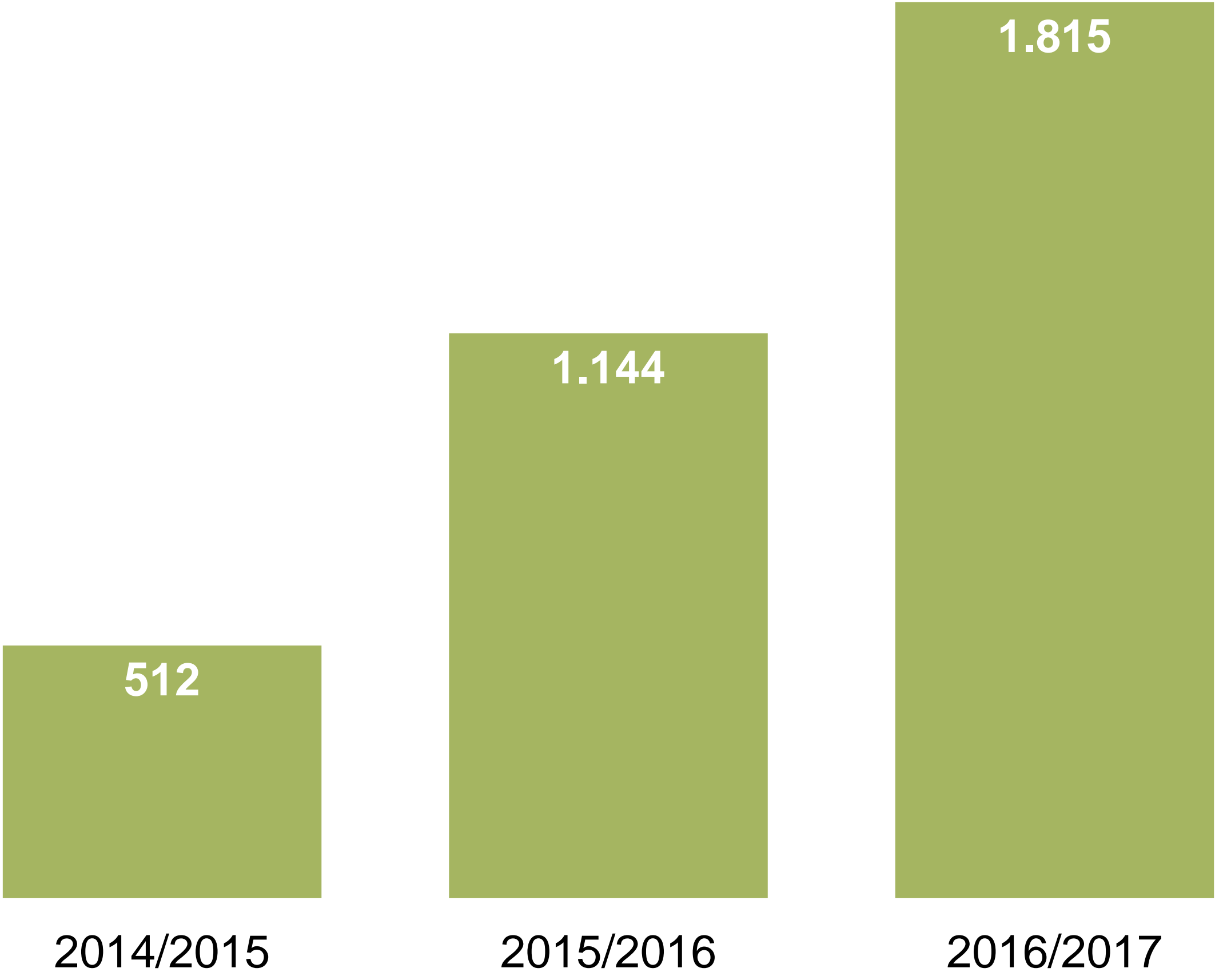
Countries

Brazil

Cape Verde

Angola

São Tomé and Príncipe

Mozambique

Enrollment in degree and credit mobility, 2013/14 to 2016/17
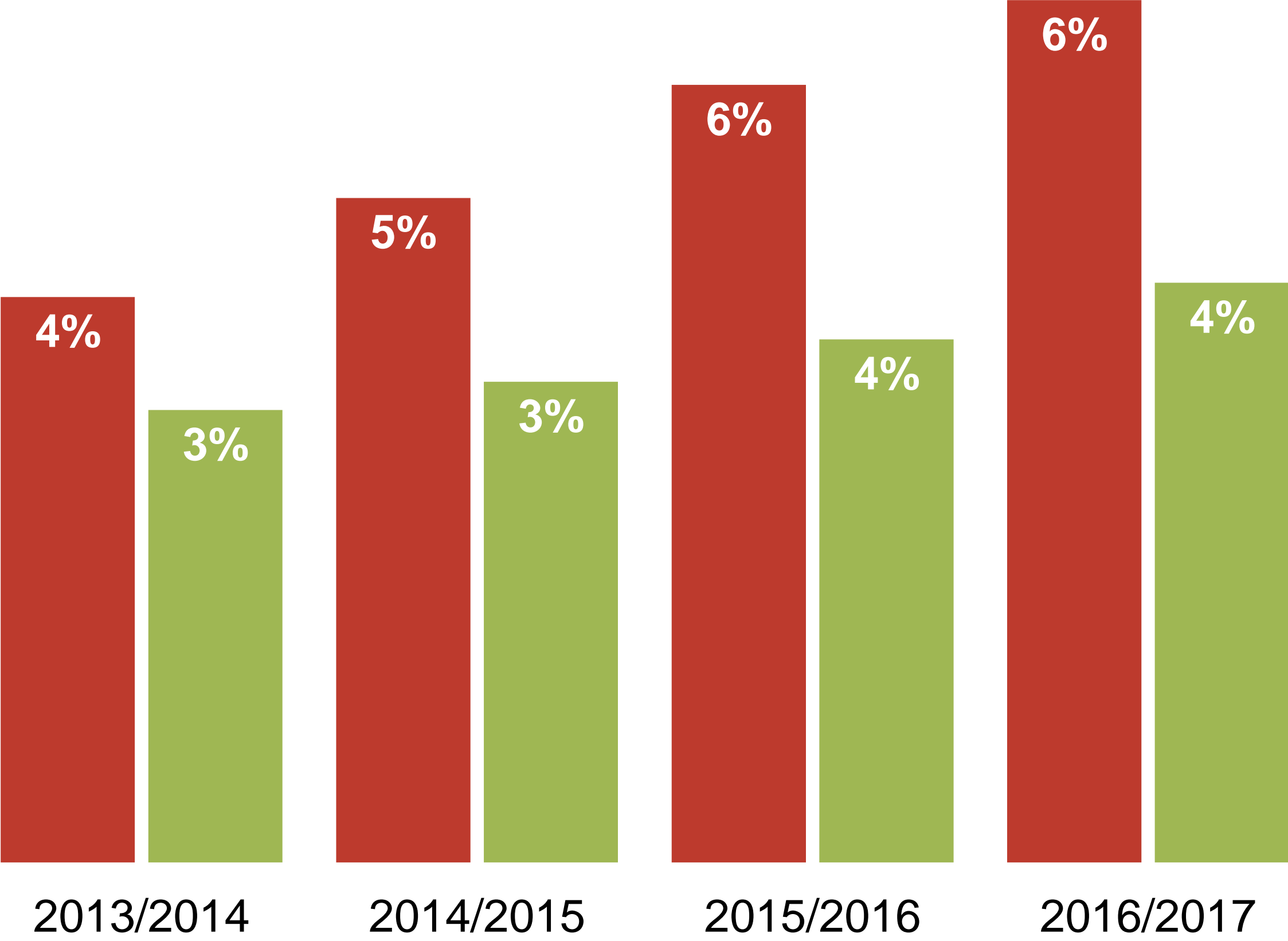
Top sending and destination countries of Erasmus+ mobility

Incoming Countries

1. Spain
2. Italy
3. Poland
4. Germany
5. France
6. Turquia
7. Czech Republic
8. United Kingdom

Outgoing Countries

1. Spain
2. Italy
3. Poland
4. Czech Republic
5. Germany
6. France
7. United Kingdom
8. Netherlands

Evolution of R&D expenditure as a percentage of GDP
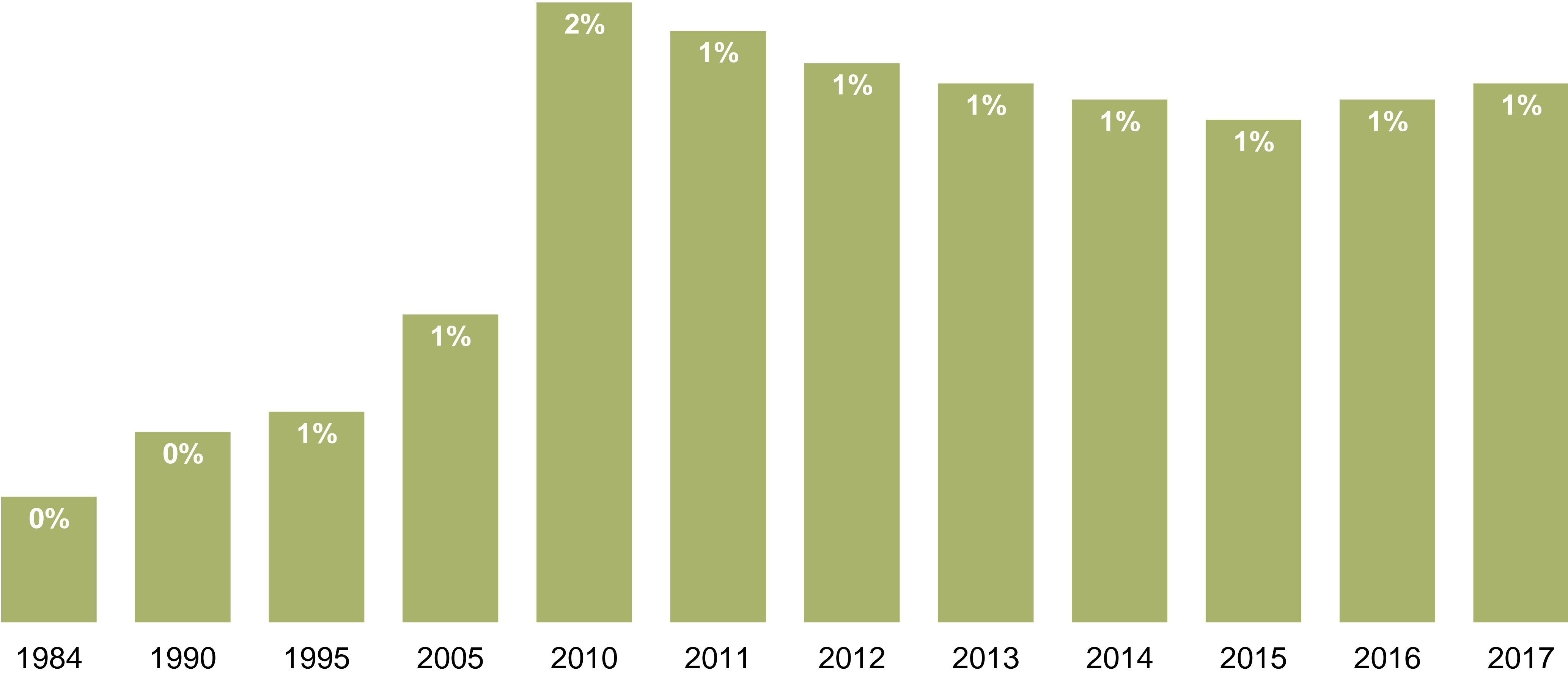
The role of private sector

R&D expenditure

IPSFL
2%

State
5%

Private sector
51%

Higher Education
42%
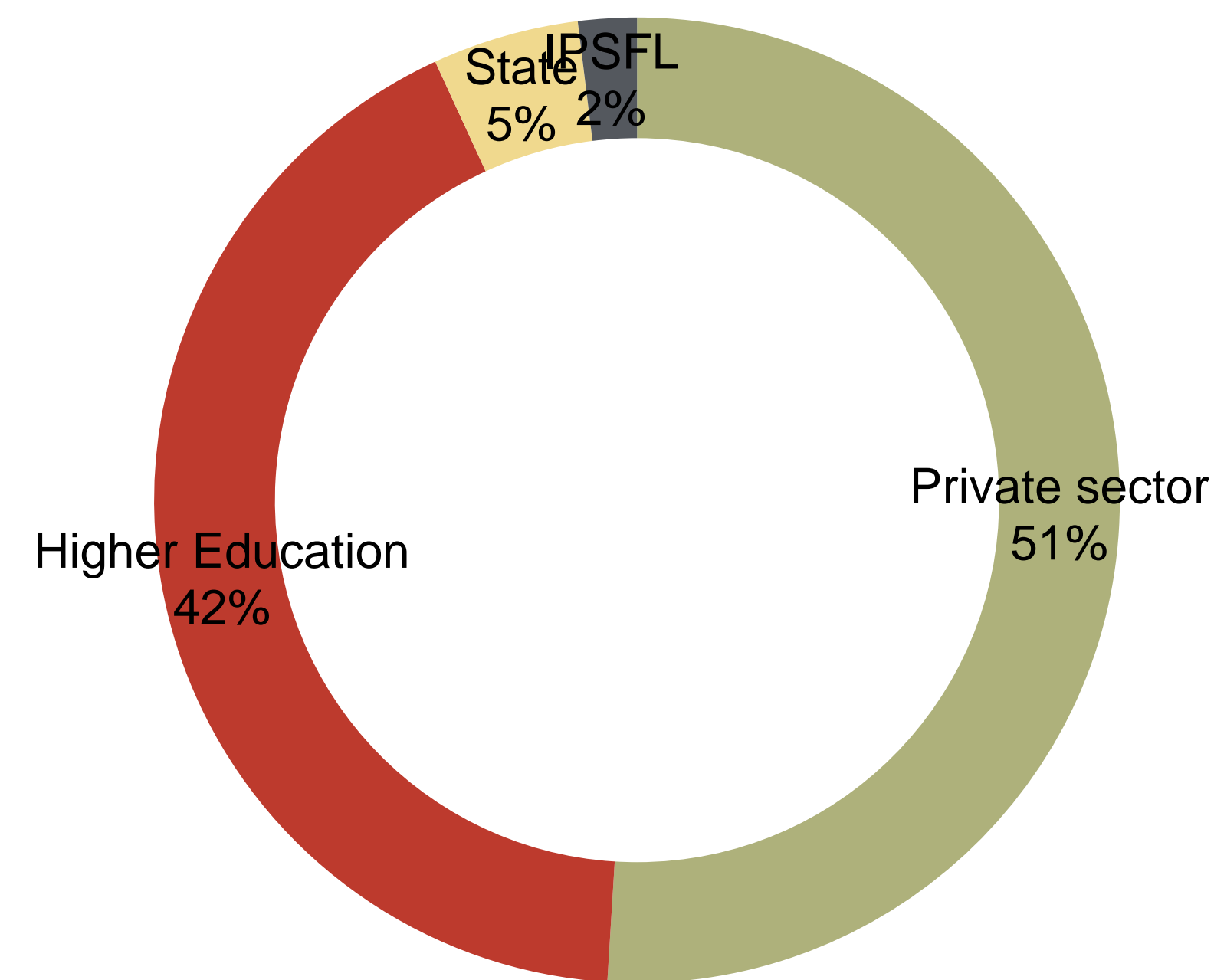
12%

The R&D expenditure int he private sector increased
by 12% (=138M€) between 2016 and 2017

Researchers (FTE)

44.322	27.435	14.948	1.453	485
Total	H. Education	Private Sector	State	IPSFL
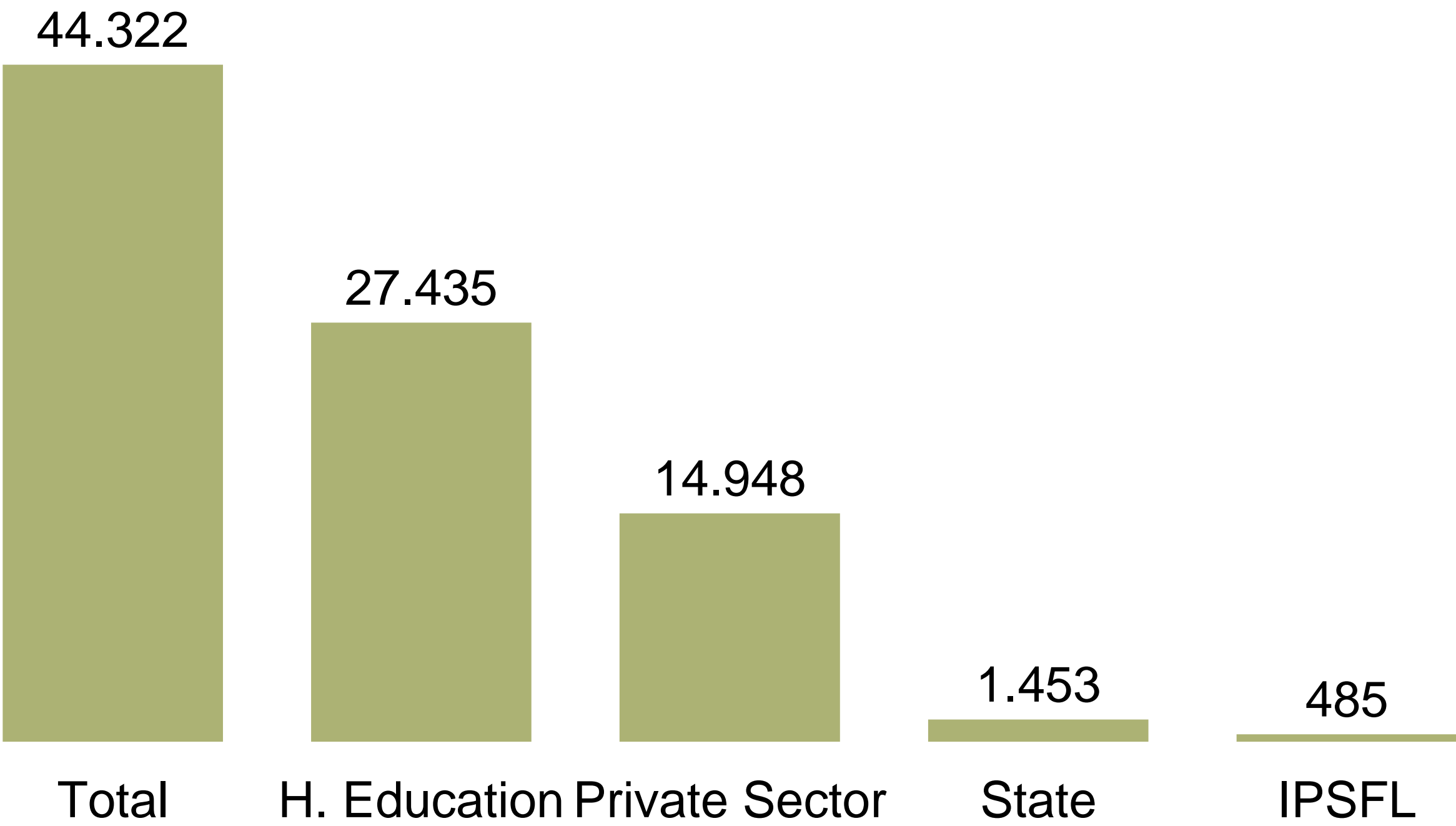
12%

The number of researchers in the private sector
increased by 12% between 2016 and 2017

Number of new PhDs
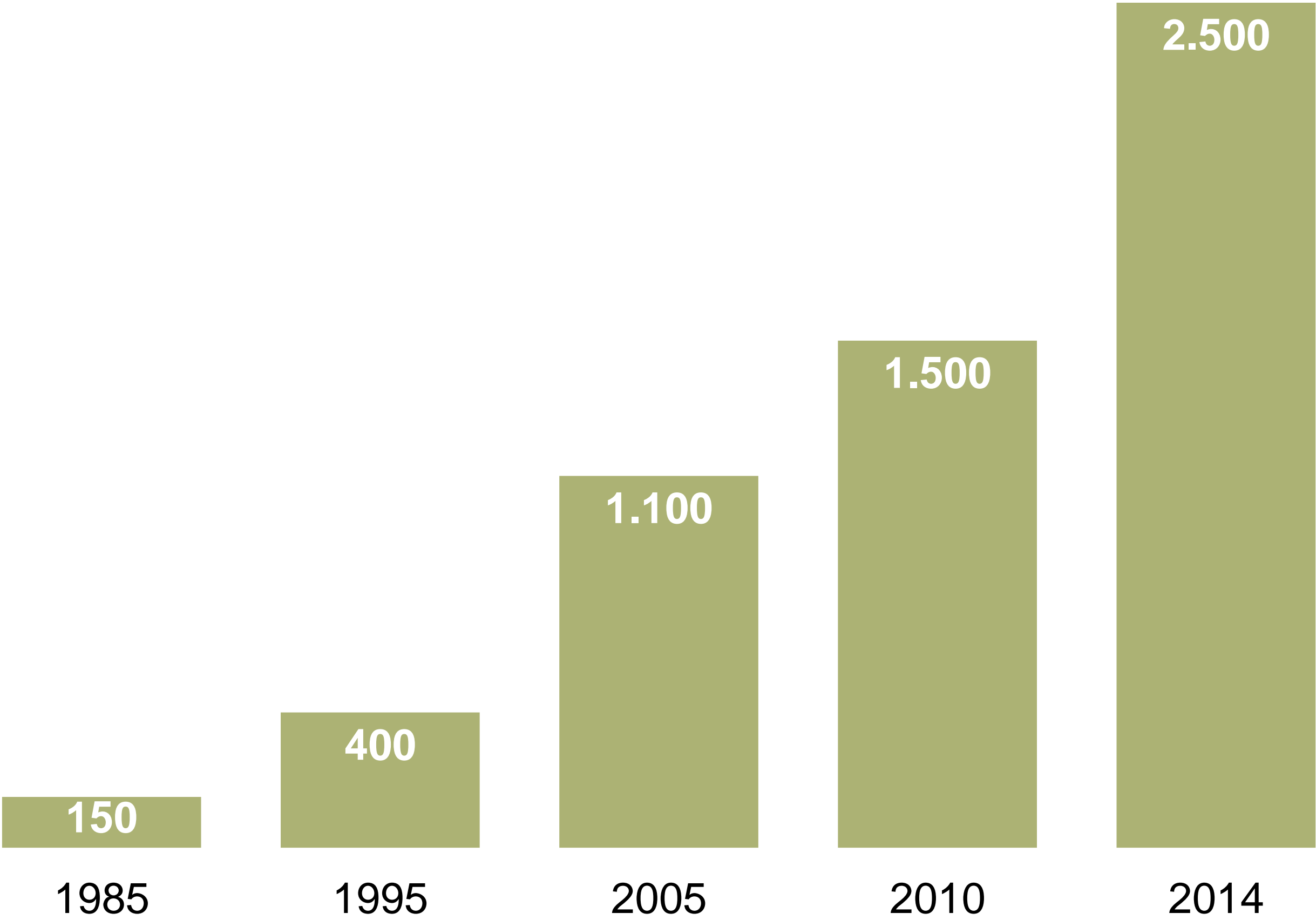
Evolution of PhD Scholarships
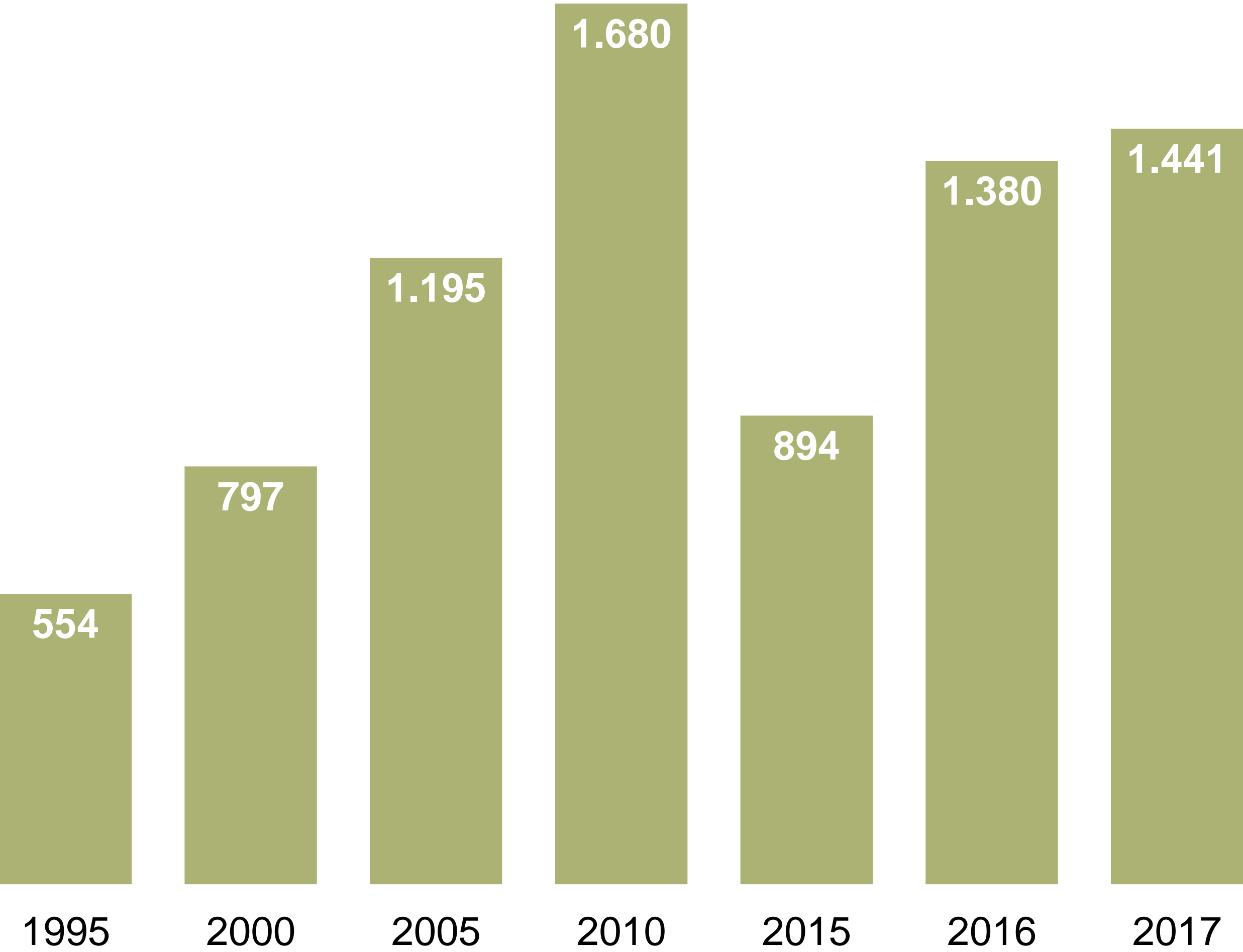
Research and Innovation indicators

Research Units

307

Researchers (FTE)
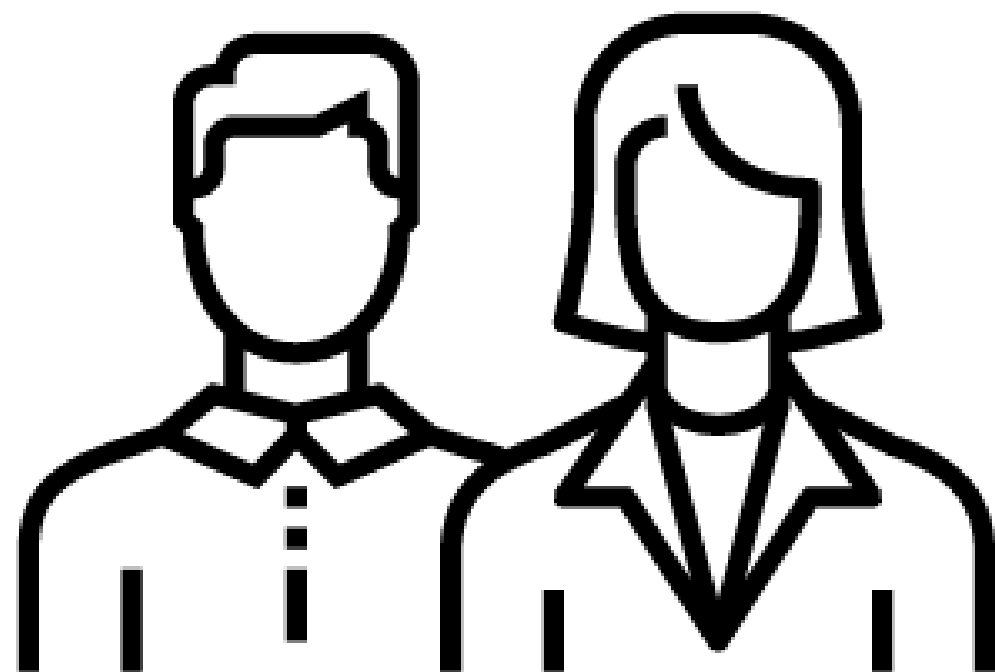
44 322

Since 2005, the number of researchers increased by 96%

Startups (2007-15)

309 550

Startups founded between 2007 and 2015
31 000 new startups / year
130% increase of the technology based firms between 2007 and 2010

ERC projects

84

Number of Portuguese ERC funded projects

Research and Innovation indicators

Scientific Production

35x

In the last 25 years, Portuguese scientific production increased by 35x

Patents

45x

In the last 25 years, the number of Portuguese patents registered in Europe increased by 45x

Annual rate of publications

2nd EU

Country with the highest average annual growth rate of publications (2001-2014)

Research and Innovation indicators

Portuguese Higher Education Institutions feature in world top rankings

Special quota for Portuguese emigrants and family members who reside with them

07%

Vacancies

7% of vacancies set for the 1st phase of the national contest.

1st phase: 18 July to 7 August
Information: www.dges.gov.pt

Specific conditions

1. Apresentar candidatura no prazo máximo de três anos após o regresso a Portugal;

2. Obter no país estrangeiro de residência:

   i) Diploma de curso do ensino secundário desse país ou nele obtido que aí constitua habilitação de acesso ao ensino superior e que seja legalmente equivalente ao ensino secundário português; ou

   ii) A titularidade de um curso de ensino secundário português;

3. À data da conclusão do curso de ensino secundário residir há, pelo menos, dois anos, com caráter permanente, em país estrangeiro;

4. Não ser titular de um curso superior conferente de grau português ou estrangeiro.

Special quota for Portuguese emigrants and family members who reside with them

Low percentage of vacancies occupied

13%
11%
8% 8%
7%
6%
5% 5% 5% 5%
4%
3%
4%
3% 3%
5%
6%
8%

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
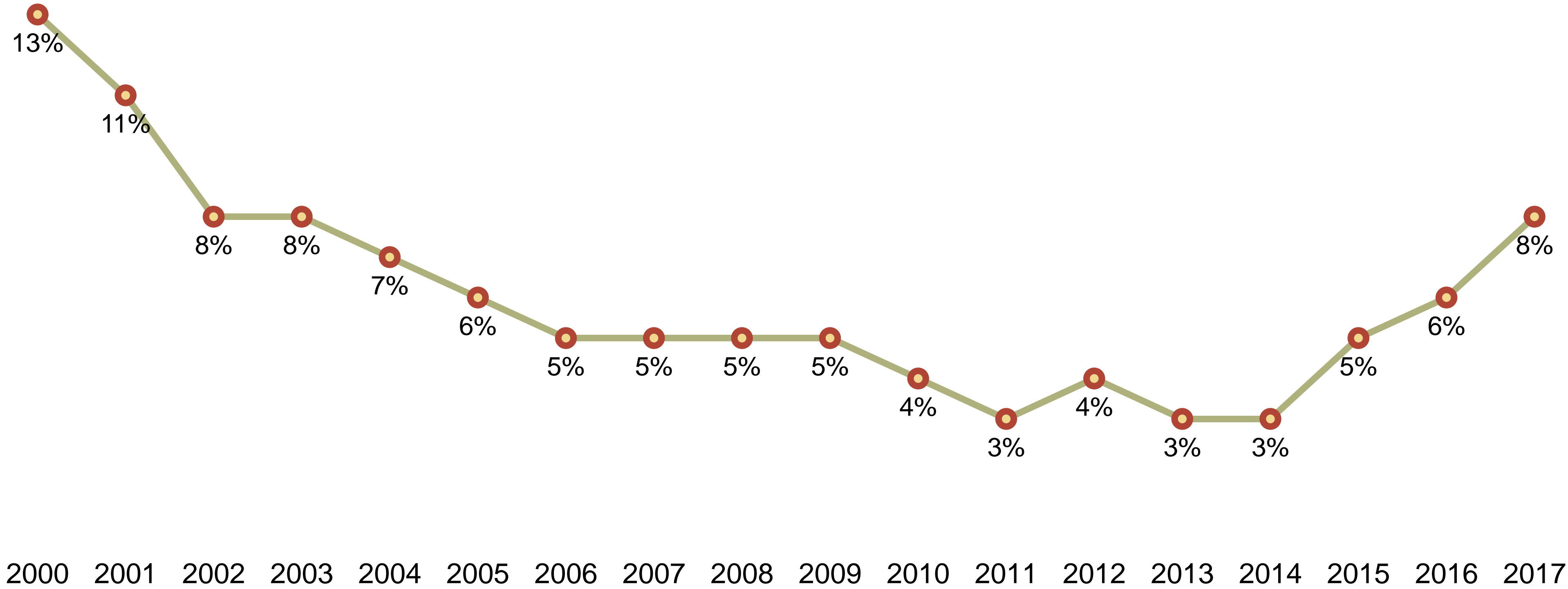
Special quota for Portuguese emigrants and family members who reside with them

Country with more than 10 students enrolled (2013-2017)

Angola — Brasil — China — França
Luxemburgo — Macau — Moçambique — Venezuela
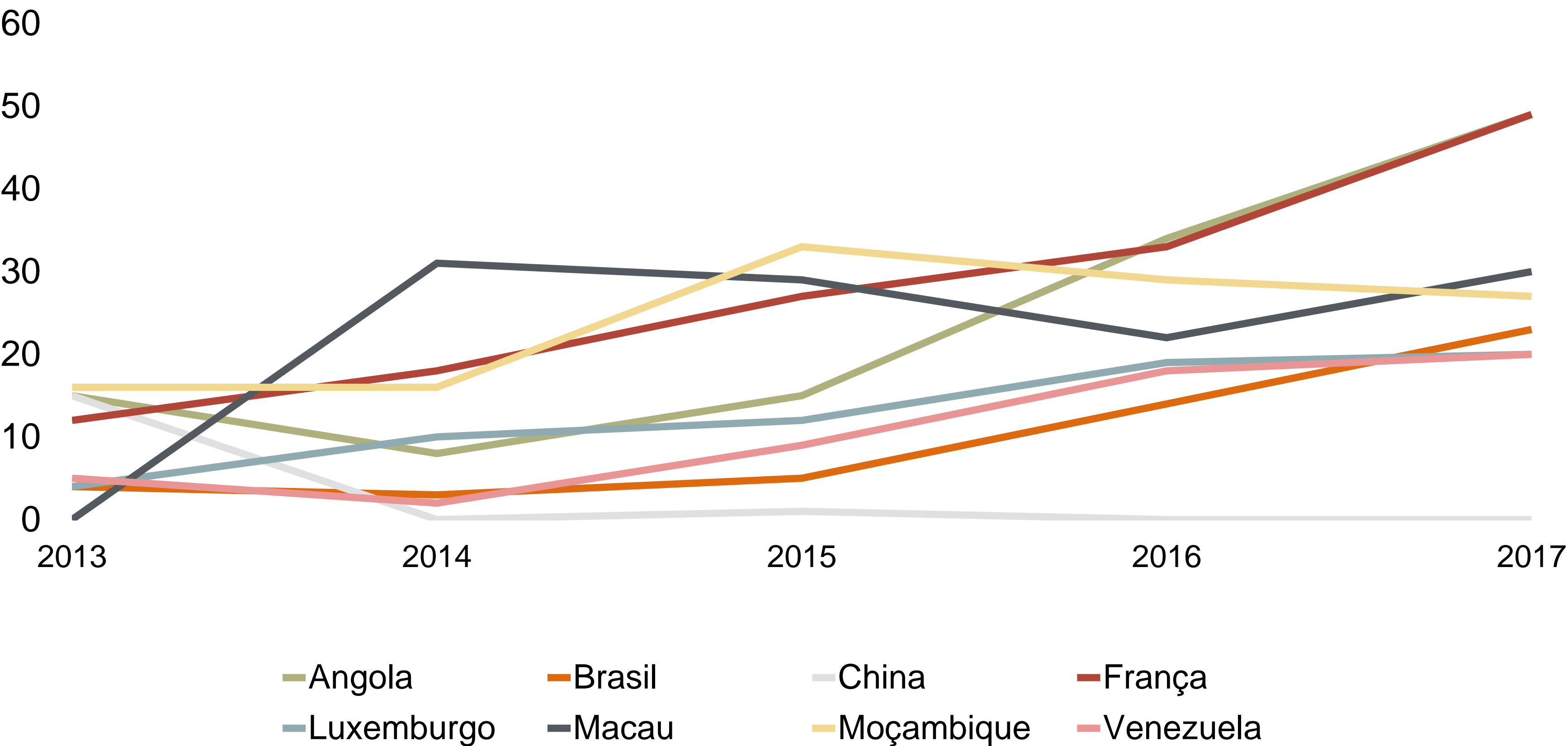
Incentives for investment in Business R&D - Agência Nacional de Inovação

Financial incentives

1. Mobilizing programs
2. R&TD Teams in Companies (co-promotion)
3. Demonstrators
4. R&TD in co-promotion
5. European Industrial R&D Projetts
6. Internationalization of R&D
7. Industrial property

https://ani.pt/incentivos/

Tax incentives - SIFIDE

1. It aims to boost the competitiveness of companies by supporting their R&D efforts through a corporate tax deduction applied to expenditures of such nature.
2. SIFIDE was established in 1997 with a view to stimulating the participation of the business sector in the national R&D effort.
3. SIFIDE II entered into force in 2011, following the introduction of some amendments to its regulation mechanisms.

http://sifide.ani.pt

Internationalization of Science and Higher Education

1 **2** **3**

Public
Policies

Study & Research
in Portugal

Study &
Research Abroad

Public Policies

Resolution no 78/2016

- Articulation between MCTES and MNE

- Attraction of students, researchers, enterprises and investors

- Dissemination of opportunities

- Portfolio with the national research and higher education system

- Participation in international fairs

- Simplification of procedures for the integration of foreign citizens

- Strengthening academic/scientific communities abroad

Collaboration: DGES, FCT, Camões, AICEP and CCCM

Study & Research in Portugal

study-research.pt

- Quality learning

- Research for the future

- Connecting the World

- Travelling for Knowledge

- Knowledge for all

- Creativity and Innovation

- Sports and Culture

- Learn Portuguese

- People who care for you

- Authentic life

Collaboration: FCT, DGES, DGEEC, ANI, Ciência Viva, CRUP, CCISP, APESP and Turismo de Portugal

Study & Research Abroad

abroad.study-research.pt

- Guide to academic and scientific mobility

- For those who wish to carry out an international mobility experience (academic or scientific)

- Support to the international mobility of students, researchers, teachers and staff through the provision of information and recommendations

- Portuguese students abroad: ≈ 13.000

Collaboration: MNE, DGACCP, DGES, FCT and Erasmus+

Knowledge for All

1 Open Science

2 Science in Portuguese

3 Open Science for Sustainability

Open Science

- Resolution of the Council of Ministers no. 21/2016
    - Open access to publications resulting from research financed by public funds
    - Open access to scientific data resulting from research financed by public funds
    - The guarantee of preservation as a way of allowing the reuse and continued access.
- Science policy committed to open and accessible knowledge
    - Open Access
    - Open Data
- Closing the gap between science and society
    - Citizen Science
- Engaging its diverse stakeholders in the formulation of research agendas

Movement to make scientific research, data and dissemination accessible
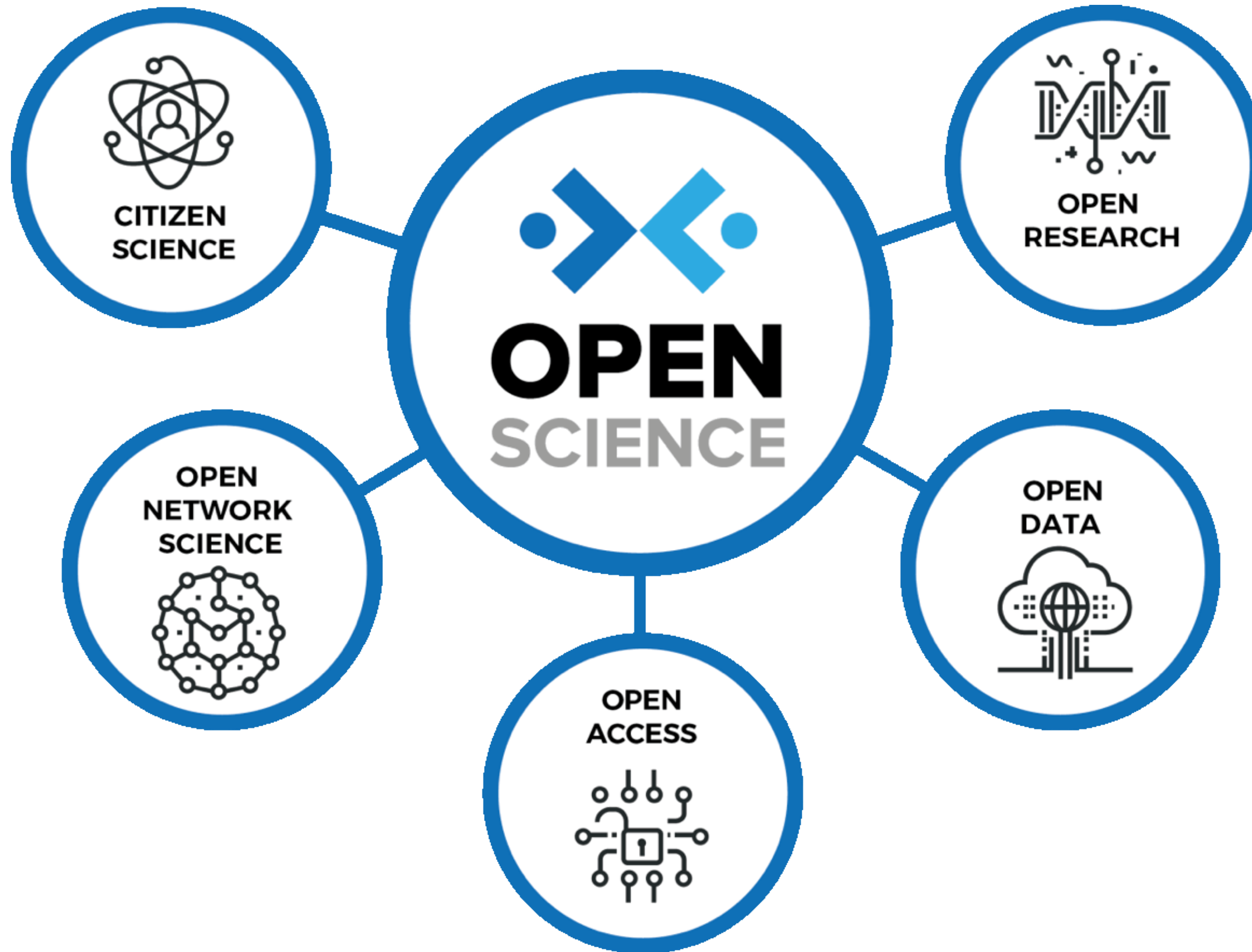
Science in Portuguese

- Portuguese is, without a doubt, a language of science

- Fight against the geographical, linguistic and cultural asymmetries in the production of knowledge

- Digital repositories are key tools with great potential to broaden and democratise access to knowledge

- Opportunity: 500th Year Anniversary of Magellan´s Circumnavigation

Open Science for Sustainability

- Science and Knowledge, can successfully contribute to respond to the main problems that affect contemporary societies

- 17 challenges of the 2030 Agenda

- Open Access, sharing knowledge for Peace and Development

- Open Science principles and practices adopted by UNESCO - Geneva Milestone

Contribution and participation in science - world asymmetry
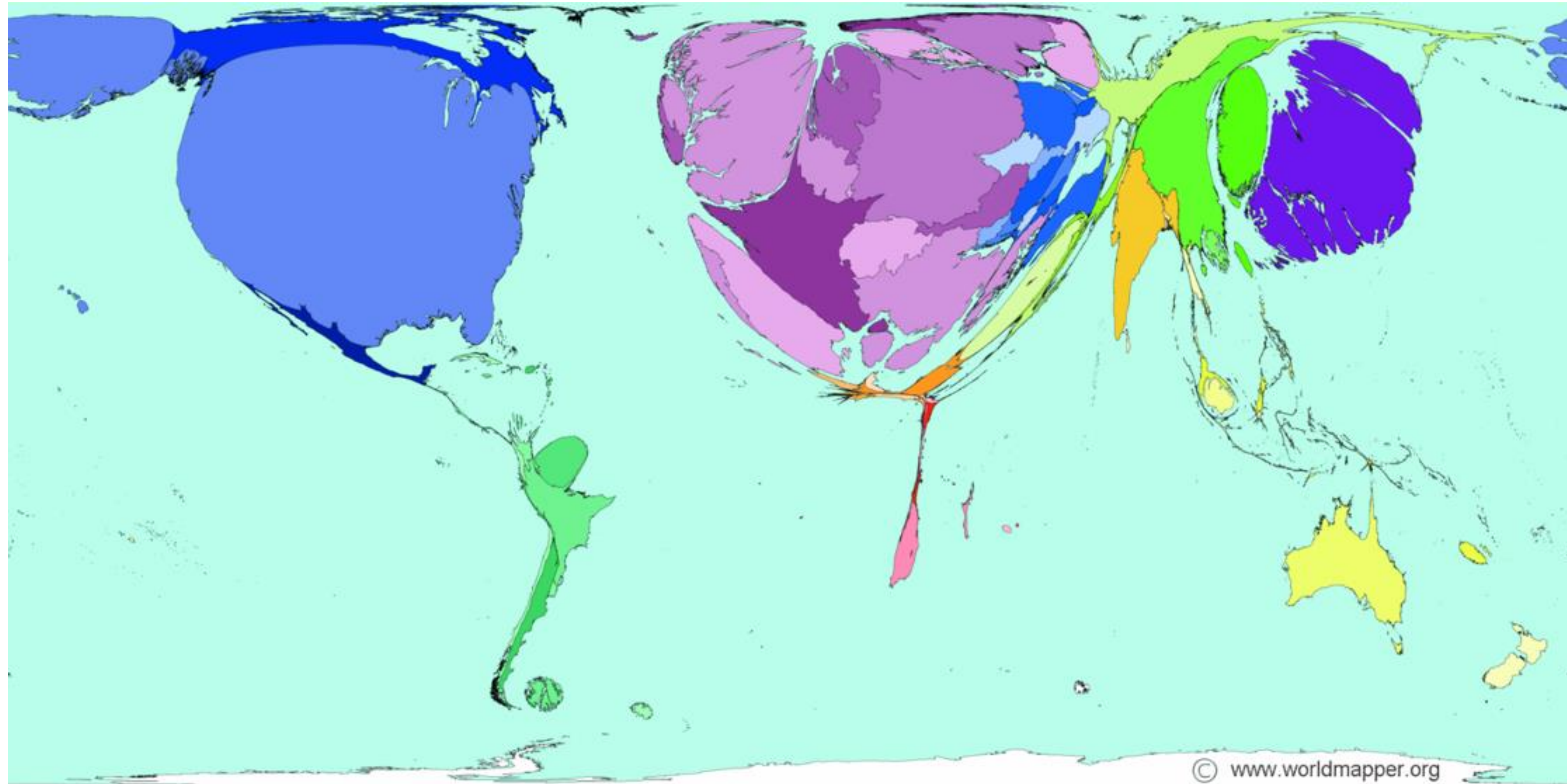
Contribution and participation – 17 ODS

261 MILLION
PEOPLE SPEAK PORTUGUESE IN
5 CONTINENTS

BY 2058
THERE WILL BE
380 MILLION

Portuguese Language | Science in Portuguese | Common Heritage

4.th MOST SPOKEN LANGUAGE IN THE WORLD

3.rd MOST SPOKEN INDO-EUROPEAN LANGUAGE

5.th LANGUAGE WITH MOST INTERNET USAGE

1.st MOST SPOKEN LANGUAGE IN SOUTHERN HEMISPHERE

3.rd MOST USED LANGUAGE IN FACEBOOK

THE OFFICIAL OR WORK LANGUAGE IN 32 INTERNATIONAL ORGANISATIONS

Digital Repositories in CPLP

R&D Strategy

1

2

3

R&D
Agendas

Collaborative
Laboratories

InCoDe
2030

R&D Agendas

- Agri-food, Forestry and Biodiversity

- Portuguese Architecture

- Urban Science and Cities for the Future

- Culture and Cultural Heritage

- Circular Economy

- Space and Earth Observation

- Social Inclusion and Citizenship

- Industry and Manufacturing

- Ocean

- Health, Clinical and Translational Research

- Cyber-physical Systems

- Sustainable Energy Systems

- Labor, Automation and Job Qualification

- Tourism, Hospitality and Leisure Management

Collaborative Laboratories

- Collaborative Laboratories should stimulate the creation of qualified employment generating economic and social value in Portugal
- Collaborative Laboratories should be established as non-profit private associations or as companies
- Promote knowledge-based activities by fostering collaboration between scientific, technological or higher education institutions and the social and economic fabric, namely businesses, the hospital and health care system, cultural institutions, and social organizations

InCoDe.2030

[Incode Portal](#)

- National initiative to foster digital skills

- To position Portugal at the top of European digital competences ranking

- 5 strategic pillars: inclusion, education, qualification, specialization, and research

- Generalise digital literacy

- Stimulate employability and professional training

- Ensure strong participation in international R&D networks

Internacional Cooperation

1
Atlantic Interactions

2
PRIMA

3
GoPortugal

Atlantic Interactions

[Atlantic Interaction](#)

- Intergovernmental initiative

- Atlantic International Research Center (AIR Center)

- International network or research

- "Knowledge for space - space for knowledge" (Portugal Space 2030)

- Florioanopolis Declaration - installation committee

- May 2018: International Summit in Cape Verde

- Support and foster new climate, earth, space and marine research activities

PRIMA

- PRIMA - Partnerships on Research and Innovations in the Mediterranean Area

- Sustainable management of water and energy provision and food systems in the Mediterranean

- Diplomacy and scientific cooperation between Europe and the Mediterranean countries

- Transform the region into an area of sustainable economic development and cultural exchanges

- 10 year-funding program (H2020)

GoPortugal

- Global S&T Partnerships Portugal - GoPortugal

- Foster the creation and growth of science-based startups and industry-science partnerships

- MIT Portugal 2030

- Carnegie Mellon Portugal Program

- UT Austin Portugal Program

- Participation in international organisations (e.g. CERN, ESA, EMBC, ESO, ESRF)

- Areas: "Atlantic Interactions", "Medical Physics for Emerging Cancer Therapies"; "Higher Performance Computing, Data Analytics and Visualization"; "Nano materials"

Legislation

1 Degrees and diplomas

2 Recognition of diplomas

3 International Student Status

Degrees and Diplomas

- Strengthen the capacity of higher education institutions to develop R&D as well reinforcing the research component at PhD level and allowing for research activities to take place in any environment
- Fostering adult education, by increasing the recruitment capacity of students with professional experience for TeSP
- Legal setting of the working conditions of Portuguese study cycles abroad

Recognition of diplomas

- It standardizes the procedures for the recognition of foreign qualifications, making them more transparent, equitable and simple

- Extension of the legal capacity for recognition of foreign qualifications to all national higher education institutions

- Introduction of simplified procedures for recognition, establishing in recognition a system of precedence

- Reduction of the maximum legal deadline for the recognition decision.

International Student Status

- Removes legal constraints currently in place for the reception of students in humanitarian emergencies in higher education
- It allows the access to social support grants by those students
- It definis that the International student status must be maintained until the end of the study cycle