



European STI Landscape

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CONTENT

1. ENRICH in Brazil
2. Basics about Europe
3. Funding
4. EURAXESS
5. Diversity
6. Research Infrastructures
7. Excellence
8. Creativity



ENRICH is a global network of centres and hubs that promotes the internationalisation of European science, technology and innovation.



BALANCED INSTITUTIONAL DIVERSITY

- Companies (SPI, RCISD)
- Universities (UNICAMP, SU)
- Funding agencies (FFG)
- R&I organizations (FHG, DLR)
- Not-for-profit organisations (ANPEI, CONFAP, CNI, EBN, IASP)



ENRICH in Brazil: Our Promise to the Market!

EUROPEAN NETWORK OF RESEARCH AND INNOVATION CENTRES AND HUBS, BRAZIL **BECOMING THE MAIN HUB & CONTACT POINT FOR EUROPEAN & BRAZILIAN SCIENCE, TECHNOLOGY & INNOVATION ACTORS**

MISSION	VISION	OBJECTIVES
<p>We encourage & facilitate the cooperation in research, technology and entrepreneurship between Europe and Brazil by supporting and empowering all innovation actors (public & private) along the innovation (value) chain</p>	<p>In 2021, 'ENRICH in Brazil' will be a main hub & contact point for European and Brazilian Science, Technology and Innovation (STI) actors aiming at bilateral cooperation</p>	<ul style="list-style-type: none">▪ Promotion of excellence in B&R&I▪ Financial sustainability of the Centre▪ Creation of a win-win situation for BR & EU in STI fields▪ Connect EU researchers & entrepreneurs in BR market▪ Connect BR researchers & entrepreneurs in EU market▪ Offer Services to BR & EU clients▪ Integrate existing EU & BR initiatives, projects and networks

Service Portfolio & Customer Value



Stay tuned – Spotlight on upcoming Services (Sept – Nov 2018)

20 & 21 Sept 2018



Services 2018



Training and Infrastructure

Dates & Location

DATE: 20th and 21st September, 2018

ADDRESS: Centro Internacional de Inovação, Fiep System, Campus da Indústria, Av. Comendador Franco, 1341, Curitiba-PA, Brazil

More Information and Registration:
brazil.enrichcentres.eu

Innovation Bootcamp in Brazil

The purpose of the Bootcamp is to show to Startups, Researchers and Corporates what are the opportunities and good practices for getting access to relevant business, partnership and funding in the EU, with the support of ENRICH. Additionally, the Bootcamp will include an information and feedback sessions on ENRICH portfolio and opportunities for Startups, Researchers and Corporates, in Brazil and in Europe.

Why you should participate?

- Awareness and information on the Innovation Ecosystems and Business Opportunities in Brazil and in the European Union
- Awareness and information on Funding and Investors Opportunities in Brazil and in the European Union
- Awareness and information on the ENRICH actors, products, services and processes
- Ideation and prototyping sessions for ENRICH and its value proposal
- Networking and pitch sessions with Brazilian and Multinational Corporates, researchers and Startups
- Networking among entrepreneurs, startup owners, developers, and the activists and members of the Brazilian Innovation Ecosystem.

www.brazil.enrichcentres.eu

29 & 30 Oct 2018



Services 2018



Training and Infrastructure

Dates & location

29 –30 October
Malaga, Spain
Hotel TRYP Alameda

More information and registration:
www.brazil.enrichcentres.eu/post/innovation-bootcamp-eu

Innovation Bootcamp (EU)

A 1.5 day intensive programme which includes training and coaching sessions. There will be a particular focus of the bootcamp on developing global competencies for the Brazilian market and setting up a business in Brazil. Participants will be provided the skills and knowledge in developing their ideas, sustainable business modelling, partner finding and legal advice.

Agenda overview

- Background to business environment – Brazilian context, market and industry
- Business plan writing (sustainable business modelling)
- Business visits & legal advice (Brazil)
- Networking your products/business (Brazil)
- Networking and business building challenge
- How to pitch your products/idea
- Pitch session
- Partner search advice, meeting contacts
- ENRICH in Brazil innovation tour information

www.brazil.enrichcentres.eu

5 – 9 Nov 2018



Services 2018



Matchmaking & Events

DATE & LOCATION

5 - 9 November 2018
São Paulo • Belo Horizonte • Rio de Janeiro • BRAZIL

More Information & application:
www.brazil.enrichcentres.eu

INNOVATION TOUR TO BRAZIL

ENRICH in Brazil offers a unique networking opportunity for European Science, Technology, and Innovation (STI) organisations in the areas of Biotechnology, Space Technology, Nanotechnology, Marine Science and Renewable Energy. Within the five-day Innovation Tour, European organisations will get the opportunity to gain valuable insights into the state of Innovation in Brazil (São Paulo, Belo Horizonte, Rio de Janeiro), identify collaboration possibilities and meet up with potential future partner organisations and contacts in the top target country in the world.

Highlights of the Tour

- Explore within five days the Southeast of Brazil and the three most innovative Brazilian cities: São Paulo, Belo Horizonte and Rio de Janeiro
- Meet well-known companies, research and technology organisations and get high-class information at first hand about the Brazilian STI landscape
- Get ready to start business in and/or with Brazil through various organisational visits and networking opportunities

Let ENRICH in Brazil be your Expert Guide in exploring the STI Environment in Brazil!

www.brazil.enrichcentres.eu

ENRICH in Brazil: Community (Brazil & Europe)

**ENRICH
Supporters &
Ambassadors**

**Soft
Landing
Hubs**

**Headquarters
in Brasília &
planned branches
in SP & RJ**

**Individuals &
Organisations as
Beneficiaries**

**Service
Providers**

EU ♥ BRASÍLIA

How to involve?



- ✓ **Become part of our Community: Application for Service Providers, SLH & Ambassadors via Website!**
- ✓ **Test our Services as ,free-of-charge' in 2018**
- ✓ **Stay tuned about our Activities via Social Channels & Newsletter Subscription**



www.brazil.enrichcentres.eu



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https://twitter.com/ENRICH_brazil



<https://www.facebook.com/ENRICHinBrazil>



<https://www.linkedin.com/company/11125511>

1. ENRICH in Brazil

2. Basics about Europe

3. Funding

4. EURAXESS

5. Diversity

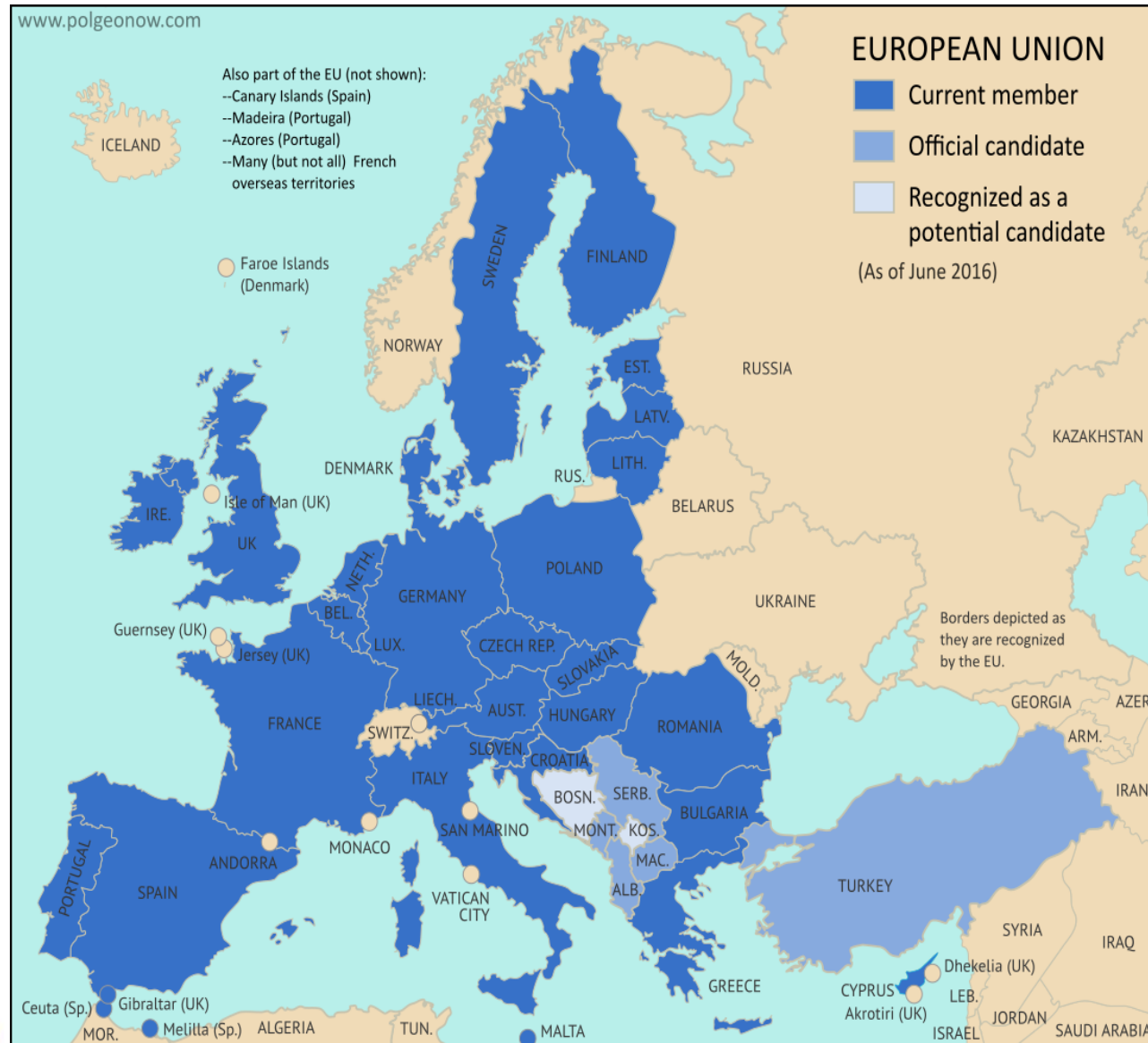
6. Research Infrastructures

7. Excellence

8. Creativity



The European Union



EUROPE IN NUMBERS



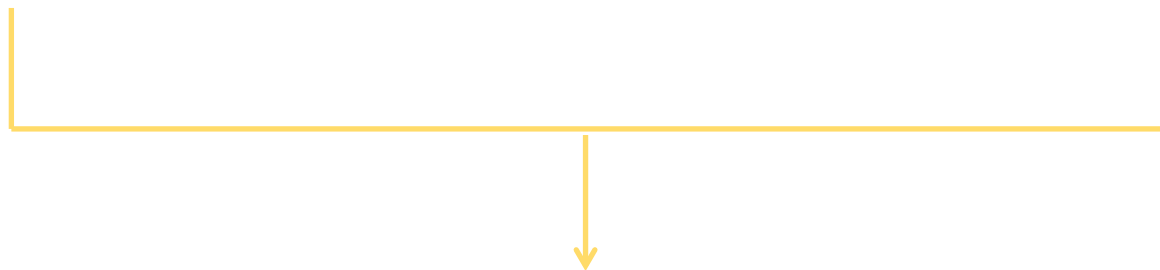
50 countries
28 member states of the EU
19 in the euro area



741 million people

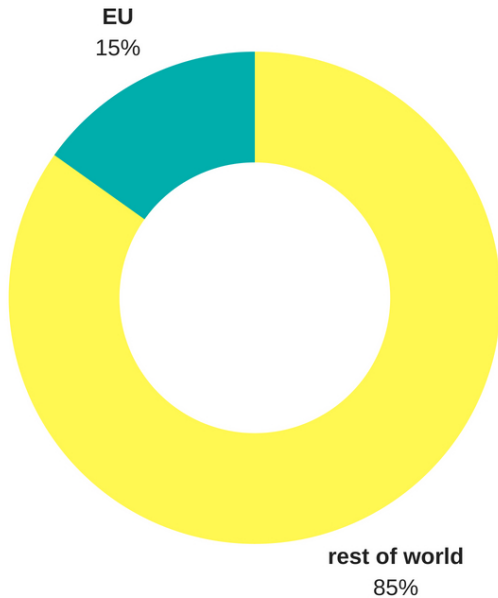


1 economic and
research zone

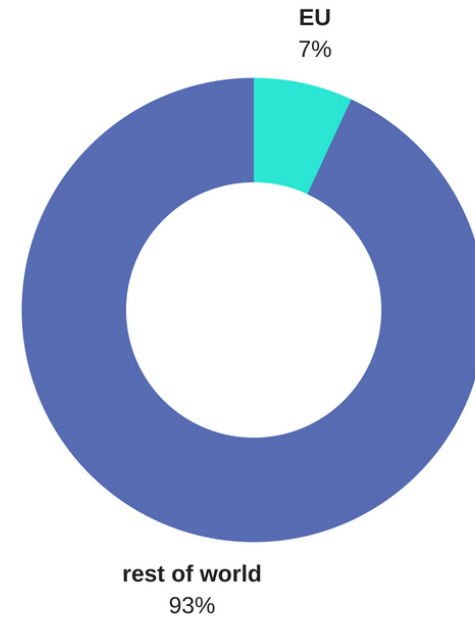


THOUSANDS OF OPPORTUNITIES

TOP RANKING ECONOMY

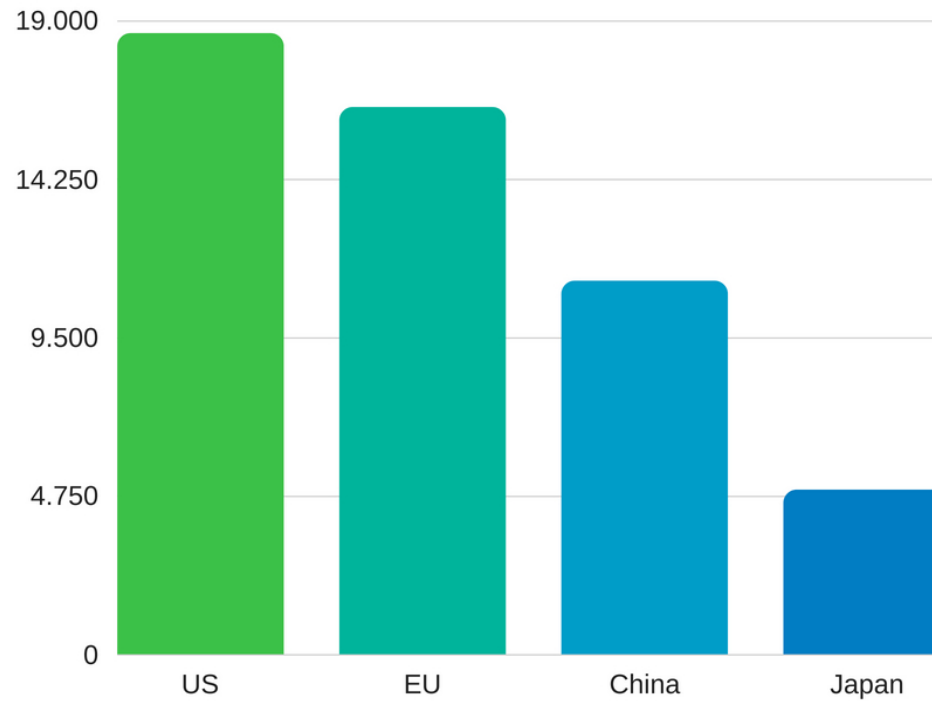


Shares in the world market for exports of goods 2016



Share of world population 2015

Countries by GDP in 2016 in USD



Quality of Living City Ranking 2017

Evaluation based
on 39 factors including:

- political
- economical
- environmental
- personal safety
- health
- education
- transportation
- other public service factors

- 
1. Vienna, Austria
 2. Zurich, Switzerland
 3. Auckland, New Zealand
 4. Munich, Germany
 5. Vancouver, Canada
 6. Dusseldorf, Germany
 7. Frankfurt, Germany
 8. Geneva, Switzerland
 9. Copenhagen, Denmark
 10. Basel, Switzerland
 10. Sydney, Australia

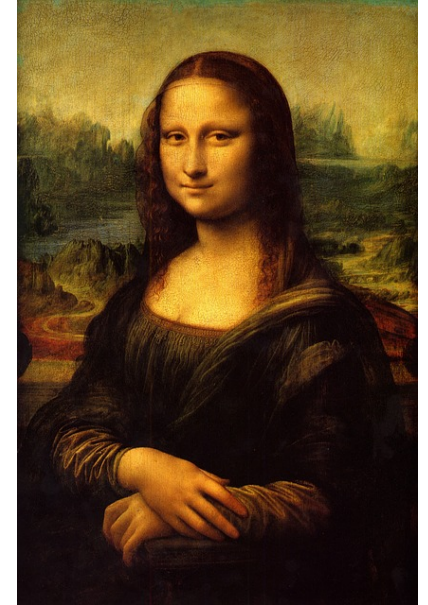
Attractive work/life conditions



Dubrovnik, Croatia



Street Café in Greece



Mona Lisa, France



Kjerag, Norway



Neuschwanstein Castle, Germany

CULTURAL RICHNESS

- Exceptional ancient architecture
- Rich tradition in education and research
- Longstanding, highly developed STI systems



Source: www.seagirlr.wordpress.com

University of Oxford, UK, 11th century



Source: www.padovamedievale.it

University of Padua, Italy, 13th century



Source: www.studyabroad101.com

University of Krakow, Poland, 14th century

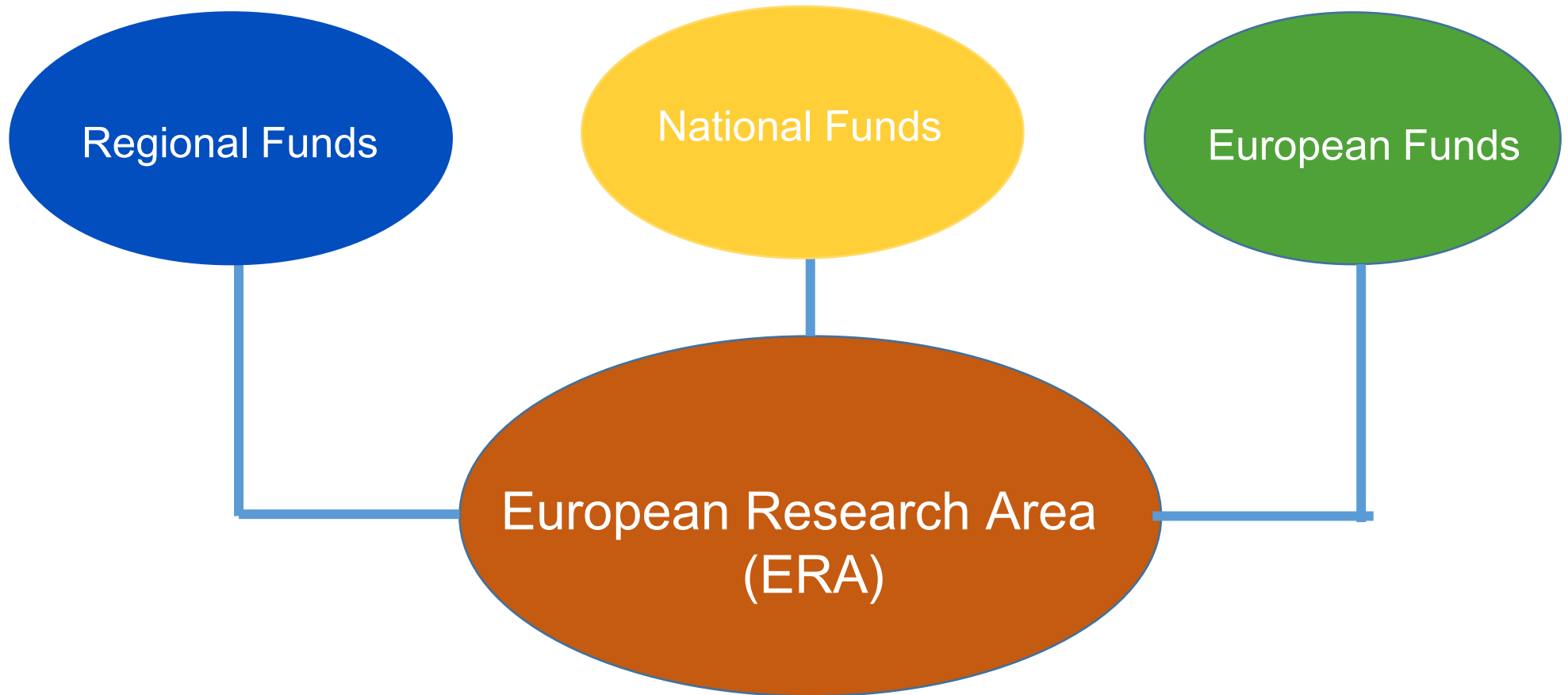
1. ENRICH in Brazil
2. Basics about Europe

3. Funding

4. EURAXESS
5. Diversity
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EUROPEAN R&D FUNDING



European Framework Programme for R&I

World's largest funding program for research and innovation



Programme No. 8: € 80 billion
2014-2020

- Proposal for Horizon Europe:
- € 100 billion (2021-2027)
- amongst Top 3 EU budget areas
- Highly competitive = no national quota
- Transnational character
- Open for international cooperation

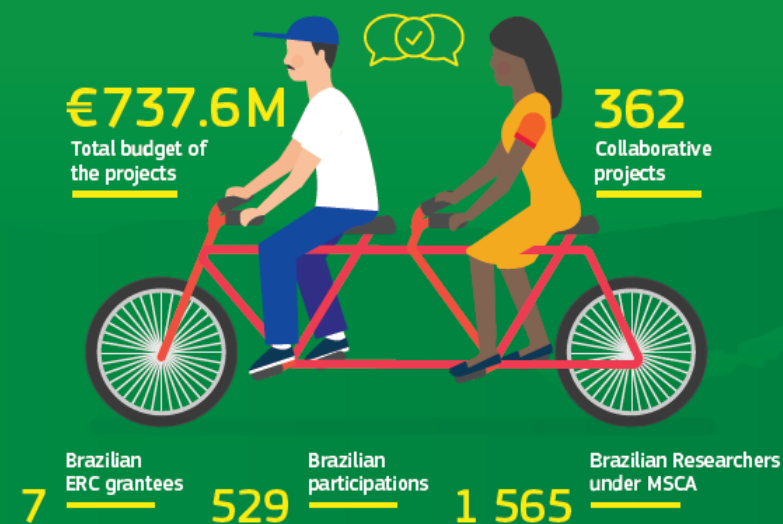
Since 1984, the EU has been creating **Framework Programmes** to support and foster research in the European Research Area (ERA).

Horizon 2020 - What's in it for Brazil?

- **Individual Fellowships:** Brazilian researchers are eligible for EU funding under the **Marie Skłodowska-Curie Actions** and under the **European Research Council** programme
- **Project collaboration:** European researchers can include Brazilian researchers, enterprises and institutions in their project consortia but **Brazilians need own funding**
- **EU co-funding agreement with CNPq, CONFAP and FINEP** (May 2018): establishing support mechanisms for EU-Brazil cooperation activities in R&I

Participation of Brazilian entities in the EU Framework programmes:

FP7 & Horizon 2020 (2007-2017)



Top 5 Brazilian participants:



National Contact Points

The network of National Contact Points (NCPs) is the **main structure to provide guidance, practical information and assistance** on all aspects of participation in **Horizon 2020**.



Brazilian NCP Coordinator:

Prof. Moacyr Martucci Junior

USP

moacyr.martucci@poli.usp.br

NCP for MSCA fellowships:

Ms. Elisa Natola

CONFAP

Elisa.confap@gmail.com

1. ENRICH in Brazil
2. Basics about Europe
3. Funding
- 4. EURAXESS**
5. Diversity
6. Research Infrastructures
7. Excellence
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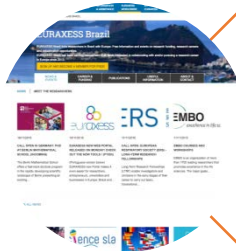
EURAXESS



- European Commission initiative
- supports researcher mobility and
- career development
- provides **FREE** information and services
- including on funding
- since 2003

Network in 40 European countries, in **Brazil** (within the Latin America and the Caribbean - LAC hub) and other 9 non-EU countries.

EURAXESS Latin America and the Caribbean



Website & Facebook

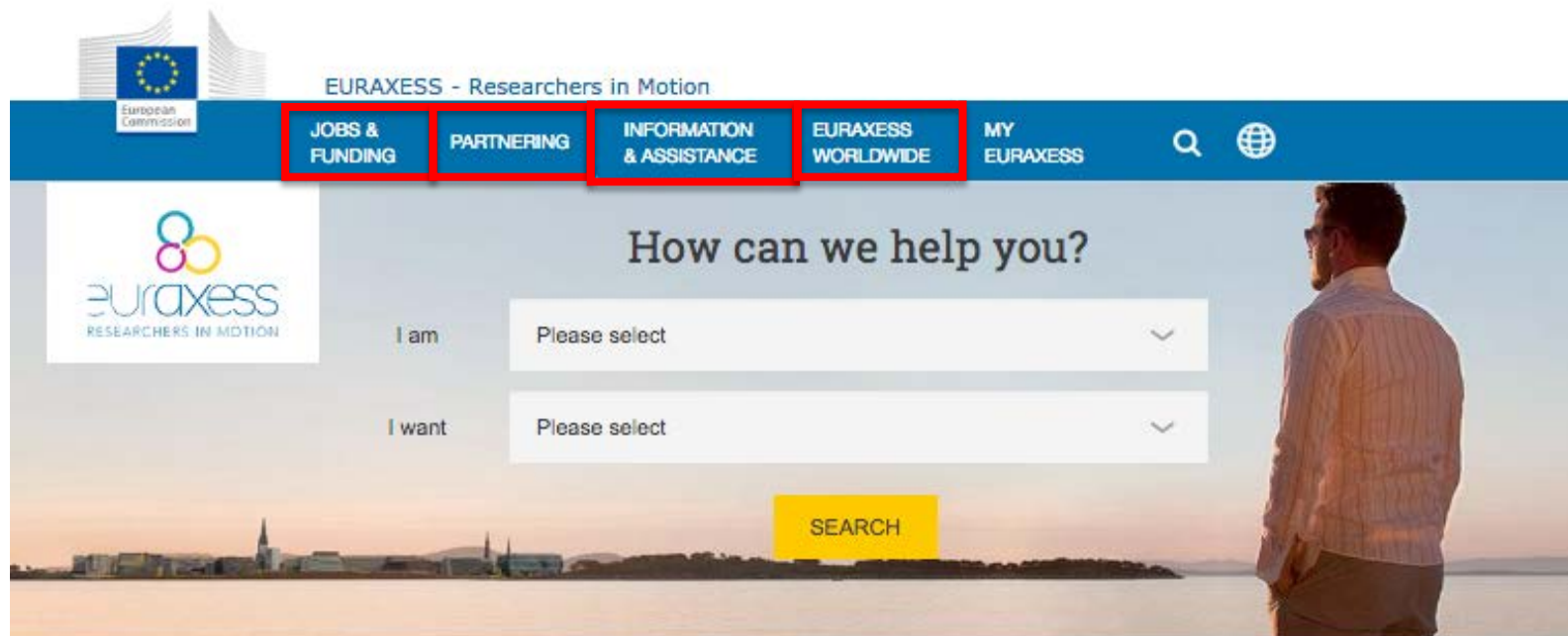


Flashnotes & Publications



Presentations and events

euraxess.ec.europa.eu



Welcome

EURAXESS Latin America and the Caribbean

<http://brazil.euraxess.org>

brazil@euraxess.net

Sign up to our mailing list: <http://bit.ly/ListaEURAXESSBrazil>

1. ENRICH in Brazil
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4. EURAXESS
- 5. Diversity**
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Multinational projects funded by the EU exemplify:

1. Broad range of topics
2. Variety of countries and extensive networking across national borders
3. Great number of partners involved: universities, research institutions, industry, academies, SME, etc.
4. Flow of researchers, knowledge and know how
5. Abundance and pooling of resources and capacities
6. The enormous potential for creative solutions



DIVERSITY OF RESEARCH - Space

PEASSS CUBESAT 2013-2016

Assisted smart satellite structure

- Mini satellite weighing only 3 kilos
- Cutting-edge technologies to improve the performance, cost, stability and longevity of small space-based platforms
- Applications such as atmospheric monitoring, Earth imaging, communications and aerospace research
- Participants: Netherlands, Israel, Germany, Belgium

Total costs: € 2 667 403

EU contribution: € 1 994 537



source: <https://www.tno.nl>



successful launch in 2017

source: www.PEASSS.eu

DIVERSITY OF RESEARCH - Health

SYMBITRON 2013-2017

Symbiotic man-machine interactions in wearable exoskeletons to enhance mobility for paraplegics

Project goals:

- to develop a safe, bio-inspired, **personalized wearable exoskeleton** that enables spinal cord injury patients to walk without additional assistance, by complementing their remaining motor function
- to develop training environments and training protocols for SCI patients and their clinicians
- Participants: Netherlands, Switzerland, UK, Italy, Iceland
- EU funding: € 3.099.898



DIVERSITY OF RESEARCH - Safety

FIREROB 2008 – 2010

- Protected by a multi-layer ceramic coating, this 'Robocop' style machine can be used as an autonomous unmanned fire fighting vehicle.
- It can fight fires in hazardous environments, particularly where firemen are in danger.
- Participants: Croatia, Scotland, Spain, Greece

Total costs: € 1 050 000

EU contribution: € 803 315



Image sources <http://www.dok-ing.hr>

1. ENRICH in Brazil
2. Basics about Europe
3. Funding
4. EURAXESS
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Research Infrastructures



Facilities, resources, organisational systems and services that are used by the research communities to conduct research and innovation in their fields



CERN

European Organization for Nuclear Research

Founded in 1954 in Switzerland, 21 member states

Crowning achievements:

1. First proof of the existence of a Higgs boson, 2013
2. Large Hadron Collider (LHC), most powerful particle accelerator
3. Highest man-made temperature, 2012, at 5 trillion K (a temperature not seen since moments after the Big Bang)



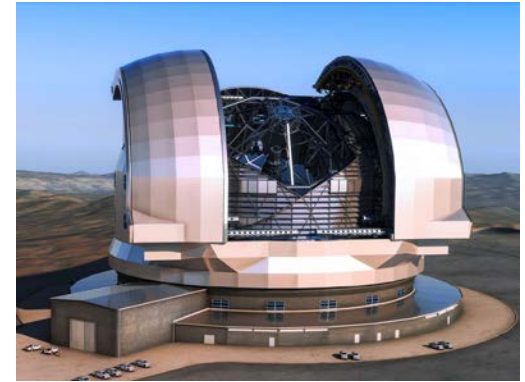
The Large Hadron Collider (LHC)

ESFRI

European Strategy Forum on Research Infrastructures

ESFRI – a strategic instrument to develop the scientific integration of Europe:

- To strengthen its international outreach
- To support the competitive and open access
- To attract the best researchers from around the world



Source: www.eso.org

Roadmap 2016

- 29 ESFRI landmarks - successfully implemented ESFRI projects delivering science services



Source: www.lifewatch.eu

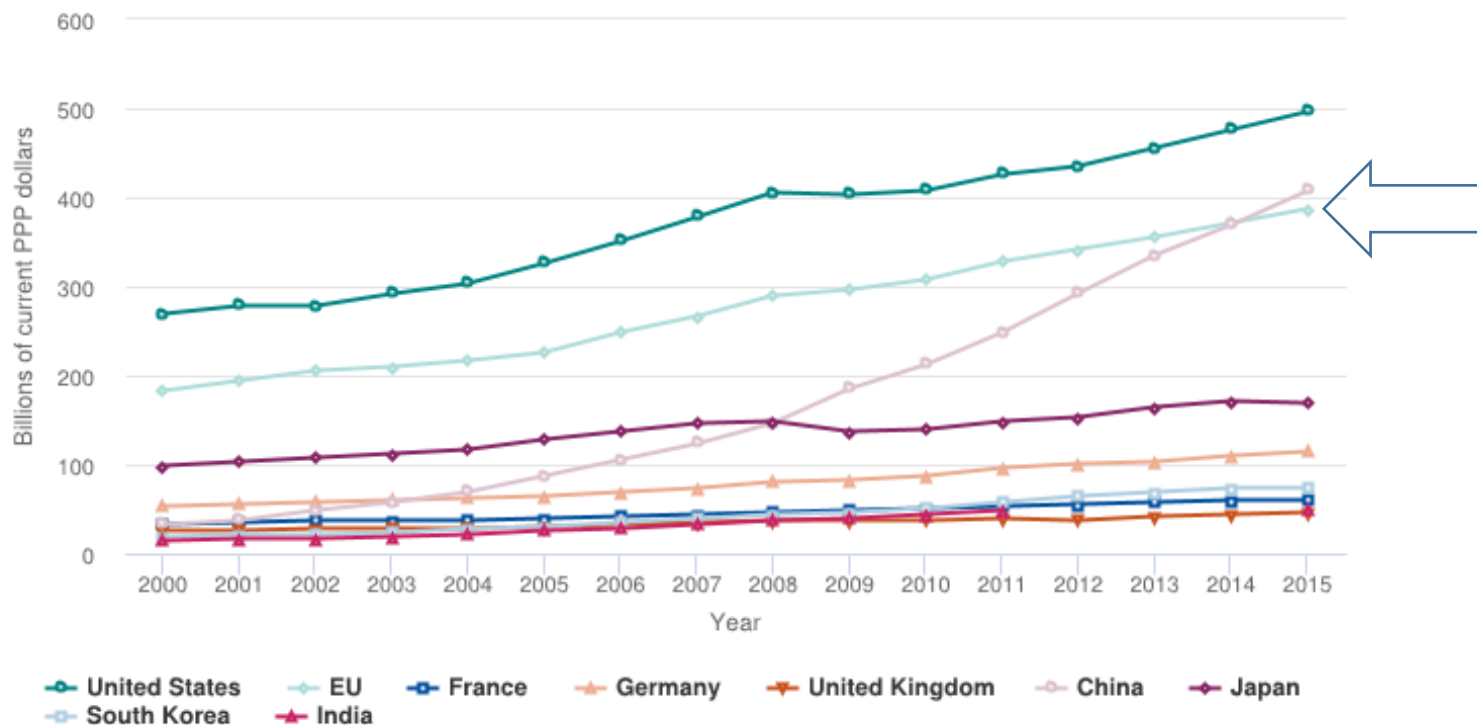


1. ENRICH in Brazil
2. Basics about Europe
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EU amongst top countries in absolute spending on R&D

Gross domestic expenditures on R&D, by selected region, country, or economy: 2000–15



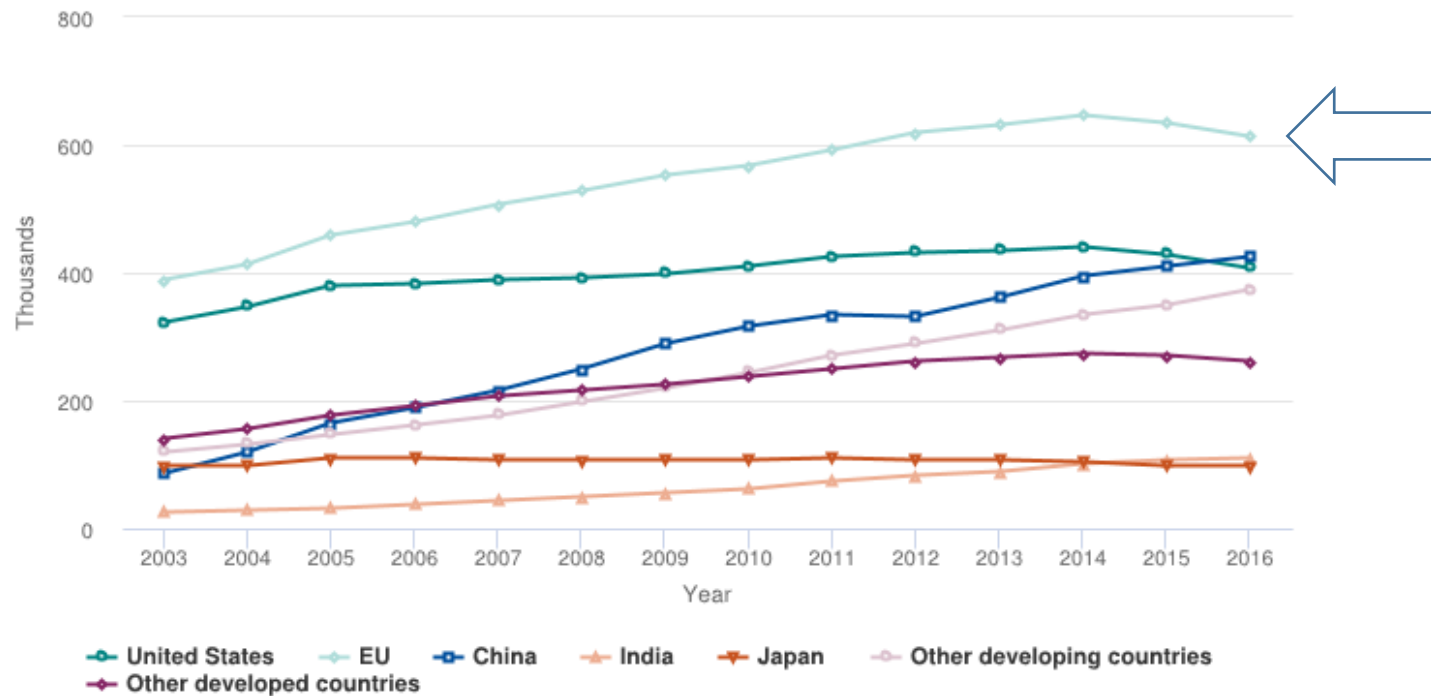
EU = European Union; PPP = purchasing power parity.

Excellence in Publications

Output – Number of Publications per Year

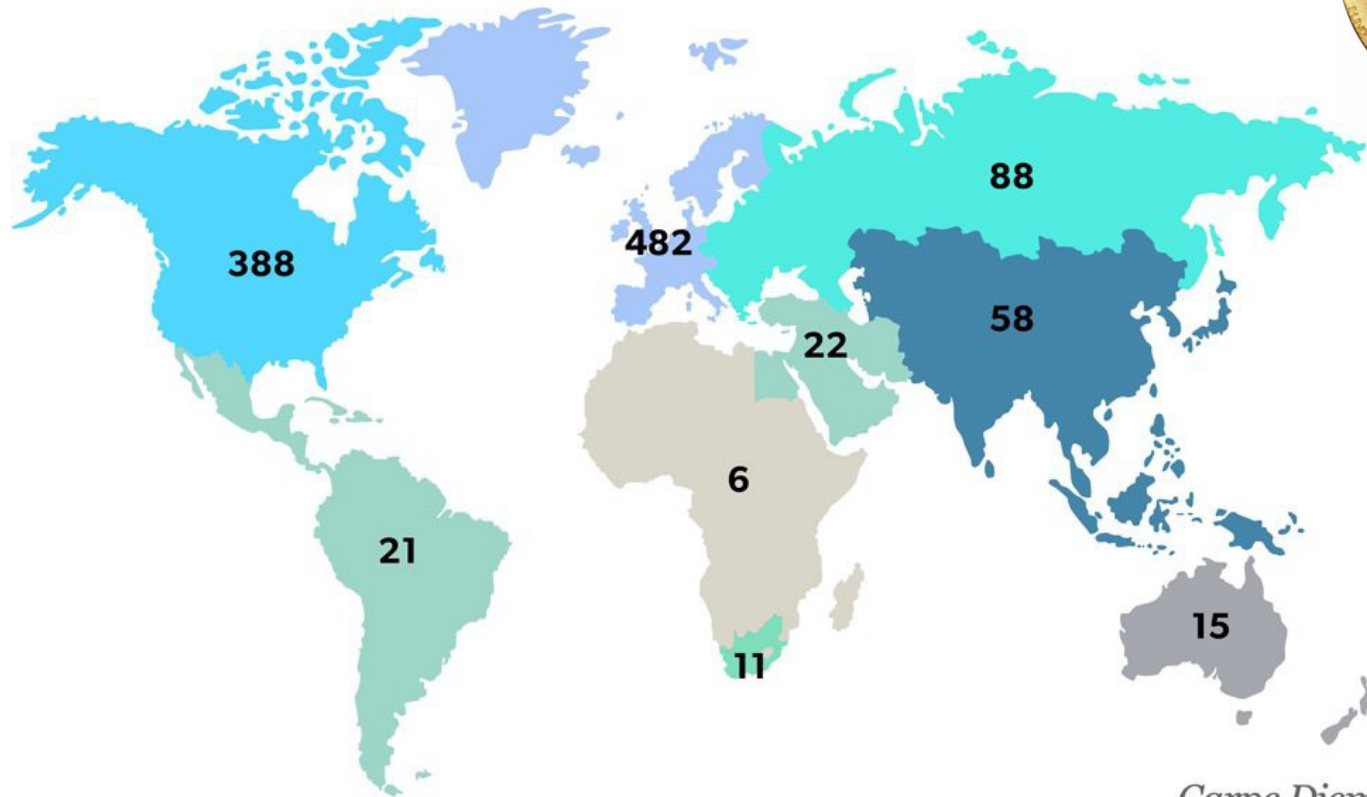
Figure O-8

S&E articles, by selected region, country, or economy: 2003–16



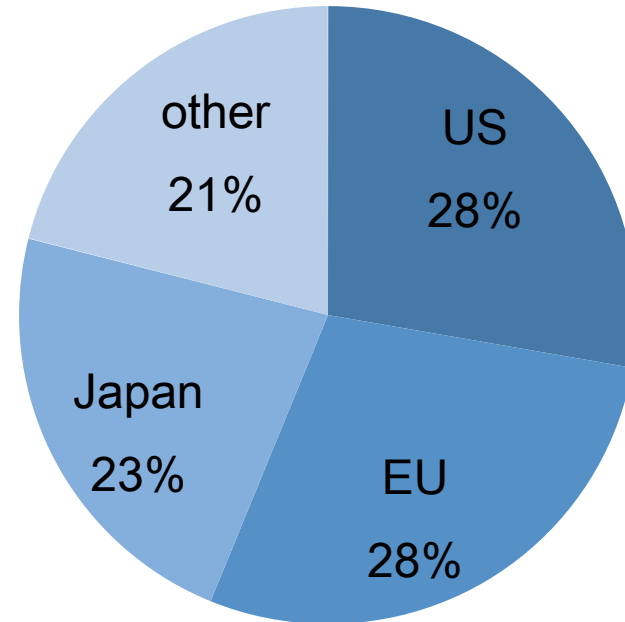
NOBEL PRIZE

Nobel prizes awarded by region/country 1,091 total prizes (1901-2016)



Carpe Diem **AEI**

Patents - From Lab to Market Place



A leading region for Entrepreneurship:

- 185 031 **Patent application** worldwide were filed under the PCT (Patent Cooperation Treaty) in 2012
- More than a quarter filed by individuals from European countries

1. ENRICH in Brazil
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A RICH TRADITION IN CREATIVITY

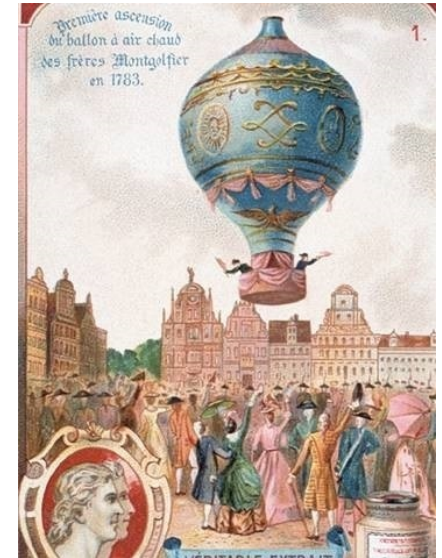
Europe has always been a hotspot for creativity and invention

Just a few of numerous examples:

- Printing press, Germany, 1445
- Microscope and telescope, UK, Ned., Italy, 1590
- Hot-air balloon, France, 1783
- Saxophone, Belgium, 1846
- Hydrogen Fuel Cell, UK, 1838
- Automobile, Germany, 1886



Steam engine, Greece, 50



Source: www.madamepickwickartblog.com



Source: www.gg-tools.com

AEROMOBIL 4.0: THE FLYING CAR, 2017

- International team of more than 40 experts based in Slovakia
- Convertable from an automobile to an aircraft
- Full transformation into flight mode in less than 3 minutes
- Commercial launch planned in 2020



Maximum speed: 200 km/h, maximum road speed: 160 km/h

World Record Solar Cell, 2013

A German-French research team created a solar cell that can convert 44.7% of the sunlight into electricity, by using a new solar cell structure with four solar subcells.

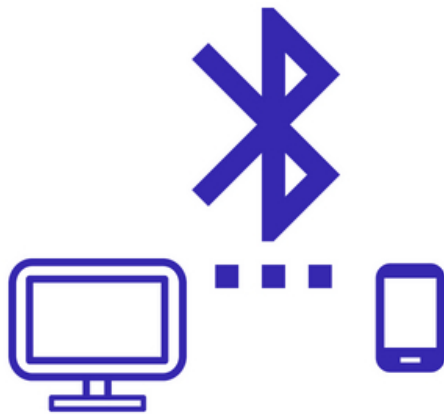


Science Slam, 2006

- The prototype of the science slams is the poetry slam
- Young scientists explain their projects in short 10-minute-talks
- Afterwards the audience gets to vote
- Invented and developed in Germany
- The format is beginning to emerge in several other countries
- First EURAXESS Science Slam in Brazil took place 2013



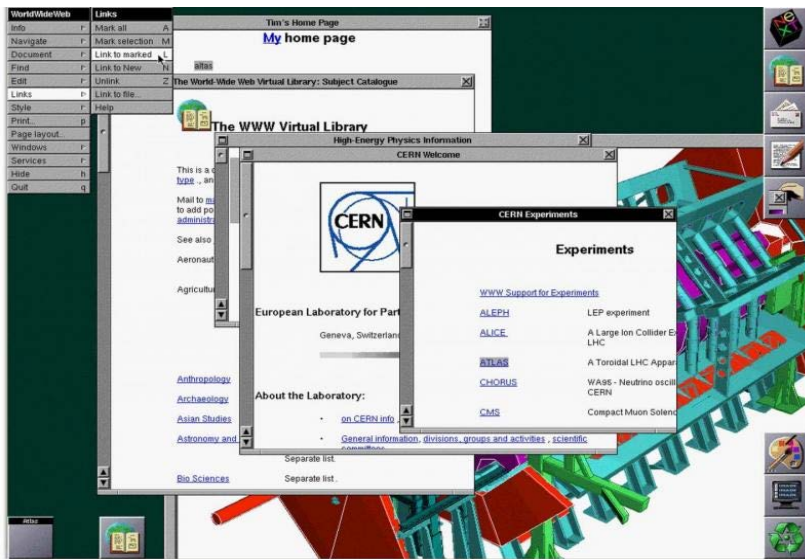
Bluetooth, 1994



- By two researchers of the Swedish technology company Ericsson
- Bluetooth = wireless technology standard for exchanging data over short distances from fixed and mobile devices
- Across the world Bluetooth is connecting several devices overcoming problems of synchronization

World Wide Web (WWW), 1989

Tim Berners-Lee, a British scientist at CERN,
invented the technology of the World Wide Web.



On the 30th of April 1993 CERN
put the World Wide Web
software in the public domain.

Screenshot of the original NeXT web browser in
1993 (Image: Berners-Lee/CERN)



To Sum it up



unique
innovative

progressive

diverse

excellent

clean

creative

Europe

attractive

historic

traditional



Thank you for your attention...

...and see you in Europe!

www.brazil.enrichcentres.eu



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Fraunhofer Institute for Production
Systems and Design Technology (IPK)

