

Excellence in Research & Innovation

COOPERATION OPPORTUNITIES BETWEEN EUROPE AND SINGAPORE



Forward
Voltage



Contents

3	Foreword	18	Ireland
4	European Union	20	Italy
5	Austria	22	Poland
7	Belgium	24	Romania
9	Denmark	25	Spain
11	Finland	27	Sweden
12	France	29	Switzerland
14	Germany	31	The Netherlands
16	Hungary	33	The United Kingdom



The success of the 2nd "EURAXESS Links - Connecting Researchers Worldwide" conference 2014 was testimony to the strong scientific relations and extensive researcher mobility between Europe and ASEAN.



The first Voice of the Researchers (VoR) outside of Europe was held in Singapore in 2014. The participants shared their mobility experiences and expectations in a direct dialogue with each other and European policy-makers.



"The ERC Fellowship has allowed me to pursue my scientific goals with greater pace and urgency."

Singaporean Dr Ari Sadanandom (University of Durham, UK) was awarded an ERC Starting Grant worth €1.5 million in 2012.



Dr. Michael Pulch, Ambassador and Head of the European Union Delegation to Singapore

Foreword

Knowledge, research and innovation are key factors in today's global competition and attracting the best scientists is a necessity. Researchers are today's cornerstone of knowledge creation, diffusion and application. Europe, among other major economies, has recognised the importance of knowledge for sustained economic growth and mobility and availability of researchers is clearly a vital factor in a nation's scientific potential and economic growth.

The European Union (EU) is one of the world's leading regions in research and innovation. With 7% of the world's population, it accounts for one-quarter of global expenditure on research, one-third of the high impact publications and 32% of patent applications. The European Research Area (ERA) will enable more coherence between European and national research policies, reducing administration and obstacles to researchers' mobility. We aim to create a single European market for innovation which will attract innovative companies and businesses.

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020) - in addition to the private investment that this money will attract, it promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market. Innovation is the key way forward.

Both ASEAN and the EU understand the importance of science, technology and innovation individually and also agree on the relevance of cooperation between the two regions in these areas. The Partnership and Cooperation Agreement, concluded between the EU and Singapore in 2013, placed special emphasis on Scientific and Technological Cooperation. Within the provision of this agreement, the promotion of training and mobility for researchers is specifically highlighted as a crucial element in our cooperation with Singapore.

In 2014, Singapore was the venue of several regional EU events on researcher mobility, including the 'Voice of the Researchers' and the second annual Euraxess Links conferences. This year promises to be another busy year for the EU in Singapore, as we increase our activities in the promotion of Europe as a destination for Research and Development (R&D).

I hope this booklet provides you with a practical guide, so that you may discover the wealth of opportunities that Europe has to offer in the area of research, development and innovation.

A handwritten signature in black ink, appearing to read 'M. Pulch', written in a cursive style.

Dr. Michael Pulch
*Ambassador and Head of
Delegation of the European
Union to Singapore*

European Union

An open source for knowledge and growth



European Research Area (ERA)

A unified research area based on the Internal Market

- It is open to the world
- Researchers, scientific knowledge and technology can circulate freely
- The EU and its Member States strengthen their scientific and technological bases, their competitiveness and their capacity to collectively address grand challenges

Horizon 2020

H2020 is the EU's main instrument for funding research in Europe and the largest of its kind in the world. Running from 2014 to 2020 with a €80 billion budget, it offers a large variety of funding opportunities for research and innovation activities through calls for proposals that are set out in the Horizon 2020 work programme.

Who can apply?

Horizon 2020 is open to the world. This means that participants from all over the world, regardless of their place of establishment or residence, can participate in most of the calls of Horizon 2020.

Under which conditions?

Conditions for collaborative research & innovation projects: a consortium must include at least 3 participants from 3 different EU Member States or Associated countries. In addition to these three partners, any legal entity from anywhere in the world can be included in the consortium.

Individual researcher projects:

The European Research Council and the Marie Skłodowska-Curie actions offer unparalleled funding opportunities for individual researchers who want to work in Europe.

How do I apply?

Have a look at the participant Portal H2020 online manual:

<http://ec.europa.eu/programmes/horizon2020/>

Marie Skłodowska-Curie Actions (MSCA)

MSCA support researchers at all stages of their careers, irrespective of nationality. Researchers working across all disciplines, from life-saving healthcare to 'blue-sky' science, are eligible for funding.

MSCA encompasses different programs such as:

- **The Marie Curie international incoming Fellowships scheme (IIF):**
The IIF provides funding to top class foreign researchers to work on research projects in Europe for duration of 12 to 24 months

Researchers moving from third countries, such as Singapore, to EU Member States or Associated Countries are eligible for an IIF. To apply, you must have either a doctoral degree or at least 4 years' full-time research experience, after obtaining a degree permitting you to embark on a doctorate.

- **The Marie Curie Career Integration Grants (CIG)**

The CIG allows experienced researchers from any country in the world, with at least 4 years' full-time research experience or doctoral degree, to come and work in Europe for 2 to 4 years

How do I apply?

<http://ec.europa.eu/research/mariecurieactions/>

European Research Council (ERC)

The ERC's mission is to encourage the highest quality research in Europe through competitive funding and to support investigator-driven frontier research across all fields, on the basis of scientific excellence.

Who can apply?

ERC grants are open to researchers of any nationality in the world, any scientific field, any age.

Under which conditions?

There are 3 types of calls for the ERC core funding schemes. These are the conditions for a Starting Grant call:

- For researchers of any nationality with 2-7 years of experience since completion of PhD (or equivalent degree) and scientific track record showing great promise
- Scientific excellence of researcher and research proposal
- Research must be conducted in a public or private research organisation (known as a Host Institution/Hi) located in one of the EU Member State or Associated Countries

How do I apply?

<http://erc.europa.eu/>

EURAXESS Links

It is a unique pan-European initiative providing access to a complete range of information and support services to researchers wishing to pursue their research careers in Europe or stay connected to it.

- **Euraxess Jobs** is Euraxess career database - advertising thousands of Europe-based fellowships and jobs vacancies in research and innovation
- **Euraxess Services** is a network of more than 200 centres situated in 38 European countries. If you are a researcher planning to relocate to Europe, Euraxess Services can assist you and your family in every step of your move

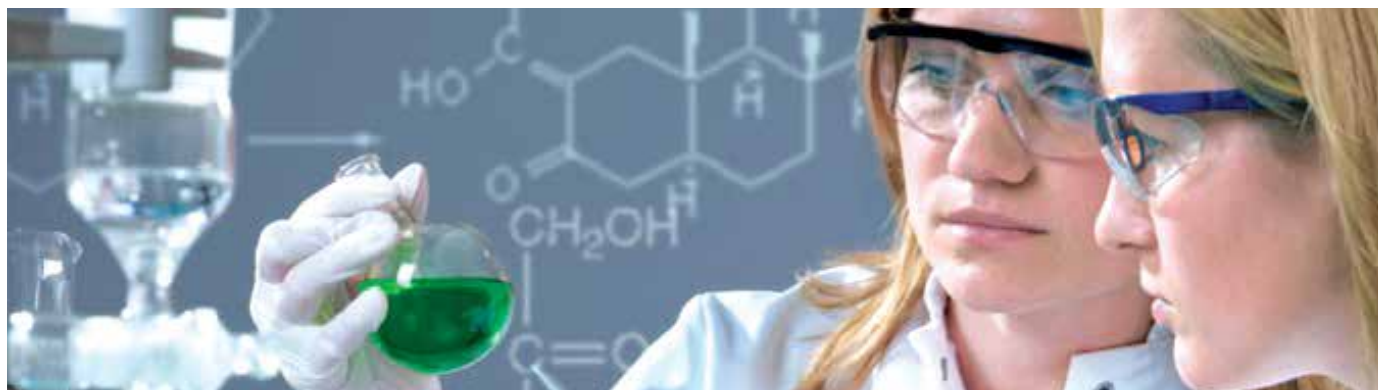
For more information

<http://ec.europa.eu/euraxess/>

Austria



Building bridges through our innovation – surprisingly ingenious



Why should you go to Austria?

Austria has a rich tradition of academic research and industrial innovation. Research, technology and innovation policy has become a central area of political action. Austria is one of the world's leading locations for business and research, as regularly confirmed by numerous international rankings. In this dynamic climate, new knowledge is generated and translated into innovations on the market through the interplay of science and entrepreneurial spirit.

- 2.88% of GDP devoted to R&D
- 22 state universities, 13 private universities, 21 universities of applied sciences
- 20 research and technology organizations (RTOs)
- Austrian universities are among the top 10% of universities worldwide
- Attractive for students: 15.2% foreign students; Austria ranks worldwide third after Australia (21.5%) and Great Britain (15.3%)
- 61,170 employees in R&D (full-time equivalents)
- 3,400 companies doing R&D
- System of research funding and international mobility agencies
- Tax incentive system for R&D (eg 10% tax premium for research)

Austria has a top position in industrial technologies and advanced materials. This includes above-average productivity growth and export performance of the manufacturing industry.

Austria belongs to the leading nations in energy technologies. With 32.2% of the energy consumption being covered by renewable energy Austria is among the European top leaders. Generally the dominant power sources are solid wood fuels and hydropower. Austrian companies are among the world leaders in solar heating and cooling, bioenergy technologies and zero emission buildings.

With 723 companies active in the biotechnology, pharma or medical technology business, life sciences are an important part of Austria's economy. Together, these companies were responsible for a turnover exceeding €17.7 billion in 2012 - about 5.4% of GDP. More than 50,000 people earn a living working for an Austrian life science company. The life science industry in Austria is fully diversified with companies large and small as well as a number of multinational companies headquartered in or with facilities here.

In an international perspective, Austria holds a position in the upper medium group of ICT locations, with ambitions to move into the leading group. A particular strength is ICT research, both at universities and private companies.

Enhancing links between Singapore and Austria

The Austrian Institute for Technology and NTU are working on a joint research initiative on the topic of green building in Singapore. Together with the two project partners ERI@N - Energy Research Institute at Nanyang Technological University and IMRE - Institute of Materials Research and Engineering, the Austrian Institute of Technology develops this research topic.

AustriaNova Singapore Pte Ltd

is a high tech, life science and biotech company with a global footprint that encapsulates living cells in bio-inert polymers, used for protection, isolation, storage and transportation. The company was established in 2007; whilst based in Singapore's top research biotech hub, Biopolis. AustriaNova won the Singapore Best Innovation Award 2014 for its "Cell-in-a-Box".

For more information and enquiries in Austria:

Advantage Austria
www.advantageaustria.org
 The Austrian Research Promotion Agency (FFG)
www.ffg.at/en
 Austrian Institute of Technology (AIT)
www.ait.ac.at
 Federal Ministry of Science, Research and Economy (BMWFW)
www.bmwfw.gv.at/en
 Federal Ministry for Transport, Innovation and Technology (BMVIT)
www.bmvit.gv.at/en

In Singapore

Advantage Austria
 Website: www.advantageaustria.org/sg
 Email: singapore@advantageaustria.org
 Tel: +65 6396 6350

FFG @ Austrian Embassy in Singapore
 Email: office@ffg.at
 Tel: +65 6396 6350

The International Graduate School Bio-Nano-Technology (IGS-BioNanoTech) offers training in applied and basic research in the field of bionanotechnology in an international environment.

- The Austrian partner institutions are the University of Natural Resources and Life Sciences, Vienna, (BOKU), and the Vienna-based AIT Austrian Institute of Technology
- The Nanyang Technological University (NTU) and Institutes of the Agency for Science, Technology and Research (A*Star) are the Singapore counterparts

Joint collaboration between Nanyang Technological University (NTU, Singapore) and Graz University of Technology (TU Graz, Austria). The programme offers opportunities to promising scientists and scholars to foster interactions between the three world class Universities in the area of interactive digital media.

- The principal areas of focus are Real-time Rendering, Virtual & Augmented Reality, Visual Analytics, Medical Computing, Haptics, and Human-Computer Interaction
- The 4-years scholarships provided jointly by NTU and Fraunhofer IDM@NTU assume that the applicants become full-time PhD students of NTU and TU Graz

Opportunities for Singaporean researchers

Austria supports the entire innovation process from basic research to the founding of a company.

- FFG - The Austrian Research Promotion Agency
 🌐 (www.ffg.at/en) supports industry-oriented research with an extensive programme of grants and services. The FFG offer ranges from Start-Up programmes to the funding of large excellence and competence centres
- The Austrian Business Service
 🌐 (www.awsg.at/en) is the development bank of the Republic of Austria. It offers low-interest loans, grants and guarantees to companies. It also provides information, know-how, consultations and other services
- The science fund FWF
 🌐 (www.fwf.ac.at/en) made available almost EUR 200 million for basic research projects. This was sufficient to finance around 3,500 researchers
- The OeAD
 🌐 (www.oead.at) is the Austrian agency for international mobility and cooperation in education, science and research
- ABA
 🌐 (www.investaustria.at) Investment promotion agency



Belgium



A high quality research system, characterised by strong international openness



Biotechnology is the focal area for R&D in Belgium, with a world-class triple-helix environment.

Within the EU, Belgium has a strong reputation for R&D and innovation, primarily due to the high quality of its education and research facilities, the availability of skilled workers and numerous fiscal incentives for R&D ventures. As a result, many companies continue to prosper within Belgium's borders.

Why should you go to Belgium?

Belgium has a large pool of highly qualified personnel operating at relatively low cost; the potential spillovers from renowned universities and research centres; and the proximity to key actors such as suppliers and lead users, are important drivers to decentralising R&D.

This is especially important for multinational firms.

- R&D intensity of Belgium is well above the EU-27 level of 1.90%
- The number of scientific publications is within the top 10% most cited publications worldwide, as % of the total publications of Belgium (15.8%, well above EU average of 11.6%)
- In the EU, Belgium has a high share of people with tertiary education, at 32.1%
- 49.2% of all new degrees at the doctoral level
- **R&D investments by foreign affiliates is 59.4%**
- Patent applications in biotechnology is one of the highest in Europe, at 11.0%
- The technical innovation rate for enterprises in Belgium ranks as one of the highest, at 48.2%
- Labour productivity in Belgium is one of the highest in the EU, at 125.5%

- Belgium has a high ratio of universities and research institutes: 13 universities, 60 university colleges, 20 research institutes

As the country's long-term prosperity and growth rate are closely linked to innovation, the government has introduced **R&D tax incentives**, which aim at encouraging companies to invest in top talent and/or innovation. **These incentives include, but are not limited to the following measures:**

- The partial exemption from withholding tax for qualified researchers: employers are only obliged to remit 20% of the total withholding tax from qualified researchers and may retain the remaining 80% for company use
- The patent income deduction: allows for an 80% deduction from the taxable basis of the gross patent income, resulting in a maximum tax rate of 6.8% on this income. All Belgian companies, and Belgian establishments of foreign companies, are eligible for this deduction. The measure covers patents which have been self-developed in a Belgian or foreign-owned R&D center in Belgium

For more information and enquiries**Embassy of Belgium, Singapore**

AXA Tower, 8 Shenton Way, #14-01,
Singapore 068811
<http://countries.diplomatie.belgium.be/en/singapore/>

Flanders Investment & Trade Agency

Same location as the Embassy
Tel.: +(65) 62.27.39.97
Fax: +(65) 62.27.73.49
Email: Singapore@fitagency.com
Website: www.flandersinvestmentandtrade.com

Trade Office of Brussels-Wallonia

51 Goldhill Plaza #21-11/12
Singapore 308900
Tel.: +(65) 62.51.00.79 / 62.51.43.60
Fax: +(65) 62.51.15.96
Email: aec@bruwex.sg
Website: <http://www.brussels-in-singapore.irisnet.be/en/>

Guide for mobile researchers in Belgium:
<http://www.euraxess.be/docs/guide.pdf>

- Investment deduction for R&D investments and patents: a tax deduction of 14.5% (tax year 2014) of the investment value of assets which aim to promote R&D of new products and advanced technologies that are environmentally friendly. It also applies to patents which have been acquired or self-developed by the company. These deductions may be carried forward in case of insufficient profits
- Foreign executives and researchers who are temporarily assigned to Belgium benefit from **tax-free expatriation allowances**, which are capped at €29,750 per year. This measure also covers the tax-free reimbursement of installation costs and school fees. **Overall, this incentive helps to attract the best foreign researchers to Belgium**

The pharmaceutical sector is an example of a thriving field based in R&D and innovation. Employing over 30,000 people and accounting for over €36 billion in exports a year, it is clear that this industry has a vital influence on the country's economy.

The chemical and life sciences sector is also a champion of innovation. According to Essenscia, the industry association, R&D investments in this

sector rose from €1.85 billion in 2002 to €2.75 billion in 2012. This accounts for 50% of total R&D expenditure by the private sector in Belgium.

Key Sectors for Belgian R&D:

- Cleantech (water, air, waste, renewable energy)
- Healthcare / Medtech
- Biotech / Pharma / Lifesciences
Nanoelectronics

Enhancing links between Singapore and Belgium

Singapore and Belgium have a very similar value proposition. Both have small territories, with no natural resources, except for our talent pool of highly educated people, and our strategic geographical location. Innovation and making the most of our resources is high on our agenda.

Opportunities for Singaporean researchers

Information on the R&D landscape and opportunities for Singaporean researchers in Belgium:

- <http://www.research.be/>
- <http://www.ewi-vlaanderen.be/en>
- <http://recherche-technologie.wallonie.be/?LANG=en>
- <https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index/php/Belgium-Flemish-Community:Overview>



Ibec research facility in Leuven, Belgium. Belgium performs world-leading research in nanoelectronics and leverages its scientific knowledge with the innovative power of its global partnerships in ICT, healthcare and energy.

Denmark



A global player in high quality and ground-breaking R&D



Danish research institutions are among the most well-renowned in the world when it comes to areas related to **biotechnology, wireless and mobile technology and sound technology. Also, within cleantech and renewable energy areas like electrical vehicles (EV's) and wind power**, Denmark is at the forefront on R&D.

International cooperation plays a key role in Danish research. **More than every second Danish scientific publication is carried out in cooperation with international researchers.** Only six other OECD countries have more international co-publications than Denmark.

Why should you go to Denmark? International students in Denmark

As an international student, you can expect to receive world-class education in areas such as engineering, life sciences, social sciences and IT. Denmark is a safe, friendly and innovation-driven environment. Danish higher education focuses on bringing about solutions for the real world. Thus, traditional lectures are combined with industrial collaborations and teaching methods that promote students' abilities to use what they have learned and to turn new knowledge into innovative solutions. This way of studying requires a high degree of personal initiative and independent thinking. **There are programmes in universities that are delivered in English, which can be a major consideration for international students.**

Research and Development advantages in Denmark

- Danish research institutions score high on global league tables
- Possibility of creating new technologies together with manufacturers, research and development institutions and private companies
- Unique interplay and cooperation between industry players and research institutions
- Intellectual property rights are adequately enforced

- Several world class research institutions like Stanford Research Institution and Synarc Inc. have already set-up research facilities in Denmark

In Denmark public and private investments in R&D have increased significantly in recent years. Denmark is one of 6 countries in the world, which invests more than 3% of GDP on R&D. It is Denmark's ambition to be among the leading countries in research and innovation.

Enhancing links between Singapore and Denmark

- **Vestas Wind Systems**
The Danish company Vestas Wind Systems, the world's leading provider of wind energy solution has opened an office in Singapore. Vestas Singapore is one of Vestas' largest R&D facilities
<http://www.vestas.com/>
- **Grundfos**
Grundfos started in 2014 a research project in Singapore with the purpose of developing a new technology to clean waste water. The project is supported by Nanyang Environment and Water Research Institute, NEWRI, under Nanyang Technological University (NTU)
<http://sg.grundfos.com/>

For more information and enquiries**Danish Ministry of Higher Education and Science**

The Danish Agency for Higher Education
Bredgade 43
DK - 1260 Copenhagen K
Tel: +45 7231 7800
Email: uds@uds.dk

Centre for Educational Support:
Tel: +45 7231 7900
Website: hjemmesiden@ufm.dk

Invest Denmark

Danish Trade Commission, Bangalore
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Fax: +91 (80)4248 9599
Email: shasub@um.dk
Web site: www.investindk.com

Royal Danish Embassy

101 Thomson Road, # 13-01/02
United Square
Singapore 307591
Tel: +65 6355 5010
Email: sinamb@um.dk
Web site: <http://singapore.um.dk>

- **Danish Architecture Center**

The Singapore government through the Centre for Liveable Cities (CLC) formed a close partnership with the Danish Architecture Centre (DAC) focusing on building sustainable and liveable cities

🌐 <http://www.dac.dk/>

- **DHI-NTU Centre**

The DHI-NTU Centre was jointly established by DHI Singapore (DHI) and Nanyang Technological University (NTU) in October 2007, with the support from the Environment & Water Industry Development Council (EWI)

🌐 <http://www.dhi-ntu.com.sg/>

Opportunities for Singaporean researchers

1. Collaboration in maritime education between Denmark's Copenhagen Business School and Singapore Management University. Under this partnership, students from both schools participate in a structured exchange programme. For more information about the program:

🌐 <http://smu.edu.sg>
<http://www.cbs.dk/en>

2. To apply to a PhD programme in Denmark: The general admission requirement for PhD programmes is that candidates should hold a degree equivalent or comparable to the Danish two-year Candidatus/Master's degree. In some areas, a four-year PhD programme is offered to students who have completed a Bachelor's degree as well as one year of study at postgraduate level. Information can be found here:

🌐 <http://studyindenmark.dk>

3. Information about studying a bachelor or master's degree in Denmark:

🌐 <http://studyindenmark.dk>

4. Information on condition and permits for foreign researchers in Denmark: If you are a researcher, you have particularly easy access to the Danish labour market

🌐 <http://www.nyidanmark.dk/en-us>

5. PhD programmes at Technical University of Denmark:

🌐 <http://www.dtu.dk/english>

6. Aarhus University, Technical University of Denmark and University of Copenhagen have exchange programmes with National University of Singapore. Application for National University of Singapore students

7. Danish Copenhagen Business School has exchange programmes with Singapore Management University. Application through Singapore Management University and for its students only

8. Aarhus University and Copenhagen Business School both have exchange programmes with Singapore's Nanyang Technological University. Application through Nanyang Technological University and for its students only. For more information, visit:

🌐 <http://global.ntu.edu.sg/Pages/default.aspx>

Finland



An open, market-orientated and innovative system



Development of microelectronics technologies enables production of ever smaller miniaturised sensing, portable measuring devices.

Finland has proven an excellent location for testing out new products and services. Finland ranked high internationally in competitiveness and innovation throughout the 2000s. Finland has developed the innovation policy consistently. One of the strengths of the Finnish innovation environment is the active and successful dialogue involving companies, research institutes and the public sector. The primary scientific research areas in Finland are the forest industry, the metal industry and the information & communication technology (ICT) industry.

Why should you go to Finland?

Finland, with Denmark, Germany and Sweden, belong to "Innovation Leaders" in the European Union. According to several national strategy documents the promising innovation driven industrial options in the future are in such areas as clean-tech, bio-economy, and digitalisation of production technologies by internet of things.

- International researchers make up 5% of the total
- The majority of R&D investments, roughly 80 percent of all industrial R&D expenditures, are made by technology industries in manufacturing (electronics, chemical industries and computer programming)

Enhancing links between Singapore and Finland

Collaborations between Singapore and Finland include:

- The proportion of the GDP devoted to R&D expenditures in 2013 was 3.3 percent. The share of business enterprises was 70 percent and of public sector 30 percent
- Finland has 14 universities and 16 public research institutes

- Port of Singapore Authority - wireless technology
- A*STAR - Factory of the Future
- NTU - Energy Efficiency

For more information and enquiries

Embassy of Finland in Singapore
<http://www.finland.org.sg>



By adding science to nutrition, the food matrix can be tailored with enzymes and microbes to create mouthwatering products with health benefits.



Internet of Things and new sensor technologies enable many new smart services in communication, production, maintenance and our environment.

France



A knowledge based economy with a strong tradition of research and innovation



Credits: Sanofi Aventis / D. Felix.

France is a knowledge-based economy and home to numerous Fields Medals, Nobel Laureates and multinational's CEOs who were trained in the French Grandes Ecoles or in its Universities. Interlaced in the European network, France aims to tackle new societal challenges by boosting research, innovation and entrepreneurship.

Worldwide, France is ranked:

- 6th in the number of scientific publications and researchers
- 4th in the number of Nobel Laureates (61) in all fields
- 2nd worldwide for the Fields Medals with 11 laureates

Follow the Franco-Singaporean activities in Culture, Higher Education and Science on LinkedIn and Facebook.

<https://www.linkedin.com/pub/institut-fran%C3%A7ais-de-singapour/84/190/225>

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

Why should you go to France?

France is attractive for its quality of life and its culture, but also for its **research institutions which cover a wide range of scientific fields**. France has the third largest amount of foreign students and the language barrier is fading thanks in large part to an international and European research environment. Led by a tradition of excellence, cutting edge research and innovation, **France is a leading country in fundamental research and has a history in developing breakthrough technologies**.

- 2.23% of the GDP is devoted to R&D 60% comes from private companies which have a key role in the French R&D
- There are about 420,000 full-time employees in R&D activities with 260,000 researchers who work in enterprises or in one the 30 national public research institutions such as the worldwide known CNRS or the more specialized CEA, INRIA, INRA, INSERM, Institut Pasteur

France's leading industrial sectors are aerospace, automobiles and land transport, electronics and info-communication technology,

pharmaceuticals and nuclear power. France's expertise in these sectors is well represented through **cutting-edge companies based in Singapore** such as Airbus, Veolia, Gemalto, Bouygues, Alstom, Essilor, Thales, ST Microelectronics or Sanofi who all have R&D activities here and collaborations ongoing.

In the next few years, France aims to develop new technologies in 9 societal challenges, defined by *France Europe 2020* strategic plan:

- Efficient resource management and adaptation to climate change
- Clean, secure and efficient energy Industrial renewal
- Life, health and well-being Food security and demographic challenges
- Sustainable mobility and urban systems
- Information and communication society
- Innovative, inclusive and adaptive societies
- Freedom and security of Europe, its citizens and its residents

For more information and enquiries

All information available on our website:
www.institutfrancais.sg

Follow the Franco-Singaporean activities in Culture, Higher Education and Science on LinkedIn and Facebook.

Enhancing links between Singapore and France

For 15 years, Franco-Singaporean relations have been on the rise following the development of scientific research in Singapore. 2014 was a milestone with the signature of a research agreement between the National Research Foundation (NRF) and its counterpart the French National Agency for Research (ANR) which will fund joint projects and complement the efficient mobility schemes between our countries.

The strategic role of Singapore for the French National Centre for Scientific Research (CNRS) was once again underlined in 2014 with the inauguration of its ASEAN regional office on the island and the creation of 2 new International Joint Units (BMC2 and Majulab), bringing the total number to 4 (the other two are IPAL and CINTRA) and. These actions are part of a global long-lasting cooperation, as evidenced by the 10th anniversary of the joint Franco-Singaporean laboratory SONDRRA involving private and public partners from both countries.

The next years will see the strengthening of existing collaboration in Engineering, Defense, Water, Food and Biomedical but also the organizing of workshops in Energy, Smart Cities and Economics.

Opportunities for Singaporean researchers

1. ANR-NRF Joint Funding Research Programme: Up to €500,000 over 3 years and equally financed by ANR and NRF. Joint research project between French and Singaporean Research Institutes (RI) with a strong synergy and true added value of international cooperation expected. Annual call for proposals opened from September to November for phase 1 and from February to March for phase 2

(based on ANR "blanc" International call agenda). Identical applications have to be submitted to both ANR and NRF. Launched in 2014 further a Research Agreement signed on 30/05/14. More information and application on:

<http://www.nrf.gov.sg/> and <http://www.agence-nationale-recherche.fr/>

2. STIC and Bio Asia: Up to €40,000 over 2 years, financed by the French Ministry of Foreign Affairs. 3-partite research mobility funding programme between 1 French RI and 2 Asian RI. There are two concurrent annual calls for proposals: STIC-Asia for projects in Information and Communication Technologies and Bio-Asia for projects in Bio Sciences, opened from June to August. It aims to foster the cooperation between France and Asian countries and develop our global network by funding the mobility. An annual conference is held each year in Asia to kick off the new call for proposal and gather the network built.

3. PHC Merlion Project and Workshop: Up to €30,000 for a 2 year project or the organization of a workshop. Joint application between French and Singaporean RI has to be submitted to the IFS during the annual call for proposals which runs from June to September. This program aims to create or strengthen scientific cooperation between France and Singapore and funds the research mobility through a co-funding with our partners: A*STAR, NUS, NTU, SERI, SMU and SUTD. This program is part of the Partenariat Hubert Curien initiative led by the French Ministry of Foreign Affairs.

4. PHC Merlion Ph.D: Grant for a Ph.D student enrolled in a Singaporean university to travel between 3 to 6 months in France each year (over 3 years). Terms and conditions are identical to the PHC Merlion Project scheme.



Participants to the Singapore Merlion Metabolomics Workshop 2015, organized by NUS-NERI, the French Metabohub and the French Embassy.

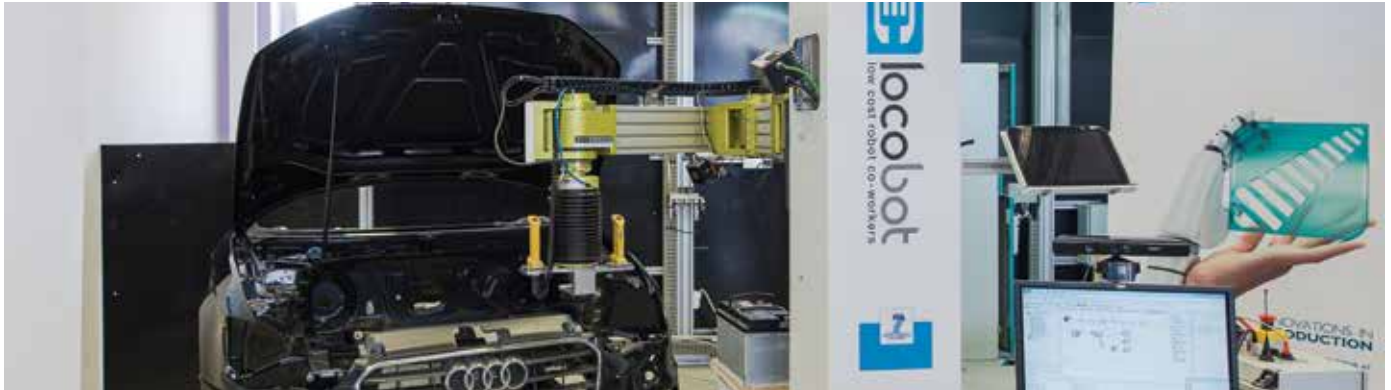


Signing ceremony of NRF-ANR research agreement in Singapore, May 2015.

Germany



A global leader in R&D, offering world class research partners and infrastructures in a wide range of disciplines



System setup with a support roboter and a front part of an automobile for the Locobot Project for Horizon 2020.

Like in Singapore, research and innovation are the cornerstones of the future of the German economy. Generous public funding programs allow German higher education institutions, research institutions and companies to cooperate with foreign partners. Vice versa, excellent research and innovation conditions in Germany attract partners from all over the world.

Why should you go to Germany?

Keys to the success of the German R&D system are the autonomy of universities and non-university research institutions in the identification of research topics and methods in the area of innovative basic research, close links to the industry to carry out cutting-edge applied research and the openness to international cooperation.

- The German education system **provides English run academic courses in nearly all fields**, where students can benefit from teaching enriched by the lecturers own experience in topical research and international networks
- The public and private sectors have made a significant commitment to spend around **three per cent of national GDP per year on R&D activity**. This amounted to approximately €79 billion R&D spending in 2012; two-third is spent by the private sector
- Germany's R&D landscape is characterised by a close cooperation between science and economy. It is based on the dense and decentralised network of **more than 420 universities**, technical colleges and universities of applied sciences.
- In worldwide comparison, Germany holds a unique position thanks to

strong research communities in basic and applied research.

There exist more than **300 non-university research institutions**, among which the institutes of the Max-Planck-Gesellschaft, the Helmholtz Gemeinschaft and the Fraunhofer Gesellschaft

- Key sectors of R&D in Germany are defined by the new **High-Tech Strategy which was published in 2014**, namely "Digital Economy and Society", "Sustainable Economy and Energy", "Innovative Workplace", "Healthy Living", "Intelligent Mobility" and "Civil Security". The new High-Tech Strategy stands for the aim of moving Germany forward on its way to becoming a worldwide innovation leader

Enhancing links between Singapore and Germany

A bilateral mobility programme funded by the German Federal Ministry of Education and Research and several Singaporean universities, research and funding institutions (such as the National University of Singapore, the Nanyang Technological University, the Temasek Life Sciences Laboratory, the Singapore Eye Research Institute, A*STAR and the Singapore Management University) was launched in 2012 with a second round in 2013.

For more information and enquiries

For the mobility programme:

In Germany:

Mr. Patrick Ziegler

Tel: +49 228 3821-1429

Email: patrick.ziegler@dlr.de

In Singapore (A*STAR)

Dr Ngee Chih FOO (Biomedical Research Council (BMRC))

Deputy Director

Email: foo_ngee_chih@a-star.edu.sg

Ms Jia Yee LIM (for the Science and Engineering Research Council (SERC))
Senior Officer

Email: Lim_Jia_Yee@a-star.edu.sg

Fraunhofer IDM Centre @ NTU:

Nanyang Technological University
Email: info@fraunhofer.sg

TUM CREATE:

TUM CREATE Limited

Tel: +65 6601 4015

Opportunities for Singaporean researchers

Apart from many German universities collaborating with universities, polytechnics and institutions in Singapore, some cooperation have gone a step further:

- **Fraunhofer IDM Centre @ NTU:**

This project centre for Interactive Digital Media (IDM) is operated jointly by Nanyang Technological University (NTU) and the Fraunhofer-Gesellschaft. Facilitated by the multi-agency Interactive Digital Media R&D Programme Office at Media Development Authority (MDA) and funded by the National Research Foundation, the centre fosters international research activities through its network of partner universities

- **CREATE-Programme:**

The Technical University Munich (TUM) has established itself in Singapore in 2002. In 2010, TUM joined the National Research Foundation funded CREATE programme, including the CREATE project on electro mobility for tropical megacities. In the joint centre with Nanyang Technological University (NTU), 40 faculty staff and over 80 PhD students are working on sustainable solutions for urban mobility in the future



Aerial view of the neighborhood where the project, Innovation City Ruhr, Bottrop Modellstadt, is implemented



The roof of the RWE future house (RWE-Zukunftshaus) with solar energy

Hungary



Where investment into research, development and innovation is profitable in the long-term



FGSZ staff member controlling the turbine of the compressor at the Hungarian-Croatian Interconnector Gas Pipeline compressor station.

In Hungary, from 1 January 2015, the **National Research, Development and Innovation Office** was established which is the legal successor of the former National Innovation Office. The aim of the new institution is to provide a stable institutional system for the governmental coordination of the Research, Development and Innovation sector and to execute the efficient and transparent use of the available resources

Why should you go to Hungary?

- R&D expenditure, proportional to the GDP, has grown by 30% since 2008 and reach the highest level of the last twenty years in 2013
- 47% of the RDI expenditures is spent by enterprises, nearly 36% is public expenses and almost 17% is foreign resources
- Every €5.9 million of R&D expenditure resulted in one international patent application
- In 2013, the total number of the researchers was 37,803, the proportion of the foreign researchers was 1.76%
- Hungary was the first among the newly joined members, in respect of the awarded grants and subsidies for the ERC between 2010 and 2012
- The R&D expenditure per researcher is the highest in the pharmaceutical sector
- In 2013, 3,159 R&D institutions were counted in Hungary

Key sectors:

Medicine manufacturing; Information and communication technologies; manufacturing of computers; electronic and optical products; vehicle manufacturing; manufacturing of electrics; professional, scientific, technological activities; financial and insurance activities.

In the framework of the Master Collaboration Agreement - which was signed between Singapore and Hungary in 2007 and which expired in 2012 - a successful professional cooperation was established between Hungary and Singapore in the following R&D fields: chemistry, pharmacology, nanotechnology, biomedical sciences, bioinformatics, systems biology, communication systems.

Hungary is fully open to future cooperation with Singapore in sectors across the Research, Development and Innovation fields.

**For more information and enquiries
Contact details to Hungary in Singapore:**

Embassy of Hungary in Singapore
250 North Bridge Road
#29-01 Raffles City Tower
Singapore 179101
Tel: +65 6883 0882
Fax: +65 6883 0177
Email: mission.sin@mfa.gov.hu

**Enhancing links between
Singapore and Hungary**

Campus Hungary Programme

The Campus Hungary Programme is executed with the financial support of the EU in the framework of the Social Renewal Operational Program (TÁMOP) of Hungary. From 2012, 9700 students and higher education employees gained scholarships to 92 countries of the world. Most of the applicants chose a European country of destination, however some of the fellows spent their scholarships **in Singapore. This is the only scholarship programme in Hungary which provides that the applicant can apply to any of the country of the world.** Students of all accredited Hungarian higher education institutions can apply for Campus Hungary scholarships if they have already finished two semesters, have an active student status, can fluently speak the language of the applied studies and have the approval of the host and sending institutions. The call of the Campus Hungary Programme was published on 15 December 2014 by the Balassi Institute.

🌐 <http://www.campushungary.org/>

Future: It is foreseen that the scholarship programme will have continuation, however at present there is not any further information about the future programme.

Opportunities for Singaporean researchers

ERASMUS+

2015 will be the first year in which it is possible for the Hungarian higher education institutions to establish institutional relationships and accomplish individual mobility (for students, PhD-students, teachers and staff) with Singapore in the framework of ERASMUS+

🌐 <http://tka.hu/english>



View of the banks of the Danube and Buda, from Pest



FGSZ staff member checking the cooling system

Ireland



A solid science base yielding strong economic and social impacts



CRANN (Centre for Research on Adaptive Nanostructures and Nanodevices) Institute, Trinity College Dublin.

The importance of investment in science, technology and innovation to Ireland's economic and social development has been well recognised by the Irish Government. In 2013, Ireland received a special mention from Nature Magazine, the eminent scientific publishing journal, as one of five **'Up and Coming' destinations for high-level research** based on the quality and quantity of scientific research being carried out in our research institutes.

Globally, Ireland is ranked:

- 1st in the world for the availability of skilled labour [Source: IMD World Competitiveness Yearbook]
- 11th in the Global Innovation Index 2014
- 13th for university-industry collaboration on R&D [Source: Global Competitiveness Report 2013-2014]

Ireland's scientific output is now of leading international quality in a number of areas:

- 1st in immunology;
- 1st in animal and dairy;
- 3rd in nanotechnology; and
- 4th in computer science. [Source: Thomson Reuters Essential Science Indicators]

Ireland is ranked 3rd in the EU, according to the "Indicator of Innovation Output" [Source: European Commission Innovation Union Scoreboard 2013], which measures the

extent to which ideas from innovative sectors are able to reach the market, providing better jobs and making Europe more competitive.

Why should you go to Ireland?

- Ireland has 7 universities, 14 institutes of technology, 32 research centres and 6 national research institutes
- The current focus of R&D in Ireland is built around six themes: ICT, health and medical technologies, sustainable food, energy, manufacturing and materials, innovation in services and business processes

Science Foundation Ireland

(SFI) is the national agency for funding excellent and impactful science, technology, engineering and mathematics research and promoting the role of science, technology, engineering and mathematics in Ireland. SFI combines the expertise of its highly qualified staff with rigorous international peer review standards to identify excellent research of potential strategic importance to Ireland. Through this approach Ireland is developing a leadership role in niche areas of research and innovation.

- Recently, 12 SFI Research Centres have been established involving a commitment of €355 million from SFI and €190 million from industry

The 12 centres will collaborate with over 200 companies and are focused on Ireland's priority research areas

- Researchers supported by SFI are working in over 900 collaborations with companies including 460 multinational companies and 461 SMEs
- SFI has built an impressive community of almost 3,000 researchers in Ireland's higher education institutes

Enhancing links between Singapore and Ireland

SFI is building strategic partnerships to perform cutting-edge scientific research. SFI research teams are globally connected, with over 2,500 research partnerships across 68 countries, including Singapore.

Full details of all SFI programmes can be found at www.sfi.ie.

Opportunities for Singaporean researchers

Each SFI programme has a variable funding level depending on the focus:

- **SFI Industry Fellowships**
The purpose of the Industry Fellowships Programme is to facilitate the placement of researchers in industry or academia to stimulate excellence through knowledge transfer and training. Fellowships will enable access for researchers to new technology

For more information and enquiries

Please visit www.sfi.ie to see all programmes and search SFI's Researcher Database of over 2,000 researchers by name, award type, year, institution, industry sector and/or scientific category.

For specific follow-up questions, please contact Ciara Cotter, Science Foundation Ireland:
Tel: +353 1 607 3249
Email: Ciara.Cotter@sfi.ie.

pathways and standards and will facilitate training in the use of specialist research infrastructure. Fellowships can be awarded to academic researchers wishing to spend time in industry worldwide or to individuals from industry anywhere in the world (**including Singapore**) wishing to spend time in an eligible Irish Research Body. Funding of up to €120,000 direct costs per Fellowship is available

• **SFI Partnerships**

The SFI Partnerships Scheme provides a flexible funding mechanism intended to support ambitious research projects of scale between industry and academia. The scheme provides an opportunity for industry to engage with world class academic researchers and have access to infrastructure and intellectual property using a shared risk funding model in which SFI matches the investment made by industry. A key feature of the Partnerships Scheme is the recognition that collaboration with industry must be responsive and flexible. Through the Competitive partnership Programme, SFI partners directly with industry to launch a competitive call for proposals to address key research priorities or challenges. The Strategic Partnership Programme supports more targeted collaborations between industry and academic research groups through a non-competitive, fast track, international peer-review process

• **SFI Research Centres**

These are world-leading, large-scale Research Centres consolidating research activities across higher education institutes to create a critical mass of **internationally leading researchers** in strategic areas which will lay the foundation for effective and productive academic and industrial partnerships. SFI Research Centres can receive €1.5 million a year in direct costs. SFI funds up to 70% of the overall Research Centre budget. A minimum of 30% of the budget must be secured from industry partners, at least one-third of which must be cash

• **SFI Research Centre Spokes**

The SFI Spokes Programme provides a mechanism to allow new industry partners to join the existing SFI Research Centres

• **SFI Academic Led Programmes**

Academic led programmes such as the SFI Investigators Programme address crucial research questions that expand educational projects and career opportunities in Ireland, in science and engineering and prepare the research community to lead and win in Horizon 2020 and other non-exchequer funding programmes.

SFI also has a range of programmes to attract leading researchers to Ireland at various career stages from early-career researchers to through to world-leading professors



Images from the Science Foundation Ireland (SFI) Research Centre, Marine Renewable Energy Ireland (MaREI).

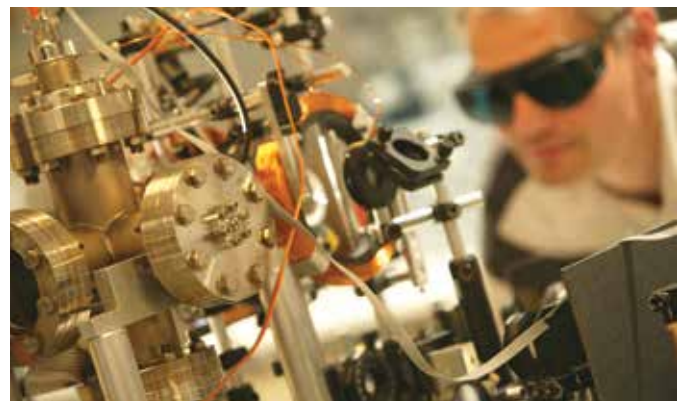


Image from Tyndall National Institute research.

Italy



At the forefront of Scientific Innovation with a long tradition of excellence in Research & Development



Interior view of the hangar's labs of the faculty of Industrial Engineering; Forlì, Italy.

In Italy, Research & Development is pursued not only by universities and public research institutes but, also by the central government and companies (both profit and non-profit), with national and international funding. A quick look at the data reveals that in 2011, the business and enterprise sector contributed 45% of total investment in R&D, followed by the government with 42%. The priorities and areas of intervention of the various research actors in Italy are determined, by the National Research System (Legislative Decree no. 204/1998).

In 2011, 348,215 people were employed in the research sector in Italy, over half of them as researchers. The majority worked in the private sector (44%, business enterprise) and in the universities (40%, higher education), while 13% of research employees were directly employed by the State (government). Further info can be found on the Ministry of Education, Universities and Research website here:
<https://www.researchitaly.it>

Why should you go to Italy?

Italy has a long tradition of University Research. More recently, Italy has created new Science and Technology hubs developing state-of-the-art research in bio-medicine, engineering and aerospace technology. Italy is also at the forefront of robot-technology research.

- There are **94** Higher Education R&D Center at Italian Universities; the complete list can be found here:
<https://www.researchitaly.it>
- Moreover, there are **12 National Institute for Research** in various sectors, the main one being: The Centro Nazionale delle Ricerche - CNR (National Research Centre)
- In Italy, in 2011 the R&D investment was equivalent to 1.25% of the country's GDP

According to the **Scientific and Disciplinary Sectors (SSD)** of the Ministry of Education, Universities and Research, there are a total of 370 scientific disciplines grouped into 14 distinct areas:

- Mathematical And Computer Sciences
- Physical Sciences
- Chemical Sciences
- Earth Sciences

- Biological Sciences
- Medical Sciences
- Agrarian and Veterinary Sciences
- Civil engineering and Architecture Science
- Industrial and Information engineering
- Antiquity, and Historical-artistic Sciences
- Historic, philosophical, pedagogical & Psychological Sciences
- Legal Sciences
- Economic Sciences and Statistics
- Political and social Sciences

Enhancing links between Singapore and Italy

The Bilateral Agreement for Cultural and Scientific Cooperation between Italy and Singapore renewed in 2012, clearly sets a series of Exchange Programmes for students, researchers and university professors, as well as government scholarships for undergraduates, graduates and doctoral students. The agreement also calls for exchange of speakers, scientists and specialists to participate in international conferences or joint programmes.

For more information and enquiries

Interested and prospective Researchers can contact the Italian Cultural Institute in Singapore at: Segreteria.iicsingapore@esteri.it

Istituto Italiano di Cultura

Italian Cultural Institute
43A Beach Road
Evershine & Century Complex
Singapore 189682
Tel. (+65) 6336 3705
www.iicsingapore.esteri.it

or the Italian Embassy in Singapore at:

Ambasciata d'Italia a Singapore

101 Thomson Road #27-02
United Square Singapore 307591
Tel: +65 62506022
Fax: +65 62533301

Opportunities for Singaporean researchers

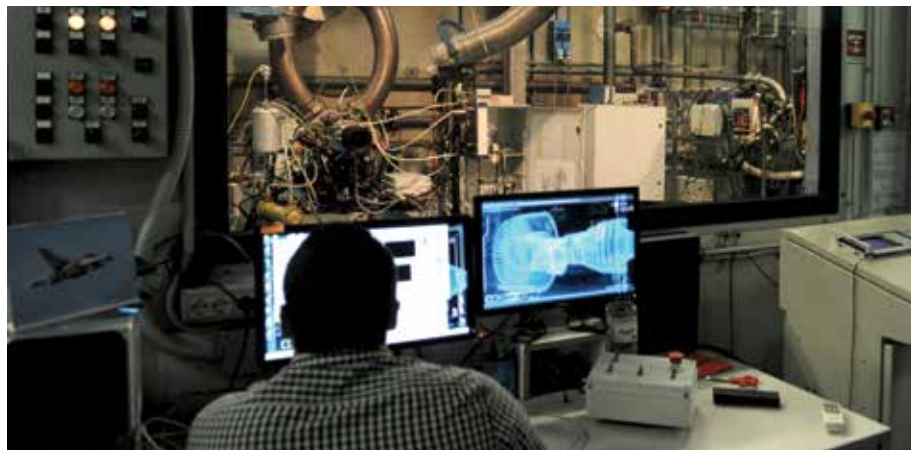
(As of January 2015)

- **Magna Grecia PST:** a centre for research on pollution in Taranto
- Rosetta mission, hunting for comets in the Solar System. (Italian Space Agency)
- **SPRINTT:** Italy leads the first European project to fight aging
- **Copernicus:** this is how a satellite "fleet" will study the Planet (Italian Space Agency)
- SISIFO seismic safety in school buildings
- **CO2MONITOR:** the development of innovative techniques for monitoring carbon dioxide (CO₂)
- **Food re-cycling:** European project NOSHAN to turn food waste into feed (In conjunction with Expo Milano 2015)
- **Italian Participation in 2015:** International Year of Light - an initiative promoted by the UN with the aim of telling about the impact of light and light-based technologies on our everyday lives and the future

Special research funding and programmes in Italy:

Several funding opportunities are available in Italy. Below, is just a short list of the most prominent government funding in specific sectors:

- Scientific Independence of young Researchers (SIR)
- Ordinary fund for research institutes and bodies (Fondo Ordinario per il finanziamento degli Enti e degli istituti di ricerca - FOE)
- Fund for investment in basic research (Fondo per gli Investimenti della Ricerca di Base - FIRB)
- Research subsidy fund (Fondo per le Agevolazioni alla Ricerca - FAR)
- Research projects of national interest (Progetti di Ricerca di Interesse Nazionale - PRIN)
- National Operative Programme (Programma operativo Nazionale - PON) for Research and Competitiveness 2007-2013



CICLOPE project (research and development, innovation, science in Forlì, Italy).

Poland



Dynamic growth of R&D investment and a large market of opportunities



The Polish higher education system began 650 years ago with the establishment of Jagiellonian University in Cracow, the second university in Central Europe. Today, there are 436 universities with 1.6 million of students. **The Polish higher education system offers over 200 first-rate fields of study as an integral part of the European Higher Education Area. Most higher education institutions offer their courses in foreign languages.** The high quality of science and IT education at Polish universities and technical universities is confirmed by the successes achieved by Polish students in such competitions as The Imagine Cup, Code Jam, Central European Programming Contest and University Rover Challenge. **Highly developed specialist personnel, a large number of scientific institutions and research centres, dynamic growth in R&D investments make Poland an attractive research destination.**

Why should you go to Poland?

In 2013, Poland devoted **more than €3.4 billion, almost 1% of its GDP, to Research and Development.**

The rate of investment in R&D has more than doubled since 2004 and continues to grow annually. The majority of the gross expenditure on R&D is funded by the government - 47.3% of the total R&D expenditure in 2013. However, the ratio of funding coming from the business sector is rapidly increasing and was 37.3% in 2013. It is expected that in 2014, business-funded R&D will account for more than 40% of total R&D expenditure.

- Poland has a highly educated workforce, stable economic growth and strong security of research
- **25% growth in the number of international researchers** from 2012 to 2013
- Poland is a prime location for international investment, **housing R&D centres of multinational giants such as:** Mc Kinsey & Co, Volkswagen, GlaxoSmithKline, Microsoft, Unilever, Roche, Siemens, Pratt&Whitney, IBM, Motorola, Google, Oracle and many others
- There are a large number of opportunities to get technological support for investment in fixed assets and training
- Science and technology parks facilitating the establishment and conducting of business and research activities
- Poland has large internal market and opportunities to cooperate with local companies and universities

R&D activity is growing in all sectors of the economy, however, the following sectors are particularly attractive in Poland:

- Aerospace
- Automotive
- Business services
- Electronics
- Machine industry
- Nanotechnology
- Pharmaceuticals
- Biotechnology
- IT and telecommunications

Enhancing links between Singapore and Poland

In October 2013, the National Centre for Research and Development (NCBR) and A*STAR signed a Memorandum of Understanding (MOU) on research and development and other scientific and technical cooperation in order to continue the successful collaboration between Poland and Singapore which commenced in 2005.

During the period from 2006 to 2011 three bilateral joint calls for proposals were announced and 21 joint R&D projects were selected:

- 1st edition (2006) - eight (8) joint projects in Materials, Chemicals and Intelligent Systems were funded
- 2nd edition (2007) - ten (10) joint projects in Information Technologies and Energy were funded
- 3rd edition (2011) - three (3) joint projects in Disruptive technologies and Security in cyberspace were funded and are still being implemented

For more information and enquiries

- National Centre for Research and Development
<http://www.ncbr.gov.pl/en/>
- Portal on studying in Poland, includes information on doctoral programmes: Go! Poland
www.go-poland.pl
- National Science Centre NCN:
Contact: <http://www.ncn.gov.pl>
- Euraxess Poland
<http://www.euraxess.pl>
- Embassy of the Republic of Poland
435 Orchard Road, Wisma Atria, #03-27/28,
Wisma Atria,
Singapore 238877
Tel: +65 6235 9478

Opportunities for Singaporean researchers

The Memorandum of Understanding between NCBR and A*STAR envisages co-operative programmes, as well as R&D activities aimed at the implementation of joint scientific projects, technology transfers, commercialisation of research deliverables and manpower training and staff exchange. **In particular, the focus will be on collaborative research projects chosen within joint grant calls for proposals as well as exchange of scientific and technical personnel and information.**

Researchers from Singapore

Researchers from Singapore have the possibility to take part in Polish research projects awarded in calls for proposal announced by NCBR and the National Science Centre.

NCBR is the implementing agency of the Ministry of Science and Higher Education tasked with the management and execution of strategic R&D programmes which translate directly into innovation developments.

- Individuals can participate in the calls as members of the project team in Polish research institutions

- Institutions - as partners in a scientific consortium (in this case the expenses of partner institutions from Singapore should be secured by themselves)

National Science Centre (NCN)

is a government executive agency that supports basic research by funding research projects carried out by individual researchers and research teams, both on the domestic and international level, as well as doctoral fellowships and post-doctoral internships.

- NCN announces calls for proposals four times a year
- The NCN grantee must be employed at a Polish host institution

Students exchange programmes between:

- National University of Singapore (NUS) and Cracow University of Technology, Jagiellonian University, Warsaw School of Economic, Warsaw University of Technology
- Nanyang Technological University (NTU) and Warsaw University of Technology
- Singapore Management University (SMU) and University of Economics in Katowice, Kozminski University, Warsaw School of Economics



Growing R&D market: in 2013, R&D activities were conducted in Poland by 3,122 entities of which 2,467 were enterprises. Photo: Fotolia.com

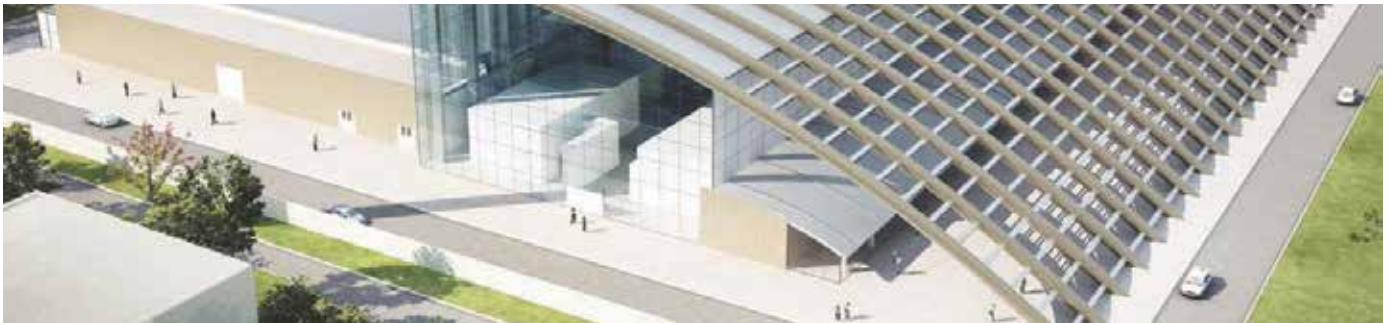


According to Central and Eastern Europe Development Institute, the Polish cities of Warsaw, Wrocław and Cracow are the largest regional innovation clusters in terms of employment of scientists and engineers. Photo: Fotolia.com

Romania



Increased private investment transforming RDI System



Magurele High-Tech Cluster (MHTC) is a cross sectorial EU co-financed project developing applications of nuclear physics, lasers and related areas.

Since 2007, the year of Romania's accession to the EU, multi-annual planning under the 2007-2013 National Research, Development and Innovation (RDI) Strategy and the National RDI Plan for the period 2007-2013 boosted the new priorities of the Romanian research agenda, in correlation with the EU research objectives.

The new RDI Strategy 2014-2020 proposes: a stimulating environment for private sector initiative (e.g., venture capital, credit guarantees, full implementation of tax deductions), a spectrum of instruments in support of smart specialisation (e.g., RDI projects for different phases from ideas to market, long term public-private projects, commercialization support, tech transfer infrastructure), activation of public demand, integration of the fundamental research into international communities, and institutional RDI funding based on performance (including universities, which do not have special research funding at the moment).



Roboscan 2M Aeria is an aircraft inspection tool closing the gap in aviation security by scanning in minutes the entire aircraft without crew or passengers on board. It won the 2013 Grand Prix at the Geneva International Exhibition of Inventions.

Why should you go to Romania?

In 2013 Romania spent €560 million for RDI activity. Public sources represent almost half of all funding followed by companies with 31%. The Romanian research system consists of 265 public RDI organisations, 56 of which are universities. A set of policies has been developed in the last years to make the Romanian RDI system more open and transparent.

Opportunities for Singaporean researchers

- In 2011, Romania **opened its research grants to international researchers (EU and non-EU)**
- The programmes dedicated **to human resources in research under National Plan 2 have been opened to international researchers** (e.g. Ideas - Exploratory Research projects; Human Resources - Young teams and Postdoctoral research and Partnerships - Collaborative project and applied research)
- Massive support for doctoral and post-doctoral schools was possible through the Sectoral Operational Programme 'Development of Human Resources' by supporting 12,000 PhDs and 2,000 Post-docs until 2013

- **International citizens coming to Romania for the purpose of conducting scientific research can apply for a Scientific Visa (under Directive 2005/71/EC) if they are staying for more than three months**

- The Euraxess Romania portal (www.euraxess.gov.ro) supports Romanian and international researchers to find a research job in Romania, provides information regarding the procedures for obtaining visas, residence and labour permits, provides information on taxation of research activities and the regime of intellectual property rights in Romania

International researchers are allowed to apply to national funding programmes:

- To acknowledge the talent of human resources working on RDI and to foster their career development and mobility
- To foster excellence in RDI and business leadership
- To foster RDI activities to face global societal challenges

For more information and enquiries

- The National Agency for Scientific Research www.ancs.ro
- Romanian Embassy Singapore singapore@mae.ro

Spain



Fostering R&D to tackle global societal challenges



CENER (Centro Nacional de Energías Renovables. Sarriguren). Photographer: Herrera/Kominek. Copyright: ICEX

The Spanish Science, Technology and Innovation Strategy (2013-2020) framework structures and coordinates the national and regional policies. The strategy aims to coordinate the Research, Development and Innovation policies of the Spanish national and regional bodies with the European Union, to define a stable framework that allows a structured funding plan, to foster the accountability of the administrative bodies and to incorporate the gender perspective in the public policies. The objectives of the Strategy are:

- To acknowledge the talent of human resources working on RDI and to foster their career development and mobility
- To foster excellence in RDI and business leadership
- To foster RDI activities to face global societal challenges

Why should you go to Spain?

The State Science, Technology and Innovation Plan (2013-2016) is the framework that enables a simultaneous, continuous approach to the design of actions to foster and coordinate the RDI process.

- Over 1% of Spanish GDP was devoted to R&D, with over 45% of funding from private companies
- Spain has 82 universities
- Spain has 537 research institutions
- Over 20% of Spanish doctoral students are international
- In 2012, Spain published 82,895 papers, 20,448 (24.6%) in the field of Medicine, 8,343 (10%) in the field of Biochemistry and 5,975 (7.2%) in the field of ICTs

The Spanish Science, Technology and Innovation Strategy identifies **8 key challenges** for RDI:

1. Health, demographic change and well being
2. Food security and quality, productive and sustainable agriculture, sustainability of natural resources, marine, maritime and interior water research
3. Energy, security and efficient and sustainable energetic models
4. Intelligent, sustainable and integrated transport
5. Action on climate, resources efficiency and raw materials

6. Social changes and innovation
7. Digital economy and society
8. Security and freedom protection

Opportunities for Singaporean researchers

- In the last years, Spain is developing a number of laws for international researchers, students, and entrepreneurs in the country for them to have a fast way to get a scientific visa. The different options available to get a scientific or student visa can be found here:

🌐 <http://goo.gl/94kdXZ>

- There is also a number of laws designed to foster R&D investment in the private sector, that can be of interest for those thinking on investing in Spain

🌐 <http://goo.gl/SCUold>

- In general terms, there is a positive fiscal treatment for companies investing in R&D, discounts in social security for those hiring researchers and incentives to foster transfer of knowledge and technology

- Spain has certified centers of excellence (Centro Severo Ochoa) that are internationally competitive and attractive for junior and senior researchers

For more information:

🌐 <http://goo.gl/PMIEto>

For more information and enquiries
Embassy of Spain in Singapore:
www.exteriores.gob.es/embajadas/singapur



The company Light Environment Control (LEC), located in Spain, became the first company in Europe to light an entire city with LED technology.



LED technology.

- **Ramón Y Cajal Contracts** is for national and foreign researchers with an outstanding research career who have obtained a PhD between 1 January 2004 and 1 July 2012. They have incorporated three types of funding: (1) grants for recruitment; (2) grants for covering expenses directly related to the performing of its research activities and (3) grants for subsequent incorporation in a permanent post at the end of the maximum five-year period established

Contact address

Sub directorate General of Human Resources for Research:
ramonycajal@mineco.es

- **"Torres Quevedo" Contracts**

Duration 3 years

No. grants 200

Estimated cost €15,000,000

Recipients

Doctors who wish to be employed by companies, including Technology-based Companies and Young Innovative Companies (YICs), Technology Centres, Support Centres for Technological Innovation, Business Associations and other business entities that perform R&D+I to develop experimental and innovation research projects

Description

Grants for permanent contracts for doctors in the private sector in order to: (i) promote the capacity to perform experimental and innovation research projects; (ii) encourage the incorporation of highly qualified staff in the private sector to perform scientific-technical and innovation activities; and (iii) support the consolidation and development of technology-based start-ups

Characteristics of the grant

The amount of the grants will be determined in accordance with the eligible budget, the type of project and the type of company, since it is necessary to take into account the maximum net intensity established by the new recently

passed EU regulations on State Grants. However, the annual eligible budget will only cover gross annual remuneration equal to or over €18,000, and may not exceed €55,000. The grants must cofund the salary and the employer's contribution to Social Security for the researchers recruited

Contact address

Subdirectorato General of Human Resources for Research
torresquevedo@mineco.es

For more information on these grants:

<http://goo.gl/1ovgY5>

- **Institució Catalana de Recerca i Estudis Avançats (ICREA)** is a foundation promoted by the Regional Government of Catalonia. ICREA, through a selection process based on scientific talent, recruits researchers from all over the world
For more information:
<http://goo.gl/M8yusY>

- **Basque Foundation for Science (IKERBASQUE)** is the organisation to strengthen science in the Basque Country through programmes to attract and recruit researchers and to dynamise research, in cooperation with research centres and universities, while remaining committed to excellence
For more information:
<http://goo.gl/LGdDCF>

Sweden

Inventing tomorrow's world!



Simon Paulin/imagebank.sweden.se

Many of the world's important inventions originate in Sweden, and the rapid pace of innovation shows no sign of slowing down.

The Swedish government continues to invest more than ever in research and innovation. Sweden's history of recognising and rewarding achievement in research, excellence and innovation is reflected in its status as the home of the Nobel Prize: Sweden itself has produced twenty-nine Nobel Laureates since establishing the prize in 1895.

Sweden's science infrastructure is world-class and the synergies generated by the close connection between Swedish universities, research institutes and the private sector further leverage the R&D output. Not only is Sweden home to the largest number of multinational companies per

capita, but it also serves as a base for tomorrow's emerging industries. The Global Innovation Index 2014 (GII) ranks Sweden as the 3rd most innovative country in world.

- The historic tradition of inventors, a commitment to gender equality, and a strong belief in the individual are key factors for Sweden maintaining its place as one of the world leaders in research and innovation
- Close collaboration between research institutes and the private and public sectors provides a foundation for global Swedish companies and investing in the companies of tomorrow
- Swedish R&D -expenditure totals about 3.5% of GDP on average, keeping Sweden topped ranked among the OECD countries. Medicine and bioscience, technology, and climate are examples of areas where Sweden has made strategic investments to build up the cutting edge research of today
- Sweden offers over fifty universities and university-colleges
- A Swedish national innovation strategy launched in 2012 to further enhance the Swedish innovation climate and innovation capacity, with year 2020 in sight

For more information:

🌐 <http://www.government.se/sb/d/2025/a/202558>

Why should you go to Sweden?

- An innovative and competitive economy
- Sweden has a long and proud history of academic excellence, with outstanding universities dating back to the 15th century
- Excellent research infrastructure with continuous investments in cutting edge facilities, including Science for Life Laboratory (SciLifeLab) and the MAX IV Laboratory
- Higher education and research quality is among the best in the world
- Open and international climate where influences and competences come together, creating new ideas and solutions
- Swedish society is known for its inclusiveness and egalitarianism
- Close cooperation between industry and academia facilitates innovation, a home of trendsetters and early adopters, encouraging new ideas and critical thinking



Photo: Ola Ericson/imagebank.sweden.se
The Nobel Prizes were a bequest from the Swedish scientist, inventor, entrepreneur and pacifist Alfred Nobel, to honour those who "have conferred the greatest benefit on mankind".

For more information and enquiries

The Swedish Research Council:

www.vr.se

- The Swedish Research Council:
www.vr.se
- Vinnova:
www.vinnova.se
- Formas:
www.formas.se
- Forte:
www.forte.se
- Sweden.se - The official gateway to Sweden:
www.sweden.se/eng/
- Nationwide Swedish research website:
www.forskning.se
- The Swedish Foundation for Strategic Research: www.stratresearch.se/en/
- The Swedish Agency for Economic and Regional Growth:
www.growthanalysis.se/en/
- Official website of the Nobel Foundation:
www.nobelprize.org/
- The Swedish Space Corporation:
www.ssc.se



Photo: Sofia Sabel/imagebank.sweden.se
Kuggen (The Cog) is Chalmers new center for innovation and entrepreneurship. It is in itself an innovation, with creative and sustainable solutions throughout the building.



Photo: Lars Lundberg/imagebank.sweden.se
The cardiac pacemaker has been implanted in more than 3.5 million people. The first clinical implantation into a human of a fully implantable pacemaker was in 1958 at the Karolinska Institute in Solna, Sweden.

Enhancing links between Singapore and Sweden

To further promote exchanges in the fields of education, research and innovation between Singapore and Sweden, a bilateral agreement was signed by the Swedish Minister of Education and Singapore's Minister of Education 2010.

The close partnership between Singaporean and Swedish universities regarding student exchange, as well as other forms of research and academic collaborations will continue to be of a high priority. Bilateral student exchanges are extensive and more than 400 Singaporeans study in Sweden every year.

Opportunities for Singaporean researchers

The National University of Singapore (NUS), Nanyang Technological University (NTU) and Singapore Management University (SMU) have signed MOUs, academic and research collaboration agreements and student exchange agreements with more than twenty Swedish institutions. Swedish Universities have collaborated with NUS and NTU to launch several joint degree programmes. Several joint PHD programmes have also been established between the universities.

Research linkages between Singapore and Sweden are strong with ample opportunities for Singaporean researchers. Examples of collaborations include:

- A consortium consisting of KI, NUS and A*STAR's Genome Institute of Singapore is working on a Breast Cancer Research Programme. A*STAR also has graduate training tie-ups with Swedish institutes
- Centre for Biomimetic Sensor Science (CBSS): In 2009, NTU, Linköping University (LiU) Sweden and Austrian Institute of Technology

together launched the Centre for Biomimetic Sensor Science (CBSS) in NTU, which focuses on development of next generation biosensors. It also aims to establish strong links to industrial partners active in the diagnostic and analytical sectors

- Lab-on-a-chip: NTU's VALENS (Centre of Excellence for Bio-Instrumentation, Devices and Signal Processing), under the Division of Microelectronics, School of Electrical & Electronic Engineering (EEE), collaborates with Lund on a project entitled "Lab-on-a-chip". The CRP has a funding of S\$7.5million from the Environment & Water Industry (EWI)
- The NUS College in Stockholm, established in May 2005, is a partnership with the Royal Institute of Technology (KTH). It is the first, and currently the only, NOC that is established in Europe. With the success of the NCST, NUS and KTH signed a Memorandum of Understanding in May 2010 for KTH to set up a similar entrepreneurship programme with NUS. Called "KTH iLEAD" (innovative Local Enterprise Achievement Development)

General information:

- Funding opportunities are offered by the Swedish Research Council, Vinnova, Formas and Forte, open for all applicants including international researchers.

🌐 *For more information see links:*

- www.vr.se
- www.vinnova.se
- www.formas.se
- www.forte.se

Switzerland



A top global player in Research and Development



Rolex Learning Center, Federal Institute of Technology Lausanne (EPFL).

Switzerland offers a very dynamic, conducive as well as competitive education and research landscape, as testified by 27 Nobel Prize winners. The first Swiss University was founded in 1460 in Basel and today the country offers outstanding higher education in two Swiss Federal Institutes of Technology (ETH Zurich and EPFL), ten cantonal Universities and eight Universities of Applied Sciences. **The ETH Zurich ranks 1st in continental Europe, the 12th worldwide** (Times Higher Education World University Ranking 2014).

- **One of the highest** spending on R&D in relation to the gross domestic product
- The private sector bears the cost of over two-thirds of Swiss R&D expenditure, which currently amounts to nearly **3% of GDP**, or around CHF 16 billion
- Public research funding hinges mainly on the **proactive work of researchers, the principle of competition and international cooperation**
- Key sectors: pharmaceuticals, biotechnology, micro and nanotechnology, engineering, environmental technologies as well as finance, design, luxury and hospitality
- Universities: 42.5% of **international** staff
- Universities of Applied Sciences: 20.6% of **international** staff

Why should you go to Switzerland?

- **A very Qualitative Educational System**
 - Switzerland is one of the world's leading investors in education
 - 7 globally top-ranked Universities
 - Highest percentage in the world of students educated at a top university
 - World's highest national knowledge output (the number of scientific papers published in proportion to the country's total population)
 - The World's highest national knowledge output for patents
- **An Innovative and Competitive Economy**
 - Switzerland ranks at the top of the Innovation Union Scoreboard (European Union)
 - In the Global Competitiveness Report 2014 - 2015, it tops the list of all of the countries assessed, even higher than the USA and Singapore
 - The unemployment rate rarely exceeds 4%
 - The education institutions have strong ties with the industry to have an adequate number of skilled workers and managers

• Excellent Conditions for Innovation

- Outstanding scientific reputation
- Dynamic high-tech sector
- First-rate universities
- Strong protection of intellectual property

• Political Stability

- Founded in 1848, Switzerland is a confederation built on democratic principles, characterised by political balance and decentralised power

• An Outstanding Quality of Life and Personal Safety

- In Mercer's Quality of Living Survey, an international comparison of 350 cities compiled in 2014, Zurich ranked second and Bern, Switzerland's capital city, ranked thirteenth



The Globe of Science and Innovation, CERN (European Council for Nuclear Research).

For more information and enquiries

In Switzerland:

- State Secretariat for Education, Research and innovation (SERI)
www.sbf.admin.ch
- Swiss National Science Foundation FNRS
www.fnrs.be
- National Centres of Competence in Research (NCCRs)
www.fnrs.be
- The Commission for Technology and Innovation (CTI)
www.kti.admin.ch
- swissnex
www.swissnex.org
- Swiss Coordination Center for Research in Education (SCCRE)
www.skbf-csre.ch

In Singapore

- swissnex Singapore
www.swissnexsingapore.org
- Singapore-ETH Centre (SEC)
www.futurecities.ethz.ch
- The St.Gallen Institute
www.singapore.unisg.ch

Enhancing links between Singapore and Switzerland

- Research cooperation and academic connections between Switzerland, Singapore and the region are nurtured since 2004 by **swissnex Singapore**, a platform of the Embassy of Switzerland focusing on science, education, art and innovation

- **Bilateral programmes of State Secretariat for Education, Research and innovation (SERI)**

ETH Zurich is the Leading House for the Swiss bilateral research programme for China, Japan and South Korea. From 2013–2016, the mandate of SERI has been expanded to cover exploratory activities in additional Asia-Pacific countries with promising potential for future research collaboration

- **The Singapore-ETH Centre (SEC)**

was established in Singapore in 2010, as a collaboration between the National Research Foundation of Singapore and ETH Zurich

- **The University of St. Gallen**

opened its Singapore hub, St. Gallen Institute of Management in Asia (SGI) in March 2012

Opportunities for Singaporean researchers**Programme name:**

Swiss Government Excellence Scholarships

Description of programme:

The Swiss government, through the Federal Commission for Scholarships for Foreign Students (FCS), awards various postgraduate scholarships to foreign scholars and researchers. These scholarships provide graduates

from all fields with the opportunity

to pursue **doctoral or postdoctoral research** in Switzerland at one of the public universities, federal institutes of technology, as well as universities of applied sciences

Link where to get more information:

www.sbf.admin.ch

Contact:

admin@swissnexsingapore.org

PhD Programmes:**Programme name:**

Future Resilient Systems (FRS)

Description of programme:

'Future Resilient Systems' (FRS) is a cross-disciplinary research programme by the Singapore-ETH Centre (SEC), bringing together Switzerland-based ETH Zurich and Paul Scherrer Institute, with Singapore-based National University of Singapore, Nanyang Technological University and Singapore Management University to jointly explore approaches enabling critical infrastructure systems to become more robust and resilient

Where to get more information:

frs.ethz.ch

Joint Programmes:**The Swiss Federal Institute of Technology Lausanne (EPFL) and The Agency for Science, Technology and Research (A*STAR)**

In 2012, EPFL and A*STAR of Singapore signed an agreement that enables collaboration between the two institutions at the doctoral level. Young researchers in life sciences, engineering, physics and mathematics have the possibility to complete half of their courses at the partner research facility



Monte Rosa Hut, environmentally-friendly building, designed by the ETH Zurich to mark their 150th Anniversary.

The Netherlands



A long and strong tradition of deploying innovative projects around the world



Floating Pavilion in Rotterdam. Source: Claire Droppert, Rotterdam Image Bank

The Netherlands has created a number of globally relevant and competitive technological top institutes (strategic partnerships between companies, research institutes and universities) and programmes in innovation and R&D.

- The Netherlands is ranked 5th in the 2014 Global Innovation Index
- The QS World University Rankings® 2014/15 includes 13 universities in the Netherlands, all ranked within the world's top 400, and an impressive six in the global top 100
- The nation's highest ranking institution is the University of Amsterdam, at 50th in the world, with Leiden University and Utrecht University, at 75th and 80th respectively
- Top 30 ranking of Dutch Most Intensive R&D Companies are: Philips, Shell and Unilever
- Nearly 2% of GDP is devoted to R&D
- 39 government-funded universities of applied sciences; 14 government-funded universities; 8 University Medical Centers; 3 Institutes for International Education
- The group of international scientists amongst university staff is about 1/3
- The number of foreign PhD researchers is high; almost 50%
- In 2012-2013 Holland hosted 90,500 international students

Why should you go to the Netherlands?

Why Study?

- Although Dutch is the national language, most people also speak English (almost 90%) and often another foreign language, such as German or French
- Holland offers more than 2,100 English-taught study programs and courses
- The Netherlands is the birth place of Nobel Prize winners, daring philosophers, groundbreaking artists and scientists
- Students are continuously encouraged to come up with creative and innovative ideas, to think beyond conventional solutions and methodologies
- Dutch society is strongly connected to other cultures, the world and the business community. This means that as a student you will take part in international classes
- The Dutch teaching style is interactive and student-centred. It focuses on teamwork, which makes it easy to meet other international students. Studying in Holland means developing an open mind and increasing your international orientation

Why invest?

- The Netherlands is the sixteenth largest economy in the world
- The Netherlands is one of the 10 leading exporting nations
- The Netherlands is also 2nd largest exporters of agricultural products in the world (one-fifth of all Dutch exports are food products and flowers)
- Industry and research institutes/universities share a wealth of knowledge and jointly develop innovations
- The transition to a bio based economy is an important theme for The Netherlands to stimulate innovation and economic growth
- 9 key sectors of excellence and government priority: Water, High Tech, Life Sciences and Health, Agri-food, Energy, Horticulture, Logistics, Chemicals and Creative Industry. Please have a look at www.hollandtrade.com

For more information and enquiries

Contact information in Singapore:
Netherlands Office for Science and Technology
at the Embassy of the Kingdom of the
Netherlands in Singapore.
Email: singapore@ianetwerk.nl

Contact information in the Netherlands:

www.grantfinder.nl
www.hollandalumni.nl
www.hollandtrade.com
www.nuffic.nl
www.studyfinder.nl
www.studyinholland.nl

Enhancing links between Singapore and the Netherlands

- **National University of Singapore (NUS) and Deltares**

A knowledge-intensive alliance between the National University of Singapore (NUS) and leading Dutch applied research institute Deltares. NUSDeltares focuses on Urban Water Management, Climate Adaptation and High Density Living from catchment to coast

- **Nanyang Technology University (NTU) and Wageningen University**

The Food Science and Technology (FST) Major as a Second Major Programme is a collaboration between NTU and the Wageningen University (WUR) from the Netherlands. The programme focuses on education and research on the topics of tastier, healthier and more nutritious food to combat malnutrition and increase shelf life to reduce food waste

- **National University of Singapore (NUS) and Utrecht University Medical Centre (Utrecht UMC)**

Dutch Utrecht UMC collaborates with NUS Yong Loo Lin School of Medicine and NUS Saw Swee Hock School of Public Health to enable exchange of scientific, academic and technical information and two-way exchange of students, faculty, researchers and administrators. In addition, Utrecht UMC is collaborating with DUKE-NUS medical school to bridge the gap between research and commercialisation

- **Agency for Science and Technology (A*STAR) and University of Twente**

A collaboration between A*STAR and the Mesa+ Institute for Nanotechnology of the Dutch University of Twente enables outstanding PhD students to follow part of their PhD studies in Singapore and the Netherlands

Opportunities for Singaporean researchers

For scholarship programs, refer to the following website

 www.grantfinder.nl



Cold storage of tulip supply. Source: FloraHolland



Philips Ambient Experience Catheterization Lab. Source: Philips

The United Kingdom



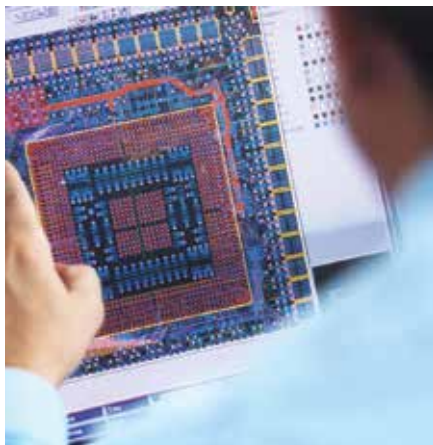
Leader in international cooperation and research productivity



A core part of the UK's Industrial Strategy is supporting technologies where its science strengths and business capabilities combine.

The United Kingdom has over 150 universities carrying out different combinations of teaching and research, including **29 of the top 200 universities in the world, including 4 in the top 6**. It is the **4th largest global producer of PhDs** (over 21,000) and has **3.9% of global total of researchers** including **123 Nobel Prize Laureates**.

- **World leader in research productivity**, with less than 1% of global population and 4.1% of the world's researchers, the UK produces 9.5% of article downloads, 11.6% of citations and 15.9% of the world's most highly-cited articles



UK is working with researchers and industry to foster world class technology capability.

- **Highly diverse research environment**, as 32% of all doctoral students in the UK come from outside the EU, while approx 40% of researchers in the UK are non-UK nationals
- The government's **Industrial Strategy** supports technologies where our science strengths and business capabilities combine
- The UK ranked **2nd in the WIPO Global Innovation Index** in 2014
- Between 2000-2008, nearly one third of productivity growth was attributable to changes in technology and other forms of innovation
- Areas where the UK has world-leading research, a range of applications across a spectrum of industries and the potential to be at the forefront of commercialisation, known as **"The Eight Great Technologies"**:
 - big data and energy-efficient computing
 - satellites and commercial applications of space
 - robotics and autonomous systems
 - synthetic biology

- regenerative medicine
- agri-science
- advanced materials and nanotechnology
- energy and its storage

Why should you go to the United Kingdom?

- The University of Cambridge, Imperial College London and the University of Oxford **have 3 of the top 5 of the world's most highly-regarded university-based entrepreneurial environments**
- The UK universities have a strong track record of **higher skills development** and highly sought after in the global market
- UK universities and research institutes have a significant impact on the UK economy, contributing £3.4 billion in 2012 through **commercialisation of new knowledge, delivery of professional training and consultancy**

For more information and enquiriesWebsite: <http://tinyurl.com/ukinsingaporeSIN>

Tel: +65 6424 4322

Email: SEAsiaSI@fco.gov.uk

(Statistics and information from:

<http://tinyurl.com/nu6makn>)**Enhancing links between Singapore and the United Kingdom**

The new **UK-Singapore Innovation and Research Partnership**, signed by the Prime Ministers of the UK and Singapore, was announced during President Tony Tan state visit to UK in October 2014. It is a joint commitment to leverage both nations' investment in research and innovation to drive economic growth and societal impact. <http://tinyurl.com/mpln3m6>

Opportunities for Singaporean researchers

Key collaborations in Singapore include:

- **The Photonics Institute** - Nanyang Technological University (NTU) in conjunction with the University of Southampton launched the S\$100 million institute in October 2014 as a partnership between NTU and the Optoelectronics Research Centre at Southampton
- **Lee Kong Chian School of Medicine** - a joint medical school established as a partnership between Imperial College and NTU. In January 2015, a foundation stone laying was conducted by President Tony Tan at the new Clinical Sciences Building which is expected to be completed in 2016
- **Cambridge Centre for Energy Efficiency in Singapore (CARES)** - based at NRF's CREATE facility the centre hosts research collaborations between the University of Cambridge, NTU, National University of Singapore (NUS) and industrial partners
- **Rolls-Royce@NTU Corporate Lab** - the joint investment of S\$75 million with National Research Foundation and NTU will focus on electrical power and control systems, manufacturing and repair technologies and computational engineering
- **IHPC-SMMI Joint Lab** - collaboration opened in March 2014 will provide for joint R&D in Maritime and Offshore Engineering between Southampton's Marine and Maritime Institute (SMMI) and A*STAR's Institute of High Performance Computing (IHPC)
- **Lloyd's Register Singapore Global Technology Centre** - a joint project between Lloyd's Register and A*STAR, with wider collaboration, the GTC focuses on energy and marine sectors, advancing technical innovation in industry and supporting economic growth
- **Saw Swee Hock School of Public Health** - there has been close collaboration between the NUS and the London School of Hygiene and Tropical Medicine in establishing this new school of public health with a regional remit



UK universities have a strong track record of higher skills development.



4 British institutions are ranked in the top six in the 2014 QS Ranking of world universities.

THE EUROPEAN UNION



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EUROPEAN UNION

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