

Brazil Ireland

Partners in Excellence

Parceiros em Excelência

12-13 April 2018



#BrazilIrelandResearch

Brazil Ireland Research Event - Rio 2018

Background

Brazil and Ireland academic collaboration

In **2010**, the Irish Government published its first international education strategy entitled “**Investing in Global Relationships**” with the aim to make Ireland a world class location for international higher education. Brazil was identified as one of the key partner countries for this endeavour and in **2011** the conclusion of a Memorandum of Understanding between both countries opened doors to building an active higher education, teaching and research relationship.

One year later, the visit of the Irish President, Michael D. Higgins to Brazil and the approval of Ireland as one of the destinations for the Science without Borders programme represented the first step towards a strong academic collaboration. In **2013**, Ireland welcomed over 1,100 students under the scheme. By the end of the programme in August **2016**, approximately 3,500 Brazilian students at undergraduate and graduate level had experienced the Irish higher education system and Ireland had become one of the most popular destinations for Brazilian students under the programme.

Given the success of the Brazil-Ireland partnership and the very positive experience under the Science without Borders programme, Ireland hosted the first Research Brazil Ireland (RBI) event in **2015**. The **1st Brazil-Ireland Science Week** welcomed a group of Brazilian researchers to Ireland for a three-day conference funded as part of a two-year programme by Science Foundation Ireland (SFI).

The **Brazil Ireland Research Event** brought together over 100 researchers from both countries to build on the foundation laid at the 2015 meeting and the partnerships created under that International Strategic Co-operation Award (ISCA) SFI initiative. With contributions from CAPES*; FAPERJ*; FAPESP*; EMBRAPII*; CNPq* and EURAXESS, the Irish Higher Education Authority (HEA), the Irish Research Council (IRC), the Irish University Association (IUA), the Technological Higher Education Association (THEA) and the Irish Embassy in Brazil, among the objectives were the following:

- To demonstrate to the Brazilian higher education sector and federal/state agencies that Ireland intends to be a **long-term partner**;
- To advance existing research collaborations and establish new **projects of co-operation** in line with the objectives of the Irish and Brazilian Governments’ International Education Strategies;
- To commence the process of concluding an **MOU with key research funding agencies** in Brazil;
- To build on the success of SWB and RBI (SFI investment) by facilitating the **dialogue** between existing and new Brazil-Ireland Research partners;
- To **advance the research agenda** of the sector and meet international objectives under the Irish Government’s International Education Strategy and IRC’s International Engagement Strategy;
- To **strengthen the research alliance** with Brazil as a priority country;
- To agree a **communications network** (virtual and physical) appropriately supported to enable Irish and Brazilian researchers to continue to share information and ideas.

* **Brazilian funding agencies**

- CAPES - Coordination of Improvement of Higher Level Personnel
- FAPERJ - Research Support Foundation of the State of Rio de Janeiro
- FAPESP - Research Support Foundation of the State of São Paulo
- EMBRAPII - Brazilian Agency for Industrial Research and Innovation
- CNPq - National Council for Scientific and Technological Development



Understanding the Research Funding Landscape in Brazil and Ireland/Europe

Understanding the research funding landscape in partner countries has proven essential for international collaboration. National priorities and policies shape the present and future of research in each particular country, and determine how available funding for research is to be spent.

The first session of the Brazil Ireland Research Event programme was designed with the objective of allowing participants to have a greater insight of the research funding landscape in Brazil, Ireland and Europe, and with a better understanding of priorities and funding opportunities, reshape long lasting partnerships and work on new co-operation pathways.

Facilitated by Dr Maria de Sousa Gallagher, Senior Lecturer at University College Cork, representatives from funding agencies in Brazil, Ireland and Europe initiated the discussions towards the strengthening of the Brazil-Ireland research alliance.

Europe:

Charlotte Grawitz
EURAXESS

The agency provides free information and support services for European funding opportunities in both Brazil and Ireland

Marie Skłodowska-Curie Actions (MSCA)

Geographical, intersectoral and interdisciplinary mobility. All areas and all nationalities

Opportunities for Brazilian and Irish researchers or resident in either one of the countries to:

- Carry out a PhD
- Carry out a post doc
- Institutions can take part in a joint research and innovation project

European Research Council (ERC)

provides support for cutting-edge research for individuals

EURAXESS - Researchers in motion

is a European Commission initiative to remove the barriers to brain circulation.

Brazil:

Marcelo M. Morales
CNPq

Brazilian National Strategy on Science, Technology and Innovation amongst other targets, aim at the reduction of the scientific and technological gap between Brazil and more developed nations

The National Council for Scientific and Technological Development (CNPq) recognises the increased impact of research when carried out under international co-operation and have ongoing programmes and actions to foster and expand the frontiers of knowledge in Brazil

Over 80,000 scholarships and 8,400 research projects were funded by the agency in 2017.

Denise Neddermeyer
Embrapii

Mission: to foster innovation of products and processes in Brazil through RD&I projects with industry

42 Embrapii Units co-funding R&D projects initiated by Industrial Companies, which have to cover at least 1/3 of the cost of their projects. Embrapii funded projects are usually in the following fields:

- Internet of Things
- Mechanics and Manufacturing
- Medical, Hospital and Lab Equipment

Volvo; Whirlpool; GE Oil & Gas; Samsung; Toshiba; Epson and HP are among the many Embrapii industrial partners

Ireland:

Peter Brown
Irish Research Council

The Irish Research Council (IRC) funds excellent research across all disciplines and career stages

The IRC International Engagement Strategy, which includes the establishment of strategic relationships with international research funders and councils, may support future collaboration between Brazil and Ireland

Other Irish Research Funding agencies:

- Health Research Board;
- Science Foundation Ireland;
- and Enterprise Ireland

Ireland has established 17 world leading SFI Research Centres and a Technology Gateway Network funded by Enterprise Ireland building and deepening industry research partnerships



L-R: Charlotte Grawitz (EURAXESS), Marcelo M. Morales (CNPq), Denise Neddermeyer (EMBRAPII) and Peter Brown (IRC) presenting at the first session of the event

Dialogue between Researchers

During the event in Rio de Janeiro, attendees broke into groups of Irish and Brazilian colleagues to offer responses to three key questions posed:



1. What are the opportunities for collaboration in the thematic areas listed?

Responding to the question, attendees agreed that there was great value in **building clusters** of researchers drawn from Ireland and Brazil. In so doing the partners are **creating a nexus** in many priority areas that can lead to mutually beneficial outcomes. Partnerships between the two countries could lead not only to expanded knowledge in many fields but could have significant social impact in areas like public health improvements.

All fields of academic endeavour are appropriate to the partnership and of particular relevance might be the areas of regenerative medicine, STEM, Sustainable Agriculture and Food Security. But activity need not be confined to those areas - collaborations are also worth pursuing in the areas of ICT, linguistics, Irish studies, teacher education, social media studies and international relations.

National research agenda were seen as complementary and similar and should offer very useful guidance in terms of framing discussions and research pathways.

It was felt that **international collaborations** perform another very useful function in that they **challenge the existing research eco-systems to robustly examine systems, practices and perceptions.**

There was widespread agreement that **exposing young PhD/Post-Doctoral students to international co-authorship and other collaborative learning experiences was a vital part of the creation of excellent researchers and to enhancing the standing of research as a career path.**

The fact that Ireland and Brazil bring two international languages to partnerships was seen as a significant plus – opening findings to wider research and teaching communities.

The **establishment of a Brazil Ireland network** was also seen as a very useful tool to support researchers when they seek to engage and/or visit either country.



2. What makes a successful partnership?

Face-to-face meetings were seen as essential to creating research partnerships and building the levels of confidence and trust that are essential to excellent collaborations.

Meetings of this nature also **help embed relationships at not just the individual level but are expressions of institutional support for joint research activities.** Face to face meetings help build understanding and are part of the professional development of researchers who wish to have international collaborations.

These events aid communication, understanding and help embed rigorous ongoing evaluation in projects. The inclusion of good monitoring systems from the outset was seen as a best practice.

There was also broad agreement that complementarity of expertise in research teams is a key requirement as well as strong institutional support.

There was agreement that institution heads need to demonstrate more formal recognition for those who are active in the international teaching, research and education areas.

3. What are the barriers to success?

The single most challenging barrier is the **lack of sufficient funds to sustain ongoing partnerships and to help forge new ones.**

A level of sustainability was seen as essential as successful partnership formation takes time and effort.

Partners have little difficulty in signing memoranda of agreement but inertia can ensue if there isn't meaningful follow-up. There is also a **need to create effective communications platforms** to maintain connectivity once contacts have been established.

Some challenges may occur in the area of protecting/sharing intellectual property rights. Language difference was not seen as hugely problematic but there was a concern that **overly bureaucratic systems of collaboration can be discouraging.**

The session **“Illustrating new knowledge, joint publications and mobility”** showcased successful Brazil-Ireland research collaborations in four different thematic areas: Bioscience, Environment, Humanities and Information Communication Technology

A Brazil-Ireland Platform for the Development of Metal-Based Therapeutics

*Professor Michael Devereux
(Dublin Institute of Technology)*

Collaboration initiated in 2005 by Brazilian partner interested in joint publication in the field.

Key collaborators include 6 Brazilian and 4 Irish institutions. The collaboration effectively aligned the research questions to priority agendas for both countries. Mobility and face-to-face meetings have been critical to developing the collaboration.



A Brazilian Student's Experience of Science and Culture

Ms Larissa Macêdo Cruz (Universidade Federal do Sergipe and University College Cork)

During a Science without Borders Research internship in UCC, student carried out a Hydrogeology research project comparing the Inequality of Water Distribution in Brazil and the abundant water resources in Ireland, with special focus on the Kiltorcan Sandstone Aquifer. Partial results were presented in Brazil and the concepts learnt in Ireland can now be used in the improvement of water management in Brazil.



Humanities matter! The value of Language(s)

*Dr Máiréad Moriarty
(University of Limerick)*

Humanities are not an aesthetic luxury, as amongst other things, they create problem solvers, graduates that are culturally and globally aware and have a sense of collective responsibility. The linguistic realities of Brazil and Ireland are similar as in both countries the official language regimes do not represent the linguistic reality. There are possibilities for Brazilian and Irish research in Applied Linguistics.



FUTEBOL

Where optical meets wireless

*Dr Raquel Harper
(CONNECT/ Trinity College Dublin)*

Federal Union of Telecommunications Research Facilities for an EU-Brazil Open Laboratory

Under the EU-Brazil S&T co-operation call, the €3m research project co-ordinated by TCD and UFRGS will facilitate the co-design of wireless and optical network resource management through experimentation. The project has already generated 52 publications, 13 joint publications, industry-facing workshops and audience reach of over 13,000 people.

Poster Exhibition and Networking Opportunities



Academics and Researchers had the freedom to navigate around the approximately 50 posters exhibited during the event.

The poster exhibition allowed for Brazilian and Irish colleagues to showcase their research and projects, and to access information on other projects of similar or complementary interest. Morning break, lunch and closing reception were key opportunities for networking, for discussion about the research funding landscape presentations and the possibilities of research collaborations between Brazil and Ireland.



Future Research Partnerships

Facilitated by Dr Paul Fanning, Associate Professor and UCD Deputy Vice President for Global Engagement, the closing session allowed Brazilian and Irish colleagues to focus on the possible funding sources currently available in Ireland and Brazil for institutions to build on ongoing and new collaborations.

Ireland and Erasmus+

Gerry O'Sullivan (HEA)

Irish Government Funded Actions

- Government of Ireland Academic Mobility: available for Irish higher education staff wishing to start collaborations with partners outside Ireland. Travel costs and a daily rate is offered to participants. Next Call due in second half of 2018.

- Government of Ireland International Education Scholarships: one-year study at any cycle for non-EU/EEA students. Scholarship of €10,000 plus full fee waiver. Next call due in last quarter of 2018.

European Union - Erasmus+

- Key Action 107 - International Credit Mobility under the Latin America window. Allows for short-term studies or traineeships and staff visits between both countries.

- Erasmus Mundus Joint Master Degrees: involvement of 3 European higher education institutions

- Capacity Building for Higher Education: help modernise higher education institutions in Partner countries, to ensure structural, long-lasting impact

- Jean Monnet activities: focus on European studies to promote excellence in teaching and research.

FAPESP

Luiz Nunes Oliveira

The State of São Paulo in Brazil is home for 22% of the Brazilian population and is responsible for 32% of the National GDP. 38% of the PhD theses published in Brazil are from higher education institutions in the state of Sao Paulo.

FAPESP, the funding agency from the State of Sao Paulo supports research in all fields of knowledge and has a secure and annual fund that corresponds to 1% of the State's revenue.

The agency is open for proposals and new agreements with higher education institutions and other funding agencies in Ireland for joint research and publications.

Types of awards issued by the agency include Young Investigators Awards and PhD Fellowships.

CAPES/PRInt

Cyntia Sandes Oliveira (CAPES)

The promotion of International scientific co-operation is part of CAPES' mission for the internationalisation of postgraduate education in Brazil.

Capex/PRInt is part of the Internationalisation strategy and is at institutional level based on the concept that " **One size does not fit all**". A call has been issued by CAPES and support will be provided to those Brazilian higher education institutions that can demonstrate how their institutional plan aligns with national policies for internationalisation of postgraduate programmes. Main activities should attract foreign students, teachers and researchers with international experience for periods of activities in Brazil.

Co-funding from partner institutions abroad is essential for the execution of the activities.

CAPES also has other actions in the areas of Program of Excellence; postgraduate development in the Legal Amazon Region; Evaluation of current programmes; search for international partners; innovation in undergraduate education.



L-R: Gerry O'Sullivan (HEA), Ambassador Brian Glynn, Cyntia Sandes Oliveira (CAPES), Luiz Nunes Oliveira (FAPESP) and Paul Fanning (University College Dublin)



The Brazil Ireland Research Event was honoured to welcome the attendance of representatives from FAUBAI. Current President of FAUBAI, Dr Maria Leonor Alves Maia and Renée Zicman (below left) actively participated in the sessions and shared their experience in international co-operation in Brazil. Former President of FAUBAI, Professor José Celso Freire (below right) closed the event commenting on the state-of-play of collaboration between Brazil and Ireland and strongly encouraged more research partnerships between both countries in the future.



FAUBAI, the Brazilian Association for International Education hosts an annual Internationalisation and Research conference in Brazil. FAUBAI aims to promote the improvement of exchange programmes and international co-operation as a means to improve teaching and research, and to stimulate the continuous improvement of the management of international exchange and co-operation in Brazilian higher education.





"A message from one of the participants has already arrived: to support the optimism you and I share and to fuel my enthusiasm with the future of this project."

Professor Luiz Nunes de Oliveira (FAPESP)



"I am very positive that this has helped to build many potential collaborations."
Dr Maria Jose Sousa-Gallagher (University College Cork)



*"I want to congratulate HEA/IRC on an excellent event. It certainly brought Ireland to the **forefront** for opportunities in Brazilian academic joint research."*

Professor Laura P. Z. Izarra (Universidade de São Paulo)





"FAPESP welcomes the opportunity offered to Professor Luiz Nunes to make a presentation to key researchers from Ireland. We are looking forward to increased research collaboration between scientists in the state of São Paulo and their colleagues in Ireland."

**Professor Carlos Henrique de Brito Cruz
(FAPESP)**



"I was very pleased with the meeting. Brazil offers a tremendous platform for research collaboration and although the current Brazilian economy has created challenges I believe that sustaining working links between the two jurisdictions is worthy as the progress achieved to date will reap mutual benefits as things continue to settle. The salient points were considered and discussed constructively at the meeting and I commend all in the HEA and the Embassy for their efforts in organising the event."

**Professor Michael Devereux
(Dublin Institute of Technology)**

A word from the co-organisers:



"In recent years, strong links have been developed between Irish and Brazilian universities and research institutions, particularly under the Science Without Borders programme when approximately 3,500 students, from more than 100 Brazilian universities, studied in Ireland. We value these links and are eager to work to deepen our relationships with Brazilian partners. Following the success of Science Without Borders, I am excited by the potential for increased collaboration between the higher education and research sectors of our two countries, something that will undoubtedly be facilitated by the presence of so many researchers from both countries at this event."

Irish Ambassador to Brazil - His Excellency Brian Glynn

"The Rio de Janeiro event was the largest gathering of higher education personnel from Ireland to convene in a Latin American country – an outcome from Ireland's participation in Science without Borders when we became the "surprise" partner country. A high level of trust and agreement now exists between the various actors in both countries and despite the vast difference in size, Ireland is regarded as a partner that delivers on its commitments and has much to share in terms of building research and teaching collaborations with the Brazilian higher education sector to advance shared objectives in all areas."



Gerry O'Sullivan - Higher Education Authority



"It was very clear from the event that talent and ideas are strong features of the research communities in both countries, and there is a clear commitment and enthusiasm at both researcher and policy level to further develop collaboration between Brazil and Ireland. The Irish Research Council has launched its first international engagement strategy, and this will provide a framework through which the Council will actively support the cultivation of closer ties between the research eco-systems of both countries."

Peter Brown - Irish Research Council

"The Irish Universities Association welcomed the opportunity for higher education institutions in Ireland and Brazil to connect. The event provided a platform for advanced Irish university partnerships to connect and new partnerships to flourish. Participants at the event concluded that they were well informed by the presentations on the Brazilian research landscape and opportunities to engage. Participants were very positive about the event as a networking vehicle to enable world class collaboration in basic and applied research between Brazilian and Irish Universities."

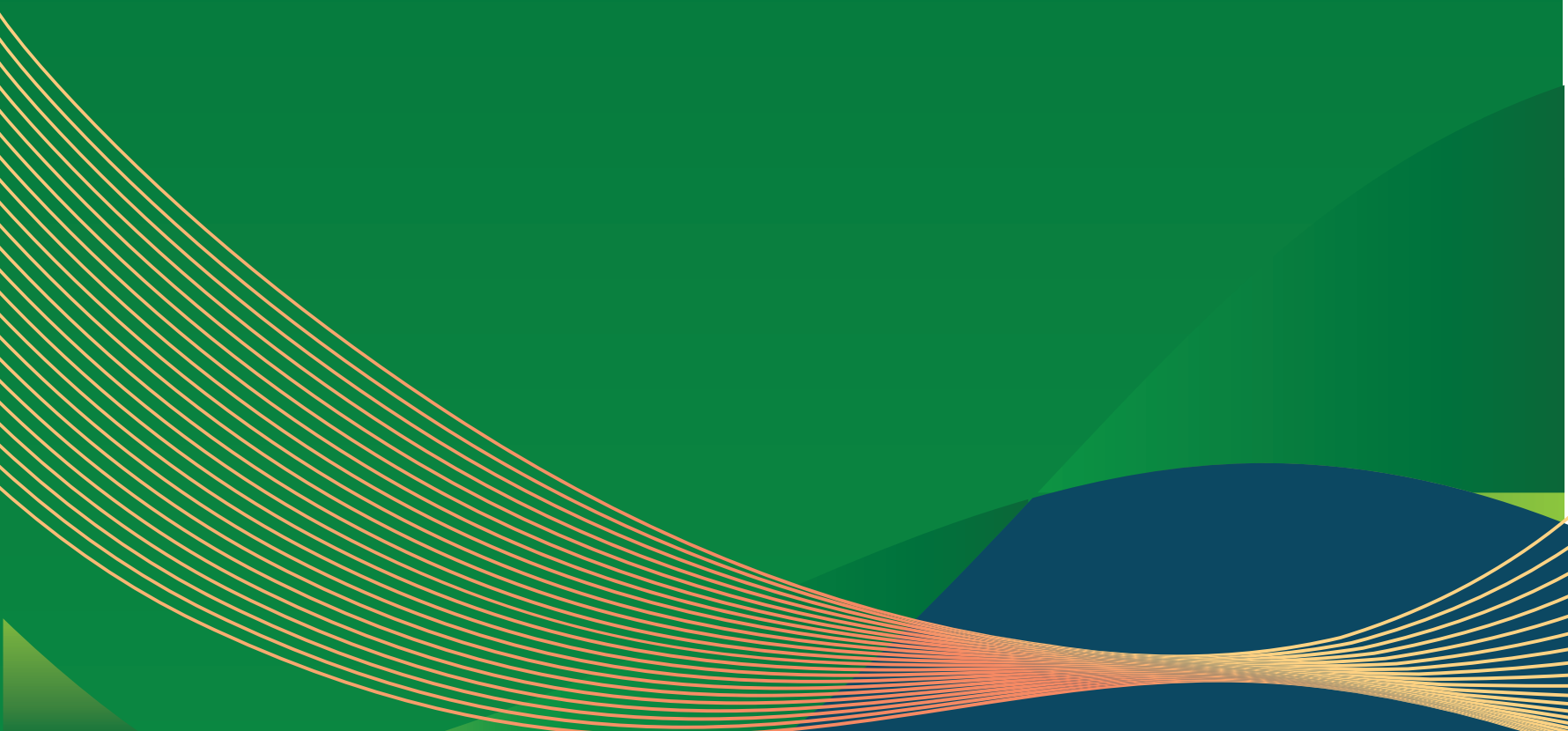


Sinéad Lucey - Irish Universities Association



"Our participating institutes of technology made very useful contacts at the event and have already reported follow up actions and concrete tangible outcomes. We have a significant objective to enhance our collective profile in Brazil, especially in the areas of applied and industry focused research which is of interest to the Brazilian HEIs, and would welcome any opportunity that might arise."

Miriam Ryan - Technological Higher Education Association



#BrazilIrelandResearch

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