



Workshop on Strategic Actions for Engineering Teaching and Research EMC-UFSC

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Fundação de Amparo à Pesquisa e Inovação de SC

... the main purposes are to support and promote science, technology and innovation to increase the knowledge aiming regional stability, sustainable development and a better quality of life for the people (of SC).



Supporting research and innovation

- **Public calls**
- **Spontaneous demand**

State interest or organized sectors of society projects (not individuals).

Some areas of Interest

➤ Healthy cities: water-food-energy Nexus, wastes, mobility, automotive emissions, safety, infectious neglected diseases...

➤ Animal protein production chain, solid waste, animal health tracking...



➤ Raw materials (renewable sources), new products, energy, environment ...

➤ (High) technology transfer.

National Council for State Funding Agencies

- CONFAP
Established in **2006**.
- FAPs in **26** Federation Units (except Roraima).
- Total budget **600** million Euros/year.



Main Activities:

- Board Member of the most important R&D&I organizations.
- New legislation (EC 85, PL2177 and PLC77).
- National and international partnership.

Strainings: Capilarity, wide spectrum, knowledge of the field, close control and funds raizing.

International partnerships

- United Kingdom (Newton Fund)
- France (IT)
- Germany
- Ireland (Mobility)*
- USA (Nanotech + B&MGF)
- Russia (Basic Sciences)*
- European Union (Horizon 2020)*

* *Recent agreements (less than 1 year)*

Newton Fund

- UK investment on research, innovation, mobility and researchers exchange through collaboration with 15 partner countries.

Activities are in three broad areas:

- **People:** increasing capacity building for science and innovation in partner countries.

Research: research collaborations on development topics.

Translation strands: creating collaborative solutions to development challenges and strengthening **innovation systems.**

Newton Fund in the world

- Research, innovation, mobility and researchers exchange
- 5 years, £ 375 million, 15 emerging countries



The Newton Fund in Brazil

- CONFAP: first Brazilian partner (April 2014)
- 25 FAPs signed agreements with UK Partners: RCUK, MRC, ESRC, BBSRC, British Council and UK Academies
 - Brazil £27 to 45 million

(Royal Society, British Academy, Academy of Medical Sciences and Royal Academy of Engineering)

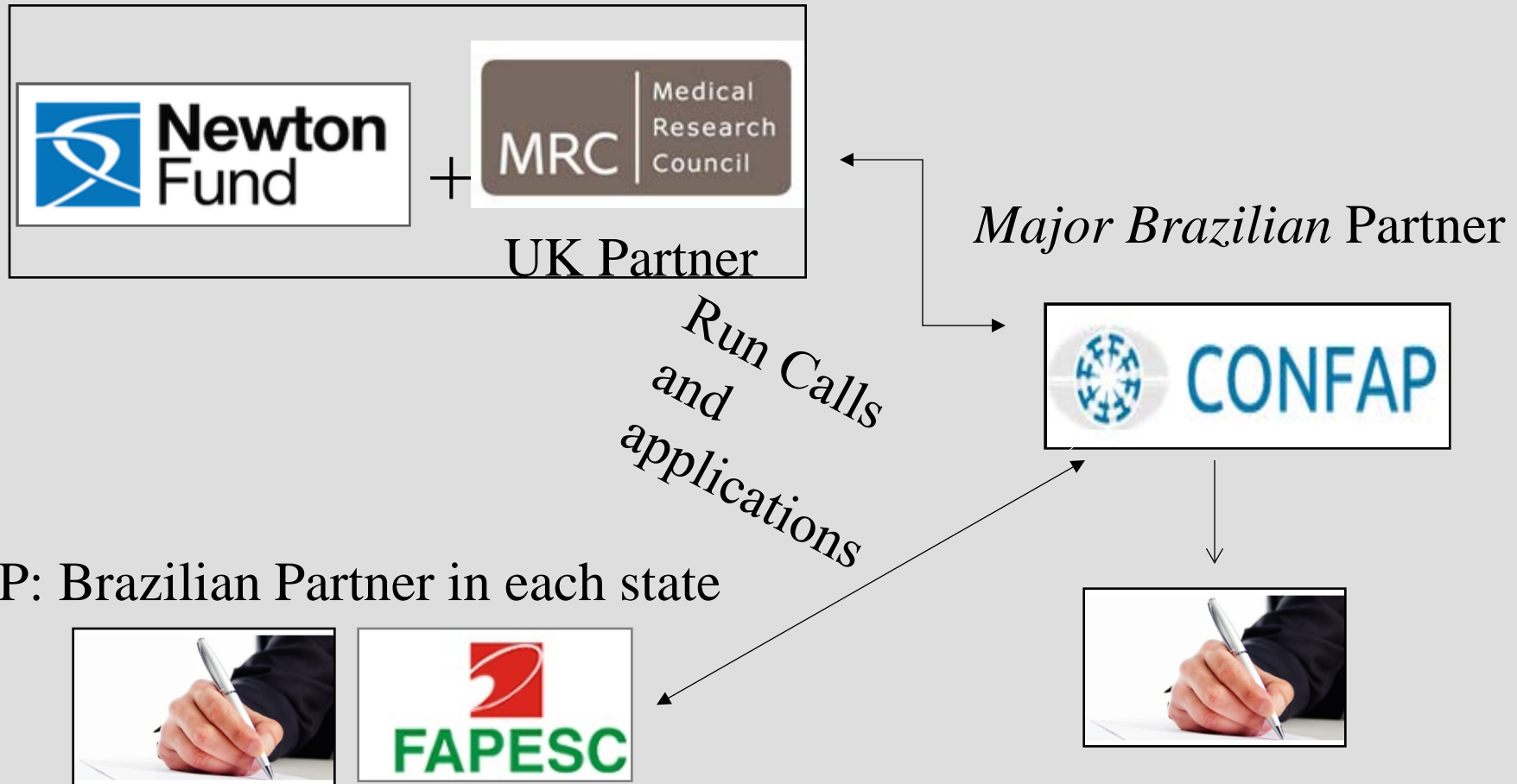
Newton Fund activities need to demonstrate that they are aiming to further:

- Sustainable Development
- Reduction in Poverty
- Welfare of the population of Newton Fund collaborating countries.

UK Partners



Operation Model



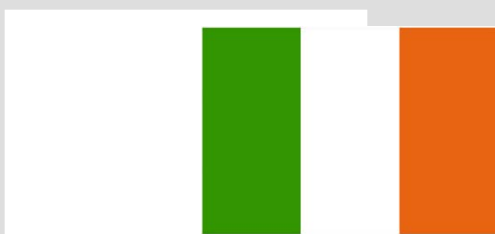
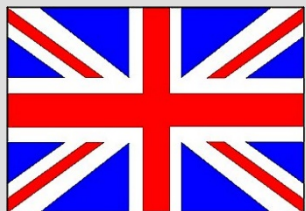
FAP: Brazilian Partner in each state



- Subscribe the agreement and disseminates the calls for researchers and institutions.
- Fund the proposals approved by 50% payment.

Subscribe the agreement for each call and disseminates these calls for all FAPs

FAP partners



Parceiros Internacionais do CONFAP

FAP		Parceiros						
		Reino Unido			França		EUA	Irlanda
		Governo do Reino Unido	Conselho Britânico	Acadêmias Britânicas	INRIA	CNRS	FBMG	SFI
1	FAPAC							
2	FAPEAM							
3	FAPEAP							
4	FAPESPA							
5	FAPERO							
6	FAPEMAT							
7	FUNDECT							
8	FAPEG							
9	FAPDF							
10	FAPEMA							
11	FAPEPI							
12	FUNCAP							
13	FAPERN							
14	FAPESQ							
15	FACEPE							
16	FAPEAL							
17	FAPITEC							
18	FAPESB							
19	FAPES							
20	FAPERJ							
21	FAPEMIG							
22	FAPESP							
23	Fundação Araucária							
24	FAPESC							
25	FAPERGS							
TOTAL		24 FAPs	25 FAPs	25 FAPs	5 FAPs	3 FAPs	15 FAPs	15 FAPs

- First Research Partnerships Call in Brazil in 2014: 300 proposals received, 71 approved
- 5 projects from SC were funded
- Until 2016, UK and Brazil will have invested £ 27 million in joint programs

Success in Brazil

- Researcher Links 2015: 48 proposals
(largest amount worldwide)
- Positive results have led to the extension
of the funding until 2018



FAPESC Perspectives (with UK)

- First public call for innovation: SENAI
- It will support enterprises with projects about water, solid waste and low carbon energy.

CONFAP INVESTMENTS - NEWTON FUND PROGRAMME

YEAR		BRITISH PARTNER	PROGRAMME	FAPs INVOLVED	NUMBER OF PROPOSALS GRANTED	INVESTMENT IN POUNDS
1	2014/2015	RCUK	JOINT RESEARCH PROJECTS	15	71 (5)	3.022.100,66
	2014/2015	UK ACADEMIES	FELLOWSHIP	4	4 (2)	304.871,60
	2014/2015	UK ACADEMIES	MOBILITY	9	26 (2)	127.231,41
	2014/2015	BRITISH COUNCIL	RESEARCHER LINKS	3	3	99.000,00
TOTAL INVESTMENT FROM CONFAP IN POUNDS					104	3.553.203,67

CONFAP INVESTMENTS - NEWTON FUND PROGRAMME

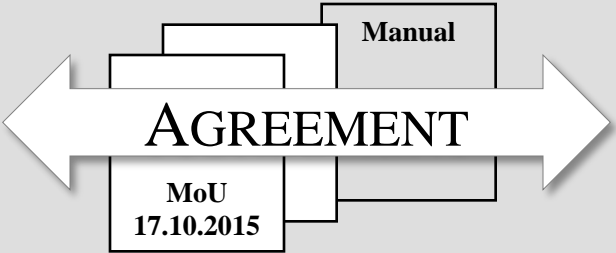
YEAR		BRITISH PARTNER	PROGRAMME	FAPs INVOLVED	PROPOSALS	INVESTMENT IN POUNDS
2	2016/2018	MRC-ESRC	JOINT RESEARCH PROJECTS	16	Up to 01/07	2.200.000,00
	2016/2018	ESRC-MRC-AHRC	JOINT RESEARCH PROJECTS	16 (1)	Up to 02/07	3.750.000,00
	2016/2018	BBSRC-NERC	JOINT RESEARCH PROJECTS	15 (2)	Up to 22/07	3.500.000,00
	2015/2016	BRITISH COUNCIL	RESEARCHER LINKS	16 (1)	Up to 13/07	750.000,00
	2015/2016	BRITISH COUNCIL	RESEARCHER CONNECT	17	Up to 16/06	168.000,00
TOTAL INVESTMENT FROM CONFAP IN POUNDS **						10.368.000,00

- In August, FAPs signed the second agreement to the Horizon 2020, general MoU signed in 2014.
- One call open for Brazilian researchers:
Biofuels 10 million Euros
(FAPs 5 mi + MCTI 5 mi)

- CONFAP: ready to cooperate involving all the 26 FAP
- FAPESC: agreement between Berlin and SC

Cooperation between Ecosystems

**Berlin-
Brandenburg
State**



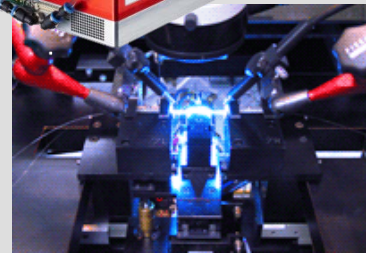
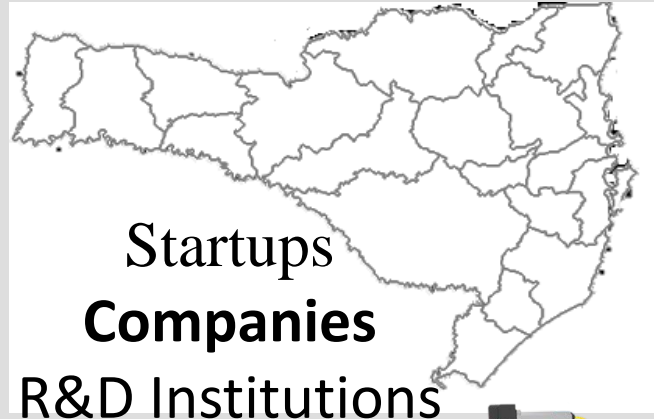
**Santa Catarina
State**

R&D Institutions
Companies
Startups



**Optical
Technologies:**
Photonics
Laser and Lighting
Biomedical Optics
Optical
Communication
Optical Analytics
Sensors and
Measurement
Systems

Startups
Companies
R&D Institutions



Innovative Product Development

R&D Institutions

BB Company

Idea &
Funding

SC Company

R&D Institutions

Usual Inputs:

- Components
- Modules
- Technology
- Market
- Funding

Cooperative Project:

**INNOVATIVE
SOLUTION/PRODUCT/PROCESS**

Usual Inputs:

- Product under:
 - Development
 - Upgrade
- Technology
- Funding
- Market

Brazilian Market

Global Market

German Market

Thank you!

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Vista da FAPESC

FAPESC INVESTMENTS IN NEWTON FUND 2014/2015

Call	Project	Institution	UK	Amount (pounds)
Research Partners Call RCUK/CONFAP	The effects of tetrathiomolybdate, a donator of hydrogen sulfide, in animal models of brain ischaemia (MRC)	UNESC	University College London	76.000,00
	Membrane material testing and modelling for urban transformation, sustainability and efficiency (EPSRC)	UDESC	Newcastle University	52.780,00
	Continuous plankton monitoring in southern Brazilian waters: composition and distribution of plankton in the fishing area of Brazilian Bight (NERC)	UNIVALI	SAHFOS	46.520,00
	Comparing community size patterns and food web structure at different trophic states in temperate and sub-tropical freshwater systems (NERC)	UFSC	University of Roehampton	76.794,26
	Links 2015 -Linkages between energy, food and water consumption for Brazil in the context of climate change mitigation strategies (EPSRC).	UNISUL	University of Cambridge	94.560,00

FAPESC INVESTMENTS IN NEWTON FUND 2015/2016

Call	Project	Brazil/SC Institution	UK Institution
Researcher Connect - Workshops	UDESC Host - Researcher Connect	UDESC	British Council
MRC Negligenced Infectious Diseases	How does type one interferon restrict Dengue infection?	UFSC	University of Cambridge
Healthy Urban Living and the Social Science of the Food-Water-Energy Nexus	Connectivity and Healthy Cities in the Context of the Florianópolis Metropolitan Region	UFSC	University of Cambridge
Healthy Urban Living and the Social Science of the Food-Water-Energy Nexus	BRIDGE - Building Resilience In a Dynamic Global Economy: Complexity across scales in the Brazilian Food-Water-Energy Nexus	UNISUL	University of Cambridge
Researcher Links Workshops Grants April 2015	Social Technology Solutions to Postnatal Health Care in Brazil	UFSC	Queens University Belfast

FAPESC INVESTMENTS IN NEWTON FUND 2015/2016

Call	Project	Brazil/ SC Institution	UK Institution
BC-CONFAP Researcher Links Workshops Grants April 2016	Community-based Sustainable Energy: Combining wireless systems, smart micro-generation and education	UFSC	Coventry University
Newton Advanced Fellowships	SUMOylation: novel neuroprotective approach for Alzheimer's disease?	UFSC	University of Bristol
Newton Advanced Fellowships	Translating Children's Narrative: A Corpus-based Study	UFSC	University of Birmingham
Newton Mobility Grants	Investigating the habits of shoppers when they do or don't buy healthful foods	UFSC	Queen's University Belfast
Newton Mobility Grants	Breaking down barriers and improving quality of life for wheelchair users	UNIVALI	University of Brighton



Project Funding Options

BB Company

R&D Institution

Cooperative

Project
Brazilian
Funding

SC Company

R&D Institution

FAPESC

Encourage to innovative
cooperation schema

Sebraetec

Subvention to small businesses

Tecnova

Subvention to small and
medium size businesses

**Support by
Concessionary
Companies**

ANEEL, ANP, ...

**BNDES / BRDE /
FINEP**

Loan for Innovation

CVentures

Venture capital

**German Brazilian
Funding for
Innovation**

ZIM / MDIC

Joint declaration of Intent

- Main areas: life sciences, biomedicine, energy, environment, innovation, bioeconomics, social sciences, oceanography.
- Also exchange of graduate students and researchers (mobility).



First public call

- BMWi offers public funding through ZIM (Central Innovation Program for Small and Medium-sized Enterprises)
- MDIC will fund companies through BNDES and SEBRAE (+ EMBRAPII)



Federal Ministry
for Economic Affairs
and Energy

First public call

Deadline for submissions: Oct 30, 2016

- Final results: Feb 28, 2016



Federal Ministry
for Economic Affairs
and Energy