# Brazil: science and technology for the national development

Glaucius Oliva

President

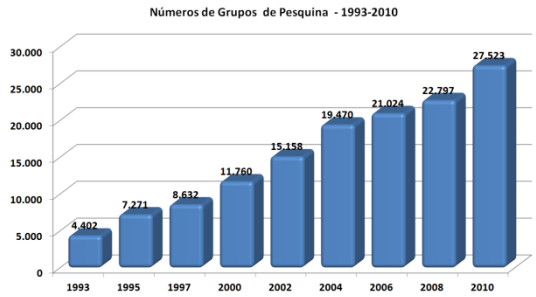
Brazilian National Council for Scientific and Technological Development

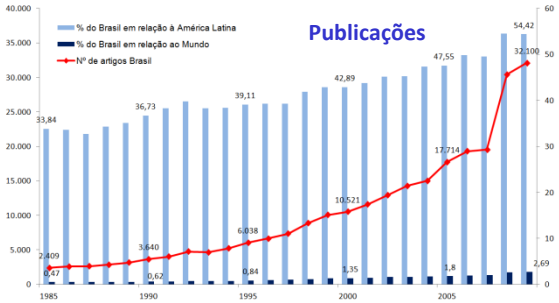
CIÊNCIA SEM FRONTEIRAS

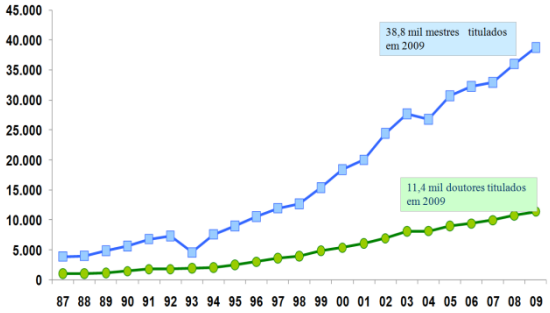
Ministério da Ciência, Tecnologia e Inovação

GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

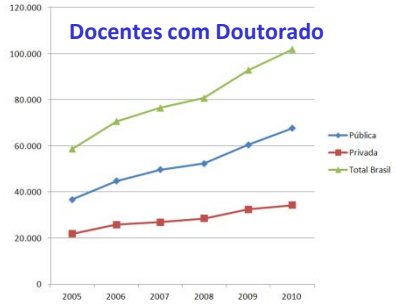
CNPq Conselho Nacional de Desenvolvimento Científico e Tecnológico

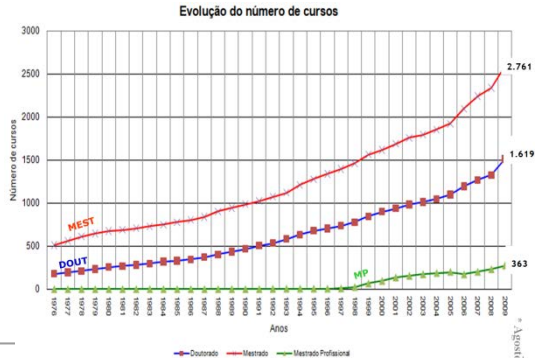

Números de Grupos de Pesquina - 1993-2010
4.402
7.271
8.632
11.760
15.158
19.470
21.024
22.797
27.523
1993
1995
1997
2000
2002
2004
2006
2008
2010

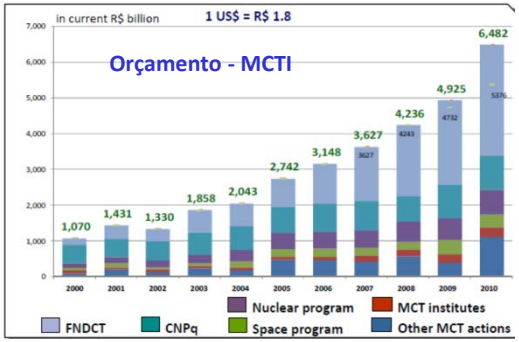

Publicações
% do Brasil em relação à América Latina
% do Brasil em relação ao Mundo
Nº de artigos Brasil
33,84
36,73
39,11
42,89
47,55
54,42
2,409
3,640
6,038
10,521
17,714
32,100
1985
1990
1995
2000
2005

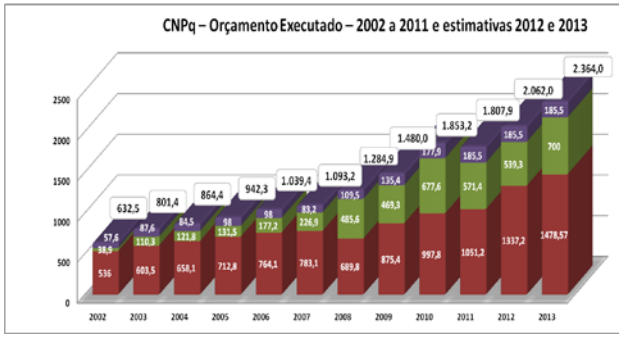

38,8 mil mestres titulados em 2009
11,4 mil doutores titulados em 2009
87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09

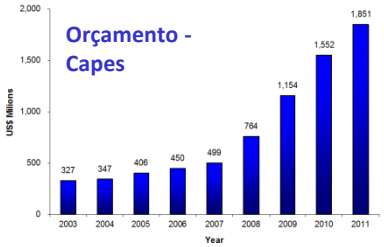
Evolução da matrícula na educação superior de graduação por dependência administrativa Brasil 1980-2011
Matrículas no Ensino Superior
Pública
Privada

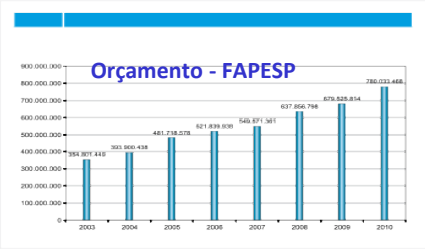

Docentes com Doutorado
Pública
Privada
Total Brasil
2005
2006
2007
2008
2009
2010


Evolução do número de cursos
Número de cursos
Anos
MEST
DOUT
MP
2.761
1.619
363
Doutorado
Mestrado
Mestrado Profissional


in current R$ billion
1 US$ = R$ 1.8
Orçamento - MCTI
1,070
1,431
1,330
1,858
2,043
2,742
3,148
3,627
4,236
4,925
6,482
FNDCT
CNPq
Nuclear program
Space program
MCT institutes
Other MCT actions


CNPq – Orçamento Executado – 2002 a 2011 e estimativas 2012 e 2013
632,5
801,4
864,4
942,3
1.039,4
1.093,2
1.284,9
1.480,0
1.853,2
1.807,9
2.062,0
2.364,0


Orçamento - Capes
US$ Millions
Year
327
347
406
450
499
764
1.154
1.552
1.851


Orçamento - FAPESP

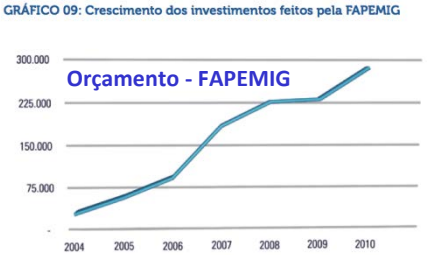
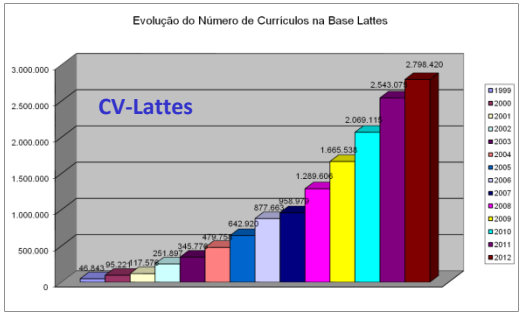


GRÁFICO 09: Crescimento dos investimentos feitos pela FAPEMIG
Orçamento - FAPEMIG
2004
2005
2006
2007
2008
2009
2010


Evolução do Número de Currículos na Base Lattes
CV-Lattes

# Cases of Success in Science & Technology

## Centenary Agricultural Schools

IAC

USP ESALQ

UFBA

UNIVERSIDADE FEDERAL DE PELOTAS RS - BRASIL

Universidade Federal de Viçosa

UFLA UNIVERSIDADE FEDERAL DE LAVRAS

+

Embrapa

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# Cases of Success in Science & Technology

## Leader in Tropical Agriculture, Food Production and Export

**Brazilian agricultural production has been fuelled by S,T&I**

| Product | World production |
|---|---|
| Sugar, orange juice, coffee | 1st |
| Soya, Beef and poultry | 2nd |
| Corn, fruits | 3rd |

# Cases of Success in Science & Technology

UFRJ

Universidade Federal do Rio de Janeiro

+

PETROBRAS

COPPE UFRJ

CENPES

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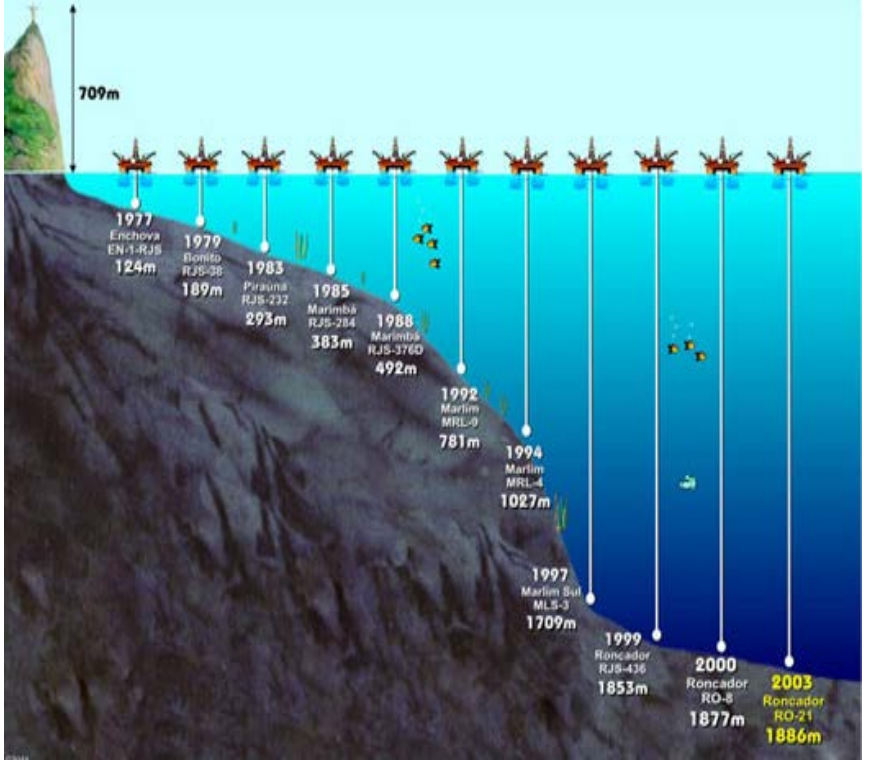
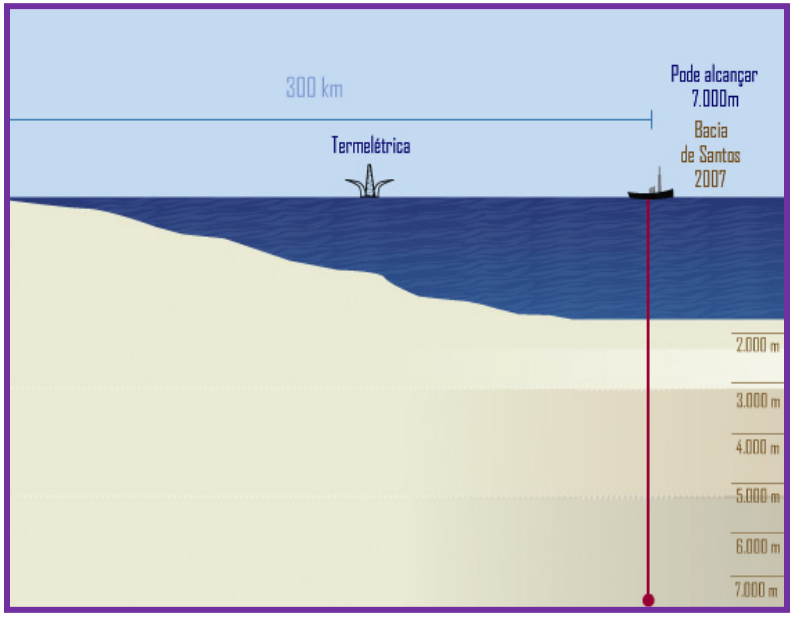
# Cases of Success in Science & Technology

## Leader in deep sea oil and gas prospection and extraction




**2007- Tupi – 7000 m**



# Cases of Success in Science & Technology

**Prof. Richard H. Smith, Head of Aeronautics Dept. at MIT → Brazil, 1948**

DCTA

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EMBRAER

ITA

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# Cases of Success in Science & Technology

**3rd largest aerospace company in the world**

EMBRAER

Glaucius Oliva
CNPq/MCTI

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# Science without borders:
# The new Brazilian scientific international mobility program

# National Development Strategy

- Invest in people: development of skills and competences needed to the full insertion in the knowledge-based economy
- Focus on the national strategic challenges
  - Engineering and other technological areas
  - Strategic areas
- Promotion of industrial R,D&I

# Science Without Borders Program

- Boost Brazilian science, technology, innovation and competitiveness through the expansion of international mobility. (100.000 fellowships in 4 years)
- Increase the presence of Brazilian researchers and students of various levels in institutions of excellence overseas; Brazilian institutions will open similar opportunities for foreign scientists and students;
- Increase the innovative expertise of personnel from the technological industries;
- Attract young scientific talents and highly qualified researchers to work in Brazil.

# Priority Areas

- Engineering and other technological areas;
- Natural Sciences
- Health and Biomedical Sciences ;
- Computing and Information Technology;
- Aerospace;
- Pharmaceuticals;
- Sustainable Agricultural Production;
- Oil and gas;
- Nuclear Energy
- Renewable Energy;
- Minerals;
- Biotechnology;
- Nanotechnology and New Materials;
- Technology for prevention and mitigation of natural disasters;
- Biodiversity and bioprospection;
- Marine Sciences;
- Technologies for the green economy;
- New technologies for constructive engineering;
- Capacity building for technical personnel.

# Modalities of Fellowships and Targets 2012-2015

| | |
|---|---|
| *"Sandwich"* - Undergraduate | 64,000 |
| *"Sandwich" – PhD* | 15,000 |
| Full PhD abroad | 4,500 |
| Post-Doctoral Fellowship abroad | 6,440 |
| Fellowships for industrial scientists and engineers | 7,060 |
| Young talents to Brazil | 2,000 |
| Visiting Leading Scientists to Brazil | 2,000 |
| Total | **101.000** |
| Govenment | 75,000 |
| Private sector | 26,000 |

# Companies supporting the CsF Program

| Company | Additional Fellowships |
|---|---|
| Febraban | 6.500 |
| CNI | 6.000 |
| ABDIB | 5.000 |
| Petrobras | 5.000 |
| Eletrobras | 2.500 |
| VALE | 1.000 |
| TOTAL | 26.000 |

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# Fellowships awarded
(Feb/2014)

| | |
|---|---|
| *"Sandwich"* - Undergraduate | 48,137 |
| *"Sandwich" – PhD* | 6,541 |
| Full PhD abroad | 1,952 |
| Post-Doctoral Fellowship abroad | 4,076 |
| Young talents to Brazil | 520 |
| Visiting Leading Scientists to Brazil | 1,020 |
| **Total** | **62,246** |

Educação
Ministério da Educação

Ministério da
Ciência, Tecnologia
e Inovação

GOVERNO FEDERAL
BRASIL
PAÍS RICO É PAÍS SEM POBREZA

# Thank you!

Dr. Glaucius Oliva

President

Brazilian National Council for Scientific and Technological Development

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