

IANAS Workshop

Brasilia (21-23 July 2010)

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Inventing a Better Future: A Strategy for Building Regional Capacities in Science and Technology

Status of S&T in CHILE

- Institutional structure
- Innovation
- Scientific research
- Size of the scientific community
- Budget
- Scientific output
- Looking forward

The Chilean Academy of Sciences

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Like all the rest of the Chilean academies it is limited to 36 lifetime members.

Institutional structure

MIDEPLAN:
INNOVATION

CONICYT:
**Basic research and
technological development**

MIDEPLAN

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**Institutes: IFOP, CChEN, CIMM, INIA,
INNOVA, INFOR, INN, MILLENIUM...**

All these institutes have budgets that are assigned annually by the government. They represent the largest fraction of the Chilean R&D expenditure.

CONICYT

CONICYT:

Programs: FONDEF, FONIS, FONDAP, PBCT, Human resources, International collaborations, scholarships, FONDECYT, ...

All these programs are open to competition for the funds. They represent $\approx 15\%$ of the Chilean R&D expenditure.

FONDECYT

FONDECYT:

Around 400 new 4 years projects are implemented every year.

**Total cost / year ~ US\$40 million
~US\$ 2.50 / capita**

Average project ~ US\$25 000/year

BUDGET

Chile's gross product: 200×10^9 US\$,

Per capita: $\sim 12,000$ US\$

R&D expenditure: 0.7 %

1400M US\$ \approx US\$84 per capita,

0.4 % government; 0.3 % private.

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FONDECYT: 4 % of R&D expenditure.

Size of the scientific community

Scientists / million inhabitants ~ 100

Brasil ~ 500

New Zeland ~ 1000

PHd's / million inhabitants ~ 150

Brasil ~ 450

New Zeland ~ 1500

Scientific output

Cuadro: **SCIMAGO data for the years 1996-2008**

Country	Docs.	Citations	Citations/doc	H-index
Brazil	235.216	1.509.255	6.41	212
México	95.770	658.587	6.87	160
Argentina	73.427	587.707	8.04	153
Chile	36.986	330.684	8.94	138
Venezuela	17.436	109.618	6.29	97
Cuba	15.153	62.320	4.11	66
Colombia	14.590	90.768	6.22	84
Puerto Rico	6.696	75.872	11.33	90
Uruguay	5.562	54.141	9.73	78
Perú	4.456	40.249	9.03	70

Scientific output

Papers / million inhabitants \sim 280

Brasil \sim 160

New Zeland \sim 2100

There are \sim 150 physicists and
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The community is too small to sustain
development and have an impact
beyond education.

Looking forward

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RD&I as national priorities, with a 20 to
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Chile needs to proclaim education, RD&I as national priorities, with a 20 to 30 year horizon.

With a population of only 17 million Chile needs to strengthen RD&I international ties, especially with Latin American countries.