Conferences that have invested in Science and Technology (S&T) and in the formation of advanced human capital have the highest levels of income and a better quality of life, and also offer more opportunities for the human development of their population. How could Chile make the big leap in S&T and avoid missing the train of the knowledge economy? In our culture, taking a shortcut is very common. We move forward diagonally and we dig tunnels, instead of just stepping on the accelerator.

CONICYT’s plan of action towards 2014, which we have called “The Shortcut”, is based mainly on four pillars: Sustainability, Competitiveness, Globalization, and Appeal. Sustainability means counting on different funding instruments in order to guarantee that good individual scientific ideas, as well as associative efforts of excellence have the necessary resources. Moreover, this entails integrating young researchers into the system. Competitiveness means that we must address an age-old need: the modern infrastructure that is available in many parts of the world. If we want to quickly achieve a critical mass in certain areas, have strong partners to explore our natural labs, and insert ourselves in leading knowledge networks, S&T and innovation efforts must be open and Globalized. Lastly, by Appeal we mean bringing science to all, particularly children who are in school and pre-school, by showing them how science changes their lives and makes them full citizens of the 21st Century.

The most significant limitation we encounter to increase investment in research, development, and innovation (R&D+i), is the reduced number of researchers who are capable of leading large-scale projects. Throughout Chile, there are around 4,100 researchers who fit into that category, which is similar to the number of scientists that a top-ranking university would have. Thus, our first priority in the next few years will be to increase that figure, and to create conditions for the integration of young researchers. In March 2012, there are 2,064 CONICYT scholarship beneficiaries who are obtaining their doctorates in Chile, and close to 1,800 beneficiaries who are working towards their PhDs abroad. Considering these numbers both individually and by categories, we will have around 800 PhD graduates every year.

As can be appreciated in the following pages, the last two years both FONDECYT, through its Regular Call for Research Projects and FONDECYT Call for Initiation Projects have shown an unprecedented rate of approval for projects of excellence and have provided superb competitive funding. The same has happened with PhD scholarships, both in Chile and abroad, and with post-doctoral scholarships. FONDAP is now focusing again on its original mission and priority areas, and its competitive call is aimed at interdisciplinary research that addresses issues with a nationwide impact. There is coordination with CORFO’s InnovaChile, in order to effectively mobilize applied research towards innovation. For its part, FONDEF has implemented a pilot competition that seeks to transform university research into projects that are led by professors and students.

Regarding international outreach, the budget has been doubled and new alternatives have been opened for joint projects with China, Europe, and the United States. CONICYT’s Explora, along with the CNIC, has launched Chile VAL, to encourage students in their third year of secondary education to discover their scientific and technological vocation. For the first time, CONICYT is on the road with a travelling scientific fair which during the summer reached eight cities in the northern, central, and southern regions of our country.

Throughout the last four decades, CONICYT has assumed its role as the engine and main pillar of scientific and technological development in Chile, and it has gained the recognition of the scientific community, both nationally and worldwide. The scientific community appreciates the transparency, excellence, and soundness of our highly-developed procedures in the allocation of resources and project support. Following this path, our country continues making progress and generating world-class science and technology.

José Miguel Aguilera Radic
CONICYT President
Chile is in South America, with the Pacific Ocean to the West, and the Andes Mountains on the Eastern border. Neighboring countries are Argentina, Bolivia, and Peru.

Capital: Santiago


GDP: 2012 Projection USD 246,510 millions.

President: Sebastián Piñera Echenique.

Exports: Minerals, essentially copper, but also iron ore, nitrates, precious metals, and molybdenum. The industrial sector is mainly dedicated to food processing (juices and canned fruit, canned fish, salmon, and trout). Chile also exports wood products (paper pulp and furniture) and wine, besides fresh fruit and agricultural goods.

Mayor markets: China, United States, Japan, Netherlands, South Korea, Italy, Brazil.

Mayor suppliers: United States, China, Brazil, Argentina.

Chile is a member of: OECD (since 2012), United Nations, OAS, IADB, APEC, Rio Group, ALADI, OLADE, P4, OEI, CIN, Unasur, WTO, G-77, PAHO. Chile is also an associate member of MERCOSUR.

International research centers based in Chile:
• Fraunhofer (from Germany) – Biotechnology
• CSIRO (from Australia) – Mining
• INRIA (from France) – Applied Mathematics (since 2012)
• Wageningen (from the Netherlands) – R&D in food industry (since 2012)

Number of FONDECYT researchers for 1,000 inhabitants: 0.24

Number of students in graduate degree and graduate diploma/certificate programs: 33,426 y 14,053 respectively.
Source: Chile’s Higher Education Information Service (SIES, 2012).

ISI Publications 2011: 9,533
Source: Developed by CONICYT based on information from Thomson Reuters, Web of Science, November 23 2011.

Citation average on ISI publications (2007–2011): 4.05
Source: Developed by CONICYT based on information from Thomson Reuters, Web of Science, November 23 2011.

Number of FONDECYT researchers: 4,079

Foreign investment in astronomy infrastructure in Chile: USD 2,500 millions

Number of clear nights for astronomical observation: 330 per year.

(1) Sources: Chile’s National Institute of Statistics, Central Bank, and Ministry of Foreign Relations.
(2) It considers all types of ISI publications.
(3) Lead researchers or co-researchers from Fondecyt Regular Call for Research Projects and Fondecyt Iniciacion in Research who were ratified between 2006 and 2011, counted by ID number.
SCIENCE AND TECHNOLOGY IN CHILE

**National Innovation System**

The Office of the President of the Republic leads the National Innovation System, under the direct guidance of the National Innovation Council for Competitiveness (CNIC). The CNIC proposes general guidelines for the development of a National Innovation Strategy. The Interministerial Innovation Committee evaluates these criteria, and then establishes short-, medium-, and long-term national policies regarding science, technology, and innovation (S&T+i), and monitors the proper implementation of the National Innovation Strategy.

The Ministries of Education and of Economy play a leading role in the Interministerial Innovation Committee, and their participation is channeled through the main public institutions that are focused on the development of S&T+i: the National Commission for Scientific and Technological Research (CONICYT) and InnovaChile of the Chilean Economic Development Agency (CORFO).

CONICYT is responsible for strengthening Chile’s scientific and technological base, and for promoting the formation of human capital.

Additionally, CORFO implements government policies in the areas of entrepreneurship and innovation, by using tools and instruments that are compatible with the main characteristics of a social market economy. It seeks to create conditions for building a society with opportunities, and to position Chile as a world leader in competitiveness.

With this aim, the public budget for the National Innovation System grew from USD 487 millions in 2007 to USD 890 millions in 2012, which is the equivalent of 83%.

Besides developing S&T+i policies through the National Innovation Council for Competitiveness (CNIC), the Chilean Government provides significant support for research nationwide, and plays a fundamental role in the financing of research that universities and companies conduct, by facilitating direct contributions or by opening competitive calls for funds.

**Budget for National Innovation Public System**

<table>
<thead>
<tr>
<th>Year</th>
<th>CONICYT</th>
<th>InnovaChile</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>435 MM USD</td>
<td>457 MM USD</td>
<td>393 MM USD</td>
</tr>
<tr>
<td>2006</td>
<td>435 MM USD</td>
<td>457 MM USD</td>
<td>393 MM USD</td>
</tr>
<tr>
<td>2007</td>
<td>487 MM USD</td>
<td>459 MM USD</td>
<td>393 MM USD</td>
</tr>
<tr>
<td>2008</td>
<td>532 MM USD</td>
<td>487 MM USD</td>
<td>393 MM USD</td>
</tr>
<tr>
<td>2009</td>
<td>690 MM USD</td>
<td>460 MM USD</td>
<td>393 MM USD</td>
</tr>
<tr>
<td>2010</td>
<td>854 MM USD</td>
<td>460 MM USD</td>
<td>393 MM USD</td>
</tr>
<tr>
<td>2011</td>
<td>885 MM USD</td>
<td>460 MM USD</td>
<td>393 MM USD</td>
</tr>
<tr>
<td>2012</td>
<td>890 MM USD</td>
<td>460 MM USD</td>
<td>393 MM USD</td>
</tr>
</tbody>
</table>

Source: DIPRES
*Exchange rate of 501.34 Chilean Pesos (average dollar value for January 2012).
*Estimated with Chilean Peso value of 2012.
ABOUT CONICYT

The National Commission for Scientific and Technological Research, CONICYT, was established in 1967 as a science advisory body for the Office of the President of the Republic. It is a public autonomous institution that is supervised by the Ministry of Education. CONICYT carries out its tasks through two main strategic pillars: supporting the formation of human capital and strengthening Chile’s scientific and technological foundation. In order to advance through these two strategic cornerstones, CONICYT implements different programs of open competitive calls. Proposals are carefully evaluated in several stages, and those that are awarded the funds must show the highest quality standards.

With the aim of strengthening the country’s scientific and technological foundation, the following programs are implemented: FONDECYT, FONDEF, FONDAP, Associative Research, Regional, Astronomy, FONIS, and FONDEQUIP.

The objective of supporting the formation of advanced human capital is fulfilled with the programs called Formation of Advanced Human Capital, Attraction and Insertion of Advanced Human Capital, and Explora.

There are two more complementary support initiatives that are aimed at complying with both strategic pillars: International Relations and Scientific Information.

### 2012 CONICYT Budget*

<table>
<thead>
<tr>
<th>Program</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>FONDECYT</td>
<td>USD 131.1 mill</td>
</tr>
<tr>
<td>FONDEF</td>
<td>USD 81.4 mill</td>
</tr>
<tr>
<td>FONDAP</td>
<td>USD 10.3 mill</td>
</tr>
<tr>
<td>Associative Research</td>
<td>USD 30.4 mill</td>
</tr>
<tr>
<td>Regional</td>
<td>USD 17.7 mill</td>
</tr>
<tr>
<td>Astronomy</td>
<td>USD 1.3 mill</td>
</tr>
<tr>
<td>FONIS</td>
<td>USD 1.6 mill</td>
</tr>
<tr>
<td>Explora</td>
<td>USD 5.5 mill</td>
</tr>
<tr>
<td>International Relations</td>
<td>USD 4.9 mill</td>
</tr>
<tr>
<td>Other Programs and Expenses</td>
<td>USD 7.2 mill</td>
</tr>
<tr>
<td>Other Transfers</td>
<td>USD 0.1 mill</td>
</tr>
<tr>
<td>Total CONICYT Budget</td>
<td>USD 485 mill</td>
</tr>
</tbody>
</table>

* Exchange rate of 501.34 Chilean Pesos per dollar (average dollar value for January 2012).
The National Fund for Scientific and Technological Development, **FONDECYT**, is the main public fund aimed to support individual research in Chile. It was established in 1981, and it has financed over 15,000 research projects, which have had a significant impact on Chile's scientific activity and on the creation of a critical mass of researchers.

**Line of action:**
Financial support for individual research in all areas and at different stages of a researcher’s career.

**Funding instruments:**
- Regular Call for Research Projects, geared towards experienced researchers in the different subject areas.
- Call for Initiation in Research, geared towards researchers who have obtained their PhD in the previous five years. It was launched in 2006 with the goal of training new scientists and of renewing human resources who are dedicated to research.
- Call for Post-doctoral Studies in Chile, geared towards researchers who have obtained their PhD recently. The goal is to support their scientific independence, and allow them to dedicate all their time to research.

**Achievements in 2011**
- A 20% increase in Regular Call for Research Projects (503 projects in 2011, and 605 projects in 2012).
- A 56% increase in projects that were awarded funds through the Call for Initiation in Research (168 projects in 2010, and 262 projects in 2011).
- A 67% increase in the number of projects that were awarded funds through the Call for Post-doctoral Studies in Chile (90 in 2011, and 150 in 2012).
- Of all regular projects approved in 2012, 18% originated from Initiation Call projects that had been completed.
- Of all researchers who came from the Initiation Call, 63.5% had a regular project that was awarded funds in 2012.

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**Higher Council for Technological Development**
- President: José Miguel Aguilera
- Advisors: Luis Michea, Gonzalo Navarro, Carlos Ovalle

**Higher Council for Science**
- President: Mario Hamuy
- Advisors: María Loreto Martínez, Ariel Orellana, Alicia Salomone, Osvaldo Ulloa, José Zagal
The Fund for Scientific and Technological Development Support, FONDEF, was established in 1991. Generally, FONDEF projects require the involvement of at least two companies and/or other associated entities, that will contribute more than 15% of the project's total cost. The usual modality is an annual competition (regular programs) or periodic calls (thematic programs).

Line of action:
Promoting links and associativity among research institutions, companies, and other entities, with the goal of developing applied research projects that focus on improving Chile's competitiveness and the quality of life of its population.

Funding instruments:
• Annual Call for Research and Development.

Projects (R+D), with two lines of action: pre-competitive and public interest.
• iDea Program, which consists of R+D projects with a high scientific content, whose results can be obtained, evaluated, and validated in the short run.
• Appreciation of University Research Program (VIU), which seeks to promote new businesses or companies, based on students research conducted at Chilean universities.
• Effective Information and Communication Technologies in Education Program (ITC-EDU).
• World Aquaculture Program (HUAM).
• Red Tide Program.
• Regional FONDEF Program (with resources from the Innovation Fund for Regional Competitiveness).
• R+D Program on Bioenergy.
• Functional Foodsstuffs Program.

Jointly with InnovativeChile:
• Program of Biotechnology Tools for the Genetic Enhancement of Food Crops.
• Diversification of Chilean Aquaculture Program.

Achievements in 2011
In its initial stage, the first Call for Appreciation of University Research awarded funds for 54 proposals. The second stage will be held in 2012.
• The 18th annual R+D Call awarded funds to 54 projects.
• Call for the 19th annual R+D competition, which received 232 proposals.
• TIC-EDU awarded funds for six projects.
• The Red Tide Program awarded funds for seven projects.
• The Regional FONDEF Program awarded funds for four research projects that benefit three regions of the country.

Fundamental Research centers (CRCP), and for Mathematical Modelling (ICMM). The second competitive call supported four centers for Advanced Studies in Ecology and Biodiversity (CASEB), for Excellence.

Periodic calls (thematic programs).

The first and second competitive calls focused on specific areas that were categorized as a priority for Chile. The first call supported three initiatives that have already been implemented: the Centers for Excellence, FONDAP 2011, in six areas considered as issues of nationwide significance in Chile: sustainable agriculture and/or aquaculture; climate change; sustainable urban development; natural disasters; solar energy; and indigenous peoples.

Coming into operation of six Centers of Excellence.
• Since their creation, the nine Centers of Excellence have trained 850 graduate students, 450 undergraduate students, and 257 post-doctoral fellows.

Since its establishment in 1997, the Fund for Research Centers of Excellence, FONDAP, has financed nine centers in very different areas, such as mathematics, oceanography, astronomy, and geothermia.

Lines of action:
• Generating research of excellence, based on the articulation of multidisciplinary groups of researchers who can demonstrate their productivity in areas where basic national science has reached a high level of development.
• Formation of advanced human capital, by establishing national and international cooperation networks, and by disseminating research results to the scientific community and the rest of society.

Funding instrument:
• National Call for Research Centers of Excellence. In its three editions, it has supported nine centers for a duration of 10 years:
  -The first and second competitive calls focused on specific areas that were categorized as a priority for Chile. The first call supported three initiatives that have already been implemented: the Centers for Interdisciplinary Advanced Research in Materials Science (CIAMAT), for Cellular Regulation and Pathology (CRCP), and for Mathematical Modelling (ICMM). The second competitive call supported four centers for Advanced Studies in Ecology and Biodiversity (CASEB), for Excellence.
  -The third competition supported two centers in late 2010: for Genoma Chile and for Excellence in Geothermia in the Andes (CEGA).

Achievements in 2011
• Open Call in Fourth National Competition for Research Centers of Excellence, FONDAP 2011, in six areas considered as issues of nationwide significance in Chile: sustainable agriculture and/or aquaculture; climate change; sustainable urban development; natural disasters; solar energy; and indigenous peoples.
• Coming into operation of six Centers of Excellence.

Since their creation, the nine Centers of Excellence have trained 850 graduate students, 450 undergraduate students, and 257 post-doctoral fellows.
The Regional Program was created in 2000, and its goal is promoting and strengthening capacity building in science, technology, and innovation at the regional level. In that sense, it focuses on promoting the decentralization of Chile’s scientific and technological development, according to the areas that are most relevant for each region’s development, as regional institutions determine their own priorities.

Lines of action:
- Generating, promoting, and strengthening capacities for the development of science, technology, and innovation in Chile’s different regions, through the implementation and monitoring of Regional Centers for Scientific and Technological Research.
- Coordinating the resources of the innovation fund for competitiveness (FIC Regional), that are allocated to CONICYT, also, representing CONICYT vis-à-vis the Regional Innovation Systems.
- Competitive Calls for the Creation of Regional Centers.
- Call for Project of Regional Diploma Programs in Innovation for Competitiveness.
- Regional career opportunities in science, technology, and innovation.

Achievements in 2011:
- Implementation of 15 Regional Centers where 234 researchers are working. The 15 centers together have produced 319 publications and three patent applications. Also, 345 projects are being implemented and 159 theses are being researched.
- Using the resources allocated to CONICYT, there were over 25 open calls issued by the Regional Program, the Associateive Research Program (PAI), the Atraction and Insertion of Advanced Human Capital Program (PAI), Explora CONICYT, and CONICYT’s Public Information and Outreach Department.
- Funding was awarded for over 40 projects corresponding to the Regional, Fondef, PAI, Equipment Supply, and Explora programs.
- Implementation of the RED Project, which seeks to support innovation at the local level, in order to strengthen regional development. This includes the Antofagasta, Coquimbo, Metropolitan Santiago, O’Higgins, and Tarapacá regions.

Funding instruments:
- Competitive Calls for Research and Development Centers (R+D): Centers of Excellence.
- Competitive Calls for Association and Technology Research, Social Sciences and Humanities Research, and Antarctic Science Research Team Projects.
- Competitive Calls for Service Centers.
- Scientific and Technological Equipment Service Centers.
- Competitive Calls for the Creation of Technology Research, Social Sciences and Humanities Research, and Technology Research Team Projects.
- Competitive Calls for the Creation of Science and Technology Research Team Projects and Antarctic Science Research Team Projects.
- Continuing support of two Centers for Advanced Research in Education and five Research Technological Consortia.
- Continuing support for two projects of patenting promotion.
- Two projects of support for scientific infrastructure at research centers and groups were awarded.

Achievements in 2011:
- Coming into operation of 13 Scientific and Technological Centers of Excellence.
- Coming into operation of 43 Science and Technology Research Team Projects (30), Social Sciences Research Team Projects (11), and Antarctic Science Research Team Projects (2).
- Four nationwide competitive calls for projects of Science and Technology Research Team Projects and Antarctic Science Research Team Projects, besides the Third Competitive Call for Social Sciences and Humanities Research Team Projects.

Funding was awarded for over 40 projects corresponding to the Regional, Fondef, PAI, Equipment Supply, and Explora programs. Implementation of the RED Project, which seeks to support innovation at the local level, in order to strengthen regional development. This includes the Antofagasta, Coquimbo, Metropolitan Santiago, O’Higgins, and Tarapacá regions.
The skies over Chile are extraordinary for astronomical observation. That is why some of the most powerful observatories in the world are located in this country: Gemini-South, Paranal, APEX, and ALMA. In 2020, Chile will concentrate 70% of the world’s telescope infrastructure, which will represent a USD 6 billions investment. For this reason, in 2006 CONICYT established the Astronomy Program.

Lines of action:
• Support, strengthening, and outreach for astronomy, in order to position this field as strategic for the development of science and turn Chile into an astronomy world power.
• Promoting scientific and technological cooperation and attracting new projects and investment in astronomy, through strategic alliances with institutions from other countries.

Funding instruments:
• Competitive Call for Gemini–CONICYT and ALMA–CONICYT “Funds for the Development of Astronomy in Chile”.
• Competitive Call for the Management of Chilean Observation Time at Gemini-South and APEX telescopes.
• Gemini–CONICYT and ALMA–CONICYT Competitive Call for Post-doctoral Positions.
• Management of Atacama Astronomy Park in Antofagasta Region. With over 36,000 hectares, it includes the Tokyo Atacama Observatory (TAO), Cerro Chajnantor Atacama Telescope (CCAT), Atacama Cosmology Telescope (ACT), and the Polarbear experiment. There are three more projects that are under consideration.

Achievements in 2011
• Formalization of the 50-year concession for the land where the Atacama Astronomy Park has been built.
• Funds were awarded for 12 Gemini–CONICYT projects and 12 ALMA–CONICYT projects.
• Assignment of 330 observation hours for Chilean researchers at Gemini-South telescope, and of 700 observation hours at APEX radiotelescope for periods 2011 A and B.
• Coordination and design of a roadmap for astronomy, technology, and industry, in a joint effort with the Ministries of Economy and Foreign Relations, CORFO/InnovaChile, and the National Innovation Council for Competitiveness (CONICYT).

FONIS PROGRAM

The National Fund for Research and Development in Health, FONIS, was established in 2004 as a joint initiative between the Ministry of Health and CONICYT.

Lines of action:
• Encouraging and building capacities for applied research in health that is focused on Chile population’s specific needs.
• Generating information that can serve as evidence for decision-making in health and as guidance for public policies.

Funding instruments:
• Competitive Call for Gemini–CONICYT and ALMA–CONICYT “Funds for the Development of Astronomy in Chile”.
• Competitive Call for the Management of Chilean Observation Time at Gemini-South and APEX telescopes.
• Gemini–CONICYT and ALMA–CONICYT Competitive Call for Post-doctoral Positions.
• Management of Atacama Astronomy Park in Antofagasta Region. With over 36,000 hectares, it includes the Tokyo Atacama Observatory (TAO), Cerro Chajnantor Atacama Telescope (CCAT), Atacama Cosmology Telescope (ACT), and the Polarbear experiment. There are three more projects that are under consideration.

Achievements in 2011
• Formalization of the 50-year concession for the land where the Atacama Astronomy Park has been built.
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• Coordination and design of a roadmap for astronomy, technology, and industry, in a joint effort with the Ministries of Economy and Foreign Relations, CORFO/InnovaChile, and the National Innovation Council for Competitiveness (CONICYT).

Two scholarships were awarded to pursue an astronomy doctorate in France (in accordance with the memorandum of understanding subscribed with French National Center for Scientific Research, CNRS).

CONICYT developed the agreement that led to the creation of the Joint French-Chilean Astronomy International Unit between the CNRS and three Chilean universities.

Holding of the First FONIS Projects Meeting, which was named “A Comprehensive Approach to Applied Research in Health”.

Conduction of the first seminar named “Competitive Calls for CONICYT Funds 2012”, jointly with the Regional, FONDEF and the Attraction and Insertion of Advanced Human Capital (PAI) programs. During this activity held in La Serena, CONICYT provided information about different competitive funds.

Director: Ximena Luengo Ch.
mluengo@conicyt.cl
2012 Budget: USD 1.0 mill
The Attraction and Insertion of Advanced Human Capital Program (PAI) was created in 2009, and its goal is to enhance the academic, scientific, and technological capacities of Chilean institutions, and to generate projects that will strengthen the scientific and technological development of academic and productive institutions. This is achieved through the recruitment of researchers who studied in Chile or abroad, and through the consolidation of international networks formed by Chile's regional universities and world-class universities from other countries.

**Lines of action:**
- Integration of PhD graduates in the productive sector.
- Integration of PhD graduates in academia (accredited universities and research centers).
- Attraction of scientists of excellence from abroad (for regional accredited universities).

**Funding instruments:**
- National Competitive Call for the Attraction of Advanced Human Capital from Abroad, Short-Term Visit Modality/English (MEC).
- Competitive Call for Doctoral Theses in the Productive Sector.
- Competitive Call for Doctoral Theses in Academia.

**Achievements in 2011**
- Funds were awarded to 47 projects, which allowed the recruitment of 60 PhD graduates for academic institutions.
- Funds were awarded to 22 research, development, and innovation projects at different companies and institutions linked to the productive sector, integrating 11 PhD graduates and supporting 13 doctoral students with their theses.
- Funds were awarded to a total of 48 proposals for the attraction of scientists from abroad in the short-term visit modality, which allowed scientists who enjoy worldwide recognition to come to Chile.
The International Relations Department was created in 2000 aiming to encourage the Chilean scientific community to join and strengthen its international networks, with the goal of integrating Chilean researchers into frontier knowledge.  

**Line of action:**  
Promoting and supporting the integration of Chilean scientific community with its peers abroad, based on scientific excellence, mutual benefits, and common interests. For this purpose, the Department fosters several collaboration schemes within the framework of S&T cooperation agreements with foreign institutions.  

**Funding instruments:**  
- International Scientific Cooperation Program for exchange projects with France, Germany, Mexico, Colombia, Argentina, and China.  
- European Union Program, which considers different thematic areas for cooperation agreements with Chilean researchers, in order to help them enhance their participation in the European Union Framework Program for Research and Technological Development.  
- Support for international networking between Chilean research centers and their foreign counterparts.  
- CONICYT–Ministry of Energy Program to strengthen skills and capacities in the energy sector.  
- Multilateral networks: Ibero-American Program for Science, Technology and Development (CYTED), Inter-American Program for Materials Science (CITAM), Regional STIC–Amsud Program for Information and Communication Technologies (ICTs), and MATH–Amsud for Mathematics.  
- Workshops, conferences, and scientific missions.  

**Achievements in 2011:**  
- 495 Bilateral exchanges: 230 Foreign researchers coming to work in Chile; 265 Chilean researchers going to work abroad.  
- Three Chile–China workshops: one on renewable energies, another on food products, both in Beijing, and a third one on astronomy in Santiago.  
- Five networks between Chilean centers of excellence and centers in Germany, China, and Brazil.  
- Four scientific missions to Europe on energy, food–industry, and biotechnology.  
- Two international conferences: "ICT Challenges for Innovation" and "7th Framework Program Opportunities for Research on Climate Change and Environment".  
- Participation of 422 Chilean researchers in 61 CYTED themed networks.  
- Participation of 46 Chilean researchers in seven STIC and MATH–Amsud networks.  
- CONICYT–Ministry of Energy: 10 courses and 20 internships.  
- Support for the participation of Chilean scientists in the Atlas Project at CERN’s (European Organization for Nuclear Research) Large Hadron Collider.  
- Organization of joint committees on scientific cooperation between Chile and the European Union (Brussels); Chile and Germany (Berlin); plus Chile and Canada (Ottawa).  

**Lines of action:**  
- Dissemination of S&T  
- Social appreciation of S&T  
- Competitive Call for Explora School Science Camps.  
- Changes Our Lives), which visited 265 Chilean researchers going to work in Chile; 265 Chilean researchers going to work abroad.  
- Three Chile–China workshops: one on renewable energies, another on food products, both in Beijing, and a third one on astronomy in Santiago.  
- Five networks between Chilean centers of excellence and centers in Germany, China, and Brazil.  
- Four scientific missions to Europe on energy, food–industry, and biotechnology.  
- Two international conferences: "ICT Challenges for Innovation" and "7th Framework Program Opportunities for Research on Climate Change and Environment".  
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- Organization of joint committees on scientific cooperation between Chile and the European Union (Brussels); Chile and Germany (Berlin); plus Chile and Canada (Ottawa).
Established in 1969, the Scientific Information Program aims to guarantee and strengthen access to national and international scientific information in order to use it in research, education, and innovation.

Lines of action:
- Access to national and international scientific information:
  - The Scientific Information Electronic Library (BEIC) is co–financed by the Consortium for Electronic Scientific Information Access (CINCEL) and CONICYT, and has been in operation since 2008. It provides all universities belonging to the Council of Rectors of Chilean Universities and two private universities access to more than 5,000 scientific journals. Beginning 2012, CONICYT will provide all its funds cover all its expenses and will extend access to more institutions.
  - SciELO–Chile (Scientific Electronic Library Online) is a collection of 99 national scientific journals that can be accessed in their entirety. Between 2005 and 2011, this collection has had more than 30,000 citations in high–impact international indexes.
  - Access to scientific information generated with public funding: CONICYT RI 2.0, a digital repository, gives access and visibility to projects and reports financed by CONICYT.
  - Support fund for the publication of Chilean quality science journals.
  - Redciencia, Latin America’s most important scientific collaboration network, which has more than 6,000 members.

Funding instruments:
- Competition for the Publication of Science Journals, which provides competitive funding for Chilean high quality science journals that have worldwide circulation.
- Competitive Call for Research and Reports about Pluralism in Chile's National Information System.

Achievements in 2011
- BEIC users downloaded more than 6 million articles in their entirety.
- The SciELO–Chile website had a total of 21 million visits.
- Digital repository CONICYT RI 2.0 has more than 4,000 documents available online.
- The support fund for the publication of science journals backed 31 new projects.
- Design of an institutional policy to manage and access data on scientific and technological research and information that is financed with public funds; recommendations for good practices.
- Development of a website containing information about Chilean scientific production in ISI and Scopus.