



National Council of Science and
Technology



CONACYT

Consejo Nacional de Ciencia y Tecnología

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Introduction

The National Council on Science and Technology (CONACYT) is the Federal Executive's advisory body responsible for articulating the federal government's public policies regarding scientific research, technological development and innovation. CONACYT actions aim to increase the national productivity to foster economic growth and to enhance the welfare of society.

As stated in the Special Program for Science, Technology and Innovation 2008-2012 (PECiTI) policies in these areas are oriented toward a more balanced national economic development based on the competitive advantages of each region and federative entity, encouraging the involvement of all stakeholders to achieve beneficial social impact.

With the budget approved by the Congress of the Union for the fiscal year 2011, CONACYT made efforts to carry out an efficient expenditure for the purpose of achieving the objectives and goals set for that year.

This report presents the main results of the institutional programs aimed to achieve the objectives established. These results are organized in five sections according to the policy guidelines mentioned in the PECITI.

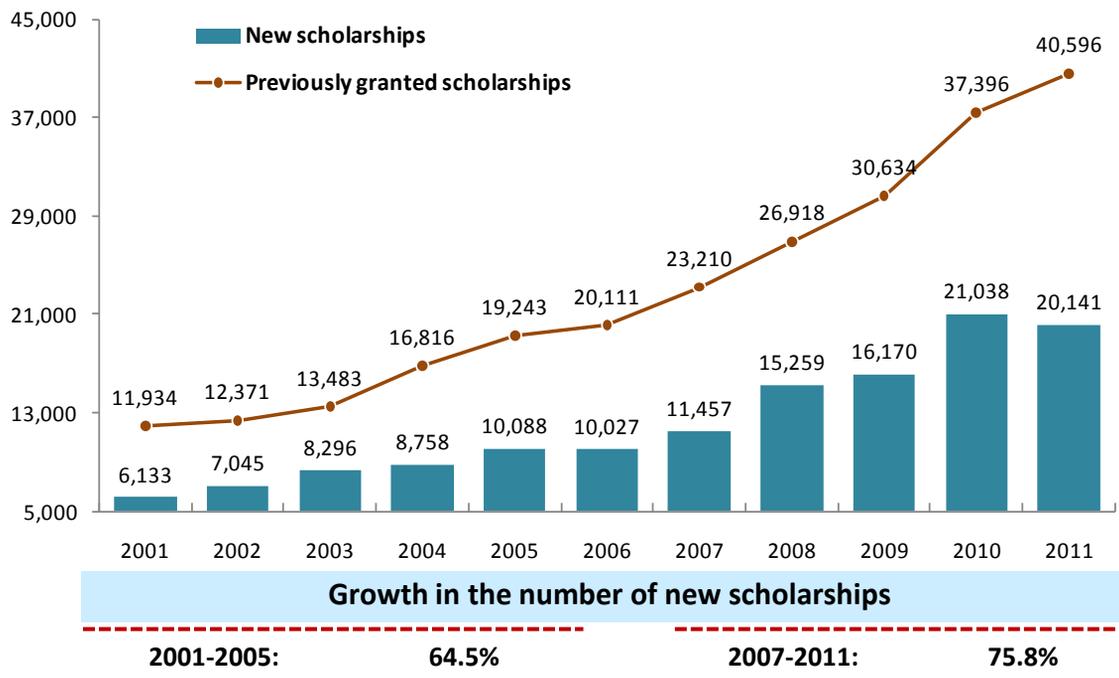
Objective 1

Establishing state policies in the short, medium and long term for the strengthening of the chain: education, basic and applied science, technology and innovation.

Enlargement and consolidation of high level human resources

In 2011, through the **Scholarship Program for Graduate Studies and other Modalities of Support to High Quality Training**, 20,141 new grants were awarded. With this number CONACYT granted a total of 40,596 scholarships during the year comprising graduate training scholarships and technical residences in both national and international institutions

New and previously granted scholarships for graduate studies, 2001-2011



Source: Conacyt.

Graduate Scholarships by level and destination, 2011

Level	Domestic	Abroad	Total
Doctoral	13,000	2,405	15,405
Master	22,770	1,615	24,385
Specialties	694	29	723
Technical Residences	50	33	83
Total	36,514	4,082	40,596

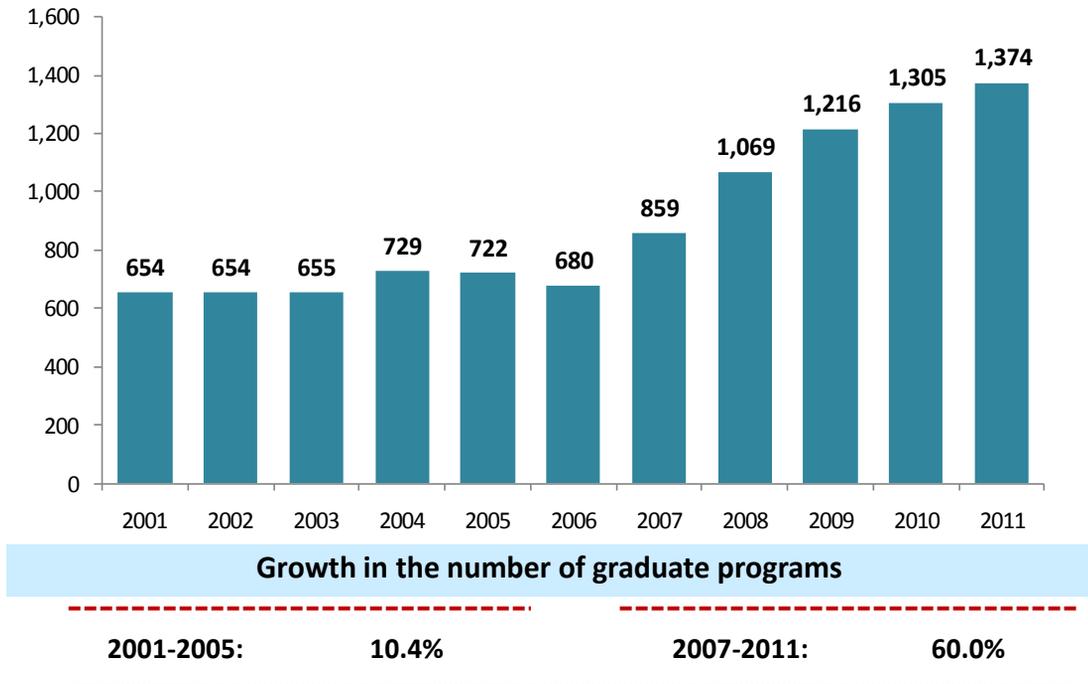
Source: Conacyt.

Quality assessment of the national graduate training programs

In 2011, the **National Program for the Strengthening of Graduate Studies (PNPC)**, coordinated by the Secretary of Public Education (SEP) and CONACYT, registered 1,374 graduate programs, 5.3 percent more compared to 2010. The distribution, according to the grades established by the PNPC, was: 124 of international competition; 575 consolidated; 434 in development, and 241 recently opened programs.

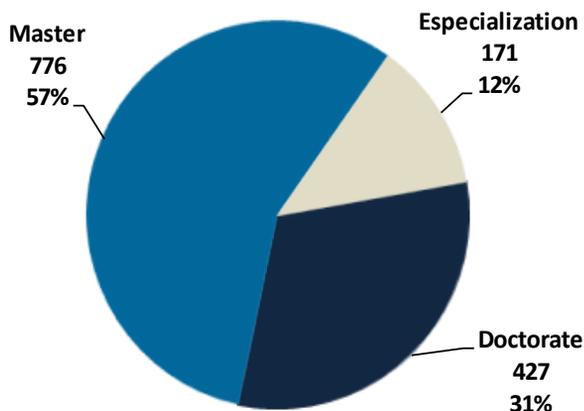
The growth rate number in the PNPC programs for the period 2007-2011 was almost six times higher than the period 2001-2005.

Evolution of graduate programs registered in the PNPC 2001-2011



Figures reviewed by the area responsible.
Source: CONACYT.

National Program for the Strengthening of Graduate Studies by study level, 2011

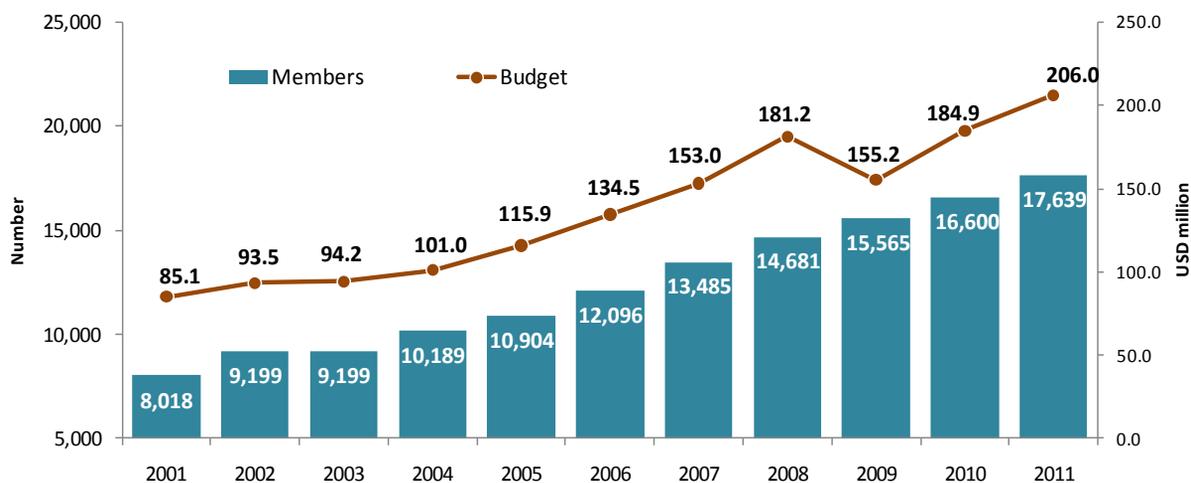


Source: CONACYT

Consolidation of quality academic groups

The National System of Researchers (SNI) contributes to the strengthening and consolidation of researchers with the highest scientific and technological level. In 2011, the SNI listed 17,639 scientists and technologists; an increase of 6.3 percent, compared to 2010.

Members of the SNI, 2001-2011



Growth in the number of researchers

2001-2005:

36%

2007-2011:

30.8%

Source: CONACYT.

Other support actions for the development of human capital resources:

- As a result of the call **CONACYT-State Governments for the Development of High Level Human Resources in International Graduate Programs**, 222 scholarships were granted to students of 17 participant states, being Nuevo Leon, the State of Mexico, Tamaulipas, Yucatan, Michoacan and San Luis Potosi the states with the highest participation.
- Under the 2011-1 Call of the program of **Complementary Support for the Institutional Strengthening of Research Groups**, 2.2 USD million were addressed to support the repatriation of 34 researchers, and to retain 37 in Mexico.
- As a result of the 2010-2011 and 2011-2012 Calls for **Postdoctoral and Sabbatical Stays Abroad**, 452 researchers were supported with a total of 2.6 USD million; 308 for postdoctoral stays and 144 for sabbaticals.
- To foster careers in Science and Technology between youngsters, the program **Young Talents**, supported the projects of 14,478 students of 24 institutions in 16 states. By the end of 2011, 9,109 students finished their project.

Fostering research in strategic areas

The key factors that contribute to improve society's life standards and increase national competitiveness are the quality of education and the strengthening of capacities for the development of basic and applied science, technological development and innovation.

CONACYT's Research Thematic Networks have the purpose of making connections between scientists, technologists and entrepreneurs to address strategic areas. In 2011, 20 Research Thematic Networks were integrated, 18 of them were in operation .

CONACYT published in 2011 a Call to enroll researchers and institutions in the thematic networks; as result of this call the associated members of the networks increased to 3,494 individuals and 132 institutions.

Thematic networks	
1 Water	11 Mathematical and Computational Models
2 Bar Code of Life	12 Ecosystems
3 Complexity, Science and Society	13 Poverty and Urban Development
4 Physics of High Energies	14 Mexican Network on Soft Condensed Matter
5 Energy Sources	15 Ageing, Health and Social Development
6 Environment and Sustainability	16 Robotics and Mechatronics
7 Nanosciences and Nanotechnology	17 Hydrometeorological and Climate Disasters
8 New Trends in Medicine	18 Ethnoecology and Biocultural Heritage
9 Foods, Agriculture and Biotechnology	19 Scientific Research and Space Technology
10 Information Technologies	20 Civil Society and Quality of Democracy

Source: CONACYT.

Interministerial Commission on Biosecurity of Genetically Modified Organisms (CIBIOGEM)*

- During 2011 the project: **“Assessment** of the genetic diversity of native corn races and varieties for the evaluation of conservation programs”, was approved with an amount of 0.9 USD million.
- To support the infrastructure for the confinement of genetically modified organisms and to reinforce biosecurity in Public Research and Educative Centers, 11 proposals were funded with an amount up to 0.1 USD million each.
- The Third National Training Workshop for Journalists on Biotechnology and Biosecurity of Genetically Modified Organisms, had an assistance of 40 national journalists and correspondents from the main press agencies. The workshop also had 67 online participants (31 from Chile, 31 from Mexico, 4 from Ecuador, and one from Costa Rica).
- CIBIOGEM participated in the workshop “Experiences in the Implementation of Cartagena’s Protocol in Mexico”. The Government of Guatemala extended an invitation to Mexico through the National Council of Natural Protected Areas, with the support of the Global Environment Facility.

* <http://www.cibiogem.gob.mx/Sistema-Nacional/Paginas/Informes.aspx>

Dissemination, awareness, ownership, and social recognition of science, technology and innovation

The Science and Technology National Week (SNCyT) remains being the most important annual happening for scientific and technological communication. The SNCyT congregates the largest number of people interested in Science in Mexico, most of them are children. The 18th edition was carried out nationwide from October 24 to 28, 2011. The selected theme was “The International Year of Chemistry”. The main site for the SNCyT activities was Mexico City’s World Trade Center, and the total attendance was 4,400,000 people.

During the SNCyT, 18 audiovisual interviews were made to government officials, scientists, and to the winners of the 6th Contest of Children Painting. Besides there were produced, 60 mini documentaries of stands, workshops and theater plays; 50 photo boots were made with participants interviews. Two memory videos were produced and the material was broadcast by www.twitter.com; www.facebook.com and www.youtube.com



Nine issues of the journal *Ciencia y Desarrollo* were published during 2011; some of the topics analyzed were: Where does the violence arise?: CONACYT 40 years in the life of Mexico; Climate change and water resources; Water, management and survival; Artificial intelligence; Microbial biodiversity; Migrations.

In the *Ciencia y Desarrollo* supplement for kids, “Helix”, published issues were, among others: A journey through the sun, What happens in your brain?; What is what we listen?; Lights in the sky; and Dislexia.



Additionally, the video ACCESS2 for the Office of the Mexico-European Union Cooperation in Science and Technology (UEMEXCYT) was produced; logistic and thematic support was granted for the **Meeting of Ministers and High Authorities of Science and Technology in Latin America and the Caribbean, 2011**, held in the city of Guanajuato. An audiovisual tour was presented to visit the Great Milimetric Telescope, and CONACYT participated in the Event **Mexico Challenge 2011, Night of the Stars**.

The photographic exhibit “Science in a Click” was displayed at the Tunnel of Science’s Hall, located in the subway station *La Raza*, where 54 photographs related to Science and Technology were exhibited.

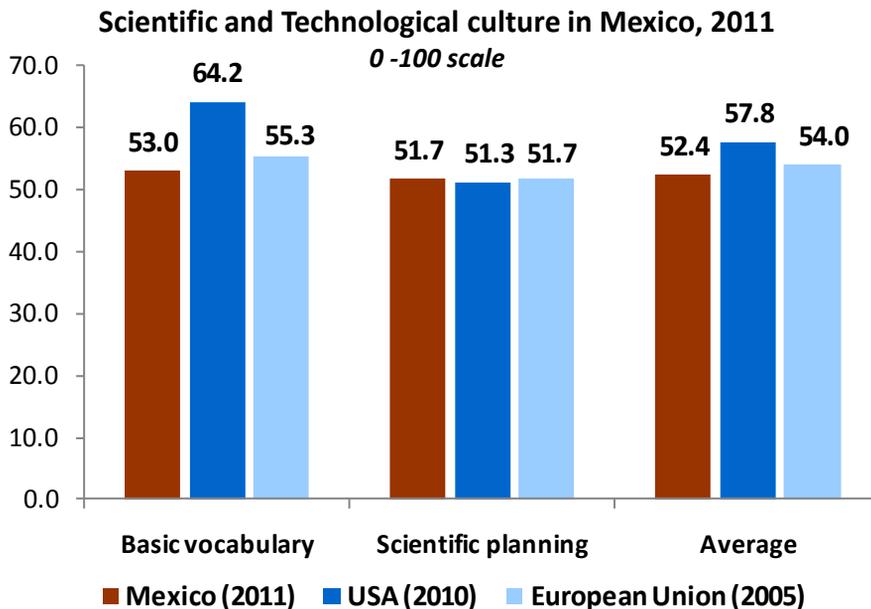


Survey on Public Perception of Science and Technology in Mexico (ENPECYT) 2011

Starting in 2001, CONACYT and the National Institute for Statistics and Geography (INEGI) worked together to do every two years the ENPECYT. In 2011 the 6th exercise of this survey was done and during December of the same year INEGI delivered the results to CONACYT for analysis and dissemination. The overall objective is to collect information to build indicators to measure knowledge, understanding, and attitude of urban population regarding scientific and technologic activities.

Overall results compared to United States (USA) and the European Union (EU):

- Scientific culture of Mexicans is slightly less than EU citizens, and slightest than USA's citizens (Mexico 53 points, USA 64.2 points, EU 55.3 points).
- Knowledge about Science and Technology for Mexicans is also slightly less than their ability to distinguish between scientific and probabilistic processes (Mexico 51.7 points, USA 51.3 points, EU 52.7 points).
- México's average is just two points below UE's average, and five below USA. (Mexico's average of basic vocabulary and scientific planning 52.4 points, USA 57.8 points, EU 54.0 points).



Sources: Survey on Public Perception of Science and Technology in Mexico (ENPECYT) 2011.
Eurobarometer, 2006.
Survey on Public Perception, National Science Foundation, 2010.

Objective 2

Promoting decentralization of scientific, technological and innovation activities

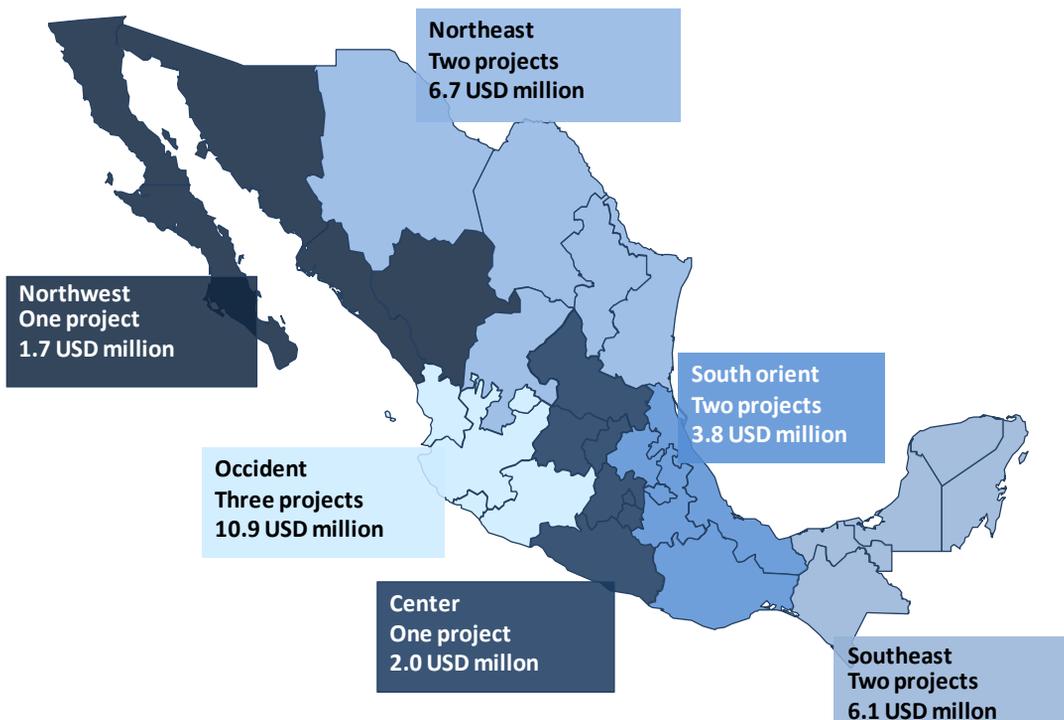
Support to projects that contribute and foster the development of the states

Institutional Fund to Foster Regional Development in Science, Technology and Innovation (FORDECYT)

The mechanisms to allocate funds for regional projects were improved. The new process is more focused on problems, needs and opportunities of development for the regions, strengthening cooperation and integration of states and institutions, in projects with high potential impact.

To address important regional issues such as nutrition, health, environment, social and economic development, during 2011, 11 comprehensive and multidisciplinary projects were supported with a total of 31.3 USD million.

Regional distribution of projects approved by FORDECYT



Source: Conacyt.

Mixed Funds

In 2011, CONACYT contributed with 36.2 USD million to the 34 Mixed Funds (trusts in association with the 31 states, the Federal District and two municipalities), state governments contributed in total with 42.6 USD million.

In the same year 409 projects were approved to obtain support from mixed funds for a total amount of 97.9 USD million.

As a part of the commitment to improve the performance of the funds, actions have been driven to foster investment in strategic projects with high impact.

Efforts were made to increase the diffusion of results and the transference of the project outcomes for applications.

Two important books were presented for that purpose: *“Impact of Mixed Funds in Regional Development”*, volumes I and II, and *“Strategic Projects of Mixed Funds; Fifteen Innovating Experiences for the Strengthening of States Capacities in Science and Technology”*.



National Conference on Science, Technology and Innovation (CNCTI)

The 2011 First Ordinary Meeting of the Conference took place in Chihuahua, Chihuahua (May 19 and 20). Among the most relevant agreements reached, are the following:

- Develop a proposal for the improvement of FORDECYT s operation.
- Approval of the 2011 Work Plan of the Conference.
- Application of the Survey on Research and Technologic Development (ESIDET) 2012 with statistically representative samples for each one of the states. This effort requires an intensive collaborative work between CONACYT and the National Institute of Statistics and Geography (INEGI); it also requires the support of the State Councils of Science and Technology.

The 2011 Second Ordinary Meeting of the Conference took place in Merida, Yucatan (December 8 and 9). The main agreements obtained were:

- Review the issues of allocation and the necessary requirements to obtain federal support for scientific parks in the states.
- Formation of working groups for discussion of the following issues: decentralization and regional development; scientific and technological policies; R&D infrastructure, human resources training, and to carry out coordination meetings during 2012.

Coordination meeting between CONACYT and the National Network of Science and Technology Councils of the States (REDNACECYT)

- The meeting was held on February 3, 2011 with the attendance of 29 representatives of the Councils and State Agencies for Science and Technology.
- The main issues discussed during the sessions were the instruments to strengthen the local systems in Science, Technology and Innovation.
- Collaboration agreements between CONACYT-REDNACECyT and CONACYT-Mexican Association of the States Secretaries for Economic Development (AMSDE) to strengthen the benefits of the *Program for Fostering Innovation* all over the country were renewed.
- To increase the coordination among the actors and to strengthen regional development, two workshops with the technical advisory of the World Bank were organized. The main topics of these workshops were:
 - “Methodologies for the development of strategies in the national systems of innovation”.
 - “Methodologies for the development of strategies in the national systems of innovation. Integration of inter-regional strategies, two regional pilot experiences: Southeast and Occident”.

III National Meeting on Innovation and Competitiveness:

“Linkages and Partnerships for Innovation and Competitiveness: Present and Perspectives”

- This workshop was part of the actions to make Science publicly visible in the States and to promote a space for discussion of science and competitiveness, considering different visions for cooperation, public, private and social sectors.
- Organized jointly with the government of the State of Sinaloa, it was held in the city of Mazatlan, on November 10 and 11, 2011.



Structural framework of the States' Systems of Science and Technology, 2011

By 2011 all of the Mexican States had organized their State Council for Science and Technology and passed their laws on the matter; 26 states had approved programs for the development of Science and Technology, and 28 had formed special commissions in their local congresses.

26 States with a Program on Science and Technology



- | | |
|-------------------------|---------------------|
| 1. Aguascalientes | 14. Morelos |
| 2. Baja California | 15. Nayarit |
| 3. Baja California Sur* | 16. Nuevo Leon |
| 4. Campeche | 17. Puebla |
| 5. Coahuila | 18. Queretaro |
| 6. Chiapas | 19. Quintana Roo |
| 7. Chihuahua | 20. San Luis Potosi |
| 8. Distrito Federal | 21. Sinaloa |
| 9. Guanajuato | 22. Tabasco |
| 10. Guerrero | 23. Tamaulipas |
| 11. Hidalgo | 24. Veracruz |
| 12. Jalisco | 25. Yucatan* |
| 13. Michoacan | 26. Zacatecas** |

*Working paper.

**Being under review by the new Administration.

28 States with a Commission on Science and Technology

- | | |
|------------------------|---------------------|
| 1. Aguascalientes | 14. Jalisco |
| 2. Baja California | 15. Michoacan |
| 3. Baja California Sur | 16. Morelos |
| 4. Chiapas | 17. Nayarit |
| 5. Chihuahua | 18. Nuevo Leon |
| 6. Coahuila | 19. Puebla |
| 7. Colima | 20. Queretaro |
| 8. Distrito Federal | 21. Quintana Roo |
| 9. Durango | 22. San Luis Potosi |
| 10. State of Mexico | 23. Sinaloa |
| 11. Guanajuato | 24. Tamaulipas |
| 12. Guerrero | 25. Tlaxcala |
| 13. Hidalgo | 26. Veracruz |
| | 27. Yucatan |
| | 28. Zacatecas |



Source: CONACYT.

Indicators of decentralization of scientific and technological activities, 2011:

- 63.4 percent of the national scholarships granted by CONACYT, were given to students in graduate programs of institutions in 31 states of the country.
- 73.4 percent of the graduate programs listed in the PNPC are offered in the states.
- 58.4 percent of basic science projects supported by CONACYT were from institutions in the 31 states.
- 93 percent of the funds devoted to the strengthening of research groups, were obtained by institutions located in the states.
- 59.6 percent of scientists in the SNI have their residence out of Mexico City. The states that accounted for more scientists and technologists were Baja California, State of Mexico, Guanajuato, Jalisco, Morelos, Nuevo Leon and Puebla.

Other actions to fasten the decentralization and strengthening of Science and Technology capacities in the states, during 2011, were:

- 82 percent of the financial resources distributed through the *Program for Fostering Innovation* were directed to firms and higher education institutions linked to the states.
- 52.3 USD million were invested through FORDECyT and FOMIX, public policy instruments designed for the development of regions and states.
- In a joint effort with state governments, more than 0.3 USD million were invested in outreach activities for the Science and Technology National Week.

Objective 3

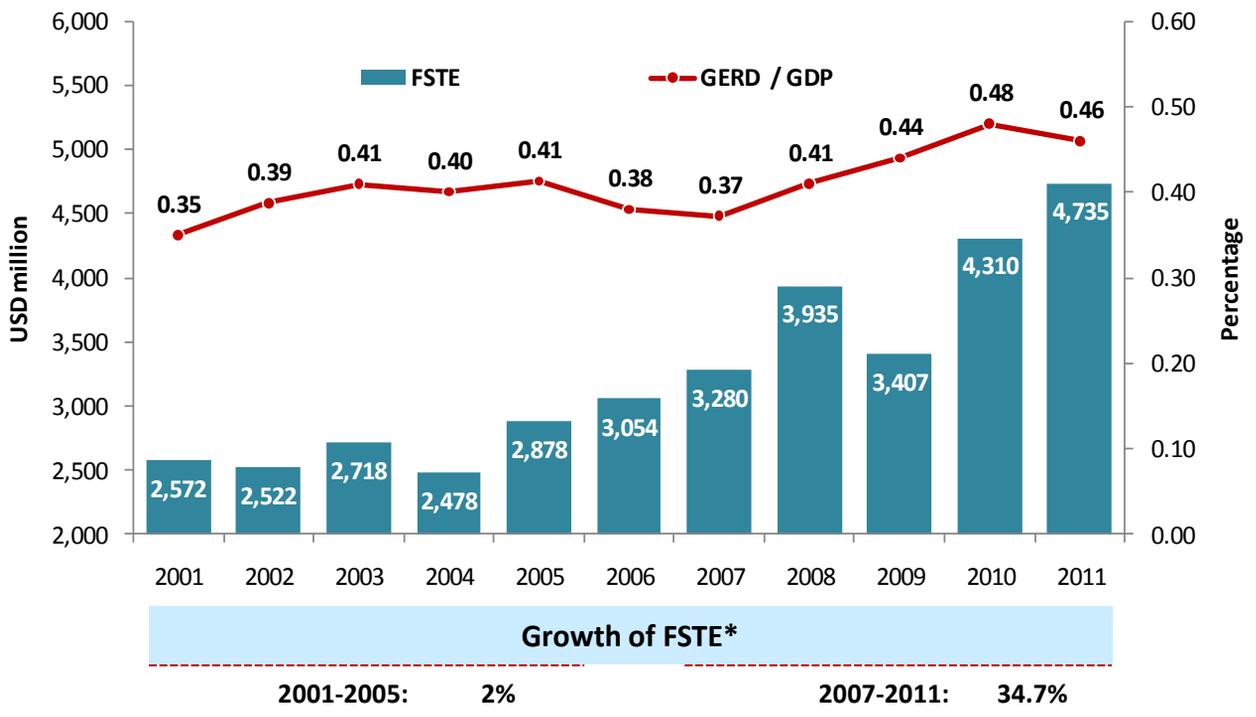
Promoting increased funding for basic and applied sciences, technology and innovation.

The Federal Science and Technology Expenditure (FSTE) for the 2011 fiscal year, was 4,735 USD million, representing an increase of 2.4 percent, in real terms* compared to 2010.

Investment in R&D compared to GDP for the year was 0.46 percent, reflecting the governmental budgetary restrictions, as well as the need for a future greater effort coming from the private sector.

Federal Science and Technology Expenditure, 2001-2011

In USD million and as percentage of GDP



GERD: Gross Domestic Expenditures on Research and Development.

GDP: Gross Domestic Product.

Sources: SHCP, Cuenta de la Hacienda Pública Federal, 2001-2011.

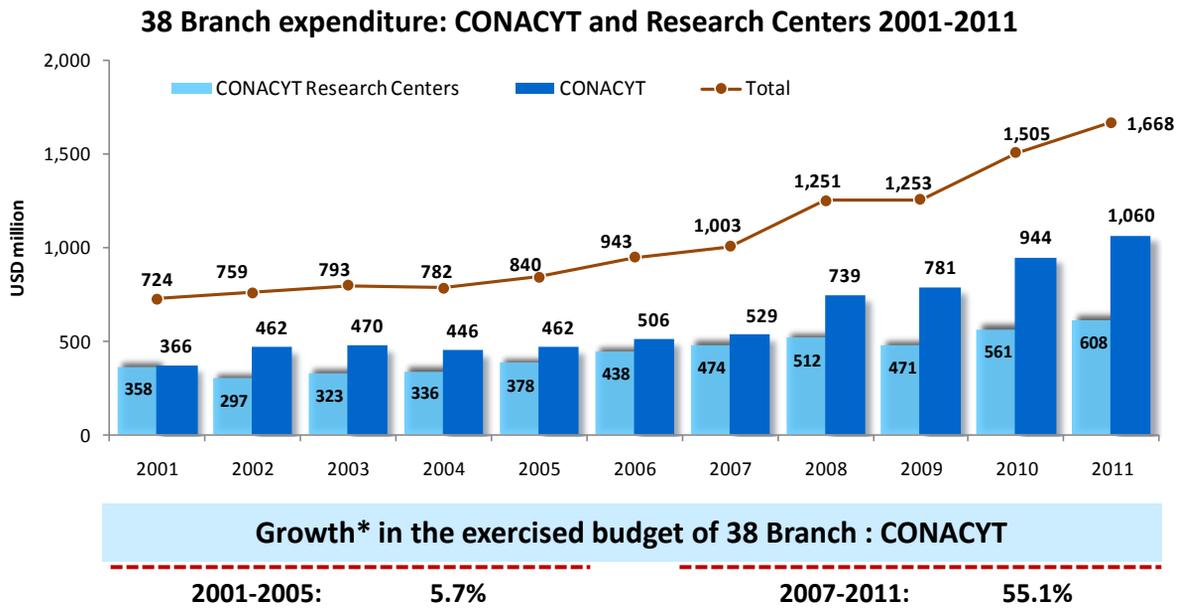
Conacyt.

* The real growth was calculated in 2011 constant pesos.

Expenditure by CONACYT and Research Centers; 2011

The 38 Branch expenditure was 1,668 USD million, during 2011. This is 3.4 percent higher in real terms* if compared with the previous year's amount. The Research Centers' expenditure represented 36.4 percent of the 38 Branch's total budget.

The growth* in financial expenditure allocated to the 38 Branch during the 2007-2011 period was of 55.1 percent; a considerable increase compared with the increase of 5.7 percent during the 2001-2005 period.



Sources: SHCP, Cuenta de la Hacienda Pública Federal, 2001-2011.
Conacyt.

* The real growth was calculated in 2011 constant pesos.

Public resources to encourage investment in science, technology and innovation, through instruments derived from the Law on Science and Technology

To promote scientific research, technological development and innovation in the country, CONACYT manages trust funds. The results for 2011 were, among others, the following:

- Sectoral Funds: management of 20 joint funds in partnership between CONACYT and some ministries and Federal Government institutions.
- Mixed Funds: there are 34 jointly in force between CONACYT and the 32 Federal Entities, and two municipalities, Ciudad Juarez and Puebla.
- Institutional Funds: These funds are directly managed by CONACYT to foster additional scientific, technological and innovation programs.

Basic Science Research

The 2010-2012 Call for projects, considered three stages; as a result of the second stage, related to 2011, 617 projects were supported with a total amount of 66.4 USD million.

Basic science research projects supported, 2011

Area	Projects (number)	Amount (USD million)
Physics, Mathematics and Earth Sciences	127	11.5
Biology and Chemistry	134	15.9
Medicine and Health Sciences	84	9.7
Humanities and Behavioral Sciences	36	2.9
Social Sciences and Economics	31	3.0
Biotechnology and Agricultural Sciences	78	8.8
Engineering	110	12.0
Multidisciplinary Research	17	2.9
Total	617	66.4

Source: CONACYT.

Projects supported by sectoral funds, 2011

Fund	Projects	Amount USD million
SENER-CONACYT Hydrocarbon	8	34.7
SENER-CONACYT Energetic Sustainability	5	1.8
ECONOMÍA-CONACYT Technological Innovation	114	23.1
SAGARPA- CONACYT ^{1/}	12	18.1
CONAFOR-CONACYT	12	1.7
SECTUR-CONACYT	6	0.9
SEMAR-CONACYT	4	3.3
CONAGUA-CONACYT	4	1.5
SSA/IMSS/ISSSTE-CONACYT	91	9.3
CONACYT-INEGI	2	0.4
Total	256	94.8
ASA-CONACYT ^{2/}	42	31.4

1/ Includes two macro projects for 3.5 USD million and ten projects for 11.7 USD million.

2/ Refers to the proposals and the corresponding amounts requested. At the end of 2011 the proposals were in the process of *peer review* evaluation.

Source: Conacyt.

Incentive Programs for Research, Technological Development and Innovation

- During 2011, 543 projects were supported with an amount of 187.2 USD million.
- One of the main objectives of the program is to strengthen linkages between the academic sector and firms. In 2011, projects with this type of linkages represented 84 percent of the total. Of the 187.2 USD million directed to the program, 78.3 USD million (41.9 percent) were specially directed to create new linkages between these sectors.

Amounts distributed by the program, 2009-2011

Year	Projects	Amount (USD million)
2009	503	133.9
2010	677	189.7
2011	543	187.2
Total	1,723	510.8

Source: CONACYT.

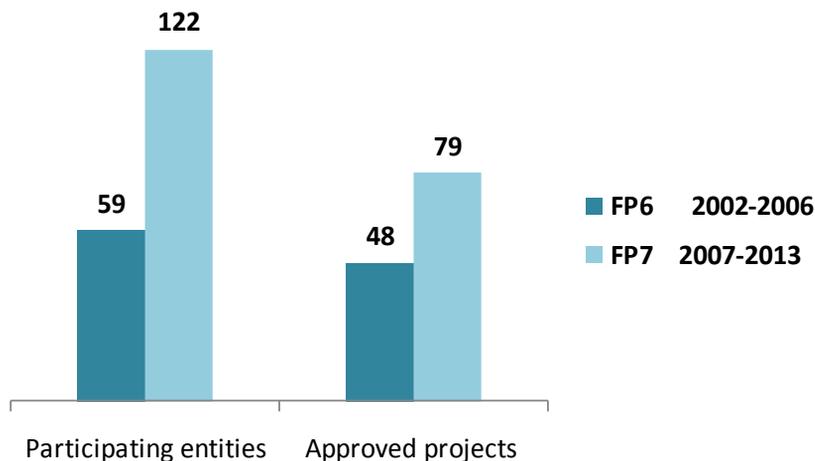
International cooperation

The Agreement for Scientific and Technological Cooperation between Mexico and the European Union is the main framework to foster scientific and technological collaboration between entities of both sides. Actions start with the dialogue at the political level and up to the development of specific scientific research, technological development and innovation projects, including mobility of experts. The general Agreement was renewed at the end of 2010, for a further five year period (2010-2015), establishing a firm commitment to continue boosting joint efforts.

It is important to emphasize the specific mechanisms jointly implemented by the European Commission and CONACYT to foster the development of research and innovation, like the creation of FONCICYT, and some other actions developed in thematic areas of common interest, like the Joint Call of Nanotechnologies and the cooperation at the level of two programs on health (diabetes and obesity) in the scope of the EU's 7th Framework Program for Research and Technological Development (FP7).

These efforts contributed to increase Mexico's participation in the FP7, compared with the previous program (FP6). In the FP7, 79 projects were approved, 64 percent more than in the FP6; regarding to the number of participating entities, the increase was 106 percent, going from 59 to 122 organizations.

Participation in the FP6 and FP7; participating entities and projects approved



FP6: 6th Framework Program. 2002-2006.

FP7: 7th Framework Program. 2007-2013.

Source: Directorate-General for Research and Innovation'. European Commission.

Iberoamerican Program CYTED

In the framework of the Iberoamerican program for the Development in Science and Technology, CYTED, the complete genetic sequence of the bean (*Phaseolus vulgaris* L.) was decoded in 2011. The *PhasIbeAm* project, whose main aim was to obtain the genetic code of these species was finished. This knowledge is expected to allow genetic improvement of the specie and the emergence of new varieties. It will also redress a more rational conservation of the iberoamerican genetic patrimony. The project was funded by the Ministry Science, Technology and Productive Innovation of Argentina, the Conselho Nacional de Desenvolvimento Científico e Tecnológico of Brazil, the Ministry of Science and Innovation of Spain and CONACYT of Mexico.

Bilateral cooperation

- In 2011 a total of 206 projects were funded by CONACYT to encourage mobility of researchers between Mexico and other 17 countries. Around 1,500 national and foreign researchers participated in these projects.
- Within the framework of agreements signed on a bilateral level, from May to October several joint calls were published: Germany, Argentina, Belgium, Colombia, Chile, United States, France, India, Italy, Japan, Quebec and the Czech Republic. Projects derived from these calls will be funded during 2012.

International Cooperation Agreements

- The agreement between the Ministry of Science, Technology and Environment of Cuba (CITMA), and CONACYT was renewed. The agreement supports the mobility of researchers between both countries, fosters joint collaboration through research projects and students exchange through the Scholarship Program.
- A Cooperation Agreement for Research and Innovation between the Government of Quebec and CONACYT was signed .
- The agreement signed between CONACYT and A*STAR will support scientific cooperation and the creation of scientific and technological networks with Singapore. Biomedicine, energy, environment, nanotechnology and aerospace industry, are included as priorities for joint projects and the exchange of researchers within this agreement.
- A Cooperation Agreement with the University of Manchester for the establishment of a joint program called CONACYT-EPS has, as its main objective, acknowledge students with the “Doctoral Scholarship in Solid State Experimental Physics” if they have reached excellence on this area.
- Cooperation Agreements for granting graduate scholarships were signed with the University of Texas at Dallas, the University of Texas at Arlington, and the Barcelona Supercomputing Center.
- CONACYT and the Massachusetts Institute of Technology (MIT) signed a joint collaboration program to support research and cooperation projects in areas of mutual interest.

Second Meeting of Ministers and High Authorities on Science and Technology in Latin America and the Caribbean

In order to promote the implementation of the best practices in innovation for the congruous development of the region, a second meeting was held in the city of Guanajuato in March 2011. Authorities, guests and representatives of the Economic Commission for Latin America and the Caribbean (ECLAC), the Inter-American Development Bank (IDB), the Organization for Economic Cooperation and Development (OECD), the Iberoamerican Secretariat (SEGIB), attended from 18 countries in the region.

The coordination across joint working groups on six priority areas (Climate Change; Health; Applied Biotechnology for Health and Industry; Food Security; Energy; and Biodiversity) is one of the most important agreements reached.

It also established the coordination of policies in Science, Technology and Innovation through a mechanism referred as “Initiative on Innovation Policies in Latin America and the Caribbean”.

Objective 4

Increasing investment on infrastructure to support scientific, technological and innovation activities.

Strengthening the public research centers coordinated by CONACYT

- Fines imposed to political parties in January-March, 2011 were collected by the Federal Electoral Institute. The 3.3 USD million funds were allocated to support eight infrastructure projects of the CONACYT 's public research centers.
- After the 2011 Call for the Strengthening and Consolidation of Scientific and Technological Infrastructure of CONACYT 's public research centers, 4.0 USD million were allocated to five projects out of the 20 projects approved.

Other relevant activities to strengthen the public research centers coordinated by CONACYT:

- To provide closer services to industries in the northwest region, the Center for Engineering and Industrial Development (CIDESI) and the Center for Research and Technological Development in Electrochemistry (CIDETEQ) started activities in the "Consortio Tecnológico en Tijuana, B.C.".
- Resources were approved to CIDESI and to the Center of Advanced Technology of Queretaro (CIATEQ) for the establishment of their units in the State of Mexico. The objective is to support firms for the development of high technology projects.
- The Institute of Ecology (INECOL) initiated the project "Extension and Modernization of its Scientific and Technological infrastructure". This ambitious project will build a new branch of the Institute.
- The Center for Research and Teaching in Economics (CIDE) opened its first unit in the city of Aguascalientes and started teaching the Government and Public Finance Bachelor Degree.
- The Center for Research and Assistance in Technology and Design of the State of Jalisco (CIATEJ) opened a unit in the Research and Technological Innovation Park of the State of Nuevo Leon. The unit will be committed to the development of projects in areas such as fruit farming, biotechnology and food technology.
- The Center for Biological Research of the Northwest (CIBNOR) established in the State of Baja California Sur, the Park of Technological Innovation BIOHELIS, with the participation and support of the State Government and CONACYT.

The strengthening and development of scientific and technologic infrastructure

During 2011, three calls for projects were published to provide additional funding to groups and networks for the strengthening and development of scientific and technologic infrastructure.

After the evaluation of the proposals received, 98 projects were approved with a total amount of 20.2 USD million.

Name of the Call	Number of projects	Resources (USD million)
Complementary Support for the upgrading of scientific equipment	66	13.7
Strengthening academic and research groups by providing scientific equipment, 2011	17	5.4
Co-financing infrastructure for the research on genetically modified organisms	15	1.1
Total	98	20.2

Source: CONACYT.

Scientific and Technological Infrastructure; National Information System

CONACYT is in process of developing the system. Its objective is to build and access a database of the main facilities and their equipment for scientific research and technological development in Mexico.

With the support of the Institute of Applied Mathematics and Systems (IIMAS), the platform was completed by December 2011. The system is planned to be a dynamic repository of updated information about the nation's main laboratories and current equipment; their characteristics, capacities and services provided by the main Higher Education Institutions, research centers coordinated by CONACYT, and other public and private research centers, firms, research networks, thematic networks, among others.

With this project Mexico will have a dynamic inventory of the scientific and technological infrastructure.

Objective 5

Evaluating the public investment oriented to the development of science, technology and innovation: training for high quality human resources, scientific research and technological development, and innovation.

Results Based Management

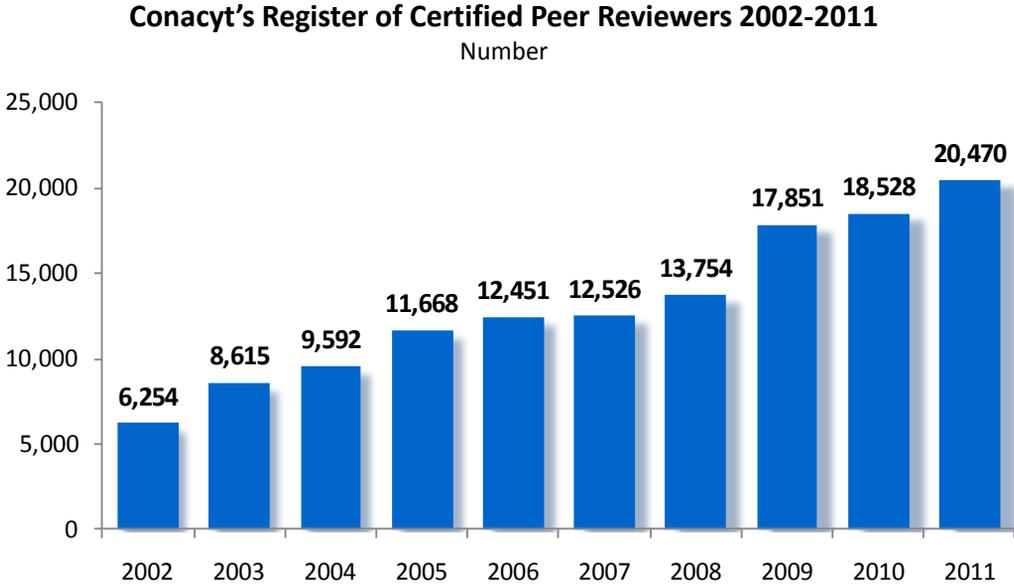
Specific evaluations regarding the performance of the following programs were concluded: **Scholarships, National Researchers System (SNI), Sectoral, and Mixed Funds.**

Additionally, the final stage of the impact evaluation of the **Program to Foster Innovation** was finished by December 2011.

Regarding the evaluation of mixed funds, which is based on the beneficiaries' perception, the phase of data collection coming from the most direct users ended, and the Index of Satisfaction, using structural equations was determined. The qualitative phase coming through the analysis of the results of a survey applied to indirect users, was also concluded.

National System of Scientific and Technological Assessment (SINECYT)

In 2011, the Conacyt's Register of Certified Peer Reviewers (RCEA) accounted 20,470 experts, a figure 10.5 percent higher than the previous year. The RCEA growth during the 2007-2011 period was 63.4 percent.



Source: CONACYT.

Iberoamerican Bank of Peer Reviewers on Scientific Research, Technological Development and Innovation

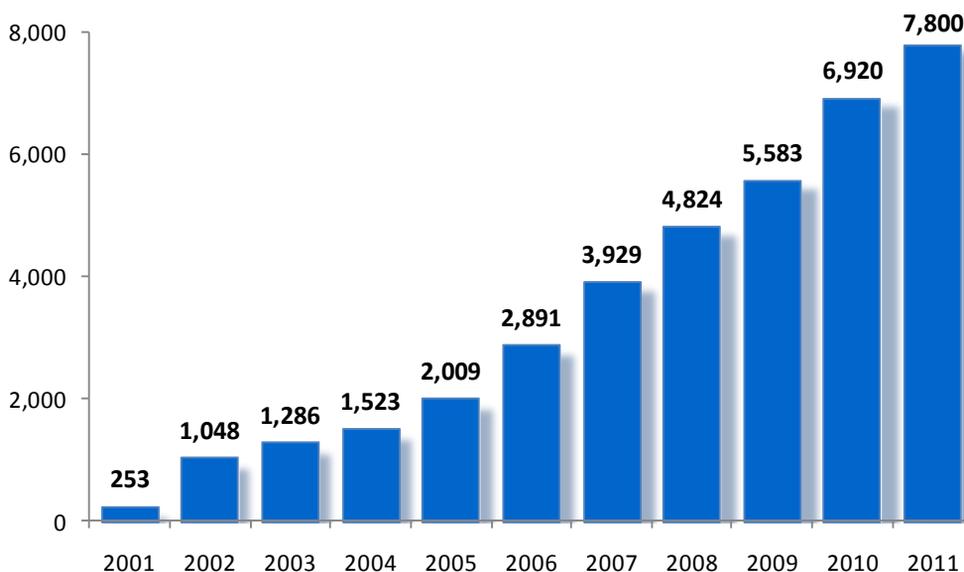
In different Calls for projects from Colombia, Spain, Uruguay and Mexico, international experts participated in evaluations through the use of this Bank. As an example, Colombia's Department for the Management of Sciences, Technology and Innovation-COLCIENCIAS, convened 33 peer reviewers listed in the RCEA-CONACYT to evaluate projects of the Program of Science, Technology and Innovation in Health.

National Register of Scientific and Technological Firms and Institutions (RENIECYT)

This Register of institutions, research centers, firms and individuals in the public and private sectors with activities in Science, Technology and Innovation is permanently updated. By the end of 2011 the Register had 7,800 records, a figure 12.7 percent higher than 2010.

Scientific and Technological Firms and Institutions in RENIECYT

Number of records



Source: CONACYT.

Research Centers Coordinated by CONACYT

Composed by 26 institutions, the CONACYT's System of Research Centers is an effectively decentralized mechanism of the national scientific and technological activities. During the 2007-2011 period, the system increased in a 15 percent its enrollment of graduate students, in an 18 percent the number of its SNI members, and in a 27 percent the number of published articles.

Outcomes of the Research Centers Coordinated by CONACYT

Concept	2007	2008	2009	2010	2011 ^{p/}
Postgraduate programs belonging to PNPIC	93	96	96	107	108
Graduate students	7,056	8,427	9,604	7,941	8,140
SNI members	1,236	1,322	1,413	1,424	1,460
Scientific articles	1,785	1,841	2,143	2,206	2,261
S&T research projects	3,175	3,156	3,664	3,513	3,601

p/ Preliminary figures.

Source: [Annual](#) reports of the CONACYT's system of Centers.

National Survey on Research and Development and its Modules on Biotechnology and Nanotechnology (ESIDET-MBN) 2012

- The survey is based on the collaboration agreement signed between INEGI and CONACYT
- During 2011, the planning and preparation stages to carry out the survey were concluded
- For the first time, the sampling process of the ESIDET 2012 survey will be statistically representative for each of the states of the country

Specialized Technical Committee on Science, Technology and Innovation Statistics (CTEECTI)

Formally installed in 2010, this committee is chaired by CONACYT, with INEGI acting as the technical secretary. The Scientific and Technological Advisory Forum, and the Ministries of Economy and Education have seats in this committee.

At the last meeting of 2011 the CTEECTI, achieved the following agreement:

- To present to INEGI's Government Council the proposal of a set of indicators to be considered at a national level as Science, Technology and Innovation key indicators. If the proposal is accepted a close follow up to the policies of the sector will be in force.

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