



Annual Report 2011



Highlight of the year:

**CELTA – CERTI'S company incubator completes 25 years
Promoting Innovative Companies**

Other Certi highlights in 2011

- Digital TV
- OLED Lighting
- Pharmaceuticals and Electronics
- Energy Efficiency – Smart Grid
- Entrepreneurship and Internationalization

CERTI Foundation Administrators in 2011

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Günther Pfeiffer (Finance and Administration – Interim)

Laercio Aniceto Silva (Business)

José Eduardo Azevedo Fiates (Coordination of Science, Technology and Innovation)

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Many Brazilian companies have become aware of and are already seeing in their business the positive results of the practice of innovation and the difficulties that can arise when they do not have sufficient command of the technology innovation process.

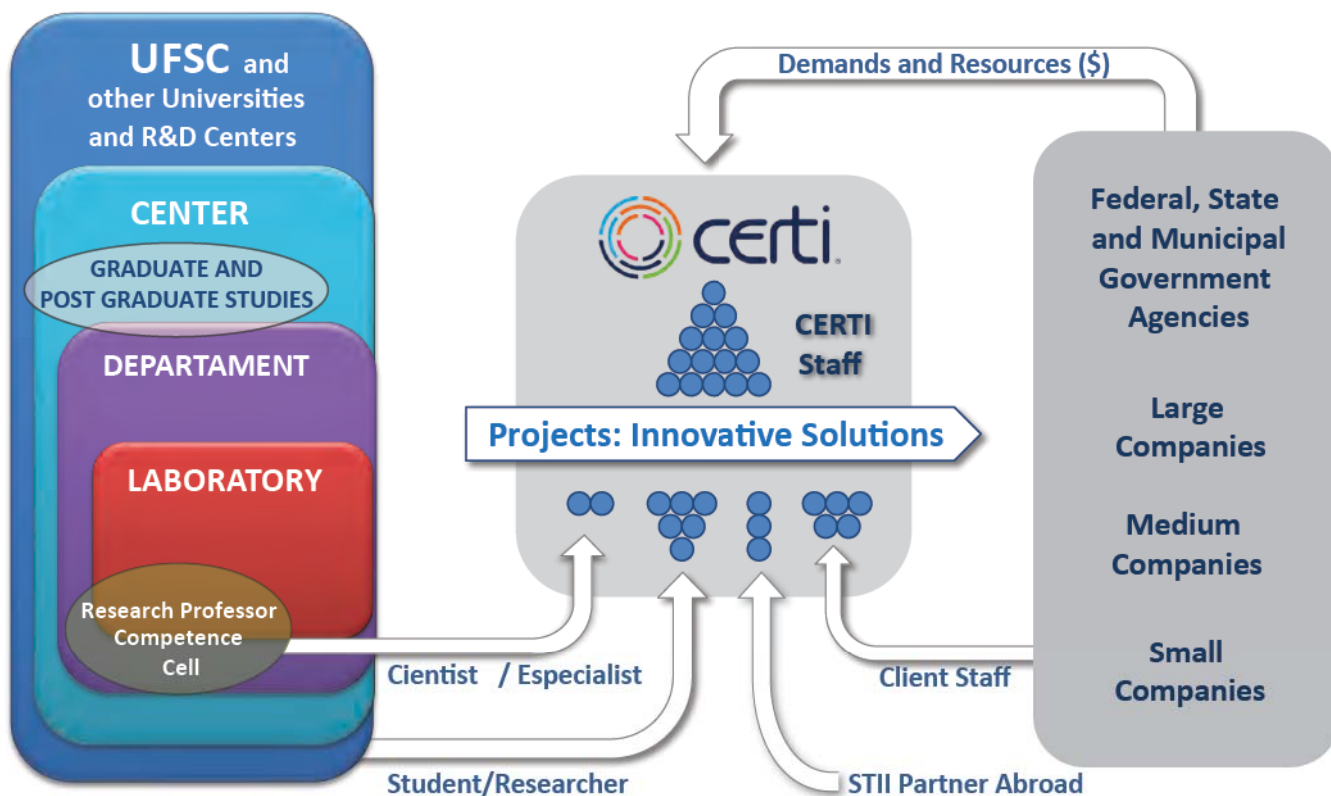
In 2011, the requests for support for innovation made by companies and other client organizations led to 20% growth in CERTI activities.



With an operating model that is unique in Brazil, as indicated in the chart below, the CERTI Foundation, aggregating its competencies to those of other science, technology and innovation institutions (STIs) that are local partners, or those elsewhere in Brazil and abroad, develops innovative solutions of great value to society, companies and public agencies. This result can be appreciated in this Annual Report, which this year is beginning to be presented in a more compact format.

CERTI's executives would like to thank their clients, partners and support agencies for the opportunities to conduct the strategic and innovative activities undertaken in 2011 and present their appreciation and comments.

Carlos Alberto Schneider, Prof. Dr.-Ing
General Superintendent of the CERTI Foundation



CERTI Operating and Partnership Model



Strategic and Institutional

Although not counting on a base financial, the systematic support usually granted by governments in developed countries to organizations that are strategic to national developed, the CERTI staff worked in a very competitive way, managing to achieve sustainable growth in services, expressed by the 20% expansion in its operating income and improved productivity.

Carlos Alberto Schneider, Prof. Dr.-Ing.
General Superintendent

The CERTI Foundation's Board of Trustees and Strategic Forum



A moment of a Board of Trustees Meeting



A moment of the Annual Meeting of the Strategic Forum

In its three ordinary annual meetings, the Board of Trustees follows and guides the development of business and activities to complement the decisions taken about the Annual Report and Balance Sheet, about the Annual Plan and Budget and about legal and strategic issues. In 2011, two extraordinary meetings were called, one concerning the sale of shares in an innovative company, which received special support for its development, and another meeting to make adjustments to its by-laws. The members of the Board of Trustees also met at the annual meeting of the Strategic Forum (photo left) which analyzed and promoted important contributions to CERTI's Strategic Plan 2020 .

Superintendents of the CERTI Foundation



From left to right: Laercio (Business), Schneider (General) Günther (Operations, Administration and Finance) and José Eduardo (S&T&I).

The superintendents are responsible for the executive management of the CERTI Foundation. In bi-weekly meetings of an operational and strategic nature and in biannual meetings with all of the executive directors of the eight current reference centers (RCs), they align CERTI's actions and provide institutional oversight and guidance.

Management



Special attention was given in 2011 to the methodological improvement of the management of the technology innovation process and for the promotion of innovative entrepreneurship, with the goal of creating and developing innovative and dynamic companies. CERTI, acting throughout Brazil, also dedicated special attention to some local initiatives highlighted below, to strengthen experiences and the development of the Greater Florianópolis Technology Pole - TECNÓPOLIS.

José Eduardo Azevedo Fiates, M. Eng.
Coordinator of S&T&I

Structuring Actions to Promote the Innovation of the Greater Florianópolis Technology Pole – TECNÓPOLIS



CVentures

Important advances and articulations were undertaken to establish and capitalize the seed fund to support the countless innovative companies that have been rising at the Tecnópolis, mostly as spin-offs of R & D activities at UFSC and other STIIs, particularly those identified and supported by FAPESC's Synapse Innovation Program for the generation of new innovative companies.



Pharmaceutical Cluster

Together with the direction of CERTI's Reference Center in Pharmacology (CRF), intense articulations were made to promote, in association with the implementation of the CRF at Sapiens Parque, a dynamic cluster of synthetic and biological pharmaceutical products, with the creation of innovative companies and the attraction of R&D laboratories and companies from the sector to Santa Catarina.



Sapiens Park

Ten years since its conception by CERTI, important projects like that of INPETRO at UFSC, CRF of CERTI and the InovaLab, the Incubator for Mobilizing Projects for Sapiens Parque, have been proving their role as nucleators of technology clusters, attracting companies and other technology projects and leveraging the development of the innovation park.

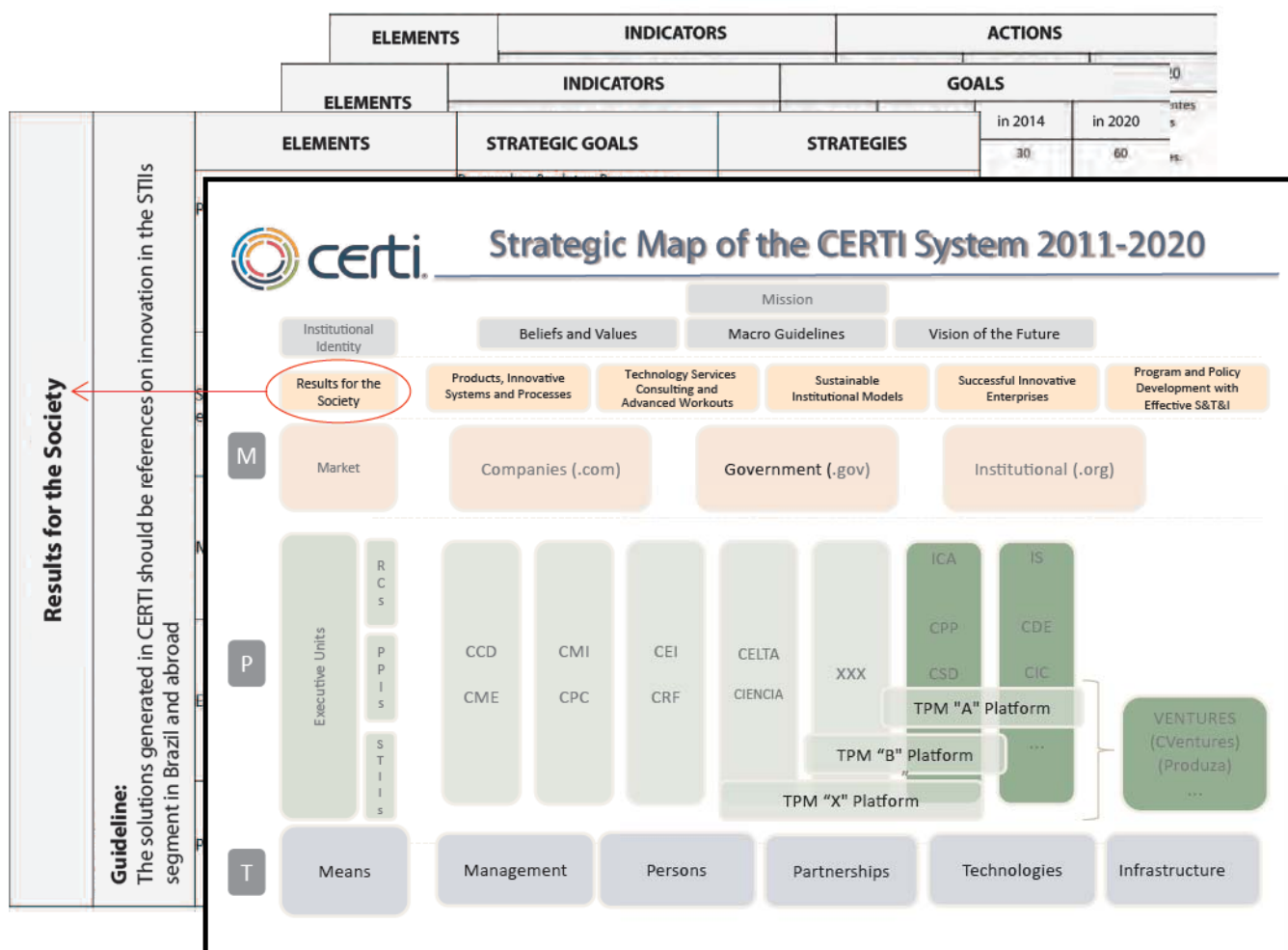


Municipal Innovation Law of Florianópolis

The CERTI staff was an important participant in the formulation of a pioneer law in the country to promote innovation in the municipality and in municipal administration. This initiative of the Municipal Secretariat for Science, Technology and Sustainable Economic Development of the Florianópolis municipal government will be a new and important stimulant to sustainable development in the city, to bolster its designation as the Capital of Innovation.

Strategic Plan for the

Initiated in 2010, the Strategic Planning for the CERTI System in 2011 was consolidated with the expressive involvement of the superintendencies and management of the reference centers, as well as the CERTI Foundation Board of Trustees and Strategic Forum. The instrument that supports institutional development in this new decade has the Strategic Map, presented below, as a summary of the topics planned at the level of short, medium and long term actions, on both the general level for the foundation as a whole and for each one of the operating units of the CERTI System. The 2020 Plan calls for the consolidation of a partner organization of the business and government sector, to have an impact on Brazil's social, economic and environmental development.



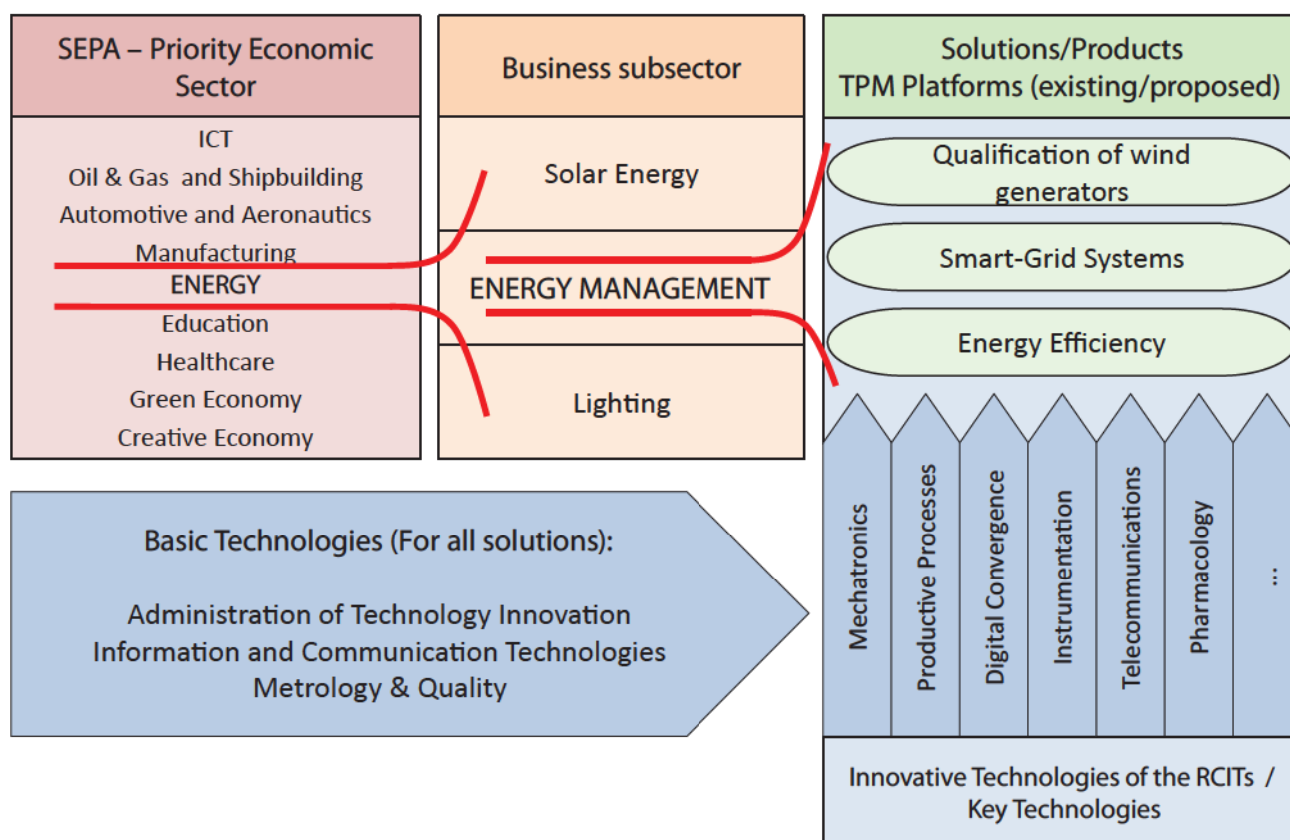
Guidelines for Action and Development

- Focusing on Science, Technology and INNOVATION, with command of practical operations to be able to serve the most demanding clients.
- Growing intensively, with sustainability and in such a way as to have an impact on facing national challenges.
- Being a protagonist of mobilizing projects of relevance for the Brazilian business sector.
- In addition to being a provider of technical-scientific solutions, to be an integrator of competencies of partners in Brazil and abroad, expanding their innovative solutions and making them more agile.
- Promoting continuous training for the staff with technical-scientific partners, to assure that the business units, the Reference Centers, are effective references in Brazil and internationally.

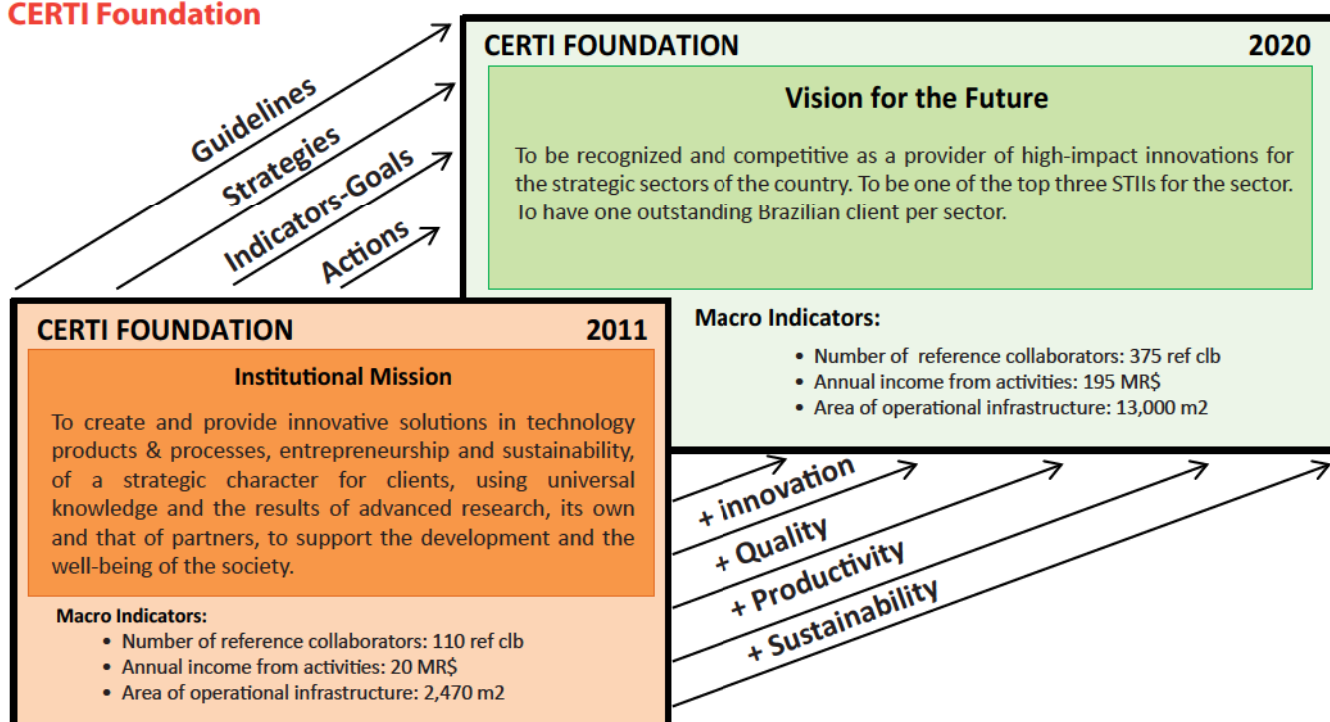
Decade 2011- 2020



Considering Brazil's development priorities expressed by federal government policies, and those of the National Confederation of Industry (CNI) and business associations, particularly by the Business Movement for Innovation, and considering the set of current and future competencies recognized by the CERTI System and its partners, a set of routes of interaction was modeled between the priority economic sectors and the CERTI Reference Centers, as shown below, characterizing the action focused on sectoral demands.



This is the summarized Vision for 2020 for the CERTI Foundation





Operational, Financial and

In 2011, the CERTI Foundation grew 20% in relation to the previous year. To sustain this growth, intensive efforts were made in operational management, highlighted by the challenges associated to the execution of contracted activities, the expansion of the work teams, the operationalization of cooperations, the implementation of new physical infrastructure and laboratories, the exportation of services and the growing complexity needed to run projects financed with public funds.

Günther Pfeiffer, M. Eng.

Superintendent of Operations and Finance and Administration

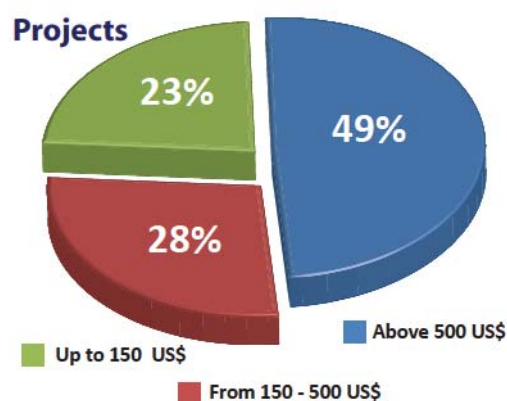
NATURE OF THE ACTIVITIES REALIZED

The table below presents the spectrum and intensity as a result of the income of the activities undertaken in 2011, which represent a universe of more than 850 clients from a wide variety of sectors, sizes and regions of Brazil.

| | |
|---|-------|
| Scientific and Technological Research | * 8% |
| Development of Studies and Planning | * 25% |
| Development of Products, Process and Innovative Systems | * 45% |
| Providing Advanced Technology Services | 13% |
| Short Term Training and Assistance | 6% |
| Incubation of Technology Based Companies | 3% |

SIZE OF PROJECTS

Nearly 80% of the revenues comes from Projects (* above). Considering 91 projects executed in 2011, 63 were initiated in that year. The chart to the right shows the projects in execution (in December 2011), in terms of their size.



STAFF CHART

The size of the staff grew 10% in relation to 2010, and in December 2011 was composed by people with the professional levels indicated below:

| Master's | Bachelor's | Technicians | Administrative | Interns | Total |
|----------|------------|-------------|----------------|---------|-------|
| 55 | 67 | 23 | 112 | 67 | 324 |

SUPPORT SYSTEMS FOR OPERATIONAL MANAGEMENT

Seeking to perfect the management methods and systems developed and practiced at the institution, intense actions and investments were undertaken in the improvement and integration of the Management Information System (ERP, ECM, Collaborative Portal), of the Systematics of Planning/Execution/Project Evaluation, and of the digital integration, via the Data Ring, of CERTI units operating in different environments in the Florianópolis metropolitan area.

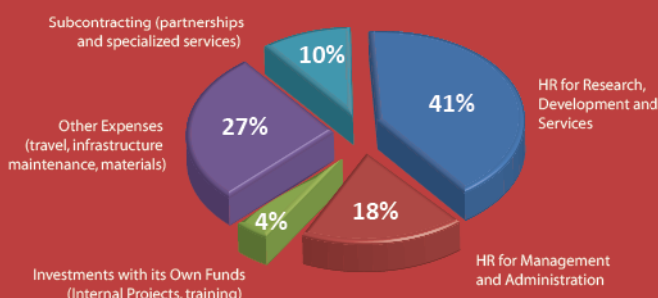
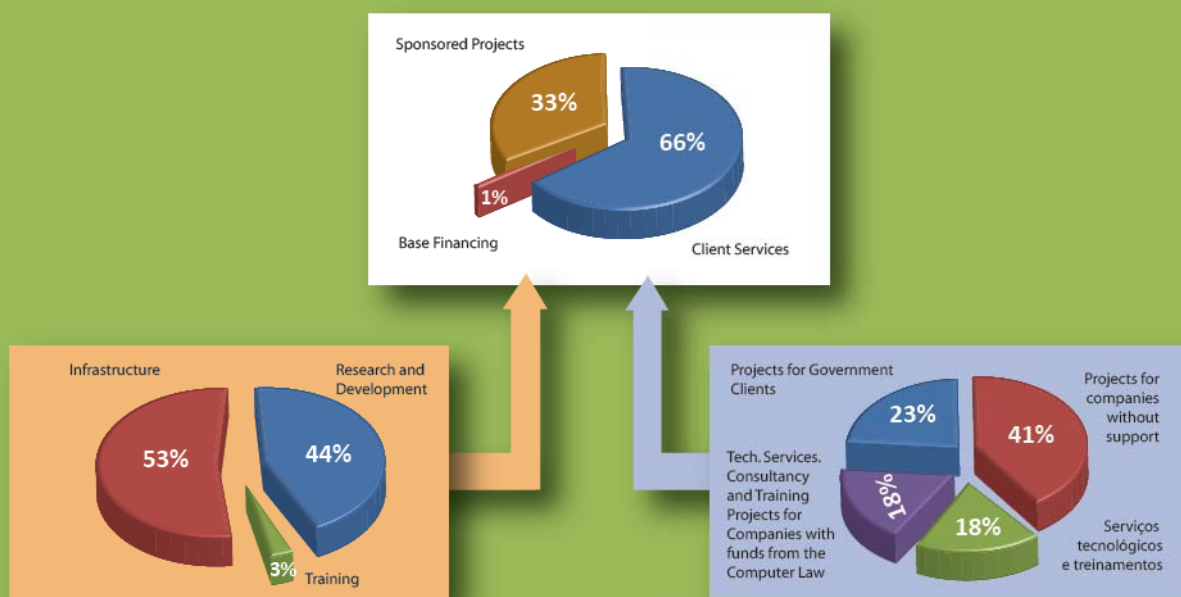
Administrative Management



The challenges of administrative and financial management in 2011 were concentrated, on one hand, on the process of organizational growth, illustrated in the graph below, and on the other, in particular, on attending the growing bureaucracy and processes for control and auditing undertaken by agents and mechanisms of support and monitoring and control agencies, as well as the adaptations of the institution to the frequent changes in rules for use of public funds and or tax incentives, in addition to overcoming the restrictions caused by contingency budget in contracted projects. In 2011, the CERTI Foundation was successful in meeting the necessary economic self-sustainability for the fiscal year. Below are presented the facts related to the composition of the respective revenue and expenses in the period.

INCOME (composition)

CERTI revenues have been growing in 2009, 2010 and 2011, in that order. Two-thirds of total income are related to the execution of activities directly for the soliciting client. The resources for "Base Financing," which is essential to making viable investments in the competitiveness of the institution, remained, as in previous years, at a level very far from the 20% called for in the institutional model. Sponsored projects, which represent 1/3 of income, made viable an important modernization of laboratory infrastructure and the generation of technological competencies in



EXPENSES (composition)

The figure to the left presents the composition of expenses in 2011, highlighted by the limited capacity for investments in training.



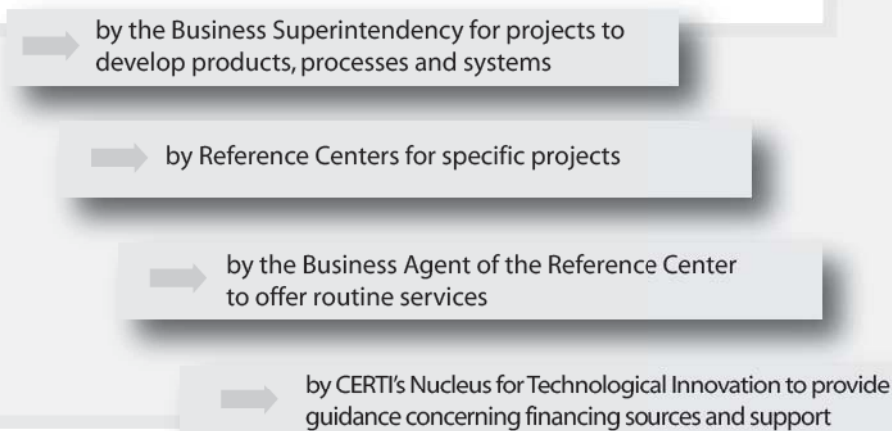
Business Management

The Business Superintendency established the structure needed to integrate CERTI's marketing and technology aspects, while maintaining good communication with the market, specialized knowledge, flexibility and adaptability. Business development was expanded in new markets, in particular those for energy and green economy. Key clients were consolidated by achieving a greater understanding of their business, value proposition and competitive distinction. The global vision focused on results favored the continuity of partnerships and the recommendation of CERTI to cooperate in research, development and innovation with other companies and organizations.

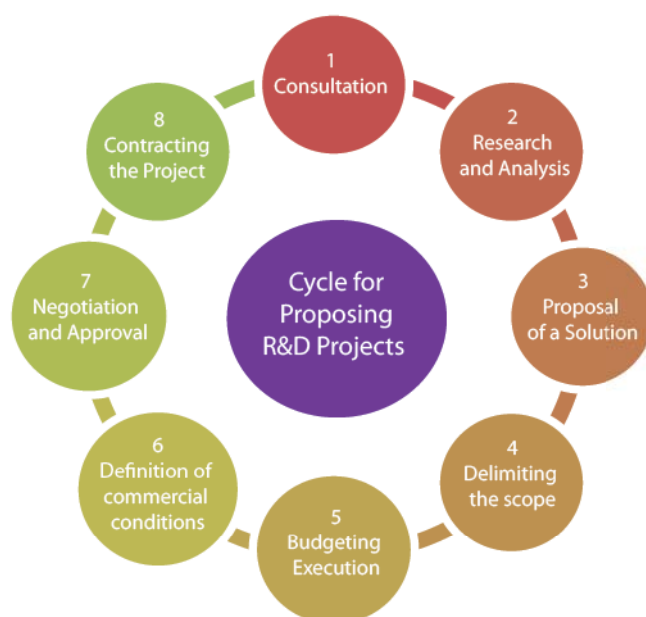
Laercio Aniceto Silva, MBA
Superintendent of Business

Client Service

The distinct forms of accessing CERTI in search of its services and innovative solutions were perfected:



In projects of greater size and complexity, the implementation of the project results from a process of learning and work, together with the client.



CERTI operates in strategic areas in the Brazilian market, combining its competencies in multidisciplinary projects. Working with the most modern methodologies, tools and technologies it develops challenging projects to improve the competitiveness of companies and improve the quality of life, generating important economic and social impacts.

CERTI has a model of operation that is focused on the cooperation among its centers, and with other institutions and companies on international level, which allows supporting clients from the conception of the idea and analysis of the business, to the development of the product and the manufacturing and integration processes, as well as in pilot production series.

and Marketing

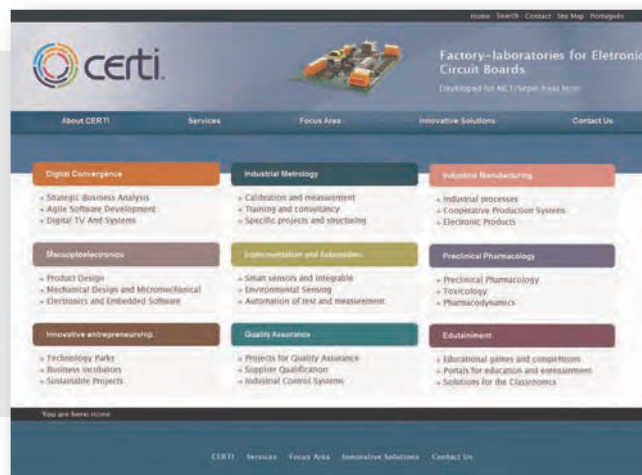


In 2011, CERTI advanced in the development of communication and marketing, and expanded its data base about opportunities and orientation for R&D and innovation projects, as summarized below.

CERTI Portal

The new CERTI Portal improved communication channels with the market, making the promotion of competencies and success cases more effective, also allowing strong growth in requests for information and proposals for services.

www.certi.org.br/en



Nucleus for Technological Innovation

Tax Incentives for Research and Development (Innovation)

Companies that manufacture products that contain intelligence (with information and communication technology) can benefit from incentives under Brazil's Informatics Law for the development of products and processes. CERTI, accredited by MCTI/SEPIN/CATI, can guide the conquest, use of and bookkeeping for the benefits, and be an efficient development partner. Moreover, companies from any other sector can have CERTI as a partner, and use the benefits offered by Brazil's "Law for the Good" and other fiscal Incentives. In 2011, this capacity for consultancy was perfected.

Support and Financing for Innovation Projects

Companies have multiple opportunities to capture financial and economic support (with or without reimbursement) for their projects for innovative products and process. In 2011, CERTI systematized knowledge about access and use of opportunities on a federal level, through agencies such as BNDES/FUNTEC, MCTI/FINEP/Subvenção/Sibratec/ICT-Company and other programs, and on a state level, such as FAPESC/Pappe/Innovation Sinapse, SEBRAETEC, SESI-SENAI and others. Support from CERTI can range from the conception of the project to technical support for its execution. On the other hand, there is also financing that can be accessed more agilely, at any time and with especially advantageous conditions, granted by agencies such as BNDES, FINEP, development banks and others, associated to innovation policies. Completing the opportunities, there is the possibility for support or financing for companies that are concessionaries of petroleum and gas, mining, electrical energy etc, which can invest for innovative projects of Brazilian companies. The opportunities are countless, and require a systematic analysis to identify the most opportune one.

Intellectual Property and Confidentiality

CERTI, as an entity for support for innovation at companies, continuously confronts the issue of intellectual property, a fact that in general, is increasingly concerning to its clients. The strategy to secure or not proprietary rights and participation in results is agreed to on a case-by-case basis, and in the first steps of the interaction, with complete flexibility and logic and can vary from a condition of exemption of rights to a negotiated participation. Another posture assured with professionalism is the maintenance of confidentiality, which is also established in common agreement. Processes of this nature were the object of advances by the NIT in 2011.

Contact:

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CCD staff in December 2011



Laboratory environments for software and hardware development



Special techniques for identification of demands for functionality and usability



Technological evaluation of solutions through user interaction

The activity of the CCD encompasses all of the steps of the innovation process, from conception to implementation, but mainly the solution of convergence, integrating information technologies, software and hardware with methodologies that make the user the focus of the development process. In 2011, the CCD expanded its client base in Brazil and abroad, with projects for the development of solutions based on its own HD-One Digital TV platform; strategic analyses and competitive intelligence for convergence businesses; and development of solutions for teaching and learning over a collaborative network for education.

Marcelo Otte

CCD Executive Director

Areas of Competence and Main Products

- Solutions for interactive Digital TV and telecommunications
- Conception of digital convergence solutions for education
- Agile development of software and embedded systems
- User centric designed ICT products
- Implementation of collaborative environments with ICT
- Analysis and prospecting of business opportunities in ICT
- Development of business strategies for computing

Main Sectors of Operation

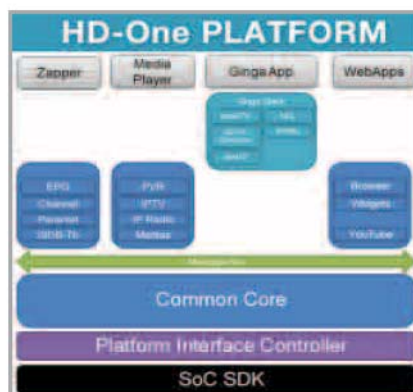
- Consumer Electronics (Digital TV and Media Center)
- Telecommunications and Computing
- Education with Digital Convergence resources
- Software (Portals, Systems, Applications and Embedded Systems)
- Energy, Petroleum and Gas
- Electronic Property-Security Systems

Main Technical-Scientific Partners

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in Digital Convergence - CCD

During 2011, the CCD expanded the number of projects by 70%, increasing from 17 projects in 2010 to 29 in 2011. Income from projects also increased 52%. In addition to the growth in size, the Center had gains in sustainability, with the diversification of its portfolio, conquering new clients – some with a global scope – and through the consolidation of its practices and methodologies.



CERTI Platform for HD-One Digital TV

HD-One provides functionalities of Digital TV, telecommunications and connectivity for products, regardless of the hardware manufacturer. In 2011, the Ginga Digital TV middleware was embedded in various Digital TV platforms, by means of Envision/AOC. The Android operating system was also incorporated to the platform and a suite of automated tests for validation of Middleware was developed in conformity with the standard. CCD had important participation in the Digital TV Forum, and also conducted studies for Philips about standards and characteristics of Latin America's digital TV market.



Portable Braille Device

In 2011, teams at CCD and UFSC developed the concept, prototypes and specifications for a device to offer accessibility for visually impaired students, with a pedagogical focus. The solution allows access via audio and braille to non-adapted printed material. The main objective is to allow visually impaired students to improve performance, in both reading and writing, by using the braille system in the classroom. This innovative equipment was ordered by MEC, and the solution was presented by the Minister of Education to President Dilma Rousseff.

Portable and Scalable Systems

The software focus area at CCD expanded its operation with the development of solutions for use on a large scale, like the Student Portal and the LabEEE Portal, the later for evaluating the energy efficiency of buildings.



Educational Technologies

CCD also consolidated its competence in developing projects that involve concepts and architectures of ecosystems for teaching and learning, through the integration of technologies into the school environment. The goal of the Integrated Classroom project was to give potential to the application of educational technologies to provide a richer, motivating and integrated experience for students of Brazilian public elementary and high schools.



CME staff in December 2011



Engineering and Prototyping of products and systems environment



Development of Simulators for Training Drivers and performance tests



Advanced instrumentation for study of lighting devices

In 2011, CME conquered important projects for the development of technology and products, expanded its staff and invested in laboratory infrastructure for prototyping and testing. Its relationship with a broad range of clients and cooperation with other units at CERTI improved the competencies offered and generated important results for the market and society. The cooperation with R&D institutions in Brazil and abroad was expanded in 2011, by means of projects and activities in fields of key competencies for CME, with an emphasis on semiconductors, microelectronics and microsystems.

Manuel Steidle

CME Executive Director

Areas of Competence and Main Products

Development of Mechatronic Products:

Complete development of products, from concept to design of embedded electronics, mechanical design, prototyping, integration and testing, as well as interfacing with industrial engineering for pre-series production of developed solutions.

Development of Special Systems:

Application of technologies of fine-precision mechanics, electronics, embedded SW, optics and all the other classic technologies, thus establishing experience in the development of simulators, controllers and systems for experimental research.

Prototyping and Testing:

Services of prototyping and testing of mecha-opto-electronics in the field of fine mechanics, complex 3-D geometries, electronics and firmware.

Main Economic Sectors Served

- Solid State Lighting
- Education and Training
- Banking, Commercial and Electoral Automation
- Electro-medical Equipment
- Machinery and Equipment

Main Technical-Scientific Partners



Reference Center - CME

CME significantly expanded its portfolio of clients and partners in 2011, highlighted by international projects. The development of complete solutions for mechatronic products, from conception to pre-series in the fields of Information Technology, Lighting and Medical Electronics, was consolidated as a line of action of great value to clients and users of these solutions.



Rapid Prototyping Laboratory

CME's rapid prototyping laboratory has the capacity to meet the demands for manufacturing parts and prototypes, as its inventory includes equipment such as: a universal lathe, a guillotine to cut sheet metals, press brake, a tool and die machine, ready welding, TIG soldering, a CNC milling machine and a 3D-FDM prototyper, as seen in the photo. This equipment encompasses a broad spectrum of manufacturing processes necessary for the materialization of ideas and concepts in the development of products.



Driver Training Simulators

The project "Driving Simulators for Training Drivers" was developed by CERTI/CME and UFSC for the national transportation department (DENATRAN), to define a consistent specification for a simulator for the training of category B (four-wheel vehicle) drivers. In the coming stages of the development of this technology, CERTI plans to improve the hardware and software solutions, seeking reduced costs for industrial production, for broad dissemination of the use of simulators in the Brazilian market. In this line of demand, considerations and preliminary studies were initiated about simulators for two-wheel vehicles and heavy vehicles.



OLED Lighting Technology

This field is highlighted by the project for the development of OLED light sources supported by FUNTEC-BNDES in partnership with the Philips company. The first prototypes have already been produced, using electronic technologies developed by CME and UFSC. The laboratory infrastructure that is being created for the OLED project includes the Optics and Image Laboratory, installed in a dark room appropriate for the execution of photometry trials and equipped with instruments of the latest generation, such as spectrophotometers, a photometric camera, a climatized integration sphere and a close range photogoniometer.



Cooperative Production



CPC staff in December 2011



LABelectron – Factory-laboratory of electronic circuit boards and the CPC facilities



Engineering of industrial factories, productive processes and product electronics



Complete Infrastructure for prototyping and manufacturing of circuit boards

In 2011, CPC increased its revenues in relation to 2010 by 96%, maintaining its commitment to develop new solutions for its clients, focused on results for increased productivity, improved quality of products and processes and for the conception and complete organization of factory units. In addition, 2011 was also marked by the capture of new knowledge, through the consolidation of new partnerships in Brazil and abroad.

Carlos Alberto Fadul Corrêa Alves
CPC Executive Director

Areas of Competence and Leading Products

- Planning and Assurance of Industrial Quality
- Structuring of Factory Units
- Information Management Systems on the factory floor
- Integrated design of circuit boards and electronic products
- Development of Processes for the Introduction of New Products – NPI
- Technologies for small serie production

Main Economic Sectors Served

- Innovative ICT Companies (hardware)
- Machinery and Equipment
- Healthcare and Education
- Energy, Oil & Gas
- Industrial Manufacturing

Main Technical-Scientific Partners

| | | | |
|---|---|---------------------------------------|--|
| BINGHAMTON UNIVERSITY State University of New York | Centro de Tecnologia de Informação Renato Archer | ERSA® GLOBAL CONNECTIONS | Fraunhofer |
| Gobierno Bolivariano de Venezuela Ministerio del Poder Popular para Ciencia, Tecnología e Industrias Intermedias | certi® amazonia | instituto sapientia. | LG |
| Ministerio da Ciência, Tecnologia e Inovação BRASIL PAÍS RICO E PAÍS SEM POBREZA | Mentor Graphics® | MIT INDUSTRIAL LIAISON PROGRAM | PRODUZA |
| TECHNISCHE UNIVERSITÄT DRESDEN | UFSC | Universal Instruments | corpivensa Corporação de Indústria Instrumental de Venezuela S.A. |

Reference Center - CPC

In 2011, more than 20 projects were executed for various clients, in both the private and public sectors. Below is a brief report of the outstanding activities conducted during the year.



EXECUTIVE NOTEBOOKS GERMANY

- Lining for orthopedic implants
- Production chain of rare-earth magnets

EXECUTIVE NOTEBOOKS ANGOLA

- Tropical fruit processors
- Electrical outlets and switches

Preliminary Industrial Projects

In partnership with the Brazilian Agency for Industrial Development (ABDI), preliminary projects for the installation of factories in countries such as Mozambique and Angola were conducted, as well as Brazil, associated to a Cooperation in Innovation project with Germany. Industrial factories were designed for different sectors, from food and beverages to orthopedic prostheses, electrical outlets and rare-earth magnets.

Detailed Factory Projects

In 2011, detailed projects were finalized for two factories that are being built in Venezuela. For each factory was defined the architecture of the products, structured the productive processes and technological solutions, designed the productive layout and executed the architectural and construction plans under technical coordination of CPC with the business and institutional partners.



Industrial Refrigerators Plant and Food Processing Plant



National Project LABelectron Nucleator

With federal government investments via FINEP, in 2011 it was possible to consolidate the infrastructure in LABelectron, raising it to state of the art technology for electronic manufacturing in small series.

Technological Services in Electronics

Innovative companies find in LABelectron their partner for electronic design and manufacturing.

Electronic product design:

Specification of the electronic, layout, signal integrity, hardware and firmware, test jigs and rapid prototyping.

Design of manufacturing processes:

Transfer of processes (NPI), DfX analyses, RoHS suitability and reliability.



Intelligent Systems for Industrial Manufacturing

The action of the CPC staff in the field of factory systems was consolidated in 2011 through the SCADA Project, financed by FINEP/SEBRAE. The priority focus of this field is on the development of applications and solutions that meet demands for increased control and monitoring of information on the factory floor.





CMI staff in December 2011



Dimensional/geometric metrology with the largest range of services in Brazil



Industrial tomography operated for measurements and complex testing



Instrumentation for experiments and support for innovation and automation.

CMI's mission is to develop innovative solutions in metrology and instrumentation and to conduct actions to organize Basic Industrial Technology. In 2011, investments were made in the development of innovative technological services, such as Energy Efficiency Labeling for Buildings and dimensional measurement with computerized tomography, and in the consolidation of competencies for the development of instrumentation solutions. Seeking greater agility and assertiveness in decision making, a new administrative model based on thematic areas was implemented. In this way, CMI closed the 2011 fiscal year with a significant increase in its business potential, having registered an expressive increase in services, consultancies and trainings.

Gustavo Daniel Donatelli
CMI Executive Director

Areas of Competence and Main Products

Metrology and Industrial Laboratory

- Measurement and calibration services with low uncertainties and high reliability, accredited by RBC/INMETRO, in the fields of dimensional/geometry, strength, mass, pressure, temperature and humidity.
- Training personnel in metrology and quality assurance.
- Design of calibration and test laboratories.

Systems for Quality and Innovation

- Market research and analyses of businesses involving metrology or evaluation of conformity.
- Implementation of laboratory quality systems, in conformity with the NBR ISO/IEC 17025 norm.
- Labeling of energy efficiency in buildings.

Instrumentation and Tests

- Instrumentation for environmental and structural monitoring.
- Instrumentation and tests to support the development of products and processes.
- Automation of measurements in productive processes.

Main Economic Sectors Served

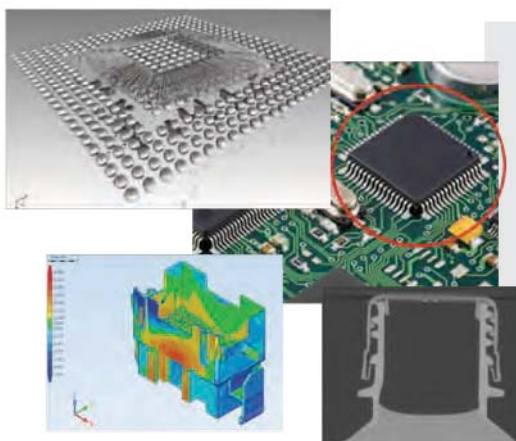
- Petroleum, gas and biofuels
- Electrical, renewable and sustainable energy sources
- Automotive
- Aeronautic
- Naval and off-shore
- Civil Construction
- Metrology and Test Laboratories

Leading Technical-Scientific Partners

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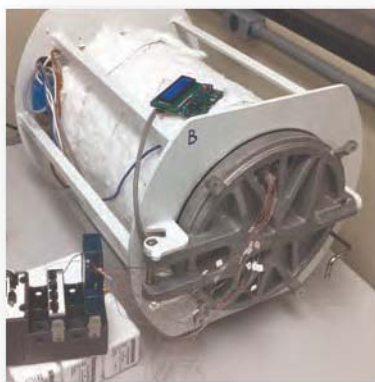
Instrumentation Reference Center - CMI

The demand for technological services, training and consulting was substantial in 2011, resulting in service to more than 800 client companies throughout Brazil. The metrology laboratories issued 6,987 calibration certificates and 1,412 people were trained in the education programs in metrology and quality assurance at CMI. Twenty-five consultancies were conducted, of which 17 involved the implementation of quality management systems for laboratories. The "Training in Network Program: Competencies for the Innovation Development Cycle – e-Nova," trained 750 entrepreneurs and professionals from various industrial sectors in the distance education modality. The e-Nova program was financed by CNPq and developed in cooperation with the EGC Department at UFSC. Three important work fronts in 2011 are highlighted below.



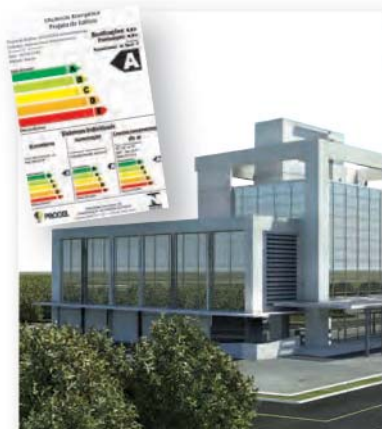
Computerized Industrial Tomography

2011 was characterized by significant developments in the field of computerized industrial tomography. The equipment, purchased with support from Petrobras, is being operated by highly qualified professionals, trained in the context of the BRAGECRIM Program of the Bilateral Brazil-Germany Cooperation Program, financed by CAPES/CNPq. In this way, CERTI has positioned itself as a pioneer institution in Brazil acting in research, development and services of computerized tomography for geometric metrology and non-destructive trials.



Instrumentation and Tests

In 2011, significant advances were registered for clients in the instrumentation field, which includes specification, design and integration of innovative solutions for measurement instruments, automated measurement solutions for quality control in production and instrumentation for tests to support product were developed. These activities take place in the recently created Laboratory for Integration of Instrumentation Solutions and Tests (LIT), mainly using equipment of the National Instruments platform, purchased with support from Petrobras.



Energy Efficiency Labeling in Buildings

In October 2011, the Agency for Inspection of Energy Efficiency in Buildings of the CERTI Foundation (OI3E) became the first agency accredited by CGRE/INMETRO for the concession of the National Energy Conservation Label (ENCE) for commercial, public and services buildings. The OI3E also serves for the labeling of residential buildings under the INMETRO designation, with accreditation in the residential scope planned for the first semester of 2012. The OI3E is the result of a partnership between CMI and the Energy Efficiency in Buildings Laboratory of UFSC (LabEEE) and was implemented with support from Eletrobras.



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CRF staff in December 2011

Electronic design of the future installations of the Pharmacology Center



A development financed by:



Building for the Pharmacology Center in construction phase at Sapiens Parque



Pharmacology Center staff working in the LABEX laboratories

In 2011, the Reference Center in Pre-clinical Pharmacology sought to establish partnerships with large pharmaceutical companies, including EMS in Brazil and the multinational Pfizer. In addition to serving clients, CRF dedicated itself to preparing for its operation, human resources training and international certifications. During the year, there was also an expansion of the scope to attend the sector of biological medications, considering their great importance to the country.

João Batista Calixto
CRF Executive Director

Areas of Competence and Main Products

Realization of pre-clinical trials

- Evaluation of safety (Toxicology)
- Evaluation of efficiency (tests of concept and studies of mechanism of action)
- Pharmacokinetic studies
- Safety Pharmacology

Specialized Consultancies

- Realization of non-clinical studies required for registration of medications.

Support for innovative projects

- Promotion of innovative companies aimed at the medication sector.

R&D

- Development of its own projects for medications for transfer to the productive sector.

Main Economic Sectors Served

- Pharmaceutical Industry
- Healthcare
- Cosmetics
- Agroindustry

Leading Technical-Scientific Partners



Pre-Clinical Pharmacology - CRF

In 2011, in addition to continuing to work in the sector as an important player in the development chain of pharmaceutical products, providing its services with the quality required by the sector, currently using laboratories at UFSC (LABEX), CRF has established important collaborations with centers of excellence with complementary activities, such as the LNBio (National Biosciences Laboratory) in addition to establishing closer ties with federal government agents (at MS, MCI, Finep and ABDI), seeking to capture funds for the operationalization of the new facilities.



Toxicology

The purpose of toxicological studies are to evaluate the safety of compounds that are candidates for becoming medications before they are used in research in human beings. Acting under internationally recognized norms, in 2011, the CRF conducted toxicological trials acute and sub-acute for companies such as Kyolab and INCT-TB of PUC-RS.



Effectiveness Studies

In proving the effectiveness of pharmaceutical products, the mechanisms by which certain compounds exercise their effects are evaluated. In 2011, by means of services offered to pharmaceutical and R&D companies, as well as projects subsidized by support agencies such as CNPq and FAPESC, CRF conducted trials in various fields such as: inflammation, pain and metabolic disorders.



Planning and Action in Strategic Fields

In 2011, CRF was re-planned to also attend the biological medication sector, given the sector's strategic importance to Brazil. In addition to funds from MS, MCTI/FINEP and FAPESC, the state finance agency FAPESC understood the importance of this development and supported, by means of a complementary agreement, the construction of the second block dedicated to maintenance of non-rodent animals, needed to conduct tests related to biological medications.

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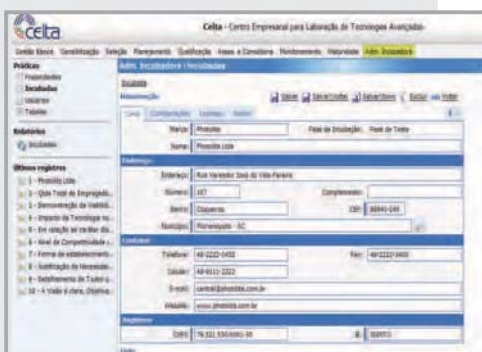
CEI staff in December 2011



CELTA Incubator, CEI laboratory of the Technology-Based Company Incubator



Master Plan for Sapiens Parque, CEI laboratory of the Technology Innovation Park



Software for support for incubators in the implementation and operation of the CERNE model.

The mission of the Center for Innovative Entrepreneurship (CEI) is to develop reference solutions for the promotion of innovative companies, by establishing an innovative ecosystem with methodologies, environments and mechanisms that result in the expansion of competitiveness of companies and in high economic, social, environmental and technological impacts. For CEI, 2011 was marked by a new reality that, after a restructuring underway since 2009, achieved growth of more than 30% in income, reaching 4 million reais, with the development of 39 projects.

Leandro Carioni
CEI Executive Director

Fields of Competence and Main Products:

Environments and Mechanisms of Innovation:

Conception, implementation and operation of environments and mechanisms to promote innovation.

- Technology and Innovation Parks
- Technology Based Company Incubators
- Regional Offices for the promotion of Innovation
- NITs and NAGIs for support for innovation
- Technological and Innovation Centers

Ecosystem of Innovation:

Development of high valued added projects for organization of the Innovation Ecosystem.

- Innovation Clusters and Poles
- Regional Technological Development

Corporate Innovation:

Solutions for innovation management and of systems for the promotion and support of innovation at a company.

- Strategic Planning for Corporate Innovation.
- Corporate Entrepreneurship (culture of innovation, creativity and generation of ideas).
- Corporate Innovation (technological mapping, market analysis, open-innovation and innovation management).
- Corporate Venture (incubation of new businesses, technology transfer and leveraging investments).

Main Sectors of Activity

- Technology-Based Companies
- Municipal State and Federal Governments
- Industrial Associations and Federations
- Innovative Companies

Leading Technical-Scientific Partners



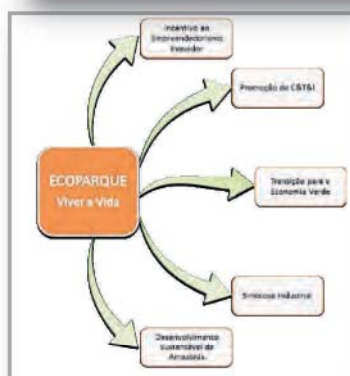
Innovative Entrepreneurship - CEI

The year 2011 was marked by the significant conquest of private sector clients, balancing the portfolio of solutions, which was previously focused on clients in government and not-for-profit institutions.



Inova Softplan

The INOVA Softplan project makes use of CEI's Corporate Entrepreneurship solution, which seeks to promote the culture of innovation and creativity by means of the joint construction with company staff of a program to capture and qualify innovative ideas. As a result, the solution implemented became the Softplan Ideas in Action Program, involving all of the company's 800 employees and transforming creative ideas into actions that strengthen the competitiveness of Softplan.



Ecoparque Natura

This project developed with the Natura company makes use of CERTI's competence in the field of technology parks, productive processes and the green economy to support the planning of the "Seeing Life" Ecopark – a project with an industrial base, oriented to create conscious business activities between companies and communities in the region of Benevides – PA. As a result, the project contributed to the advance of the development by supporting the definition of legal and business models, by evaluating the potential for industrial symbiosis in this context, the potential of the local attractiveness and its economic viability.

Technology Parks Projects

In 2011, CEI planned seven Technology and Innovation Parks, five of them located in Santa Catarina. They are developed within a network logic, seeking to form the Santa Catarina Technology Park System, to give potential to what each one of the different regions has as its vocation and competitive advantages for the generation and development of innovative companies. Each project involves the conceptual model, the definition of the strategic fields of action, the economic-financial viability plan, the urban plan, the legal model and the strategies of action for the projects and for the development of science and technology.

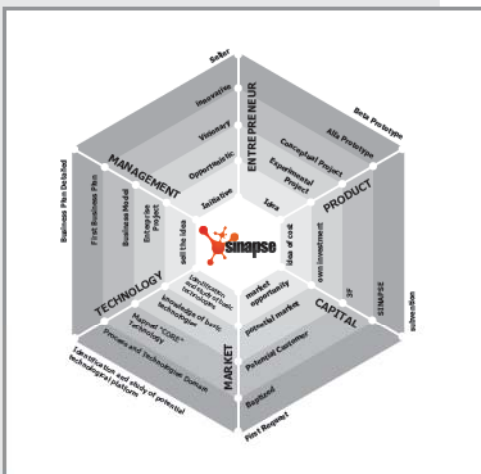


CERNE Program – Reference Incubators

CERTI's 25-year experience in company incubation had a decisive role in its participation in the construction of ANPROTEC's CERNE Model. The CERNE Project, conducted by ANPROTEC, had CERTI's support for the incubators because of its understanding of this new model and how to insert the principles and practices in its operation. By means of this project, a company incubator, regardless of its size or area of action, can expand its results qualitatively and quantitatively and reduce the level of variability of the degree of success of the companies supported. As a whole, the project supported 187 incubators throughout Brazil, training 478 people.



CIENCIA staff in December 2011



The Synapse Hexagram of Innovation characterizes the stage of the Innovative Project



Governor Colombo grants support to 48 winning companies of the Synapse OP-SC II



Support of society for a Operation Synapse, which awarded dozens of entrepreneurs

CIENCIA is a support unit for the other Reference Centers and projects at CERTI, which conducts the pre-incubation of new units, the education of new talents and establishes partnerships with science and technology institutions in Brazil and abroad. Through the Centers for Sustainable Energy and Green Economy, which are being incubated, it expressively applied the execution of projects for foreign clients.

Cesare Quinteiro Pica
Executive Director of CIENCIA

Fields of Competence and Main Products:

Pre-Incubation of Innovative Enterprises

- Acceleration of Technology-Based Projects.
- Training of entrepreneurs (Innovation Synapse).
- Accompaniment and Support for the Consolidation of Innovative Products and Nascent Companies.

Formation of Staff and Capturing New Talent

- Coordinates programs for training staff and new talents of the CERTI System in Brazil and abroad.

Partnerships with Scientific and Technological Institutions

- Works as a support center for other reference centers in innovative technology.
- Establishes partnerships with science, technology and innovation institutes in prospecting and transfer of advanced knowledge to meet needs and demands in the different innovation projects implemented by CERTI.
- Prospects opportunities for new projects, programs or developments of strategic interest to a given CRIT, to CERTI, Cventures, or to associated or partner companies.

Incubation of Special Projects

- Conducts the incubation of special projects.
- New platforms and CRITs of interest to the CERTI System.

Main Sectors of Operation

- Entrepreneurship
- Sustainable Energy
- Environmental Sustainability
- Green Economy

Main Technical-Scientific Partners



of Entrepreneurs, New Knowledge and Advanced Ideas - CIENCIA

In 2011, CIENCIA realized a series of new projects that strengthen the Reference Centers in incubation, acting effectively and positioning CERTI with pioneerism and innovation in relation to strategic themes before the market, as well as conducting routine activities, as indicated below:



Synapse of Innovation

Responsible for the development of the methodology and implementation of SYNAPSE OF INNOVATION Operations (the System for the Accelerated Incubation of Projects, Solutions and Companies), the CIENCIA team added new functionalities to the processes of evaluation, training and interaction, using the Exchange for Giving Value to Ideas (BVI). In 2011, it provided support to 48 companies included in FAPESCS's Operation SC II, and began the process of Operation SC III, which led to capturing 1,175 ideas aligned to strategic economic sectors in the state, exceeding all the operations previously realized.



Capturing Talents and Training Staff

In 2011, it was responsible for two CERTI Foundation programs to train new talent: ToP (Training of Professionals) and NEO Business, accompanying 15 members of the NEO Group and 28 members of the TOP Group.

ToP - is a program aimed at students in the fields of engineering, computing economy and administration that works to provide a distinctive educational experience through work individually and in teams, based on solving current technological problems and insertion in the business environment. ToP has a line of action aimed at more technical issues, called ToP Innovation and a program focused on management practices called ToP Entrepreneurship.

NEO Business - Program for Training Engineering Students supported by CERTI in partnership with the large Santa Catarina companies WEG and Embraco. The goal of NEO Business is to provide an opportunity to complement the education of engineering students, through the realization of technical-scientific projects, internships, personal development activities, the generation of technological innovations for its partners and educating outstanding professionals in the market.



Incubation and Development of Special Projects

New Reference Centers in strategic areas are incubated, based on leadership, formation of a team, capturing business and the provision of infrastructure, and approval by the Board of Trustees, when they achieve sustainability. There are two Reference Centers in advanced incubation:

The Center for Sustainable Energy

Innovative Solutions for the energy sector, using technological developments that are references in the fields of energy efficiency, alternative energy sources and intelligent networks.

Green Economy Center

Development of innovative solutions for the Green Economy, with an emphasis on the rationalization of the use of natural resources and the establishment of value for biodiversity and "ecosystemic" services, with the proposal of generating value, creating assets and measuring impacts.





CELTA staff in December 2011



CELTA was elected by ANPROTEC as the Best Incubator in Brazil in 2011



Report on 25 Years of CELTA, trophy and logo created for the commemoration



Event commemorating 25 years of CELTA on December 13, 2011

The mission of CELTA, a pioneer incubator in Brazil, is to provide support to innovative companies, stimulating and supporting their creation, development and consolidation in favorable environments, offering solutions and services that make a difference to their growth, competitiveness and interaction with the business and technological environment. In 2011, the CELTA incubator was elected by ANPROTEC as the Best Incubator of Companies dedicated to the Generation and Intensive Use of Technology, and the only organization in Brazil to receive the award three times. During the year, 7 companies graduated and 4 new companies were selected for incubation.

Tony Chierighini
CELTA Executive Director

Types of projects incubated at CELTA

New Company created by Individuals

This is an opportunity for a researcher or professional who has an idea, design, prototype or product and who wants to create in CELTA their own technology-based company.

New Company Created by a Corporation

A company or company group that wants to create a new technology-based company in search of greater technical and managerial support and integration with other companies.

Company Transferred to Florianópolis

Technology-Based Company already established in the market and which wants to transfer to CELTA in search of greater technical and managerial support, and integration with other companies.

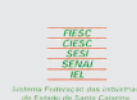
Development Unit of a Company Products or Processes

An already established company that wants to install in CELTA a technical group to develop new technology-based products or processes.

Main Economic Sectors served

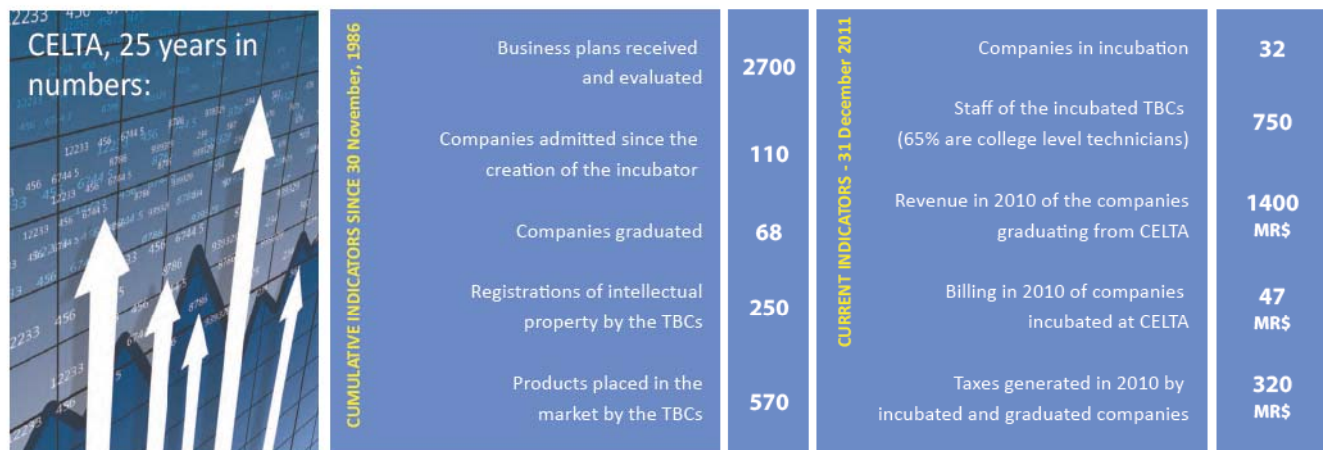
- Instrumentation
- Telecommunications
- Automation
- Electronics
- Mechatronics
- Microelectronics
- Energy
- Computing
- Biomedical
- Biotechnology
- Creative Economy
- Life science

CELTA Board



Advanced Technology Laboratories - CELTA

In the group of indicators in the chart below, note the significant developments for society resulting from the objective operation of a company incubator. These are the numbers for CELTA:



In 2011, CELTA developed the Incubator Administration model, CERNE – the Reference Center for Support to New Projects, which was developed in conjunction with CERTI/CEI, with SEBRAE Brazil and ANPROTEC, which retains the process and conducts the national program with the objective of professionalizing Brazilian incubators.



Associated to the Regional Technological Development of Palhoça initiative, the consortium composed of Parque Pedra Branca, Unisul, ACIP, the Palhoça municipal government and INATEC – the Institute for Support for Innovation, Incubation and Technology of Palhoça, invited CELTA to implement and operate the CELTA-Pedra Branca Incubator, which began operations in January 2011. In December 2011, it had 16 incubated projects, with one of them a R&D center of the OPENs company – the Factory for Software and Services. CELTA Pedra Branca adopted the experience, the instruments and the services offered by CERTI's CELTA incubator.

CELTA's partnership with the Orientation Laboratory of Organizational Genesis (LOGO) at UFSC was created by the need to provide advanced graphic design for branding actions for technology companies. Executed during the year 2011 at various incubated companies at CELTA, the BRAND DNA PROCESS seeks to support the decisions of innovative companies in the definition and or validation of their corporate DNA. As a complement, LOGO effectively places its students into the market reality.



LOGO
Laboratório de Orientação
da Gênese Organizacional



In 2011, ENI – the International Business Office created by the CERTI Foundation was installed at CELTA, which allowed a closer relationship of the incubator with the companies of the Tecnópolis and stimulated the internationalization of the incubated companies. This involves a mechanism that offers consulting and assistance in internationalization processes, the organization of tools for commercial promotion, soft landing, the approximation of businesses, matchmaking, business rounds and international exchange of trainees for technology companies and organizations.

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Scientific-Technological

Innovative solutions of broader scope and greater complexity can be generated with greater agility by following the guidelines for internal technology cooperation, among the Reference Centers of the CERTI System, as well as externally, with universities, technology centers and specialized companies in Brazil and abroad. The management of cooperation has been recognized as one of CERTI's core abilities. Work in four cooperative lines stand out among the work conducted in 2011.

with the Federal University at Santa Catarina

The interaction with R&D groups and laboratories at UFSC has developed substantially, to the degree that joint projects have been realized and projects for clients have been increasing their complexity, seeking to interact with Competence Cells in various departments of this outstanding federal university. The collection of logos below does not include all of the partnerships of 2011:



with other STII, companies and support agencies of the TECNÓPOLIS

It is known that large international companies increasingly conduct their technology innovation process using the competencies of other companies and technology institutions. The CERTI Reference Centers, in their own projects or those for their clients, have made growing use of the great potential of organizations in the Florianópolis Metropolitan Area Technology Pole – TECNÓPOLIS. Below are some of the partners in 2011:



and Business Cooperation



with STII, Companies and Brazilian Business Associations

CERTI participates in important projects conducted in the form of networks and consortiums, such as the PODITRODI project, the SIBRATEC networks and particularly the large projects for industrial factories for Venezuela. There are countless existing partnerships, some of them are indicated below:

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with STII and Foreign Companies

Advances were made in interactions with STII and companies abroad, allowing access to advanced and complex technologies and infrastructure. As a result, all of the conditions were met to reach an agreement with the Fraunhofer Society, which represents 60 specialized institutes. On the other, a partnership with MIT opened new channels for the realization of the Challenge of Innovation program. Technology partnerships with large companies in the IT segment made viable strategic developments for Brazilian industry.

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CERTI presents itself

In 2011, CERTI made the news in various Brazilian publications because of the work of the communications staff. During the year, 299 articles were published in newspapers, magazines and on the internet. Of this total, 6 articles were in national newspapers, 45 in state newspapers and 27 in local papers. There were 11 articles in magazines and on the largest number of articles were on the Internet, 210.



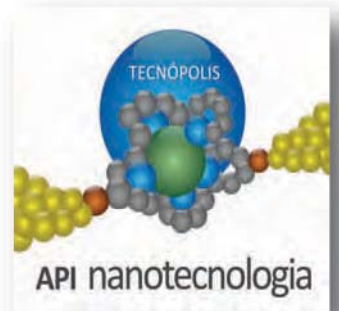
Presence in Fairs:

The institutional presentation and that of innovative products, whether at an international level (as at the Consumer Electronics Show in Las Vegas, USA) or locally (as at the popular Citizen Government Fair in Florianópolis,) take place systematically. The photos document the exhibits mentioned.



Event Promotion:

Seminars, symposiums, talks and workshops are organized in relation to the projects and studies underway, or can be used to mobilize sectors. Thus, 2011 was highlighted by the Workshop on the Productive Chain for Rare Earth Metal Magnets, due to the project with ABDI and the API Nanotechnology Symposium and sponsored by MCTI to establish a corporate orientation towards the competencies and applications for nanotechnologies in industry.



Periodicals Edited by CERTI



CERTifique-se

This is CERTI's weekly internal newsletter, published in print and electronic versions. It offers news about the various RCs, the program of internal and external events with the participation of staff and partners and about projects carried out. It is based on information from the staff, reinforcing its collaborative nature.

LABelectron News

A monthly newsletter from LABelectron, with important news about the development of competence in Brazil in the generation of competitive solutions in electronics. It is an interactive communications channel with the business and institutional sectors active in the electronics sector, particularly concerning innovation in products and processes associated to circuit boards.



Informativo CELTA

This is a bi-weekly bulletin from the CELTA incubator with news about incubated companies and the sector of innovative entrepreneurship in Brazil, with public bids, and news about R&D funding, lectures, conferences, study programs and special courses. It focuses on promoting incubated products, client relations and the repercussions of projects in the media.

In 2011, 850 public and private companies and organizations from throughout Brazil made use of CERTI services. Contact us about your quality, productivity and innovation challenges.

CERTI Foundation

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