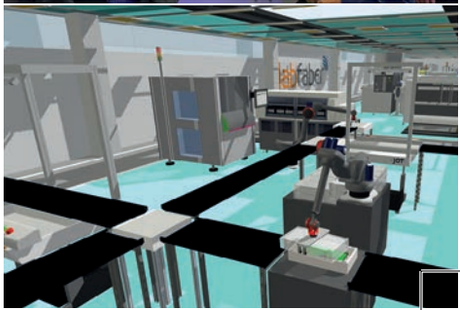


certi®

ANNUAL REPORT

2018

PRESENTATION

To our Board members, Employees, Clients, Partners and Society in General

The year 2018 was marked by challenges, adjustments goals of the CERTI Foundation's strategy, and significant achievements in fulfilling organizational guidelines. Many challenges were faced, which required focused management, reducing costs, increased efficiency and improvement in the structure to meet the institution's proposal: "to be important to important clients with important projects".

The institution consolidated the development of its strategic planning in a program of tactical measures, which contemplate structural adjustments, definition of technology portfolios, products and markets, improvement of internal processes, management of projects and of administrative and operational support, and mainly a focus on results for clients. Moreover, the institution followed its course to integrate different technological competencies, focusing on projects with high added value and high technological density for the national and international markets.

As this report shows, extremely challenging projects with concrete results were realized in various economic sectors, such as aeronautics, oil and gas, energy, mechanical manufacturing and electronics, with companies that are leaders in their markets in Brazil, the United States, Portugal and Germany. ***The Foundation thus confirmed its proposal to take increasingly greater action in the conjuncture of the Ecosystem of Innovation, in order to be important to its clients, by providing solutions in innovation, technologies and entrepreneurship, which are recognized as fundamental and strategic to the competitiveness of Brazilian companies and the sustainable development of the country.***

The Superintendency of the CERTI Foundation is grateful for the efforts of its staff, which were essential to confronting difficulties, overcoming challenges, and achieving results to the entity's future. It would also like to thank the directors, board members and partners, who have remained steady in their guidance and support to the development of the entity.

Finally, we would like to thank the clients of the institution who maintain their trust in its work, constantly presenting it increasingly inspiring and stimulating challenges, allowing CERTI to continue to act intensely in the national system of science, technology and innovation to support development, and the well-being of the country and society.

José Eduardo Azevedo Fiates
GENERAL SUPERINTENDENT

Günther Pfeiffer
SUPERINTENDENT OF OPERATIONS & FINANCE AND ADMINISTRATION

Laercio Aniceto Silva
SUPERINTENDENT OF BUSINESS & SCIENCE, TECHNOLOGY AND INNOVATION


CERTI Foundation | UFSC Campus

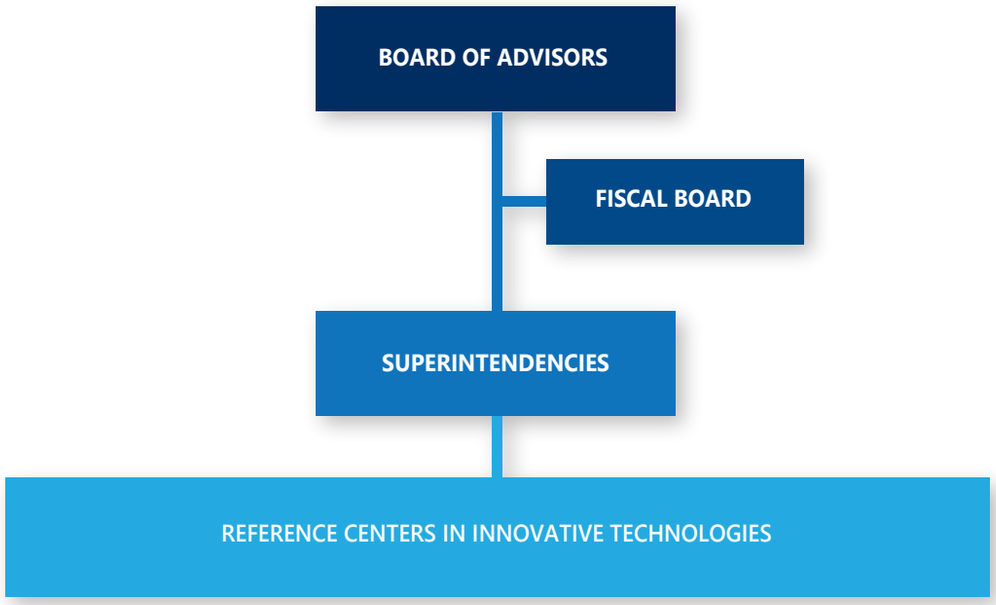

CELTA Building - ParqTec Alfa


LABelectron Factory-Laboratory

The CERTI Foundation is an organization of Science, Technology and Innovation monitored by the Public Ministry of Santa Catarina

MPSC MINISTÉRIO PÚBLICO Santa Catarina

CERTI ADMINISTRATORS IN 2018



BOARD OF ADVISORS

Carlos Alberto Schneider
PRESIDENT

Décio da Silva

Giorgio Rodrigo Donini

Amir Antônio Martins de Oliveira Jr.

Eric Nilson de Castro Santos

Guilherme Ary Plonsky

Betina Zanetti Ramos

Gilberto Heinzelmann

Roberto Dagnoni

FISCAL BOARD

Eugênio Busnardo
PRESIDENT

Israel dos Santos

Raul Valentim da Silva

João Alcides Calliari Filho

Roberto Shin Iti Takeuchi

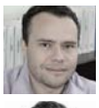
SUPERINTENDENTS

José Eduardo Azevedo Fiates
SUPERINTENDENT GENERAL

Günther Pfeiffer
SUPERINTENDENT OF OPERATIONS, FINANCE & ADMINISTRATION

Laercio Aniceto Silva
SUPERINTENDENT OF BUSINESS & SCEINCE, TECHNOLOGY AND INNOVATION

EXECUTIVE DIRECTORS



Bruno A. L. De Meirelles Herrera
Digital Convergence and Mechatronics Center | CDM

Cesare Quinteiro Pica
Sustainable Energy Center | CES

Marcos Aurélio Da-Ré
Green Economy Center | CEV

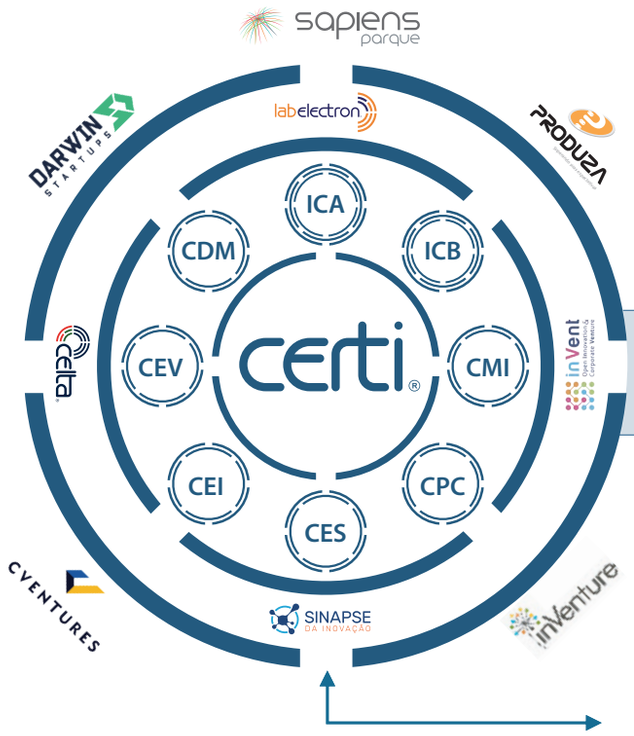
Carlos Alberto Fadul Correa Alves
Cooperated Production Center | CPC

Gustavo Daniel Donatelli
Metrology & Instrumentation Center | CMI

Tony Chierighini
Business Center for Advanced Technology Laboratories CELTA

Leandro Carioni
Innovative Entrepreneurship Center | CEI

CERTI FOUNDATION ACTIONS



PROJECTS CONSULTANCY SERVICES

INNOVATIVE SOLUTIONS

CERTI'S COMPETENCIES

Product and process engineering, design and management of systems, digital convergence and mecaoptoelectronics, production processes and industry 4.0, dimensional engineering, intelligent instrumentation, sustainable energy, green economy, impact business, environmental monitoring, innovation economy, ecosystems of entrepreneurship, startup creation, venture capital, business acceleration, corporate ventures.

SCIENCE **TECHNOLOGY**

The CERTI Foundation has partnerships with countless organizations and institutions in Brazil and abroad. The institutional relations with the entities and programs presented below stands out, either because of specific cooperation agreements or because of shareholder partnership in the companies.

INSTITUTO CERTI SAPIENTIA – IS

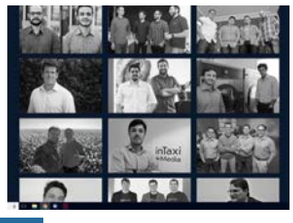
This is a Science, Technology and Innovation Institution recognized by the Ministry of Science Technology, Innovations and Communications, based in Brasília-DF, which actions focus on the segment of digital technologies. In 2018, Sapientia strengthened its cooperation with the CERTI Foundation through joint projects and increased its portfolio, highlighted by the agribusiness, electromedical and electronics sectors.

certi sapientia

INSTITUTO CERTI AMAZÔNIA – ICA

This Science, Technology and Innovation Institution works in Manaus, with a focus on the region's industrial pole and environmental challenges. In 2018, ICA celebrated 15 years with accreditation from CAPDA/SUFRAMA, undertaking R,D&I projects. In 2018, it worked on 11 projects for 7 clients, with a focus on the electronics, computing and energy sectors. The cooperation with other CERTI units contributed to the maintenance of current clients and the transfer of technologies with potential to generate new business in the Manaus Industrial Park.

certi amazônia

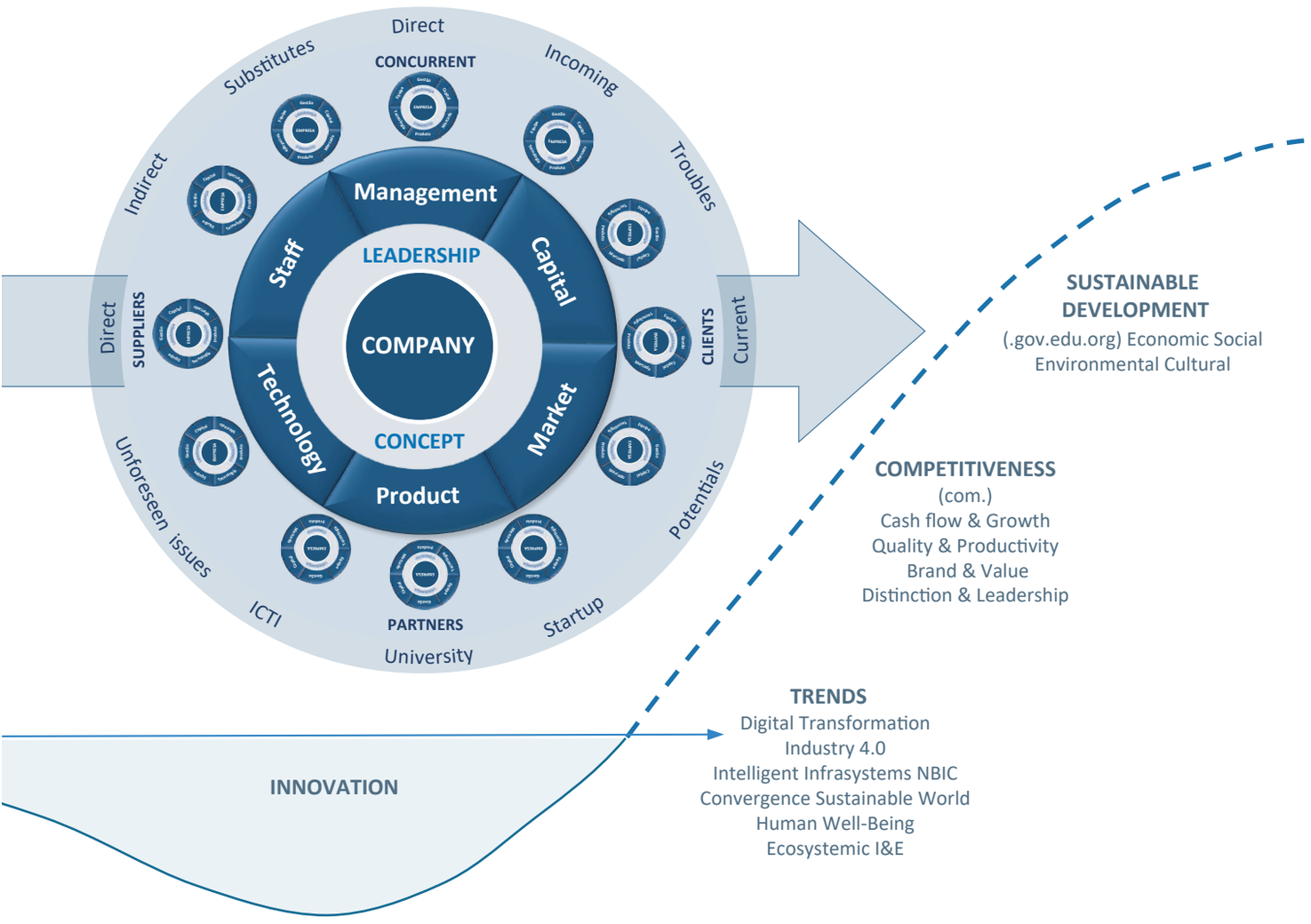


CVENTURES

This company manages capital and participations, and is responsible for Cventures Primus, a venture capital fund of R$ 83,4 million for investments in technology startups. In 2018, the fund concluded its period of investments, organizing a portfolio of 15 companies in the IT and telecom, digital media, and life sciences sectors located in the states of Santa Catarina, Parana and São Paulo. The companies in its portfolio earned R$ 93 million in 2018 and employed 766 people.

CVENTURES

CERTI ECOSYSTEM OF ORGANIZATIONS WITH OPERATIONAL AND STRATEGIC PARTNERSHIPS



DARWIN STARTUPS

This is a startup accelerator with offices in Florianópolis and São Paulo. Recognized by entrepreneurs as smart money, it invests seed capital and approximates companies from its network such as B3 (created in a merger of BM&FBovespa and Cetip), TransUnion, CNSeg Par, RTM and Neoway.

SAPIENS PARQUE

This is an innovation park designed to attract and host innovative companies in the fields of ICT, life sciences, energy and the creative economy. In 2018, the Park, in partnership with the private sector, expanded its infrastructure, which allowed the initiation of operations of the first Services Center of Sapiens Parque and the Innovation Center - ACATE. These actions increased the availability of new areas and spaces for companies at Sapiens. The park now has more than 2,250 direct workers and the resident companies have revenues of R$ 310 million.

SYNAPSE OF INNOVATION

Program to promote innovative entrepreneurship. In 2018, its first edition began in Parana, giving continuity to the operations in Santa Catarina and Espirito Santo states, and attained 1st place in the category "Institutional and Government Relations in Private Organizations" in the national Marco Maciel Award: Ethics and Transparency between the Public and Private, issued by the Brazilian Association of Institutional Relations (ABRIG). The Synapse of Innovation has already received more than 11 thousand proposals and generated 557 companies, most of which originated at Brazilian universities.

LABELECTRON

This is the factory-laboratory of the CERTI Foundation which produces high complexity electronic circuit boards in small series. In 2018, LABelectron undertook the second phase of the LABelectron Nucleator Project, which was awarded by the Ministry of Science, Technology, Innovations and Communications/SEPIN. Under the project, LABelectron strives to implement base technologies of manufacturing 4.0, to increase competitiveness in the Brazilian electronics sector as a whole.

CERTI IN 2018 - EXECUTIVE SUMMARY

Staff **296**

Annual revenue R$ million **65**

Growth of Social Assets **3%**

Economic Performance Index **1,02**

Expansion of Fixed Assets **6%**

Annual Revenue per employee (R$ mil) **218**

Institutional Evolution

The national economy did not grow as expected in 2018. Nevertheless, the CERTI Foundation continued its trajectory of strong articulation, expanding and diversifying its approach to the market and striving to strengthen its action, especially in strategic sectors with intense demands for technology, entrepreneurship and innovation. It increased its prospections by 60% over the previous year, and the contract revenue grew 10%, raising its conversion rate by 3%. It worked on 102 different projects, including 5 new projects for clients in the United States and Europe, strengthening its internationalization strategy. With surplus 36% above the previous year, it had an economic performance of 2%

Governance

The institution is guided by a Strategic Plan that was revised in 2017, which includes 20 Organizational Strategies, Critical Processes, and Strategic Projects for the short and medium terms. From this group three fundamental guidelines were derived for the year 2018: Sustainability of the Institution, Growth in Revenue and Improvement of the Management System and the preconized efforts to improve the management system were intensely steered to overcoming the operational challenges associated to the economic contraction.

Technology

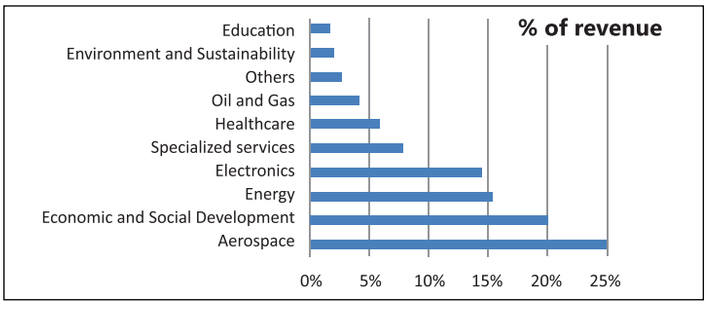
Attentive to opportunities for digital transformation, CERTI has looked for projects of greater complexity – that have higher added value. CERTI has developed real-time critical systems, combining the competencies of its centers and partners in electronic hardware, firmware, software, mechanical design, instrumentation/ test, quality guarantee, reliability in electronics, traceability of products and manufacturing. It has also been working with physical cyber systems, creating digital twins for simulation of processes and predictive maintenance. It has expanded its competence in artificial intelligence (including deep learning and machine learning), computational vision, cyber security, block chain, IoT and connectivity.

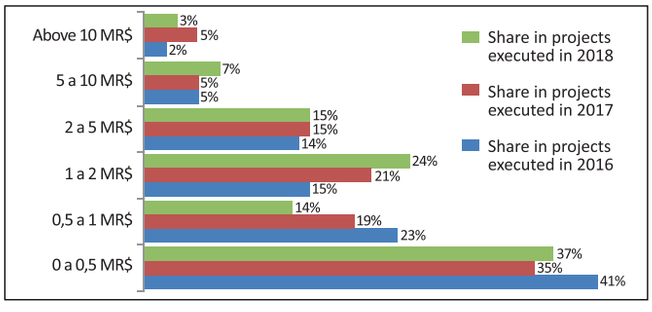
Products and Solutions

CERTI's solutions for its clients involve technological development projects, entrepreneurship and innovation, technical assistance, short-term training and highly specialized technological services. Action in the form of projects represented 84% of the operating revenue in 2018. The portfolio of small projects (up to R$2 million) remained at the same level, while the execution of large projects (from R$ 2 to 10 million) grew 11% over 2017. Projects larger than R$ 10 million dropped from 5% to 3% — a result of Brazil's constrained investment climate in recent years.

Staff

Considered the main capital of the institution, special attention was dedicated to employees, especially in the theme of alignment to the institutional culture through communication, endomarketing and creation of environments for interaction. Tools such as the Code of Conduct, the Invictus Manifesto, Morning Coffee with the units, Interactive Café and the CERTI&PIZZA rounds of dialog, strengthened staff integration and team spirit. The general composition of employees suffered adjustments during the year, to adapt to the situation required by sustainability. Actions to improve internal processes generated advances in quality and gains in productivity of 5 to 10%, concomitant to more integrated and systematic actions by staff.

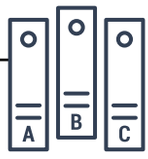




Market

CERTI has sought, with growing dedication, to identify important demands of important clients that allow it to offer solutions with greater added value. In 2018, it expanded its market approach strategy, using marketing and digital media, participation at fairs and events, prospecting visits and client relations. It acted intensely to propose technical solutions and help clients identify sources and mechanisms of incentives and funding. This is a key characteristic in the R,D&I scene in Brazil, including the support to companies offered by EMBRAPII, BNDES, FINEP, SEBRAE, and other entities. In 2018, the composition of the sectors and markets in which the institution operated was the same as in previous years, with aerospace, economic/social/environmental development, energy and electronics those with the highest demand. The oil and gas sector revealed signs of strengthening in the second half of 2018 and good growth opportunities in 2019.

102 **Projects executed in the year**

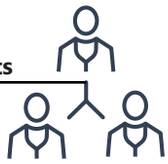


732 **Clients served**

Capital

In 2018, intense administration was conducted of the institution's tangible and intangible assets, which are important to the sustainable development model and institutional robustness, especially in private ICTs without economic and self-sustaining purposes, like the CERTI Foundation. The institution acted successfully in the conversion of company assets into real estate, which resulted in a 6% expansion of fixed assets. It sought to capture resources for investments and cash flow, following the institution's sustainability and competitiveness guidelines.

19 **Sectors and markets served**



Infrastructure

Especially through government supported projects, CERTI has permanently sought to capture resources to maintain its technological and laboratory infrastructure up to date. In 2018, contribution from the Foundation for Support to Scientific and Technological Research of Santa Catarina state (FAPESC) was essential to the expansion of the laboratory base for the development of aeronautic systems; the Ministry of Science, Technology, Innovations and Communications (MCTIC) provided resources from the Priority HardwareBR Program under the Computing Law to make completely feasible the LABelectron project (www.labelectron.org.br); FINEP makes viable CERTI's Innovation Center at Sapiens Parque; and the cooperation between FIESC/SENAI/CERTI allowed building the base for a future demonstration center of Industry 4.0 technologies, at the facilities of the Institute of Industry at Sapiens Parque.

16% **Income from projects multiple centers**

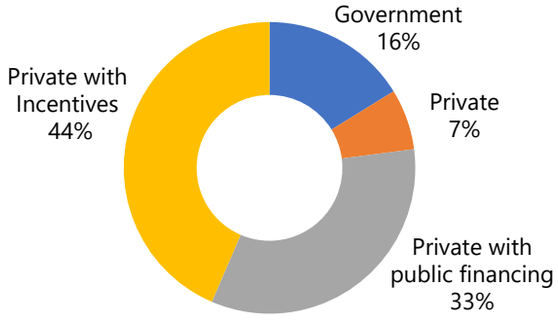
5 **New export projects**

Management

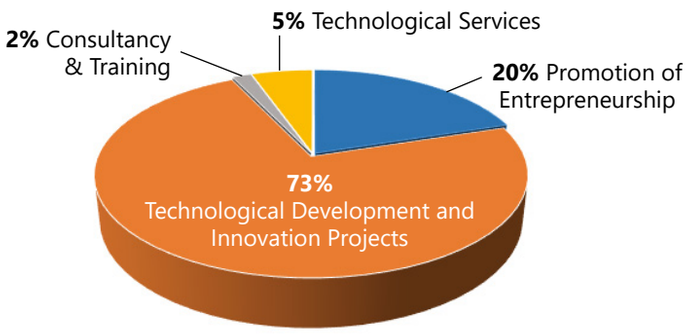
In alignment with its strategic planning, guidelines and annual goals, continuity was given to improving and consolidating management information systems, optimizing processes and provision of information for institutional management, on four levels: outside agents of supervision and control, upper level management (Boards, Superintendencies, Directorates), the management of productive and administrative units. The reference model at all the levels of the management system is the Plan, Do, Check, Act (PDCA) concept, supported by an ERP system integrated to other specific systems, by means of which indicators are generated for the management of the institution. In 2018, a Legal Directorate was implanted to support management, with an emphasis on the themes of compliance, corporate governance and strengthening of institutional relations with the outside environment.

11% **Growth in projects between 2 and 10 R$ Million**

Contracted Projects



Revenue by Type of Activity



FUNDAMENTS

WHY WE EXIST

PURPOSE/CAUSE:

Contribute in an important manner to the competitiveness of companies and the sustainable development of Brazil, by helping to develop a consistent and dynamic ecosystem of innovation, technology and entrepreneurship.

MISSION:

Develop solutions in innovation and technology to promote the competitiveness and importance of clients

FUTURE VISION:

1. To be the 1st or 2nd best ICTI in its field of operation to promote competitiveness and importance of leading companies, innovative agencies of society and government and high-growth startups;
2. CERTI as the 1st or 2nd among the 10 organizations considered references for their work, in the opinion of a highly motivated and compensated staff;
3. CERTI as an integrated, systemic, and robust and sustainable institutional model.

HOW WE WORK

BELIEFS AND VALUES

- Honesty and Loyalty
- Innovation and Courage
- Results for clients
- Competence and Agility
- Work committed to the team
- Continuous Learning
- Partnership and Cooperation
- Personal and Professional Prosperity

STRATEGIC GUIDELINES

- Importance
- Sustainability
- Satisfaction
- Synergy
- Synchrony

MACROSTRATEGIES

- Integrated operation of the units
- Scientific and technological excellence
- Distinctive market positioning
- Meritocracy and valorization for people
- Financial sustainability with Strengthening of assets

WHAT WE DO

COMPETENCIES OF CERTI'S NETWORK

- Engineering of Products and Processes
- Design and Management of Systems
- Digital Convergence and Mecaoptoeletronics
- Production Processes and Industry 4.0
- Dimensional Engineering
- Intelligent Instrumentation
- Sustainable Energy
- Green Economy
- Impact Businesses
- Environmental Monitoring
- Innovation Economy
- Ecosystems of Entrepreneurship
- Creation of Startups
- Venture Capital
- Business Acceleration
- Corporate Venture

ESSENTIAL COMPETENCIES

- Engineering of products and processes
- Design and management of systems
- Digital and Information technologies
- Digital convergence and mecaoptoeletronics

INNOVATIVE SOLUTIONS

- Development of innovative solutions
- Study and conceptualization and viability analysis solutions
- Consultancy, services, training

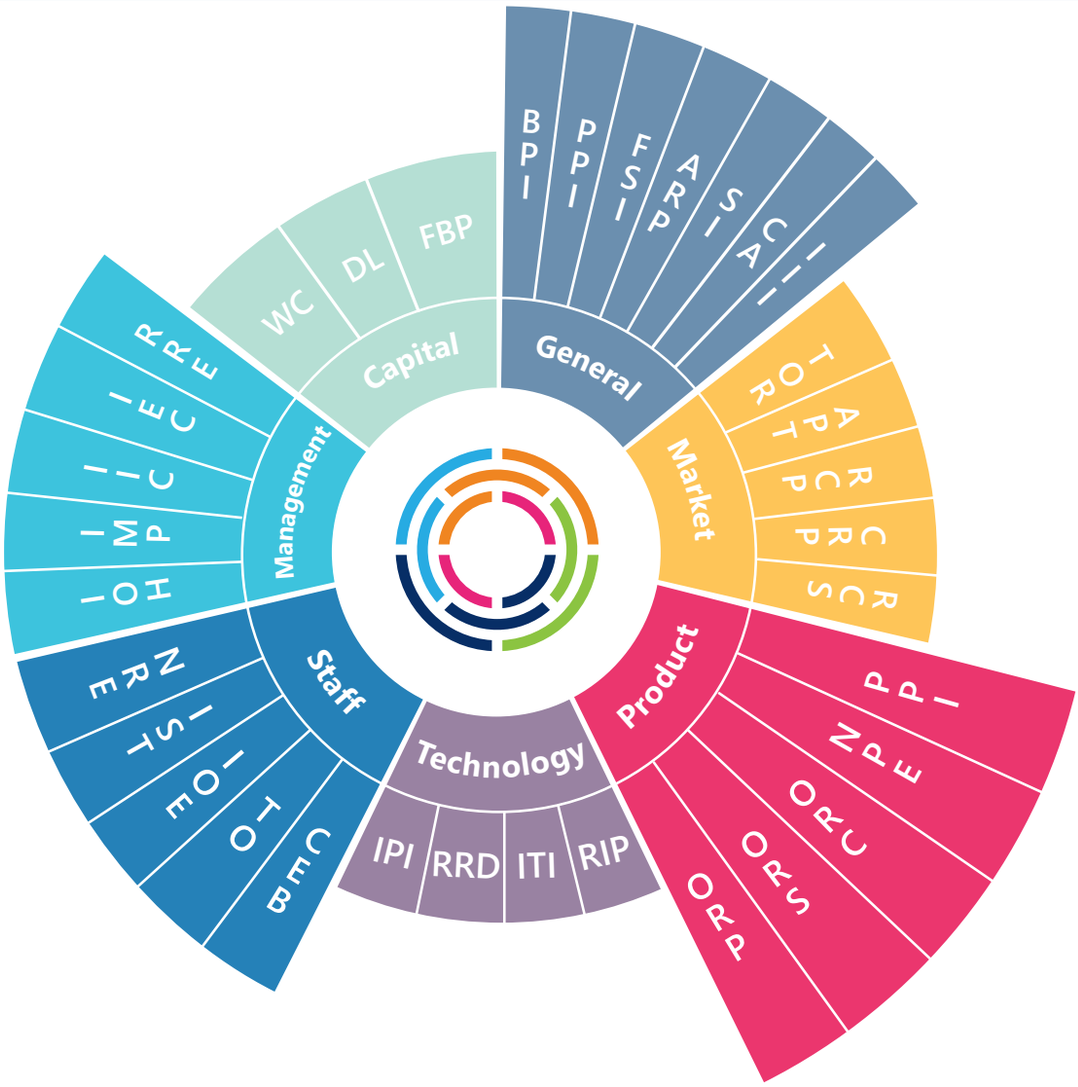
FIELDS OF OPERATION

- Digital convergence and transformation and mechatronics
- Metrology & Instrumentation
- Cooperative Production
- Sustainable Energy
- Green Economy
- Innovative Entrepreneurship
- Company Incubation

FUTURE FRONTIERS

- Digital Transformation
- Production processes and Industry 4.0
- Technological Convergence (NBIC)
- Sustainable world
- Intelligent infrasystems
- Ecosystemic entrepreneurship and Innovation
- Human Well-being

INSTITUTIONAL INDICATORS



GENERAL

BPI Business Performance Index
PPI Production Performance Index
FSI Financial Sustainability Index
ARP Accounting Result for the Period
SI Solvency Index
CA Change in Assets
III Index of Institutional Importance (for Clients and Partners)

PRODUCT

ORP Operating Revenue from Projects
ORS Operating Revenue from Technological Services
ORC Operating Revenue from Consultancy and Training
NPE Number of Projects in Execution
PPI Project Performance Index

Staff

NRE Number of Reference Employees
IST Investment in Staff Training
IOE Indicator of Organizational Environment
TO Turnover
CEB Contributions to Employee Benefits

MARKET

TOR Total Operating Revenue
APT Average Project Ticket
RCP Rate of Conversion of Proposals
CRP Contractable Revenue in the Period
RCS Rate of Client Satisfaction

TECHNOLOGY

IPI Index of Project Innovation
RRD Project Revenue from R&D
ITI Investment in Technical Infrastructure
RIP Registration of Intellectual Property

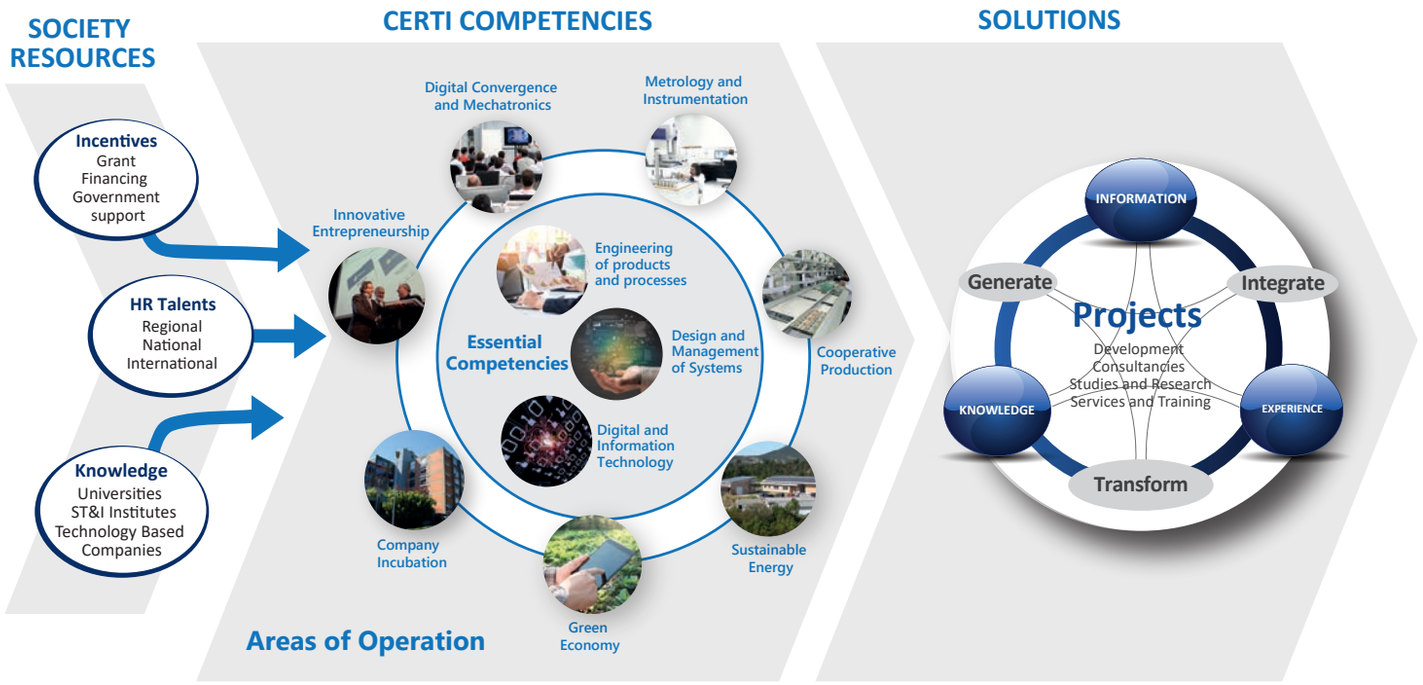
MANAGEMENT

IOH Institutional Overhead
IMP Index of Management Performance
IIC Index of Internal Cooperation
IEC Index of External Cooperation
RRE Revenue per Reference Employee

CAPITAL

WC Working Capital
DL Debt Level
FBP Financial Balance for the Period

CERTI - MODE OF OPERATION, CLIENTS AND PARTNERS



CLIENTS IN THE PAST 5 YEARS

PARTNERS

CLIENTS IN THE PAST 5 YEARS

PARTNERS

CERTI REFERENCE CENTERS IN TECHNOLOGICAL INNOVATION

Digital Convergence & Mechatronics

In 2018, the Digital Convergence and Mechatronics Center focused on becoming a reference for the national and international market as an agent for conceiving, promoting and making viable digital transformation, through the development of embedded systems, software and complex electronics. Its actions have been aimed at projects such as development of digital systems for remote management and action, solutions in intelligent systems, Internet of Things (IoT), image recognition, artificial intelligence (IA), educational solutions, storage and mobility. The main sectors in which it operated were Consumer Electronics, Healthcare, Aerospace and Defense, Energy, Telecommunications, Digital TV, Home Appliances, Oil & Gas, Agriculture and Education.

Competencies

Software Development / Embedded Systems / Mechatronics / IoT, Big Data / Cloud Computing.

Solutions

Development of Digital Systems for solutions involving: Remote administration and operation, Intelligent Systems, Internet of Things (IoT), Image Recognition, Artificial Intelligence (IA), Educational Solutions, Electrical Storage and Mobility.

CDM

Company incubation

CELTA's main conquest in 2018 was its approximation with large companies, in an effort to establish greater interaction and collaboration with the incubated startups. International and national missions highlight the capacity of the startups to offer innovative products and competencies to large, medium and small companies. Currently, CELTA has 107 graduated companies, 30 incubated companies and 5 companies in virtual incubation. In 2018, four companies graduated and nine companies were incubated.

Competencies

CERNE model of incubation of innovative companies / Business, academic, governmental and social network/ Technological and business Infrastructure and environment with an entrepreneurial culture.

Solutions

Incubation of Technology Based Companies / Virtual incubation of innovative companies.

CELTA

Innovative Entrepreneurship

CERTI works in projects to develop innovation environments, entrepreneurial programs, and to promote corporate innovation, and expand systemic competitiveness of regions and companies through the development of customized, high-impact solutions. In 2018, the Innovative Entrepreneurship Center significantly expanded its work in Brazil, coordinating and operating structural projects such as Innovative Brazil, in conjunction with the Ministry of Industrial Development and Commerce (now the Ministry of the Economy) and the Centelha/Spark Program – to be implemented in 21 Brazilian states in partnership with the Ministry of Science, Technology, Innovation and Communications (MCTIC) and FINEP. In the business sector, it launched Invent, its own methodology for expanding the innovative capacity of companies, reducing risk, and strengthening their relationship with startups.

Competencies

Economy of Innovation and Regional Development / Management of Innovation and Technology / Culture of Entrepreneurship / Conception and Articulation of Ecosystems and Networks / Management and Promotion of Innovation in the Environment.

CEI

Solutions

Development of Innovation Environments/ Programs for Development of Innovative Companies / Systems of Corporate Entrepreneurship and Innovation.

Metrology & Instrumentation

In 2018, the Metrology and Instrumentation Center (CMI) steered its portfolio of solutions to act in two strategic lines of business: Industry 4.0 and Intelligent Infrastructure and Systems. These lines, inserted in the context of Digital Transformation, promote the use of cyberphysical systems to reach the highest standards of efficiency, safety and economy. The Oil & Gas sector, which operates complex production systems with a critical mission, was selected as the pilot sector for the application of the new approach. The aerospace and defense, electrical energy, automotive and capital goods sectors were also the object of actions of CMI in 2018.

CMI

Competencies

3D Metrology / Dimensional Engineering / Intelligent Instrumentation and Automation / Support Systems for Quality and Integrity / Technological Networks.

Solutions

Services, Consulting and Training in Metrology and Quality / R&D+I in Dimensional Engineering / R&D+I in Intelligent Instrumentation / R&D+I in Engineering and Management of Quality and Integrity / Modelling and Implementation of Networks of R&D+I and Technology Services.

Cooperative Production

In 2018, the Cooperative Production Center sought to provide industry with innovative solutions in the development of Factory Units, Production Processes and Customized Production of Technology Products with a focus on Quality Assurance. This took place in a sustainable manner, giving priority to cooperative and sustainable development and simultaneous engineering and applying concepts of Manufacturing 4.0. The main sectors of operation in the year were Aerospace and Defense, Electronics, Medical-electronics, Electrical Energy, Oil & Gas, IT and Telecom, Food and Beverages, Construction and Eengineering, Machinery, Textiles, Leather and clothing.

CPC

Competencies

Engineering of Costs and New Industrial Companies / Manufacturing Intelligence / Digital Manufacturing/ Industry 4.0 / Quality Assurance, Conformity and Reliability Competencies/ Intelligent Solutions.

Solutions

Industrial Companies / Factory Intelligence / Digital Manufacturing / Industry 4.0 / Assurance of Quality, Conformity and Reliability.

Sustainable Energy

In 2018 the Sustainable Energy Center focused on the development of innovative solutions in energy, aimed mainly at the modernization of the electrical sector, architectural projects for energy solutions, integration of systems, development of control logics and energy management, energy efficiency projects and modeling of new business. Its focus is on the electrical energy sector and industrial segments that require energy efficiency, reliability and sustainability.

CES

Competencies

Intelligent technical and commercial solutions for the energy sector/Distributed generation/Energy storage/Energy management/Electrical mobility/Modeling of Business in Energy/Sustainable Energy Systems.

Solutions

Automation in intelligent grids/ Micro energy grids/ Energy management systems/ Autonomous systems for isolated regions/ Underground grids / EV recharging stations / Viability studies and Business models / Special electrical projects and consulting / Energy market.

Green Economy

The initiation of operations in the Amazon was an important achievment for the Green Economy Center in 2018, because it unveils a new level of scalability and global importance. Its consolidated expertise in the development of solutions that integrate the concept of Ecosystem of Innovation to the concept of Shared Value Creation (or impact business), now in the Amazon context, raise the expectation that we can contribute to forest conservation by strengthening sustainable, inclusionary and innovative value chains. Sectors such as food and beverages, cosmetics, fashion, pharmaceuticals and phyto-therapeutics can benefit from innovations based on Brazilian biodiversity, while they contribute to the conservation of the country's natural capital and to sharing its benefits with local populations. Moreover, philanthropy and financial capital of various kinds can be integrated, while respecting their differences, to accelerate regional transformation that local and national knowledge and talent can promote, strengthening synergy among actors in the Amazon.

CEV

Competencies

Management of Natural Capital (Capacity for Dynamic Support, Carryover & Trade, Biodiversity Offsets) / Management of Ecosystemic services / Modelling of Impact Businesses/ Remote Monitoring, Multicriteria analysis and environmental modelling.

Solutions

Development of models, systems and mechanisms for creating shared value/ Implantation and Support to operation of innovative experiences and sustainability.

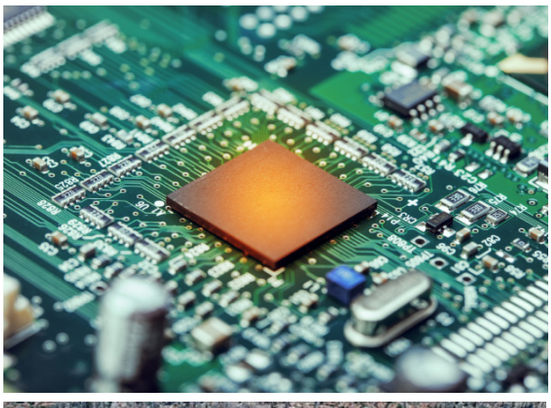
OUTSTANDING INNOVATIVE SOLUTIONS IN 2018

Identification of vegetation by image

The Artificial Intelligence Project (IA) involves the modelling and development of a system to verify the presence of types of vegetation in agricultural regions, by detecting patterns in images obtained from drone flights. The project involves the development of algorithms, the construction of a base of normalized images, implementation training of a neural network and making results accessible online.

Use of ultraviolet light for sterilization and conservation

Solutions are being developed using ultraviolet light to purify water and disinfect air for conserving foods. The project involves mapping technologies, and developing, testing and evaluating components and subsystems.

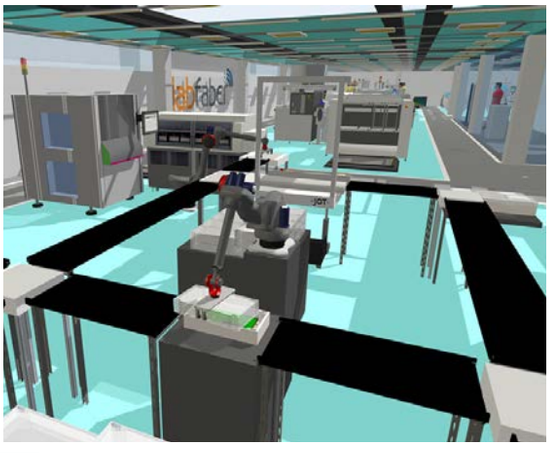


Thermal Generation of Electronic Controllers

This project develops solutions for the refrigeration of aeronautic electronic controllers, through mechanical and electronic improvements. The project involves R&D in the level of components, to develop the concept of thermal solutions, partial redesign of the components, the integration and tests of the complete group in a laboratory of stress and useful life.

Intelligent Underground Grid

Architecture design and general coordination to develop solutions in electrical, automation and civil engineering to implant intelligent underground grids by ENEL SP, with the installation of a "model underground grid" in the Vila Olímpia neighborhood of São Paulo.



Conceptual Design and Viability of Photovoltaic Panel Plant

The purpose of this project is to establish the concept and analyze the viability of a photovoltaic panel factory, evaluating the technological state of the art, characterizing types of products and the respective demand for them and analyzing in a macro form the infrastructure and resources needed to manufacture the products. A financial analysis of the project will be conducted, to provide technical, financial and strategic information to support decision making about implementing the factory.

OUTSTANDING INNOVATIVE SOLUTIONS IN 2018

Ecosystem of Innovation of impact for the Amazon

The objective of the project is to contribute to establishing an Ecosystem of Innovation of Impact for the Amazon that promotes a connection of actors in a network, creating value for business and generating positive socio-environmental impacts for the territory. To do so, the architecture of this ecosystem is being modeled and a new product that serves as a mechanism to activate the ecosystem is being provide.

Forest Restoration with Araucária Pine

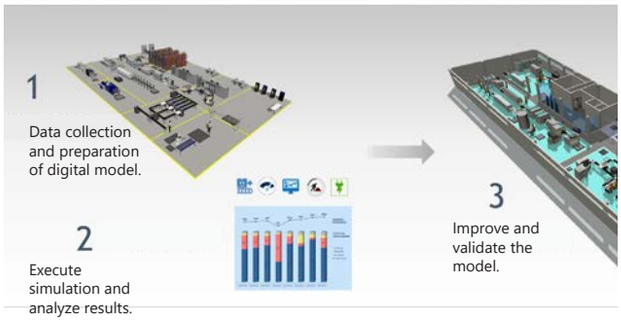
This project involves the restoration of 262 hectares of forest with Araucária pine in areas of permanent environmental protection, Legal Reserves and private nature preserves (RPPN), in the municipalities of Urubici, Urupema, Bom Retiro and Passos Maia in Santa Catarina state. It also aims to strengthen the restoration chain, by organizing and supporting tree nurseries. The project took first place in the public call for projects Focus 01/2015 issued by Brazil's National Development Bank (BNDES), from among 78 projects.

Model for a Payment for Environmental Services Program for Santa Catarina

The objective of the project, which was initiated in late 2018, is to develop a Model of Economic Viability and Sustainability for Payment for Environmental Services Programs (PSA) that can be replicated in various regions of Santa Catarina state. Payment for Environmental Services is an economic instrument used to stimulate the protection of natural economic ecosystems and maintain environmental services essential to society.

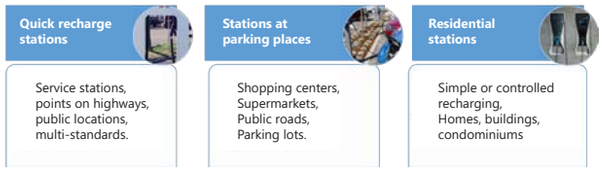
Digital transformation in the pre-manufacturing of pipe

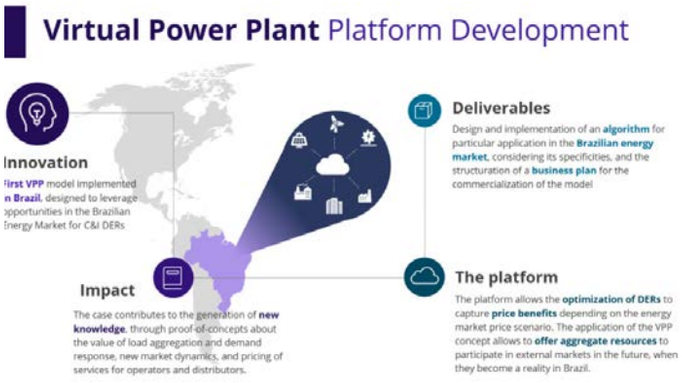
Industry 4.0 concepts are applied in the planning of a TDSpool pipe shop to promote quality improvement and the integrity of the spools provided to the Brazilian Oil and Gas industry. Research is conducted to apply principles, technologies and methods of digital transformation (Industry 4.0) to the design and manufacturing of these components.



National Line of Electrical Vehicle Chargers

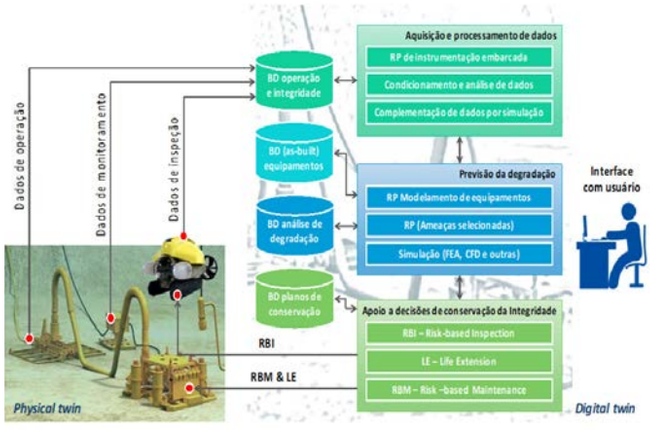
This project is developing a Brazilian line of products for charging electrical vehicles, including residential, commercial and quick recharge stations.





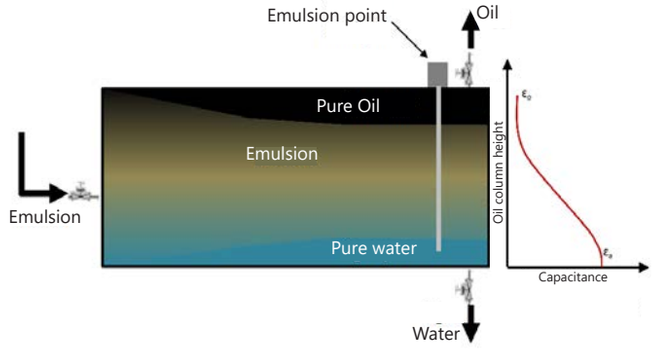
Virtual Power Plant (VPP)

This project developed the first model for a virtual power plant implemented in Brazil, and is designed to leverage opportunities in the Brazilian energy market for Distributed Energy Resources (Commercial & Industrial), generating benefits through its flexibility and improved performance in the short term energy market. The main products were the design and implementation of a methodology for special application in the Brazilian energy market considering its specificities and the organization of a business plan for sales of the model.



Intelligent System for Management of Integrity of Underwater Equipment

The purpose of the S2I.Sub project is to develop and implement a system to supervise and support decision making about integrity, such as defining the frequency of inspection based on risk and the decision to extend the life of equipment. It applies concepts of cyberphysical systems, promoting interaction between the physical and digital world, using sensors and actuators. It initially focuses on the effects of erosion from abrasive agents present in the flow of production, but can be expanded in the future to contemplate other mechanisms of degradation of integrity.



Profiler-Meter of Water-Oil Interface

The purpose of this project is to develop a system of measurement based on monitoring of capacitance, which allows measuring, with known instrumental uncertainty, the height of columns of stratified fluids inside reservoirs and separators. The meter must comply with strict technical safety requirements to operate in a reliable manner in explosive environments.

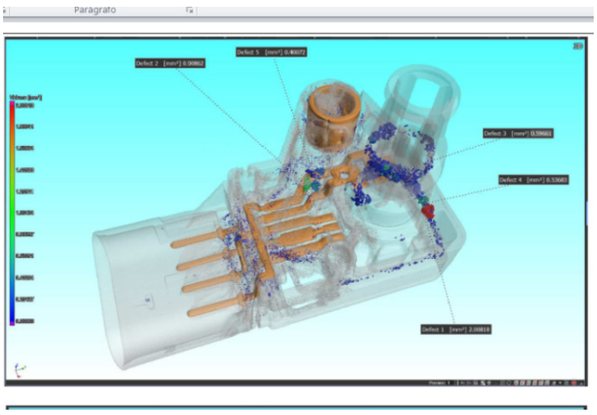
R&D+I Network in Advanced Manufacturing Solutions for Brazilian Agribusiness

With support from the Ministry of Science, Technology, Innovations and Communications, CERTI is promoting the creation of a R&D+I network dedicated to the dissemination of Industry 4.0 technologies and methods in agribusiness, with an initial focus on the beef cattle production chain. To do so, it identified possible supplier, constructed roadmaps of technology and studied sustainable business models that use various support instruments.

OUTSTANDING INNOVATIVE SOLUTIONS IN 2018

Technological Services and Training in Metrology

In 2018, high complexity metrology services with low measuring uncertainty continued to be offered, highlighted by 3D measuring services and computerized X-Ray tomography. More than 4,300 certificates of measuring and calibration were issued to companies in the oil and gas, automotive, medical equipment, capital goods sectors and others. In addition, more than 320 people were trained in metrology and quality by CERTI.



CENTELHA (Spark) Program

In 2018, as a result of the experience and know-how acquired over a decade, the CERTI Foundation won public call for projects nº 117/2018 of the Secretariat of Technological Development and Innovation of the Ministry of Science, Technology, Innovations and Communications to operate a national program of incentives to transform new ideas into innovative companies with high growth potential. The Centelha/Spark Program will have its methodology inspired by the Synapse of Innovation project and will be promoted by MCTIC and Finep, in partnership with CNPq, Confap and executive institutions in 21 Brazilian states.

Modelling of Innovation Center of the ICTS Pole

This project provides technical consulting for operational, legal and business planning and modeling, by the Innovation Center of the Information, Communication Technology and Services Pole, in Maceió, Alagoas.

Ecosystem of Innovation Paraná

The project seeks to develop methodology for Sebrae Paraná, to organize its model of operation, administration and monitoring based on levels of maturity of each ecosystem of innovation.

Administration of Innovation Alphaville Technology Park

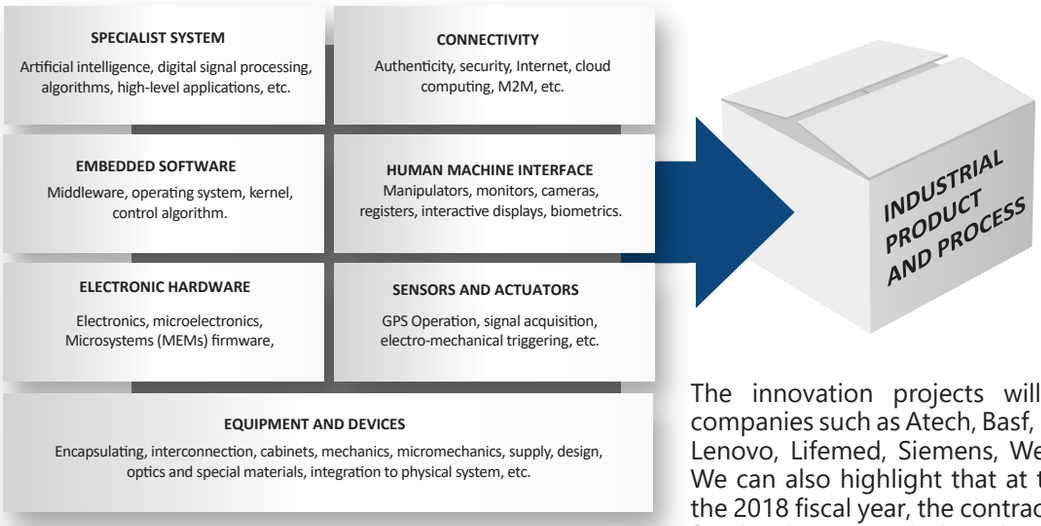
This is a partnership with the Alphaville Urbanism company to implement and manage operations of the Alphaville Technology Park in the region of the Federal District and in Goiás state.

CERTI – EMBRAPII UNIT

EMBRAPII
UE - CERTI
INTELLIGENT SYSTEMS

CERTI is accredited by EMBRAPII to operate in the field of competence of intelligent systems, allowing approved projects to have up to 33% of their total value subsidized. In compliance with the strategic guidelines for 2018, CERTI intensified its pre-sale activities, maintaining the prospecting of large and complex projects, leading to the contracting of fourteen projects, with an average ticket of 2.25 MR$, for a total of 32 MR$ in contracted projects .

INTELLIGENT SYSTEMS



The innovation projects will directly benefit companies such as Atech, Basf, Embraer, Legrand, Lenovo, Lifemed, Siemens, Weg and Whirlpool. We can also highlight that at the completion of the 2018 fiscal year, the contracting goal was met for the six-year period, as determined in 2014 in CERTI's plan of action with EMBRAPII.

FISCAL INCENTIVES

LAW 8.248/91 — Computing Law

AT WHOM IT IS AIMED: Companies that produce in Brazil computing equipment listed in Decree no. N° 5.906/06, of 26/09/2006. Based on the Computing Law (Lei 8.248), companies that invest in R&D and innovation activities internally or with R&D institutes (such as CERTI) for computing and automation goods, can receive reductions of up to 95% of the Industrialized Product Tax (IPI).

LAW 11.487 — The Rouanet Law for Research

AT WHOM IT IS AIMED: This law is for companies in any sector that invest in research and development of technological innovation, use the real profit accounting regime and have operating profit during the year.

LAW 11.196/2005 — Law of Goods

AT WHOM IT IS AIMED: Brazilian companies, from any sector, that invest in research and development of technological innovation, use the real profit accounting regime and have operating profit during the year can benefit from this law. The law aims to stimulate patents, thus decreasing imports of computing equipment and components, as well as local training and to attract new companies to the country.

DIRECTIVE 950

OBJECTIVE: The purpose of Directive 950 is to define the methodology for recognition of technology developed in the country for goods or products. Advantages to the company: a) right of preferences in public bids for purchasing goods and services. b) the margin of preference can reach up to 25% of the foreign products.

SOCIAL ADMINISTRATION

COMMUNITY GARDEN

WARM CLOTHES CAMPAIGN

CHRISTMAS CHORUS - RU UFSC

CHRISTMAS CAMPAIGN WITH THE POST OFFICE

In 2018, Social Administration endeavors sought to create and disseminate a more welcoming environment of human valorization of employees of the CERTI Foundation. These practices can be perceived in: support to employees through individual contacts (the human relations are revealed by the proximity that is attained with the employees, seeking to understand their needs and to resolve problems that require specialized professional support); partnerships with restaurants (providing discounts of up to 20% in meals); referrals to healthcare agents, requests for reimbursement from UNIMED; and exclusive birthday greetings. Some social actions were also conducted in conjunction with SustentAção, such as:

• A Christmas Campaign with the Post Office, which responded to letters written by children from Greater Florianópolis living in social vulnerability. The campaign responded to 101 letters, providing a Christmas with greater significance for dozens of children who had their requests met.

• Social action in conjunction with the Federal University at Santa Catarina, through the Department of Information Sciences, benefitting the elderly residents of the nursing home, Lar Irmão Joaquim, with donation of foods, cleaning and hygiene products and utensils for daily use at the institution. This event encouraged the elderly to share with other residents and interact with guests and music (vocals and guitar) as well as enjoyable conversation.

• The Warm Clothes Campaign collected clothes that were then sent to the Church São Judas Tadeu, benefitting various families in conditions of social vulnerability. This type of action is one of the most common. It recognizes and reinforces the importance of donation, which is essential for people to come together and get more involved.

• The Community Garden is a new and successful action, which is maintained with income from sales of recycled paper. In this action, a long-time concern of the CERTI Foundation is consolidated, which is the proper destination of documents, allowing the correct reuse of papers. As a result of this movement, it was possible to maintain the garden which is open so that employees can use the produce.

The objectives of social management are always related to the efficiency and effectiveness of actions. Thus, the actions and activities conducted in 2018 were productive, significant and served many people who needed attention, a hug and care.

CERTI AWARD FOR INNOVATION AND ENTREPRENEURSHIP

This award was issued for the first time in 2018 to recognize various conquests of companies and institutions within the Ecosystem of Florianópolis and to honor local, state and national entities that have contributed to the success of the region in recent years.

The categories of the 2018 award were:

- Historic Personality
- Reference Technology Companies from the Ecosystem
- Achievement, Outstanding Technology Company from the Ecosystem
- Reference Company in Commerce, Services and Tourism
- Scientific and Technological Development Project
- Project of a CERTI client in Santa Catarina
- Project of a CERTI client in Brazil / the World
- Innovative Social Environmental Project

The photos present the winners for each category.

Access the complete event publication with the QR Code or at the link:
certi.org.br/pt/comunicacao-arquivos/Publicacao_Premio_CERTI_2018.pdf

Historic Personality

Innovative Social Environmental Project

Project of a CERTI client in Santa Catarina

Project of a CERTI client in Brazil / the World

Scientific and Technological Development

Reference Technology Companies in the Ecosystem

Conquest, Outstanding Technology Company from the Ecosystem

Reference Company in Commerce, Services and Tourism

ENDOMARKETING

In 2018, CERTI promoted the integration of employees and upper management, through interactions to pass along strategic information, and to share experiences and moments for exchange and relaxation.

CERTI ACADEMY

CAFÉ WITH COMMUNICATION

CERTI AND PIZZA

SYNAPSE OF INNOVATION CELEBRATES A DECADE

EVENTS

In 2018, CERTI participated in various events in Brazil and internationally, in sectors such as Healthcare, Energy, Electronics, Oil & Gas, Agribusiness and others.

CERTI AT EXPOGESTÃO

ICA, IOT AND SYNAPSE AT THE MANAUS DIGITAL FAIR

V.O.C. AT HEALTHCARE GLOBAL CONFERENCE EXHIBITION

WORKSHOP ANEEL ELECTRO-SERVICE STATION

CERTI IN THE MEDIA

The main projects and actions to promote the Florianópolis Ecosystem of Innovation appeared in various media in the region and nationally, including the online environment, print and broadcast media.

BIG PROJECT IN EXAME MAGAZINE

ELETRO-SERVICE STATION 2 APPROVED PROGRAM

CERTI ON RECORD NEWS SC

ARAUCÁRIA+ AT G1

CERTI IN THE VALOR ECONÔMICO NEWSPAPER

CERTI IN AUTOMOTIVE BUSINESS

INSIGHTS CERTI

CERTI also reinforced its brand in the digital media, through the Blog Insights CERTI, which presents themes of projects and specialties in technological development and innovation in products and processes, specialized consultancies and assistance, training and technology services.

See these and more articles at the link:
insights.certi.org.br

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