

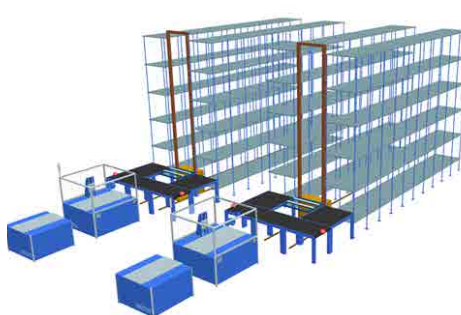
Mobilizing Project - LABfaber



Presentation of Navy Technology Park



Development of Urban Futurability Project



Simulation of Internal Logistics



INVENT – Corporate Innovation Program

ANNUAL REPORT

2019



Araucária+ | Biodiversity conservation



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

We complete the CERTI Foundation's 35th year commemorating achievements that were important to the Ecosystem of innovation and entrepreneurship of Florianópolis, in which the Foundation has an important role. We sought more challenges and began projects of greater technological complexity and, therefore, of greater added value. In addition to the continuing trust of our traditional clients, we gained new clients with projects in digital transformation, artificial intelligence and other technological challenges.

In this report we present the institution's most important actions and indicators from the year, some of which deserve to be highlighted because of their scope and long-term effects.

We established strategic cooperation agreements with various partners in Brazil and abroad, including the Federation of Industries of Santa Catarina State (FIESC). Under this agreement, we now share a space at the Instituto da Indústria [Institute of Industry] located at Sapiens Parque, in the northern portion of Santa Catarina Island, where we inaugurated LABfaber, a factory-laboratory with modern equipment for the production of electronic products in small series, and development and training in Industry 4.0.

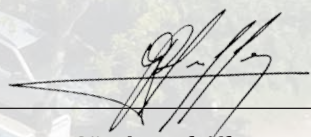
We made significant advances in our support mechanisms for entrepreneurship with the consolidation of our corporate venture program "Invent" and the launching of Darwin-Hards, our hardware company accelerator, in operational synergy with LABfaber. With the support of Finep we concluded construction of the "CERTI Inovação" building, which expands our presence at Sapiens Parque with another environment to house technology-based companies.

In-house, the staff of the institution accepted the inspiring challenges and produced important results through collaborative and synergic work among the centers of competency. Eng. Erich Muschellack was elected to be the General Superintendent for the mandate from 2020-2023.

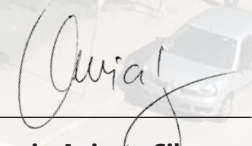
The Superintendency of the institution is grateful for the performance of its employees, the support of the board and the trust of its clients, and reaffirms the commitment of the CERTI Foundation to the development of Brazil, through technological innovation and continuous promotion of innovative entrepreneurship.



José Eduardo Fiates
GENERAL
SUPERINTENDENT

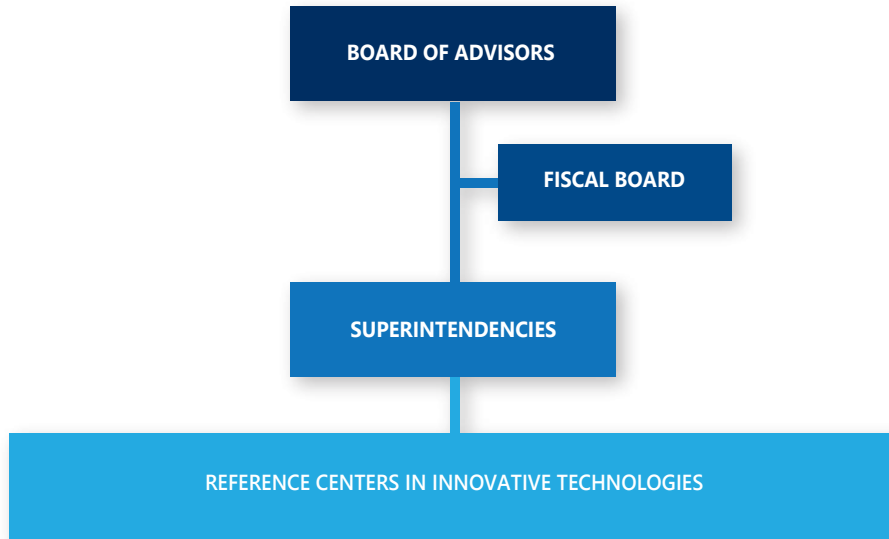


Günther Pfeiffer
SUPERINTENDENT OF OPERATIONS
& FINANCE AND ADMINISTRATION



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

CERTI ADMINISTRATION IN 2019



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 & SCIENCE,
TECHNOLOGY AND INNOVATION

EXECUTIVE DIRECTORS



Carlos Alberto Fadul Correa Alves
Cooperated Production
Center | CPC



Cesare Quinteiro Pica
Sustainable Energy
Center | CES



Gustavo Daniel Donatelli
Metrology & Instrumentation
Center | CMI



Leandro Carioni
Innovative Entrepreneurship
Center | CEI



Marcos Aurélio Da-Ré
Green Economy
Center | CEV



Mauricio Ibarra Dobes
Digital Convergence and Mechatronics
Center | CDM



Tony Chierighini
Business Center for Advanced
Technology Laboratories
CELTA



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

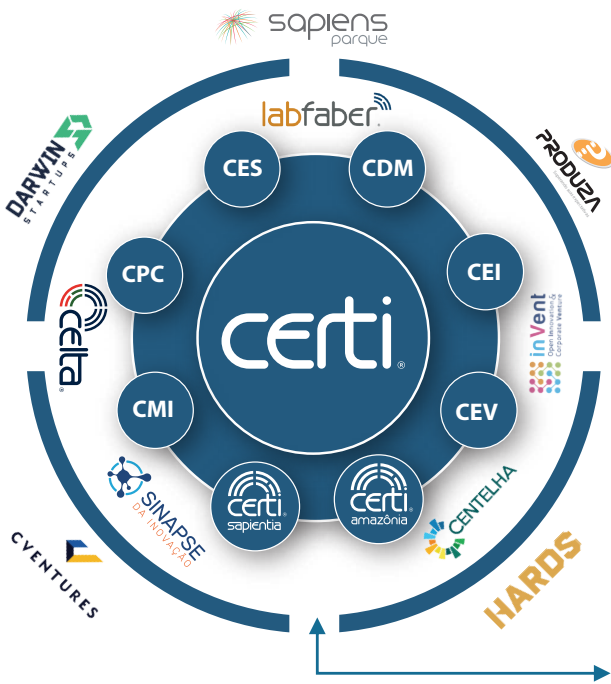
- Digital convergence and transformation and mechatronics
- Metrology & Instrumentation
- Cooperative Production
- Sustainable Energy
- Green Economy
- Innovative Entrepreneurship
- Company Incubation

FUTURE FRONTIERS

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

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

CERTI FOUNDATION ACTIONS



PROJECTS
CONSULTANCY
SERVICES

INNOVATIVE
SOLUTIONS

CERTI'S COMPETENCIES

Product and process engineering, design and management of systems, digital convergence and mecaoptoelectronics, product on 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

In 2019, Sapientia continued to expand its technical capacity and strengthened its cooperation with the CERTI Foundation, through the joint execution of projects for entrepreneurship programs and for private sector companies. These challenges allowed the Institute to improve its competencies in web technologies for frontend and backend, mobile technologies, compilers, communications protocols, embedded software and the internet of things. Opportunities were created to introduce computational vision technologies and artificial intelligence into the Institute's portfolio. At the end of 2019, Sapientia also attained its first two projects in the R&D program of Brazil's National Electrical Energy Agency (ANEEL). This is a new line of action of the Institute, and the projects will be executed during 2020.



INSTITUTO CERTI AMAZÔNIA – ICA

ICA continues to work in partnership with the Manaus Industrial Pole, offering innovative solutions in various fields of interest of companies. In 2019, it began an effort to aggregate new lines of action, with entrepreneurship and bioeconomy, for the proposal of mobilizing programs and strategic projects. Aligned to efforts of various agencies throughout Brazil's Northern region, the main objective of these recent initiatives is to contribute to the creation of new opportunities for generating jobs and income, taking advantage of the natural resources of Amazon biodiversity.



CVENTURES

Cventures, a company that administers capital and shareholder participations, realized investments throughout the year through the Fundo Cventures Primus (a R\$83,4 million venture capital fund for investments in technology startups). Its objective is to organize a portfolio with 15 companies in the sectors of IT & telecom, digital media and life sciences. These companies are located in the states of Santa Catarina, Rio Grande do Sul, Paraná and São Paulo. In 2019, the fund began its cycle of investment with the sale of Hiper to Linx. The companies in its portfolio had a consolidated net income of R\$115 million and employ 994 people.



DARWIN STARTUPS

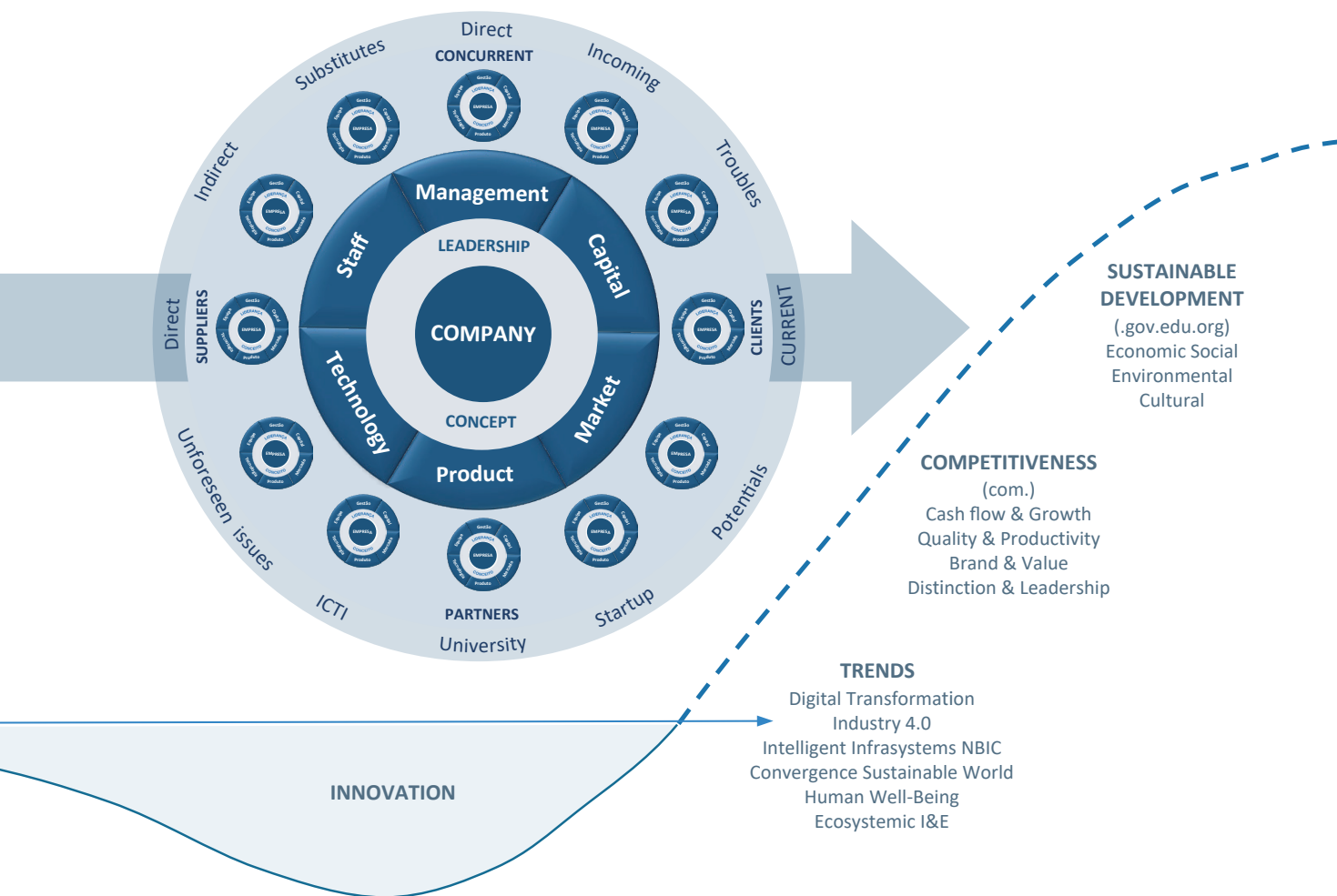
A startup accelerator with offices in Florianópolis and São Paulo, Darwin was conceived and created by CERTI. It realizes seed capital investments and has attracted to its network corporations such as B3, Grupo J. Safra, RTM, Singia and TransUnion. In 2019, Darwin was recognized for the second straight year as the best accelerator in Brazil by ABStartups, having invested a total of R\$2,2 million in 10 companies. It also realized its first exit with the sale of the startup TotalVoice to Zenvia, a telecommunications company. The focus of action continues to be on early stage startups from throughout Brazil, preferentially in the financial, data and telecommunications sectors.



HARDS

HARDS is the new accelerator of the CERTI systems that, together with its partners, was created to be the 1st startup accelerator with software + hardware solutions. It conducts seed capital investments in the segments of IoT/wearables, AGTech, Industry 4.0, ComexTech, Smart Cities, Energy, Logistics, Healthtech, and others. A spin-off of Darwin Startups, it is part of a program within the LABfaber project — executed by the CERTI Foundation, in partnership with PRODUA, FIESC and SENAI/SC — within an infrastructure with capacity to develop prototypes, test and manufacture pilot lots in Sapiens Parque in Florianópolis.

CERTI ECOSYSTEM OF ORGANIZATIONS WITH OPERATIONAL AND STRATEGIC PARTNERSHIPS



SAPIENS PARQUE

In 2019, Sapiens Parque – an innovation park designed to attract and house innovative companies in the fields of ICT, life sciences, energy and the creative economy – in partnership with the private sector, expanded its infrastructure, allowing the implementation of new projects and buildings. One unit was sold to the private sector for the implantation of an exhibition center, to complement the existing event center. The park now hosts 52 companies with 2,700 direct employees and estimated total revenues of R\$330 million.



SINAPSE DA INOVAÇÃO

In 2019, the Synapse of Innovation – a program to provide incentives to innovative entrepreneurship — gave continuity to operations in Santa Catarina, Espírito Santo and Paraná states. In Santa Catarina and Espírito Santo pre-incubation and final auditing of 143 companies took place. In Paraná, the program had a record number of ideas submitted, and received 1,850 projects, trained 7,353 citizens of the state and selected the 100 most highly evaluated innovative ideas.



CENTELHA

The first edition of the Centelha Program began in 2019. The goal of the program is to stimulate the creation of innovative companies and disseminate entrepreneurial culture in Brazil, through training, financial resources, and support to transform ideas into successful businesses. Inspired by the methodology of the Synapse of Innovation program, the initiative is promoted by the Ministry of Science, Technology, Innovations and Communications (MCTIC) and by the Research and Projects Finance Agency (FINEP), in partnership with the National Council for Scientific and Technological Development (CNPq) and the National Council for State Research Support Foundations (Conafap), and is operated by the CERTI Foundation. In 2019, the Centelha Program received more than 14 thousand innovative ideas and involved more than 35 thousand Brazilian citizens.



LABFABER

LABfaber, inaugurated and supported with resources made available under Brazil's Computing Law in the context of the HardwareBR Priority Program, operates as a factory-laboratory of reference in the development, command, practice and diffusion of digital technologies in competitive manufacturing. It is a successor to the successful LABelectron, now expanding its scope of "circuit board" production to "mechatronic products" with high technological density. Now operating together with the Institute of Industry, through a partnership realized between the CERTI Foundation and FIESC, LABfaber promotes innovation in Brazilian industry, undertaking the integrated development of products and processes in platforms for simultaneous engineering; virtual production planning and with real time costs; by production sensing and digitalization of information; intelligent automation of factory processes; and integrated development of the production chain.



PRODUZA

PRODUZA S.A. is an assembler (Contract Manufacturer) of electronic circuit boards and products, created in 2008 within the initiatives of the CERTI Foundation to support the development of technology-based companies. It works in the manufacturing of high-value-added electronic products and in the manufacturing of prototypes and pilot lots, with a focus on markets of electro-medical, defense, aerospace, telecommunications and energy products. It is the company that operates LABfaber in Sapiens Parque. In 2019, it served approximately 35 clients throughout Brazil with the manufacturing of high complexity products.

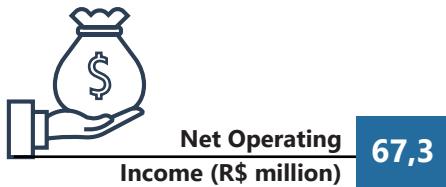


CERTI IN 2019 - EXECUTIVE SUMMARY



Institutional Evolution

Economic recovery and growth were promised for Brazil in 2019 but were not attained as hoped. Nevertheless, the CERTI Foundation continued its trajectory of intense market articulation, seeking to increase its actions, especially in strategic sectors with intensive demands for technology, entrepreneurship and innovation. The institution was able to increase its market prospecting by 6% and its net operating income by R\$67,3 million, a growth of 5% over 2018. It acted in 100 different projects, especially in "technological development" and "innovation" registering a strong advance in projects for the energy, oil & gas, and electronics sectors, in relation to 2018 and previous years.



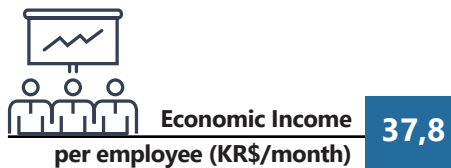
Governance

The institution's actions were guided by its Strategic Plan, which was revised in 2017 and includes 20 Organizational Strategies, Critical Processes and Strategic Projects for the short and medium terms. From this, guidelines, goals and indicators were derived, highlighted by profitable business, economic-financial sustainability, productivity and asset management, most of which were achieved. It was able to attain a Production Performance Index of 1,13, its highest level in the past ten years of operations. Its administrative structure remained unchanged as did its Reference Centers in Innovative Technologies, whose integrated work in various competencies assured distinctions in the execution and conquest of new projects. In December 2019, the mandate of the Superintendencies terminated, and the Board of Advisors elected a new General Superintendent, Eng. Erich Muschellack, for the 2020-2023 term, and approved the continuity of the other superintendents.



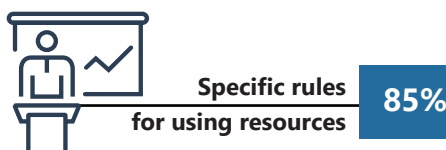
Technology

Attentive to opportunities and demands for digital transformation — with 5G connections, artificial intelligence, industry 4.0, and others — CERTI has strengthened its actions in projects in this field in various market sectors, with strong concentration at levels 4 to 6 of the Technology Readiness Levels (TRL) scale. Demands for mechatronic solutions— which combine mechanical hardware and electronics, firmware, software and instrumentation in the development of prototypes and products — have made a strong return to the portfolio. Advanced manufacturing systems, process simulation and real time control systems characterize the essence of the projects in the field of productive processes. Physical cyber systems, computational vision, cybersecurity, blockchain, IoT and connectivity compose many of the solutions. In the context of innovative entrepreneurship, the competencies of ecosystem innovation, environments of innovation, corporate innovation and models of cooperation and collaboration in entrepreneurship have expanded.

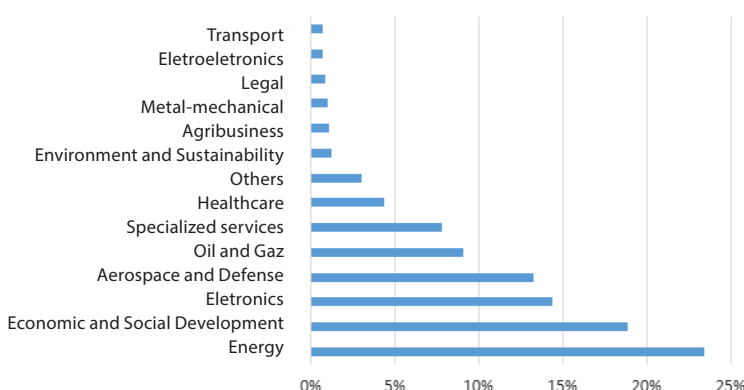


Staff

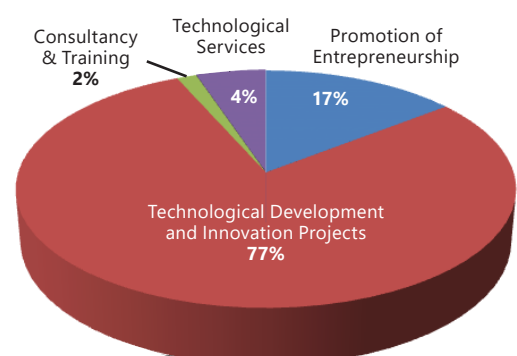
Considered CERTI's principal capital, special attention remained on personnel, particularly to assure their alignment to the institutional culture, through communication, endomarketing and creation of environments of interaction. In 2019, a department was created specifically focused on the Management of People and Human Development. Despite these efforts, the institution is aware of the need to pay greater attention to the challenges associated to people, talents and intellectual capital given the volatility, uncertainty, complexity and ambiguity that affect our institutions. The attractiveness that the environment of innovation and entrepreneurship of Florianópolis offers to become entrepreneurs and create startups has led to expressive turnover, and requires special attention.



Income by Economic Segment



Income by Activity



Market

CERTI has sought with increasing dedication to identify important demands of key clients that will allow it to offer solutions of higher added value. In 2019, it expanded its strategy for approaching the market, using marketing and digital media, participation in fairs and events, prospecting visits and client relations. It acted intensely by proposing technical solutions to clients and helping them to identify sources and mechanisms of incentives and funding. This is a key characteristic in the R,D & I field in Brazil, as indicated by support to companies from EMBRAPPII, BNDES, Finep, Sebrae, and other agencies. The sectors of energy, oil & gas, aerospace and electronics were those that had strong signs of new businesses, especially since the second semester of 2019.

689

Clients

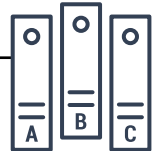


Products and Solutions

CERTI's solutions for its clients involve technological development projects, entrepreneurship and innovation, technical assistance, short-term training and highly specialized technological services. Performance in the form of projects represented 89% of operating income in 2019. The portfolio of small projects executed (up to R\$ 2 million) remained at the same level, while the execution of large projects from R\$ 2 million to R\$ 10 million grew 5% in relation to 2018. Projects above R\$ 10 million remained at 3% of the portfolio.

100

Projects

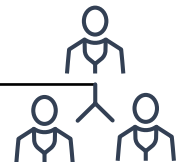


Capital

There was intense management of the institution's tangible and intangible assets in 2019, which is important to the model of sustainability and institutional robustness, especially for private, nonprofit, self-sustaining ICTIs, such as the CERTI Foundation. The institution conducted studies and modeling of operations to monetize assets and mechanisms such as investment funds and family offices to reinforce the maintenance of its economic and financial sustainability.

14

Market sectors



Infrastructure

Special assistance from government supported projects, highlighted by the priority program supported by Brazil's computing law HardwareBR and Finep — with non-reimbursable funds — allowed CERTI to expand its technological and laboratory infrastructure, and to inaugurate the factory laboratory LABfaber at new installations of the Instituto da Indústria [Industry Institute], at Sapiens Parque, Florianópolis, in cooperation with FIESC/SENAI, and also conclude the building that will soon be home to the CERTI Center of Innovation, also at Sapiens Parque. With partnership with SENAI Embedded Systems in Florianópolis and SENAI Laser Processing & Manufacturing Systems in Joinville, a highly up-to-date network is being formed of infrastructure for development, practice and support to industry in Industry 4.0 technologies, which is an irreversible requirement for the competitiveness of Brazilian industry.

5%

Growth of projects

from R\$ 2 to 10 million



Administration

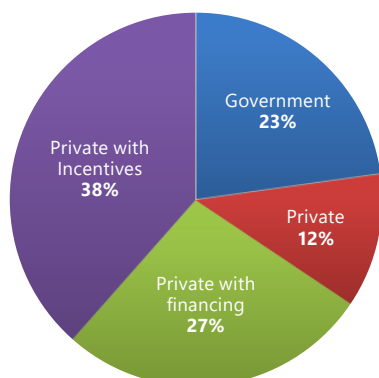
In alignment with CERTI's strategic planning, guidelines and annual goals, continuity was given to improving and consolidating managerial information systems, improving processes and providing information for institutional management, at four levels: external agencies of supervision and control, top administration (Boards, Superintendencies, and Directorates), management of production and administrative units. The reference model at all levels of the management system is the well known Plan, Do, Check, Act (PDCA) concept supported by a customized ERP system and integrated to the other information systems, through which activities, results and indicators are accompanied. In keeping with good practices of corporate governance and compliance, CERTI prepared its Code of Conduct in 2019 and began to be audited by the independent auditors KPMG Brasil, which was selected from among the big four in the Brazilian market.

19%

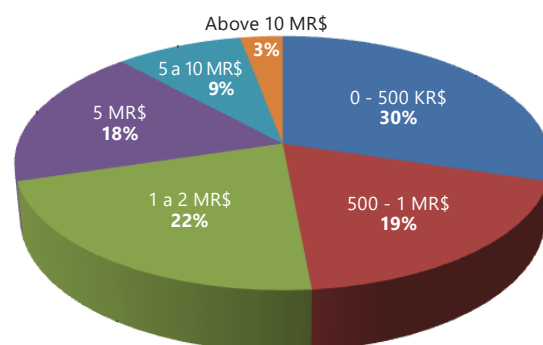
Income from cooperative projects among the centers



Income from Project by funding type



Executed Projects



CERTI - MODE OF OPERATION, CLIENTS AND PARTNERS



CLIENTS IN THE PAST 5 YEARS



PARTNERS



RESULTS FOR CLIENTS

MARKET

Competitiveness of the Companies

Sustainable Development of the Country/Regions

COMPANIES
Organizations
Governments

- Healthcare
- Aerospace
- Bioeconomy
- ICT
- Agribusiness
- Defense
- Energy
- Education
- Automotive
- Oil and Gas
- Electronics
- Economic Social Development

CLIENTS IN THE PAST 5 YEARS



PARTNERS



CERTI REFERENCE CENTERS IN TECHNOLOGICAL INNOVATION

Digital Convergence & Mechatronics

In 2019, the Center for Digital Convergence and Mechatronics (CDM), focused on becoming a reference in Brazilian and international markets as an agent that idealizes, promotes and makes viable digital transformation, by developing embedded systems, software and complex electronics. Its actions focus on projects such as the development of digital systems for remote management and operations, solutions in intelligent systems, artificial intelligence (IA), the internet of things (IoT), image recognition, educational solutions, storage and mobility. The main segments were those of consumer electronics, healthcare, aerospace and defense, energy, telecommunications, Digital TV, electrical appliances, oil & gas, agriculture, education and government.

Competencies

Desenvolvimento de Software /
Sistemas Embarcados / Mecatrônica /
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, the incubator of the CERTI Foundation, has the mission to provide support to companies incubated at its facilities, and to participate in other strategic actions at CERTI. In 2019, with the release of two more companies, CELTA came to have 109 graduated companies with the high success rate of 96%. The year of 2019 was marked by important training and consulting, guidance and accompaniment, in addition to intense involvement with three other Santa Catarina incubators — Inaitec, Gene Blumenau and Softville. These actions, which are important not only to CELTA but also to other incubators, were shared within the CERNE 2 project – whose objective is to create a base for competitiveness for incubated companies, by undertaking strategic, cooperated synergic actions and those of high added value among the incubators, strengthening and generating innovative results that contribute decisively to the success of the Startups.

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



Cooperative Production

In 2019, the Center for Cooperated Production (CPC) maintained its focus on offering solutions in designs for factory units, production processes, and customized production of technological products with a focus on a quality guarantee, to help companies to be more competitive. In this context, 2019 was marked by a great victory, with the inauguration at Sapiens Parque of LABfaber 4.0 — a factory-laboratory of reference in the development, command, practice and diffusion of technologies central to "Industry 4.0", in a new physical environment and integrated with partners, focused on discrete manufacturing of products in the era of digital transformation, with funds made available by Brazil's Computing Law, under the HardwareBR priority program and the Santa Catarina state government. Another achievement was the addition of a new large thematic area of competence: BIM and Lean 4.0. This field addresses the synergisms of the methodologies and technologies associated to digital transformation of processes, considering activities of R,D&I in lean systems, analytical inter-operability of data and visual management. In this way, the CPC expands its range of action in important economic sectors, such as civil engineering and judicial affairs, as well as sectors already served such as aerospace and defense, electronics, electro-medical, electrical energy, oil & gas, IT and telecom, food and beverages, construction and engineering, machinery, textiles, leathers and clothing.

Competencies

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

Solutions

Deployment of 4.0 solutions for Industries / Advanced Material / Digital Manufacturing / Laboratory-factory

CPC



Competencies

Mechanical Design / Dimensional Engineering / 3D Metrology / Intelligent Instrumentation and Automation / Product Quality / Equipment 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

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

Solutions

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

Competencies

Intelligent technical and commercial solutions for the energy sector, including: 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

Competencies

Modeling of Innovation Ecosystems for Creating Shared Value / Natural Capital Management (Capacity to Dynamic Support, Carryover & Trade, Biodiversity Offsets) / Management Ecosystemic services / Impact Business Modeling / Remote Sensing, Multicriteria analysis and modeling environmental / Resource Management Water / Knowledge Management

Solutions

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

Metrology & Instrumentation

In 2019, the Center for Metrology and Instrumentation (CMI) guided its strategies to support companies in the digital transformation of processes to improve product quality and conserve the integrity of production assets. It worked on R&D projects at large companies, mainly in the oil & gas, aerospace and defense sectors, and provided metrology services to various economic sectors. During the year, new competencies were added and organized, particularly mechanical design and product design, increasing the potential to generate income and improve integration with other centers at CERTI.

Innovative Entrepreneurship

In 2019, the Center for Innovative Entrepreneurship (CEI) consolidated its operations nationally, coordinating and operating structural projects such as Inovativa Brasil, in conjunction with the Ministry of Development, Industry and Commerce (now the Ministry of the Economy) and the Centelha Program, to be implemented in 21 Brazil states in partnership with the Ministry of Science, Technology, Innovation and Communications – and FINEP. It also developed model innovation environments for important clients like the Brazilian Navy. In the business segment, it expanded the Invent solution: which is a proprietary methodology that seeks to enhance the innovative capacity of companies, accelerating the process of innovation, reducing risk and strengthening their relationship with ecosystems of innovation.

Sustainable Energy

In 2019, the Center for Sustainable Energy (CES) had growth 30% higher than the previous year, and also increased its technical staff, constantly engaged in activities that feature the center's competencies and the execution of innovative projects of the CES in the energy sector. During the year, the CES completed seven years of existence during which it has been increasingly focused and recognized for taking solutions to the market, encompassing product development, new services and innovation in business models, aligned to the 3Ds (decentralization, decarbonization and digitalization of energy generation, distribution and consumption) which has been supporting the modernization of the sector.

Green Economy

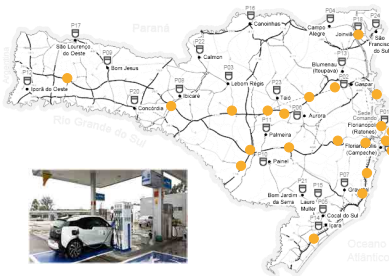
In 2019, the Green Economy Center (CEV) consolidated its action in the Amazon, mapping the Amazon Ecosystem of Innovation and its potential to create shared value while conserving the forest. More than 1,700 actors, mechanisms and tools were mapped that have potential to activate talents, knowledge, capital and markets, with the goal of innovating and strengthening value chains that use non-lumber forest resources sustainability. Among the most promising sectors, food and beverages and cosmetics stand out in the short and medium terms, while phytopharmaceuticals and pharmaceuticals and other emerging sectors stand out in the medium and long terms. The mapping also points to bottlenecks to activating the Ecosystem of Innovation to promote forest conservation by creating value. CEV's strategy of action was organized for the coming years considering these bottlenecks, including its progressive integration with the CERTI Amazon Institute in Manaus. In this context, partnerships were also deepened with important institutions in the Amazon as well as Brazilian and international entities. These partnerships will significantly increase the strength of action and mobilization of the Ecosystem as a whole.

OUTSTANDING INNOVATION SOLUTIONS IN 2019



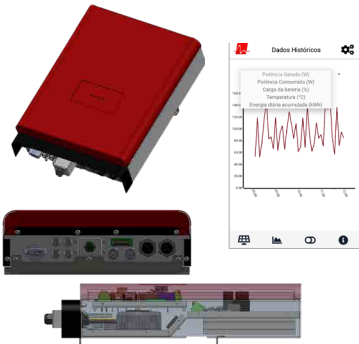
Urban Futurability

This is a pioneer project in Brazil with a high degree of innovation in relation to similar initiatives in the world. It encompasses development and integration of the most advanced solutions for the future of the electrical energy distribution system. The project includes solutions in digitalization, automation, artificial intelligence, engineering of new products, services and innovative business models for electrical energy companies. It also benefits companies in telecommunications services, water and gas suppliers and other stakeholders who are directly or indirectly involved in the innovation chain in these segments. The specific objective of this project is the implementation of a Living Lab in the Vila Olímpia neighborhood of São Paulo, as a demonstration and experimentation “cell” of solutions developed in this endeavor.



Santa Catarina Electrical Corridor

This project involves the implantation of infrastructure for charging electrical vehicles in Santa Catarina, adding at least 30 charging stations – with fast and semi-fast charging – on highways and at urban locations, with market solutions and development realized by CERTI. The project should be Brazil’s first large electrical corridor, encompassing installed infrastructure and implementation of a business model for the operation of the system. In addition, the project calls for the development of an Electrical Station of the Future, designed as a space that will integrate charging stations and related technologies (photovoltaic microgeneration, stationary storage systems and demand management), serving as an environment to promote and disseminate technologies for electrical mobility and contributing to the advance of this technology in Brazil.



Hybrid System for Photovoltaic Microgeneration and Storage

The product of this project is a hybrid inverter developed with 100% Brazilian technology that is capable of integrating photovoltaic generation with storage systems using batteries for small scale applications, such as homes, small businesses and industrial applications or even isolated or remote regions (without access to the electrical grid). The product has no competition in Brazil today and in relation to similar imported products, has innovations in terms of improvement in the topology of the inverter, control and energy management, embedded intelligence and solutions for applications in arrangements of micro-networks and programs to respond to demand.



Innovation Center of Novo Hamburgo

The CERTI Foundation was contracted in 2019 by the municipality of Novo Hamburgo, within the Integrated Municipal Development Program financed by the InterAmerican Development Bank, to support the planning and implantation of a Center for Innovation and Technology. The project should be the foundation for the establishment of a solid Ecosystem of Innovation that will allow the systematic rise of innovative companies and the development of projects that can give structure to and diversify the economic matrix of the region and strengthen the competencies found in Novo Hamburgo. In its concept as a One Stop Shop, the Center for Technological

Innovation of Novo Hamburgo should represent and present the various potentialities of the municipality and the region, establishing the possibility to materialize the ecosystem in a single space. To consolidate the Ecosystem of Innovation, a municipal law concerning innovation was revised and municipal Innovation Funds were proposed.



Technology Park of the Brazilian Navy – Rio de Janeiro

To speed its process of innovation and strengthen its integration with partners, government, industry, the academy, research institutes and startups, the Brazilian Navy sought a partnership with the CERTI Foundation to plan its Technology Park in Rio de Janeiro. The Technology Park was conceived to strengthen the Navy’s innovation process, especially in the strategic issues of national defense and the sea, and to develop solutions to act in conjunction with ecosystems that dominate technologies that are strategic to the Navy.

OUTSTANDING INNOVATION SOLUTIONS IN 2019

Invent

InVent is a corporate innovation program that seeks to diminish the risks and accelerate the process of innovation at medium and large corporations. The participating companies experience an accelerated process of experimentation and learning, which is focused on the identification and validation of opportunities for innovation in the market, as well as modeling of their strategies of interaction with the ecosystem and the development of a culture guided by innovation. The year of 2019 marked an expressive evolution of the program, and there were important methodological improvements and more clients contracted the program. The clients include Soprano, Lojas Renner, Caixa Econômica Federal – and 35 others involved in the two collective rounds of the program, one in Santa Catarina and another in Paraná.



Londrina Ecosystem of Innovation

A partnership between the CERTI Foundation and Sebrae Paraná gave origin to a methodology of action, management and monitoring – based on levels of maturity — of the ecosystems of innovation. This methodology was disseminated and adopted by various Sebrae units in Brazil. In addition to presenting a model of internal action for Sebrae at the ecosystems of innovation, the methodology also has a model to guide Sebrae's involvement with partners. In the pilot-application, 10 municipalities were contemplated, with training of more than 120 Sebrae professionals throughout Brazil.



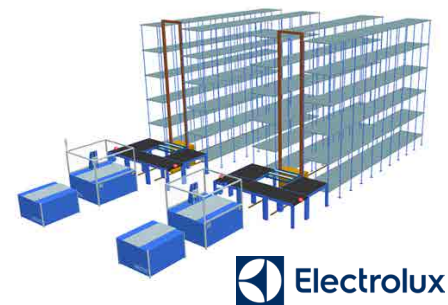
Center of Innovation Maceió

In the first trimester of 2019, the operational, legal and business modeling was concluded for the Center of Innovation of the Information, Communications and Services Technology Pole in Maceió, Alagoas state. As a result of this work, in the first semester of 2019, State Secretary of Science, Technology and Innovation Ceci Rocha authorized return to work on the Pole.



Simulation of Internal Logistics for Handling Materials

With the implantation of a new vertical storage system for raw materials, the Electrolux company had to evaluate and restructure its internal logistics processes, to guarantee that the supplies continue to efficiently serve production demand and with reduced operating costs. CERTI, using the most sophisticated simulation tools, developed a digital model of the logistical systems for vertical storage, capable of representing the behavior and standard operating conditions of the new structure. The model is also integrated to a spreadsheet with more than 50 input parameters to facilitate the creation of a wide variety of situations. The digitalization and simulation of the process made the analysis of situations and decision-making about production extremely agile. As a realistic graphic interface, and by generating reports that encompass performance, the model allows quickly evaluating the optimal operational conditions for control of raw materials in storage, generating significant gains in logistical costs in the first months, as evaluated by the tool.

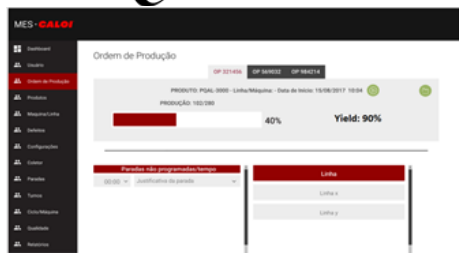


Priority Mobilizing Project LABelectron Nucleador

Because of its successful operations LABelectron has become an important platform for supporting the productive sector in its new challenges associated to industry 4.0. It thus submitted a project to the MCTIC - Ministry of Science, Technology, Innovation and Communication, in convergence with the ministry's priorities and policies for digital transformation, IoT and Industry 4.0. The goal of the project is to expand LABelectron to allow it to provide support to the productive sector in these new technologies. LABfaber was inaugurated in 2019 as a model factory-laboratory for the development, command, practice and diffusion of digital technologies for the competitive manufacturing of technologically advanced products. It also offers training and dissemination of Industry 4.0 solutions. It follows in the success of LABelectron, now expanding its scope from "Circuit Boards" to "Mechatronic Products" with high technological density, through a mobilizing project supported by funds made available under Brazil's computer law, in the context of the HardwareBR Priority Program.



OUTSTANDING INNOVATION SOLUTIONS IN 2019



Development of the MES System and IoT Data Collector

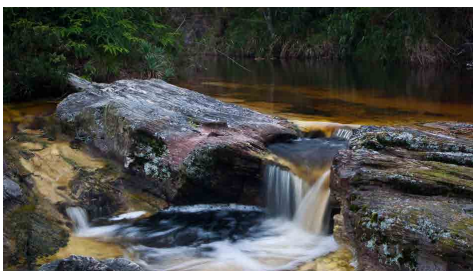
This project was created to increase productivity by providing access to data from machines generated automatically and integrated to information systems at the company. The solution was reached using electronic development and firmware, prototyping and implantation of data collectors in machines in CALOI's industrial process; development of the manufacturing execution system (MES) and integration to IoT hardware; and development and implantation of a specialist system of factory tracing, which integrates data from the IoT collectors to an ERP system. With the use of the IoT data collector the indications about production and registration of defects were automated, and the data is presented in a consolidated manner in real time. The integration

of MES to the ERP increased efficiency because the dispatch of products and rejects was automated. In addition to gaining time, estimated at 20%, all of the registrations are now stored in a database, which makes historic data analysis more agile.



Araucária+ | Conservation of Biodiversity Leveraged by the Market

Initiated in 2013 in a strategic partnership with the Boticario Group Foundation, Araucária+ is a social technology dedicated to conserving Brazilian biodiversity while strengthening the base of the forest productive chain, with an initial focus on the Araucária Forest. During 2019, the initiative's business model was restructured to transform it into a spin-off, strengthening the market strategy with an expansion to other territories, to leverage the positive socioenvironmental impacts associated to sustainable origin.



Methodology for implementation of Programs for Payment for Environmental Services

During 2019 a methodology was developed to implement initiatives for Payments for Environmental Services, including a prototype of a calculator that automates a series of variables and assists in planning and calculating costs. The project was developed for the Secretary of State of Sustainable Economic Development, with the objective of becoming a Model of Viability and Economic Sustainability for Programs of Payments for Environmental Services to be replicated in various regions of Santa Catarina.



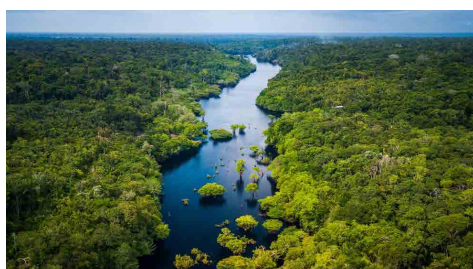
Ecosystem of Innovation with Impact for the Amazon

The objective of the initiative is to contribute to organizing an Ecosystem of Innovation with Impact for the Amazon, which promotes innovation by connecting actors in a network, creating value for sustainable business and generating positive socio-environmental impacts for the region, thus contributing to forest conservation. The architecture of this Ecosystem was modeled and a series of mechanisms for activating the ecosystem were conceived, with its implementation at a level of an MVP planned for 2020.



Multi-Immunological Test Solution

This project developed a multi-immunological test solution for diagnosing illness at health clinics. The solution uses a cartridge placed in a mechanical support where a patient's blood sample is placed. After activating chemical reagents, the software developed diagnoses the health problems found in the patients by analyzing colorations identified after registering the reaction in photographic images.



Remote Water Quality Monitoring

This project developed a system for remote monitoring of water quality in reservoirs based on multispectral images, involving activities like the re-parametrization of bio-optical models based on images collected by sensors aboard satellites, as well as the test of application of images obtained by drones for purposes of monitoring water quality in reservoirs. The project was developed in the realm of Brazil's National Electrical Energy Agency R&D program, and its proponent is the company Foz do Chapecó Energia. The BAESA company is a cooperating partner.

OUTSTANDING INNOVATION SOLUTIONS IN 2019

Solution for Extraordinary Judicial Procedures

This project develops systems for processing appeals, admissions and receipt of special and extraordinary motions as well as for the petitioning and receipt of interlocutory appeals filed in response to denials of an appeal. It uses artificial intelligence to make petitioning and analysis of admissibility by lower and higher courts faster and more efficient.



Test and Inspection System for Electronic Product Manufacturing

Automated solutions for testing and inspecting electronic products. The solutions delivered include: a measurement system that uses laser scanning and CNC commands to verify the flatness of PCBs; test benches that allow the verification of pneumatic and sonorous electrical signals; and a low cost optical inspection system of PCBs, based on computer vision, that can automatically locate poorly assembled, inverted or missing components. These solutions can be integrated to a production line, meeting the needs for quality inspection of electronic products.



Dimensional Engineering Feedback in Airplane Production

The AERODIM project with EMBRAER was concluded in October 2019, and its main objective was to provide feedback for dimensional engineering with data from the manufacturing process. During the project, the metrology of aerodynamic surfaces that are important to airplane performance was revised and updated. In addition, the procedure for measuring parts that influence the geometry of these aerodynamic surfaces was improved. The project explored these important issues considering industry 4.0, implementing technologies such as tridimensional optical measurement, virtual devices for measuring flexible parts, distributed sensing of flexible environments and data intelligence.



Technological Services Networks

Supported by MCTIC, Finep and CNPq, CERTI has been actively working to organize and operate networks of institutions that provide technological services to the sectors of healthcare products (ProdSaúde) and products of mechanical manufacturing (RP2M). In the context of this action and in partnership with the Brazilian Metrology Society, a broad distance education program was implemented, which trained more than 2,200 people in metrology, conformity evaluation and industry 4.0. Micro-learning actions complemented the initiative, periodically disseminating qualified technical contents to more than 5,000 interested parties.



Technological Services and Training in Metrology and Quality

In 2019, CERTI continued to provide technological services to various sectors of Brazilian industry. More than 3,800 certificates for measuring and calibration were issued in the dimensional field during the year and more than 300 people participated in training courses in metrology and quality. The scope of accreditation from INMETRO was revised and increased, including new calibration services aligned with trends in industry 4.0, such as tridimensional optical measuring systems and autocollimatores.



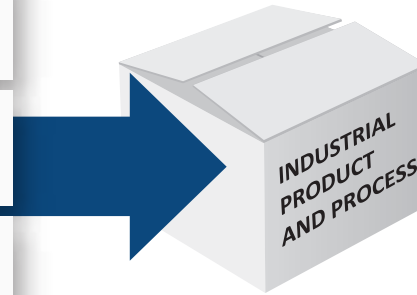
CERTI – EMBRAPII UNIT



CERTI is an EMBRAPII Unit accredited to act in the field of competence of Intelligent Systems, which allows its RD&I projects to have 33% of their total value financially supported. In 2019, after EMBRAPII's evaluation of the results and goals attained, CERTI's accreditation was renovated until 2024, with the definition of three subareas of action within Intelligent Systems: Mechatronic Systems, Software for Intelligent Systems and Manufacturing Systems. In compliance with the strategic guidelines for 2019, CERTI expanded the base of partner companies in strategic sectors for EMBRAPII projects.

INTELLIGENT SYSTEMS

SPECIALIST SYSTEM Artificial intelligence, digital signal processing, algorithms, high-level applications, etc.	CONNECTIVITY Authenticity, security, Internet, cloud computing, M2M, etc.
EMBEDDED SOFTWARE Middleware, operating system, kernel, control algorithm.	HUMAN MACHINE INTERFACE Manipulators, monitors, cameras, registers, interactive displays, biometrics.
ELECTRONIC HARDWARE Electronics, microelectronics, Microsystems (MEMs) firmware,	SENSORS AND ACTUATORS GPS Operation, signal acquisition, electro-mechanical triggering, etc.
EQUIPMENT AND DEVICES Encapsulating, interconnection, cabinets, mechanics, micromechanics, supply, design, optics and special materials, integration to physical system, etc.	



The innovation projects approved in 2019 will directly benefit companies such as SIEMENS Healthcare, Fundação Fiotec, Fundação Oswaldo Cruz, IBMP - Instituto de Biologia Molecular do Paraná, Qualirede Consultoria Empresarial LTDA, EPSON, SOS Cardio, GL Eletro-Eletrônico and KAVO.

LAW 8.248/91 Computing Law

AT WHOM IT IS AIMED: Companies that have national production of computer equipment listed in Decree N° 5.906 / 06, of 26/09/2006. As of Law 13,969 / 2019, in force as of 04/19/2020, companies that invest in RD&I activities internally or with S&T institutes for computer and automation goods can obtain fiscal stimulus from financial credit calculated on the expenditure actually applied in RD&I.



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.



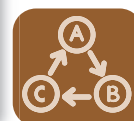
LAW 11.196/2005 Law of Goods

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 simulate 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.



FISCAL INCENTIVES



CERTI is accredited to execute R&D projects and in the context of the Priority Hardware BR Program is administrator of the Labfaber 4.0 project (www.LABfaber.org.br). LABfaber is a reference project in the development of concepts, technologies and solutions in industry 4.0 and in the effective application of these technologies in a real environment of manufacturing and production. To learn more: <https://info.certiorg.br/por-que-investir-no-LABfaber>.

SOCIAL ADMINISTRATION

During 2019, the CERTI Foundation, through its Social Administration programs, planned various actions and challenges to support its employees. All employees in the CERTI system were vaccinated against H1N1. In conjunction with the Personnel Department, each month were accompanied employees on leave or who had required special medical care or received authorizations for surgical procedures. The institution supported requests for reimbursement from health insurance providers UNIMED and Bradesco Dental, and issued SESC cards, which serve as a passport to activities offered by this entity.

Partnerships were established with restaurants near the CERTI's facilities, so that employees could benefit from a discount for their meals. With the program for separating and recycling of white and colored paper and cardboard, it was possible to maintain the Community Garden and purchase new seedlings and other materials, giving continuity to the work of the Sustentação program. On their birthdays, employees received a greeting card, balloons at their worksite and a list of those with birthdays during the month was displayed on a TV. These are small gestures with which CERTI sought to demonstrate the importance of the employees to the Foundation. Activities were also held on SIPAT week, which were strengthened with themes of interest to employees.



PARTNERSHIP CONTRACTS FOR EMPLOYEE BENEFITS

SIPAT WEEK



CERTI HIGHLIGHTS



CERTI – FIESC Partnership

CERTI's partnership with the Federation of Industry of Santa Catarina (FIESC) allowed converging these entities' complementary capacities and expanding synergies to strengthen the competitiveness of companies, by means of innovation. CERTI, in addition to having a unit specialized in productive processes located at FIESC's Institution of Industry, also inaugurated LABfaber at the same location. This is a factory-laboratory of reference in the development, control, implementation and diffusion of technologies central to Industry 4.0. The LABfaber facilities are also used by SENAI and startups in the hardware accelerator - HARDS. This partnership has been expanded both to establish joint proposals in conjunction with global clients, such as Petrobras, and to integrate other actors in the ecosystem, such as ACATE, expanding the aggregation of value to productive chains in Santa Catarina. The joint work with FIESC also encourages companies to practice open innovation and corporate ventures, while also using good practices of CERTI cases such as INVENT.



Impact Valley and interaction with Family Offices

CERTI, with the support of FIESC and in partnership with Bioma Ventures and the Instituto Dialog, organized the IMPACT VALLEY program to attract investments from Family Offices interested in impact businesses in developing countries. These Family Offices focus investments on innovative companies that promote the UN Sustainable Development Goals. IMPACT VALLEY sought to combine entrepreneurship and innovation systems with systems of private capital and urban development. The initiative was presented by representatives of CERTI at encounters of Family Offices in Dubai and London, promoting the Ecosystem of Florianópolis as the pilot of IMPACT VALLEY, with possibilities for replication in other regions of the world.



Election of the New General Superintendent

José Eduardo Fiates completed his mandate as General Superintendent of CERTI in 2019. In 2016 he was the first Superintendent of CERTI to substitute the founder, professor Carlos Alberto Schneider. Fiates left an important legacy, expanding CERTI's action in challenging multidisciplinary projects and providing greater integration with other actors in the ecosystem. At a meeting of CERTI's Board of Advisors in December 2019, Erich Muschellack was elected to substitute him. An electronics engineer and businessman who founded Procomp in the 1980s, in the past 15 years Erich has been working as an angel investor and mentor at startups. The new general superintendent will reinforce CERTI's commercial actions, working with a business model that is more focused on products and services that develop technological innovation in strategic

fields – such as digital transformation, industry 4.0, 5G technology, which will grow in scale in coming years – and increase the competitiveness of the industrial sector.



Virtual Power Plant

The Virtual Power Plant project (VPP), developed by AES Tietê in partnership with CERTI, was the winner of the international Energy & Innovations Award 2019, in the popular vote category. The award took place in Finland, during the Energy Week fair, held by EnergyVaasa. The project is the first virtual plant model implemented in Brazil, focused on leveraging opportunities in the free energy market for the distributed resources of C&I customers, generating benefits due to the aggregation of its flexibility and the optimization of its performance in the short term market deadline.



HARDS inauguration

The 1st startup accelerator with software + hardware solutions was inaugurated in 2019. HARDS makes seed capital investments in the segments of IoT/wearables, AGTech, Industry 4.0, ComexTech, Smart Cities, Energy, Logistics, Healthtech, and others. A spin-off of Darwin Startups, it is part of a program within the LABfaber project — executed by the CERTI Foundation, in partnership with PRODUZA, FIESC and SENAI/SC — within infrastructure with capacity for prototyping, testing and manufacturing pilot-lots at Sapiens Parque in Florianópolis.



Forum Produttare

Prof. Schneider, who is the founder of CERTI, and since 2016 President of the board, gave a talk about Implementation of Digital Transformation for competitiveness at companies at the third edition of the Fórum Produttare, in Blumenau. He then mediated a panel discussion about IoT and Industry 4.0.

CERTI HIGHLIGHTS

CERTI Anniversary

The CERTI Foundation completed 35 years of growth, complying with its mission to modernize Brazilian industry in an outstanding manner, through countless projects to develop innovative solutions, whether for clients for the nation and for collective and individual benefit. The administrators expressed their thanks to the CERTI staff, to partners and clients for believing in and placing themselves alongside the institution in this great undertaking.



Presentation of the Virtual Operation Center project

Developed by CERTI for the German company Siemens Healthineers and presented at the Healthcare Global Conference & Exhibition in Orlando, Florida, the Virtual Operation Center (VOC) project consists of a cockpit equipped with cameras, sensors and audio devices that allow healthcare professionals to operate magnetic resonance exam equipment and to communicate with patients remotely. The technicians can simultaneously operate up to three machines, attending multiple patients, making processes more agile and reducing errors in reports.



Inauguration LABfaber – Laboratory of Technology 4.0

CERTI and FIESC inaugurated LABfaber, the factory laboratory for the development, experimentation and training in Industry 4.0, focused on digital transformation solutions for industry. The factory-laboratory allows activities such as virtual planning of production, sensing and digitalization, automation of factory processes, factory intelligence and integrated management of the production chain. The intention is to transform the location into a technological reference platform.



CERTI participates in the Presidential Mission to Israel to Sign Accords

Representing the Ecosystem of innovation of Florianópolis, CERTI accompanied the presidential committee to the Israel-Brazil Innovation Summit, an economic event for large organizations. The purpose of the mission was to establish partnerships between the two countries, and during the visit a Bilateral Cooperation Agreement was signed between the Israeli Innovation Authority and EMBRAPAII, through which CERTI is accredited as a Unit of Intelligent Systems.



INOVATIVA Brazil named Top 1 Ecosystem in the Ranking 100 OPEN STARTUPS 2019

The Innovative Brazil Program, executed by CERTI, and realized by the Ministry of Economics and Sebrae, received the TOP 1 award in the Ranking of Ecosystems of 100 Open Startups, and was recognized as the country's largest supporter of the startup ecosystem.



First Round of the Sapientia Academy project completed

The Sapientia Academy is an educational innovation project that aims to develop soft skills and a culture of entrepreneurial innovation among students and teachers. The first round was conducted by the CERTI Foundation, in partnership with UFSC, FEJESC, Sebrae, SESI, SENAI, ACATE, Neoway, Softplan and Flex. For five months, 50 students who are members of junior companies at UFSC, UDESC and IFSC were divided into 10 groups to compete in the development of innovative products and processes. At the end of the project, new business opportunities were obtained for the sponsoring organizations, as well as concrete economic and socio-environmental results.



STAFF TRAINING AND REFRESHER



RH Conecta - 07 a 13/10/2019



Python Brasil - 25 a 27/10/2019



Agile Trends - 12 a 18/04/2019



ACADEMIA CERTI - Lecture "Thinking, Teams and Agile Management"

CERTI INNOVATION AND ENTREPRENEURSHIP AWARD



The second edition of the CERTI Award was promoted in 2019. It is simultaneously a recognition for the achievements of companies and institutions in the Ecosystem of Florianópolis and an homage to local, state and Brazilian entities that have contributed to the success of the region in recent years.

The event was led by CERTI General Superintendent José Eduardo Fiates, with the participation of Sergio Gargioni, Head of the Department of Mechanical Engineering at UFSC, and Daniel Leipnitz, president of ACATE, who conducted a discussion with those who were honored as historic personalities, Carlos Alberto Schneider and José Fernando Xavier Faraco.

The night to commemorate various companies in the ecosystem of innovation in Santa Catarina also paid tribute to Saulo Vieira, who passed away two days before the event. He was one of the key inspirations to the rise of the Florianópolis Ecosystem of Innovation. The CERTI Awards were held at Softplan, in Sapiens Parque, a development that he helped to implant and which he led for a number of years.

Categories and winners of the CERTI AWARD 2019:

- Historic Personality: **Carlos Alberto Schneider and José Fernando Xavier Faraco**
- Reference Technology Company from the Ecosystem: **Aquarela Advanced Analytics**
- Achievement, Outstanding Technology Company from the Ecosystem: **Exact Sales**
- Reference company in the Creative Economy in the Ecosystem: **Black Purpurin Moda 3D**
- Scientific and Technological Development Project in the Ecosystem: **Horus Aeronaves**
- Project of a CERTI client in Brazil/World: **WEG**
- Innovative socio-environmental project: **Kemia - Tratamento de efluentes**
- Government support for innovation project: **Softplan - Projeto 90 dias sem papel**
- Startup of the year: **Kemia**



Find more information about the event, with this QR Code or at the link:

<https://certi.org.br/blog/premio-certi-de-inovacao-relembra-inicio-do-ecossistema-de-florianopolis/>

IN THE ECOSYSTEM OF FLORIANÓPOLIS



Issuing Award to José Eduardo Fiates



Softplan Auditorium in Sapiens Parque



Historic Personalities



Government Project to support Innovation



Scientific and Technological Development Project



Outstanding Technology Company in the Ecosystem



Reference Company from the Creative Economy in the Ecosystem



Reference Technology Company in the Ecosystem



Project of CERTI Client in Brazil/World



Innovative Socio-environmental Project/Startup

CELTA INCUBATION AWARD



The CELTA INCUBATION AWARD was developed to support and recognize startups from CELTA that are references in the regional ecosystem, helping to disseminate their successful practices to other actors in the ecosystem.

The event seeks to create an environment for learning that is propitious to sharing knowledge and disseminating the best practices of innovation identified among the participating companies. The awards are held annually and are based on a profound evaluation and monitoring of more than 100 qualitative and quantitative indicators and of each company, based on the CERNE model, according to the level of maturity of each company.

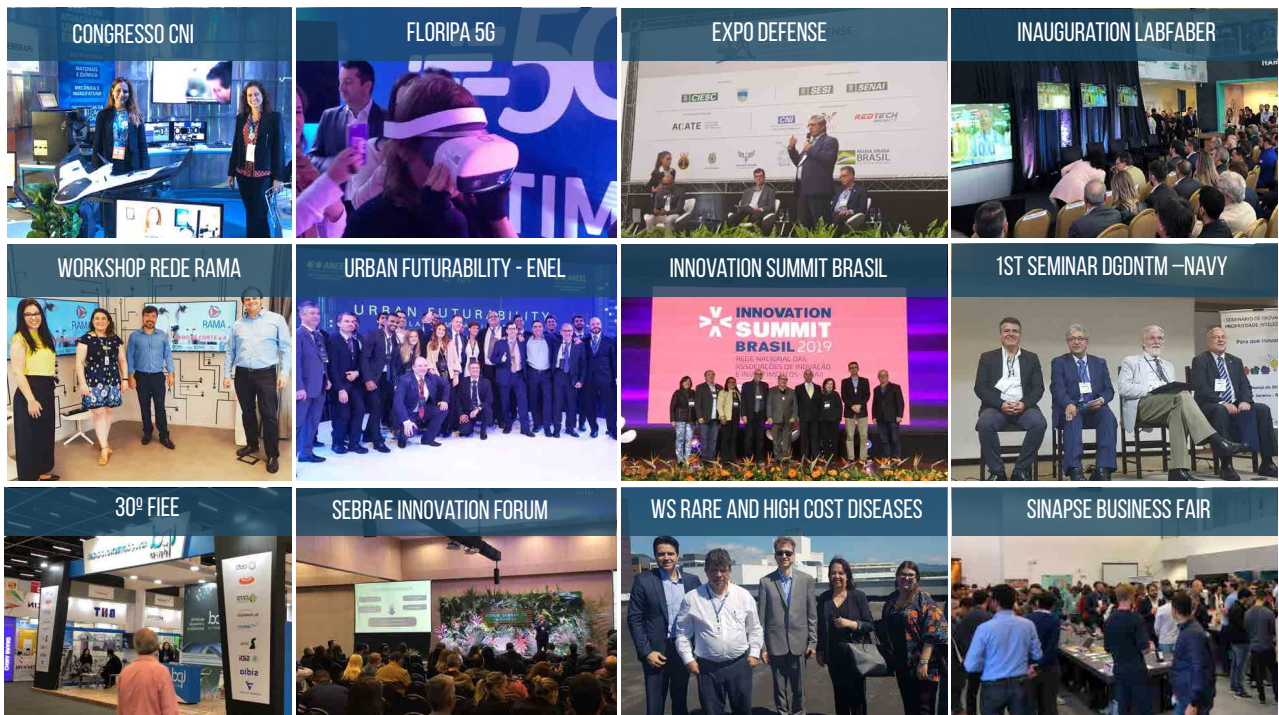
ENDOMARKETING

In 2019, CERTI began the year with a general alignment of the staff to approximate and integrate them, strengthening relations to promote an engaged and united workforce. During the year, a Dress Code was established, bringing more flexibility and comfort to daily activities, as well as Café events, and in particular the celebration of the 35th anniversary of the institution. The year was completed by offering a CERTI mug to each employee.



EVENTS

In 2019, CERTI participated in various events to disseminate and present its capacity for technological development, considering sectors such as healthcare, energy, electronics, oil & gas, agribusiness, and others. Below are some of the events in which CERTI participated:



CERTI IN THE MÍDIA

CERTI was also present as a reference in various national and specialized media channels, in news related to innovative projects and technologies in a wide variety of economic sectors.

PROJECT- 5G PILOT IN BRASIL - G1

Florianópolis recebe primeiro projeto-piloto de tecnologia 5G do país

Uma antena para facilitar o teste da tecnologia Certi para ser usada em operação 5G. Os serviços de internet 5G chegarão em Florianópolis em 2020.

Por R136
20/03/2020 - atualizado às 12:00



FIRST TESTS 5G NETWORK- EXAME

TIM inicia testes de rede 5G em Florianópolis com equipamentos da Huawei

Letícia de Figueiredo | 17/03/2020 às 10:00 | para e com quem tem TIM que quer ficar na vanguarda que não quer ficar em segundo plano. A tecnologia 5G chegou em Florianópolis em 2020.



ECOSYSTEM OF INOVATION - PEGN

Como fortalecer o ecossistema brasileiro de inovação? Pergunte a um biólogo

Como fortalecer o ecossistema brasileiro de inovação? Pergunte a um biólogo. O artigo discute a importância da inovação e o papel do biólogo nesse contexto.

Por R136
20/03/2020 - atualizado às 12:00



BLOCKCHAIN CERTI PROJECT TI INSIDE

CERTI lança projeto de blockchain para levar tecnologia a setores diferentes do sistema financeiro

Um dos desafios práticos de tecnologia blockchain é levar a tecnologia a setores diferentes do sistema financeiro. O projeto CERTI busca fazer isso.

Por R136
20/03/2020 - atualizado às 12:00



INDUSTRIAL TOMOGRAPHY / PORTAL BQUALIDADE



CERTI IN THE PORTAL CONVERGÊNCIA DIGITAL

Reduzir imposto acabou em TICs reduz espaço do software no Brasil

A indústria de desenvolvimento de TICs no Brasil tem um espaço de atuação limitado. A redução de impostos acabou por reduzir esse espaço.

Por R136
20/03/2020 - atualizado às 12:00



INSIGHTS CERTI

CERTI reinforced its brand in digital media through the Insights CERTI Blog, sharing the themes of its projects and specialties in technological development and innovation in products and processes, consultancy and specialized assistance, training and technological services.



Guilherme Valença Silva Rodrigues em 19 de março de 2020

LabFaber: solução para simulação de processos industriais

Uma das formas mais eficazes pelas quais as indústrias podem adquirir e organizar o conhecimento necessário para ampliar a competitividade é a simulação de processos industriais. [...]



Guilherme Valença Silva Rodrigues em 12 de março de 2020

Simulação de Processos Produtivos: o que é e qual sua importância no processo de transformação digital da indústria

Estamos diante de um novo e importante período no contexto das revoluções industriais. Os impactos da Indústria 4.0 e da transformação digital sobre produtividade, redução de [...]



Equipe Blockchain Explorer em 27 de setembro de 2019

BLOCKCHAIN: conheça 6 segmentos estratégicos para usar essa tecnologia

A tecnologia blockchain é bastante conhecida no meio financeiro pois permitiu a existência da moeda virtual bitcoin, além da segurança em registrar todas as transações com [...]

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





UNITED NATIONS BRAZIL



In 2015, the United Nations Organization (UN) launched the Agenda 2030, an ambitious action plan that seeks to make the world in which we live sustainable. This agenda understands the importance of cooperation between governments, the private sector and civil society to establish partnerships and share responsibilities.

The 17 Sustainable Development Goals demonstrate the scale and ambition of this universal Agenda. Based on the UN's Millennium Development Goals,¹ the SDGs comprise 169 specific goals that stimulate actions in fields of crucial importance to humanity and the planet, with the year 2030 as the horizon. Integrated and inseparable, the Sustainable Development Goals seek to balance the three dimensions of sustainable development: the economy, the social and the environment.

SUSTAINABLE DEVELOPMENT GOALS



¹ The Millennium Development Goals (MDG) were a set of global goals for the period 2000-2015 that attained significant success mainly in developing countries, in fields such as poverty reduction and improving health and education.



²To learn more visit:
<https://nacoesunidas.org/pos2015/>

CERTI'S POSITION IN RELATION TO SDGs

For the CERTI Foundation, sustainable development is an attitude that considers the needs of all interested parties in the present and future in any activity. Society faces structural challenge when striving to evolve development practices and models that are currently out of alignment with sustainability. These strategic changes often confront technological barriers and require solutions in distinct economic fields.

CERTI understands that innovation is an element key to sustainable development. Questions such as increased urban and rural resilience to climate changes, the transition to a low carbon economy and the great humanitarian challenges will be overcome through innovative, sustainable and intelligent strategies. In addition, innovation is a critical factor of success for the strengthening of institutional capacities aimed at full implementation of the essence of our Federal Constitution and the basic rights it foresees. We accompany the evolution of Agenda 2030 and continually reinforce our strategies towards a prosperous and balanced future to support the progress and well-being of Brazilian society. In 2019, we undertook an important strengthening of our consistent and dynamic ecosystem of innovation, technology and entrepreneurship, reaffirming our commitment and contributing in an important manner to Brazil's sustainable development.

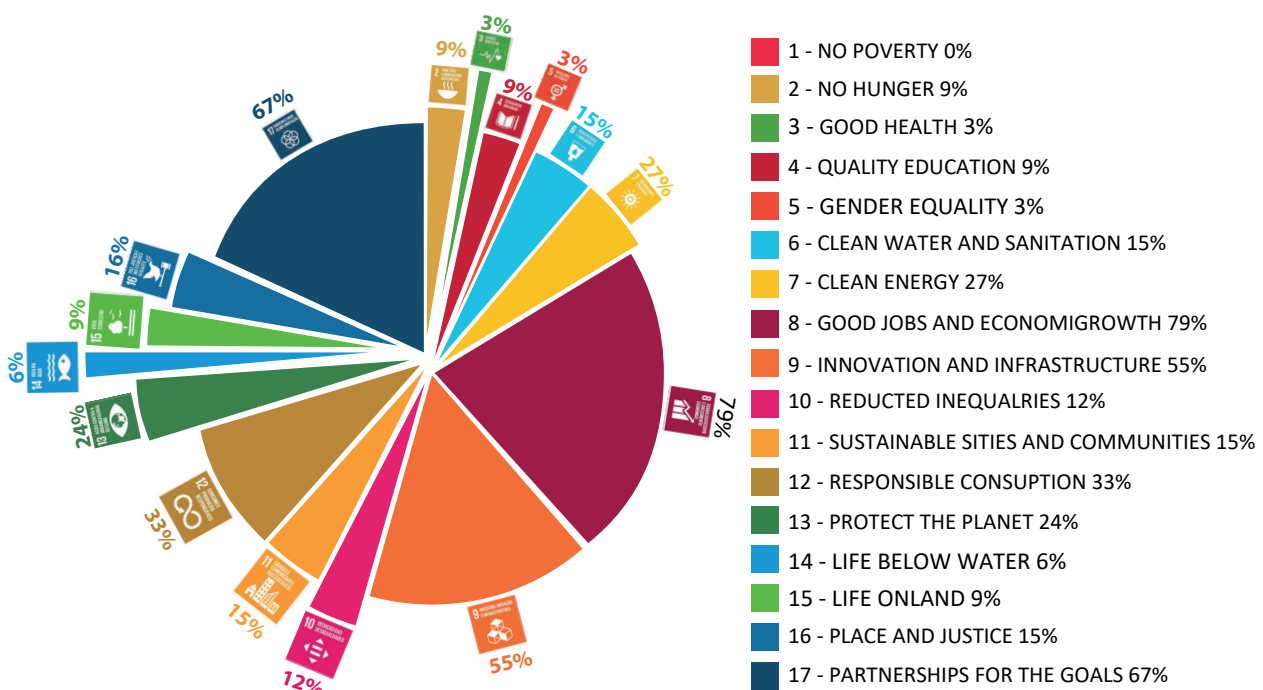

Erich Muschellack
 GENERAL
 SUPERINTENDENT


Günther Pfeiffer
 SUPERINTENDENT OF OPERATIONS
 & FINANCE AND ADMINISTRATION


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

Profile of Sustainable Development Goals

To understand how CERTI's actions contribute to the Sustainable Development Goals, we examined how CERTI projects executed in 2019 contributed to the 169 objectives associated to the 17 UN Goals, tracing what we call the 2019 Sustainable Development Goals Profile. Thirty-six projects of CERTI clients were analyzed, which contributed to 16 of the 17 Goals. It is important to emphasize that various projects contribute to more than one Goal and with more than one element within a single Goal. This analysis is represented below, illustrating the percentage of the 36 projects analyzed that contributed to attaining the ambitious objectives of each Sustainable Development Goal.





www.certio.org.br/en

+55 48 3239 2000
certio@certio.org.br

CERTI Foundation
Campus Universitário da UFSC - Setor C
88040-970 Florianópolis - SC, Brasil

 [company/fundacao-certio](https://www.linkedin.com/company/fundacao-certio)

 [/fundacaocerti](https://www.facebook.com/fundacaocerti)

 [@fundacaocerti](https://www.instagram.com/fundacaocerti)