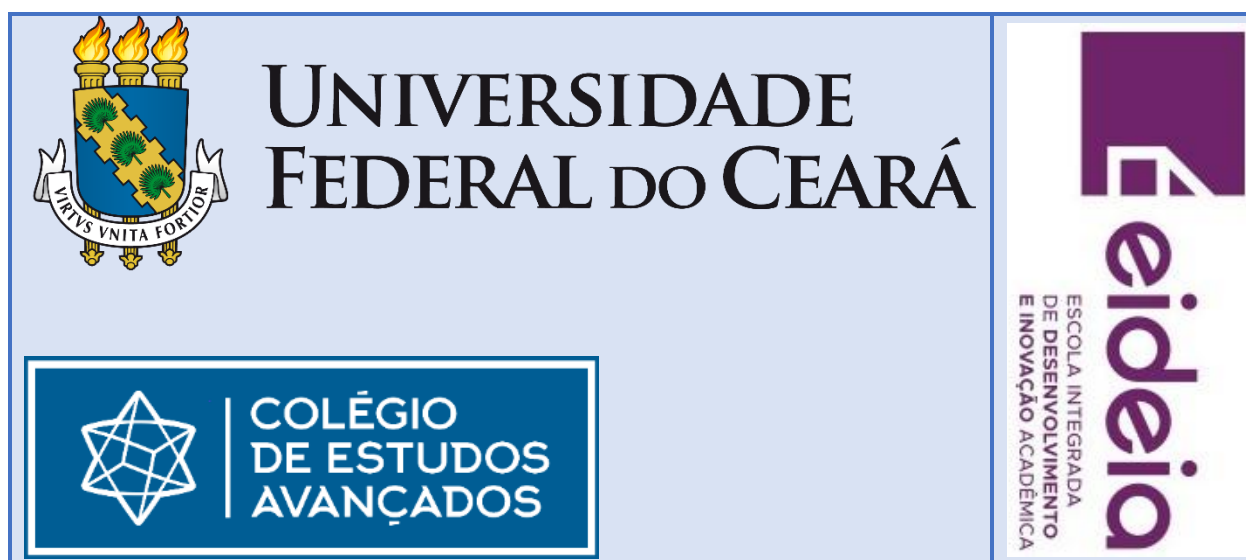


STRATEGIC PLAN

INSTITUTE OF ADVANCED STUDIES - CEA/EIDEIA

FEDERAL UNIVERSITY OF CEARÁ



STRATEGIC PLAN

2021-2024

Fortaleza (Ceará), August 26, 2021

(Approved in a CEA/EIDEIA Technical-Scientific Committee meeting on August 8, 2021)

(Approved in a CEA/EIDEIA Deliberative Committee meeting on October 20, 2021)

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DISCLAIMER

The opinions expressed in the present CEA/EIDEIA Strategic Plan document and any possible mistakes or omissions are the exclusive responsibility of the Board of CEA/EIDEIA. The research programs are designed specifically by the Directors and Adjunct Directors of the Interdisciplinary Research Programs. The Board of CEA/EIDEIA and its Directors and Adjunct Directors of the Interdisciplinary Research Programs implicitly commit to the indicators, associated targets, and the timeline described in Section 8 “Indicators & Targets 2021-2024” and in Section 9 “Timeline of Indicators & Targets”. It is important to emphasize that the present document is pending approval by the appropriate bodies of the Federal University of Ceará. This document has been approved in a CEA/EIDEIA Deliberative Committee meeting on October 20, 2021.



UNIVERSIDADE FEDERAL DO CEARÁ

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1. Presentation

The fast-paced evolution of the dynamics involved in the creation of scientific knowledge and the external demand of society for solutions to its most complex and urgent problems has resulted in a growing gap between scientific and technological production of academic institutions organized into disciplines (whether mono or multidisciplinary) and society's most pressing research needs. A paradigmatic example of this is the COVID-19 pandemic, which has exposed weaknesses and inadequacies of Brazilian and international universities and research centers, in terms of internal and interinstitutional communication, coordination among peers and with society, scientific production, and capacity for scientific action and research uptake¹, both in developed and developing countries.

In the case of developing countries, poor communication among academic disciplines and the current incipient interdisciplinarity present in universities has contributed to the difficulty in responding to modern research challenges and providing a new understanding of pressing problems. One of the most relevant ways to approach this issue of paramount priority continues to be the development of models where disciplines work together to answer complex research questions and provide a new understanding of humanity's most urgent problems, i.e., interdisciplinary research².

Despite the recognized importance of interdisciplinary research in the modern university, this essential activity to the creation of new knowledge is still ripening in Brazil, causing delays in the international scientific insertion of the country's institutions, especially those located in the North and Northeast regions³. Therefore, there is an urgent need to provide the University of Ceará (UFC) with a concrete, institutional, flexible and agile effort to support and qualify its advanced inter and transdisciplinary research.

The Institute of Advanced Studies (CEA/EIDEIA) is a body of UFC (see CEA/EIDEIA Regiment - <https://cea.ufc.br/wp-content/uploads/2017/04/regimento-colegio-de-estudos-avancados-da-ufc.pdf>), created in 2016 and linked with the Integrated School of Academic Development and Research (EIDEIA - <https://eideia.ufc.br/pt/>). The goal of CEA/EIDEIA is to foster the development of scientific activities, programs, and projects at the regional, national, and international levels that can significantly contribute to academic, scientific, and technological progress.

¹ "Research uptake" is defined as a set of techniques, tools, and methodologies that allows for the evidence obtained during a research project to be effectively and efficiently used by researchers, policymakers, implementers, or professionals to inform policies or practices.

² Interdisciplinary research (IDR) is a mode of research carried out by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts and/or theories from two or more disciplines or bodies of specialized knowledge to advance in the essential understanding of or solve problems whose solutions are beyond the scope of a single discipline or area of research practice.

³ It is worth emphasizing the very important role that the Brazilian Coordination for the Improvement of Higher Education Personnel (CAPES) has been playing since 1999 (the year in which its Multidisciplinary Committee was created, and which in 2008 was renamed the Interdisciplinary Committee). The Committee has systematically supported and fostered interdisciplinarity in the country, more specifically in the induction of interdisciplinary graduate programs.

The institute was created with the specific objective of being an institute of advanced studies and with a clear dual-axis approach. The first axis is a **multidisciplinary** (inter and transdisciplinary⁴) approach: "To support advanced educational programs and projects, research, and outreach programs, giving priority to proposals that involve multidisciplinary interinstitutional collaboration". The second axis is **interinstitutionality and diversification**: "promoting exchanges between UFC and academic institutions, with the goal of supporting projects relevant to academic, scientific, technological, and cultural development"⁵.

Therefore, considering the need to provide methodological support in order to establish the best direction to be followed by the new management of CEA/EIDEIA, in May 2021, it was decided that the strategic plan and management should be "re-thought". The purpose of this process was to enable decision-making based on the best scientific evidence, resulting in the presentation of a proposed "CEA/EIDEIA Strategic Plan – 2021-2024".

This document is the result of an unprecedented intellectual effort, involving professors, researchers, staff, and professionals internal and external to UFC, from Brazil and abroad. Furthermore, it included the decisive collaboration of the "CEA/EIDEIA/UFC IDP 2021-2014 Technical-Scientific Committee", (see ORDINANCE No. 3, OF MAY 7, 2021, OF EIDEIA/UFC), created exclusively to carry out the strategic planning process.

The Board of CEA/EIDEIA would like to share its immense satisfaction with the result of the work involved in creating this strategic plan and effusively acknowledge the efforts of all those involved, especially the members of the "CEA/EIDEIA/UFC IDP 2021-2024 Technical-Scientific Committee" and staff members Roberta Queirós Viana Maia, Coordinator of the Strategic Planning and Management Coordination (CEPG/PROPLAD/UFC) and Sarah Renata Menezes e Silva (CEPG/PROPLAD/UFC). We are convinced that by coupling its consolidated technical-scientific reputation with the recommendations set forth in this Strategic Plan, the scientific potential of the Federal University of Ceará will reach a superior level of quality. We are ready to be bold...working towards *the universal for the regional*.

Fortaleza (Ceará), August 26, 2021

Board of the Institute of Advanced Studies CEA/EIDEIA

Prof. José Raimundo Carvalho, Director of CEA/EIDEIA (Department of Applied Economics and CAEN/UFC)

Prof. Aldo Ângelo Moreira Lima, Vice President-Director of CEA/EIDEIA (Department of Physiology and Pharmacology)

⁴ Transdisciplinary research (TDR) is a type of IDR that values team research, the "case study" approach, integrating not only different disciplines but different institutions and academic institutions.

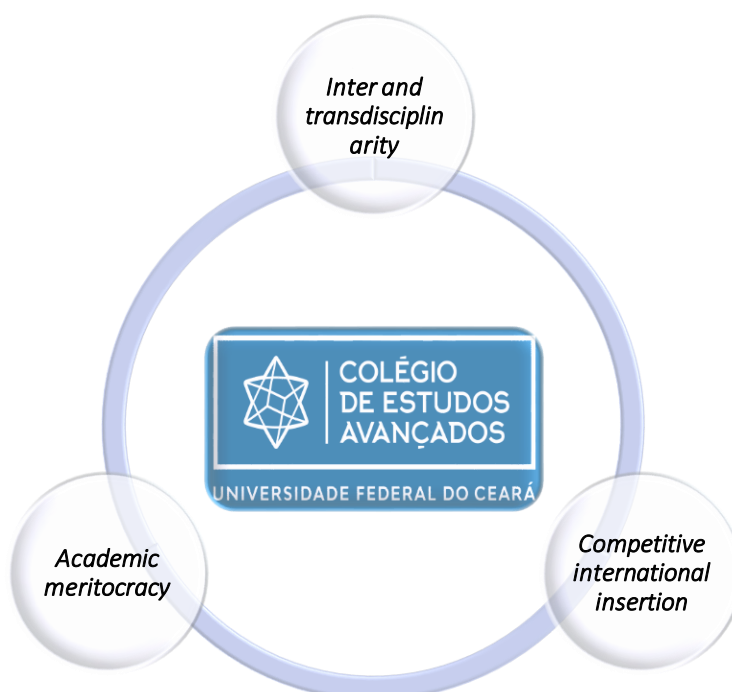
⁵ As a framework for its development, CEA/EIDEIA selected successful experiences of institutes of advanced studies in universities in Brazil and around the world, without abandoning its proposal of carrying out internationally competitive and innovative interdisciplinary science that is simultaneously suited to the specificities of UFC, the Northeast region, and Brazil.

2. The Structure of CEA/EIDEIA

CEA/EIDEIA is an advanced institute "based" in a university (analogous to the pioneer Institute of Advanced Studies of the University of São Paulo (IEA/USP), created in 1986, the Latin-American Institute of Advanced Studies of the Federal University of Rio Grande do Sul (ILE/UFRGS), and the Institute for Transdisciplinary Advanced Studies of the Federal University of Minas Gerais (IEAT/UFMG), created, respectively, in 1995 and 1999, whose goal is to foster the development of inter and transdisciplinary activities, programs, and projects of regional, national, and international scope that contribute significantly to the academic, scientific, technological, and cultural progress of the Federal University of Ceará and of Brazilian society.⁶

In February 2021, new management took over the direction of the institute. Its essential mission is to promote inter and transdisciplinary studies and research, aiming to advance the analysis and understanding of "complex social, economic, and environmental problems" and human behavior and knowledge in all its breadth of beliefs, knowledge, socioeconomic interactions and relationships with nature and institutions. This mission is based on three guiding principles (see Figure 1), 1) inter and transdisciplinarity, 2) competitive international insertion, and 3) academic meritocracy.

Figure 1: Guiding Principles of CEA/EIDEIA



⁶ CEA/EIDEIA is a founding member of the Brazilian Forum of Advanced Studies (FOBREAV) – Belo Horizonte 2015 Charter, which gathers similar institutes from various Brazilian universities.

According to CAPES, **interdisciplinarity** is defined as the convergence of two or more areas of knowledge, which do not belong to the same class, which contributes to the advancement of the frontiers of science and technology, transfers methods from one area to another, generating new knowledge or disciplines, and forming a new type of professional whose profile is distinct from current ones. They have a solid and integrated basic education and are capable of understanding and solving the increasingly complex problems of modern societies (CAPES (2019)).

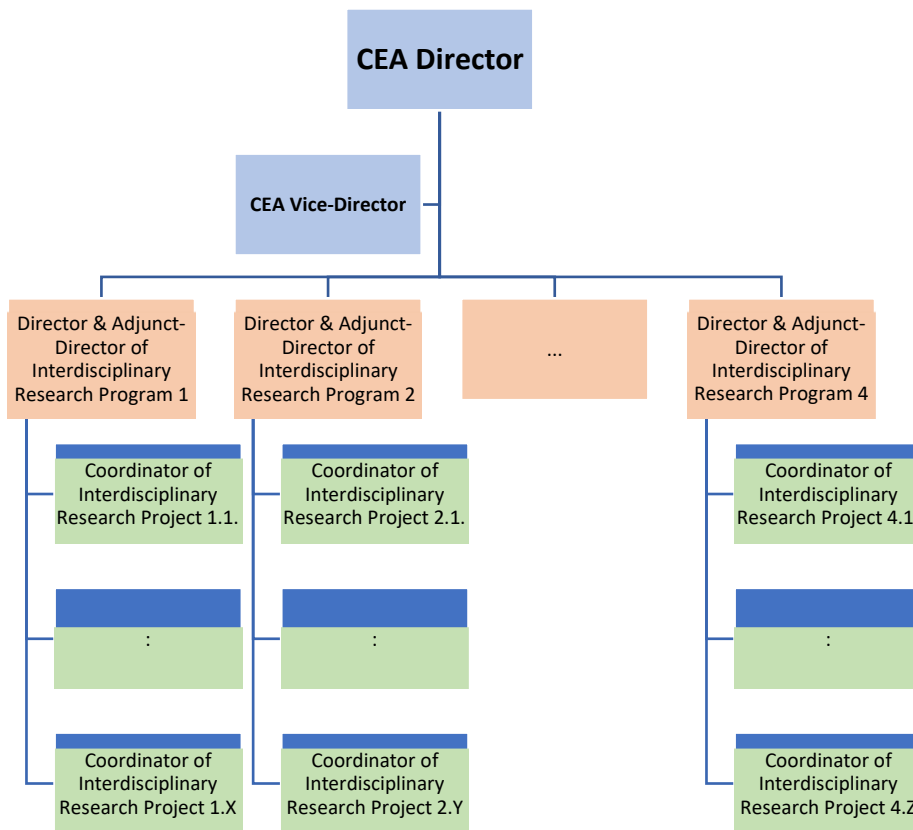
International insertion of researchers/scientists is defined as their current or potential capacity to insert themselves in a quality international scientific environment and maintain themselves sustainably, producing work at levels comparable to the average international scientific production in their field. **International insertion is considered competitive** if to reach one's current scientific status quo and maintain it, scientists participate in competitive national or international calls to finance their research activities.

Academic meritocracy can be understood as a management principle that considers the intellectual and scientific merit of researchers as the main characteristics used to allocate goods, supplies, budgets, and limited opportunities in a scientific institution.

2.1 Interdisciplinary Research Programs

We have created a set of Interdisciplinary Research Programs (IRP) (Figure 2) that are open, feasible, internationally competitive, financially resilient and of high and scientific and social interest and impact.

Figure 2: CEA Organogram



An Interdisciplinary Research Program is defined in this document as the ongoing coordination of various scientific research projects carried out by a group of researchers/scientists who select a relevant topic for interdisciplinary research, adopt a common set of methodological assumptions and are guided by consensually accepted heuristics, headed by two researchers who belong to different broad areas of research.⁷

These programs will serve as a framework for all scientific and academic activities of the institute in the 2021-2024 period.

This required institutional design, established analogously between the Director and Vice-Director of CEA/EIDEIA⁸, unequivocally points to and aims at the desired interdisciplinarity. These programs will function as true "umbrellas", sheltering, encouraging, guiding, and giving administrative, operational and scientific support to interdisciplinary research projects.

⁷ **Broad Area 1:** Exact and Earth Sciences, Biological Sciences, and Engineering, **Broad Area 2:** Agricultural Sciences, Applied Social Sciences, Human Sciences, Linguistics, Language Arts and Others; and **Broad Area 3:** Health Sciences.

⁸ The current director of CEA is Prof. José Raimundo Carvalho (Graduate Program in Economy, Broad Area 2) and his Vice-Director is Prof. Aldo Ângelo Moreira Lima (School of Medicine, Broad Area 3).

2.2 Choosing and Defining Interdisciplinary Research Programs

The choice of research programs was based on a process that initially involved recognizing the potential internationally competitive scientific research areas in UFC, in addition to their key players. This process involved various contexts and metrics such as scientific production, evidence of coordination with large international research groups, proven potential to raise competitive funds and win international and national scientific calls for proposals (CAPES *PrInt* Program, Research Productivity Grants from the Brazilian National Council for Scientific and Technological Development - CNPq, Chief-Scientist of the Cearense Foundation of Support for Scientific and Technological Development - FUNCAP, among others). In other words, both the guiding principle of "competitive international insertion" and the guiding principle of "academic meritocracy" (see Figure 1) were strongly present.

The second phase consisted of conducting an in-depth reading of regional, national, and international guiding documents that reflected the needs and priorities of interdisciplinary scientific research, resulting in the CEA/EIDEIA research agenda aligned with the global scientific research priorities and demands expressed explicitly or implicitly (guiding principle of "competitive international insertion") in documents such as:

- a) CNPq Strategic Plan 2025
https://www.gov.br/cnpq/pt-br/aceso-a-informacao/institucional/planejamento_estrategico_2025.pdf
- b) CAPES National Graduate Program Plan (PNPG/CAPES) 2011-2020 Volume I
<https://www.gov.br/capes/pt-br/centrais-de-conteudo/livros-pnpg-volume-i-mont-pdf>
- c) Area Document - CAPES, Area 45: Interdisciplinary, available at <https://www.gov.br/capes/pt-br/centrais-de-conteudo/INTERDISCIPLINAR.pdf>
- d) The UN 2030 Agenda for Sustainable Development
<https://www.undp.org/content/dam/brazil/docs/agenda2030/undp-br-Agenda2030-completo-pt-br-2016.pdf>
- e) National Science, Technology, and Innovation Strategy 2016-2022, "Science, Technology and Innovation for Economic and Social Development", of the Ministry of Science, Technology, Innovations and Communications.
http://www.finep.gov.br/images/a-finep/Politica/16_03_2018_Estrategia_Nacional_de_Ciencia_Tecnologia_e_Inovacao_2016_2022.pdf
- f) Science, Technology and Innovation Plan for the Sustainable Development of the Brazilian Northeast of the Center of Strategic Management and Studies
https://www.cgee.org.br/documents/10195/734063/2014_SDT_PCTI-NE_Web_30102014_9915.pdf/945baf61-3f1a-4a37-b296-674be872fe25?version=1.4.
- g) Science, Technology, and Innovation State Plan for the Sustainable Development of Ceará

https://www.sct.ce.gov.br/wp-content/uploads/sites/34/2019/01/Plano-estrategico-CTI-do-Ceara-1-versao-final-com-metas-29_08_2018.pdf

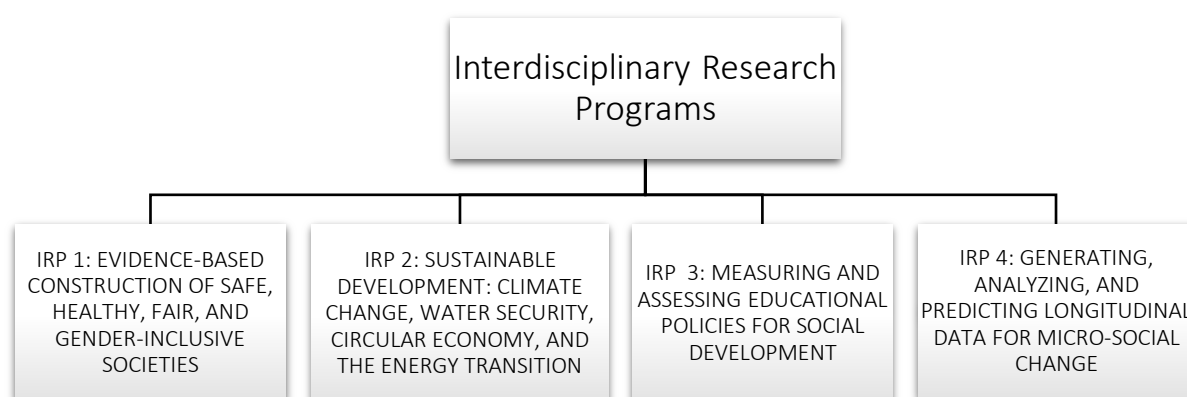
h) Institutional Development Plan of the Federal University of Ceará 2018-2022 and 1st Review

<https://proplad.ufc.br/wp-content/uploads/2018/04/cartilha-pdi-formato-digital-2018-04-26-1.pdf>

<https://proplad.ufc.br/wp-content/uploads/2021/02/cartilha-revisao-pdi-revisao-igg.pdf>

The process culminated in the selection of four programs. The directors and adjunct-directors were chosen to preserve the required scientific quality, managerial experience, and interdisciplinarity, a strategy used to maintain the principle of "*academic meritocracy*".

Figure 3: CEA Research Programs, 2021-2024



<p><u>IRP 1:</u></p> <p>Director: José Raimundo de Araújo Carvalho Júnior, Graduate Program in Economics - CAEN/UFC</p> <p>Adjunct-Director: Charles Casimiro Cavalcante, Department of Teleinformatics Engineering/UFC</p>	<p>IRP 2:</p> <p>Director: Mônica Cavalcanti Sá de Abreu, Department of Administration/UFC</p> <p>Adjunct-Director: Ticianá Marinho de Carvalho Studart, Department of Hydraulic and Environmental Engineering/UFC</p>
<p>IRP 3:</p> <p>Director: Wagner Bandeira Andriola, School of Education/UFC</p> <p>Adjunct-Director: Alberto Sampaio Lima, Department of Teleinformatics Engineering/UFC</p>	<p>IRP 4:</p> <p>Director: Roberto Tatiwa, Graduate Program in Economics - CAEN/UFC</p> <p>Adjunct-Director: Juvêncio Santos Nobre, Department of Statistics and Applied Mathematics/UFC</p>

Prof. Alberto Sampaio Lima, Department of Teleinformatics Engineering/UFC

<http://lattes.cnpq.br/2149928021922564>

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Prof. Wagner Bandeira Andriola, School of Education/UFC

<http://lattes.cnpq.br/0506346607081493>

Tables 1 to 4 present a brief descriptions of each program:

Table 1: Description of IRP 1

EVIDENCE-BASED CONSTRUCTION OF SAFE, HEALTHY, FAIR, AND GENDER-INCLUSIVE SOCIETIES
<p>Crime, violence, and corruption (CVC) have always been considered symptoms of the initial stages of a country that could be "solved" with economic growth, the reduction of social inequalities and poverty, and institutional advancements: a CVC regimen induced by poverty, inequalities (income, gender, and race) and institutional backwardness. However, the profile of crimes and violence, especially, homicides, has changed drastically in Brazil since the beginning of the 2010s, especially in the Northeast and North regions, as shown by the considerable changes in criminal modus operandi, victimology, exceptional events perpetrated by gangs (rebellions, "slaughters", and orchestrated attacks against urban infrastructure), and high crime rates. In these regions, the homicide regimen based solely on inequalities has lost its appeal and has given way to a regimen based on turf wars: instrumental gang violence (2 & 3 GEN gangs) relative to territorial and logistic control of illicit drug traffic and market, many times with mercenary, political and terrorist agendas. Corruption remains unchangeable, defying legal and institutionalized controls in the country's culture, decreasing investments, expanding social exclusion and economic inequality, fostering organized crime, and weakening the legitimacy and quality of democracy. Despite these problems, the lack of scientific sophistication and public policies suited to address these CVC regimens persists, resulting in a vicious cycle of mortality, morbidity, domestic and family violence, fear, organized crime, human rights violations, and loss of productivity. The Brazilian system of dissuasion, incapacitation, and socialization (the Criminal Justice System, composed of Public Security, Criminal Justice, and Corrections and Rehabilitation) is still virtually untouched by advances in scientific research and the adoption of evidence-based policies and programs. Therefore, this interdisciplinary research program proposes measurable and analytical elements to aid in decision-making and management related to public and private policies and actions with the goal of reducing social, economic, and public health problems caused by societal inequalities and backwardness, including those related to gender, all of which cause these CVC patterns. In order to</p>

measure, consider evidence, and construct an analytical framework, we will seek out disciplines such as economics (econometrics, bargaining, crimemetrics), sociology (social networks, sociology of violence, and gender as a category of analysis), psychology (psychometrics), criminology (evidence-based criminology), political sciences (groups of interest, mass incarceration, rent seeking), public health (epidemiology), medicine (biomarkers), statistics (analysis of longitudinal data), legal sciences (corruption and money laundering, human rights), engineering, and mathematics (game theory, optimization, modeling complex problems in multidimensional spaces, information extraction and processing techniques), and computer sciences (AI). In addition, technological aspects can and must be inserted in this context to aid both in the capture and collection of measurable data (sensors) and in the process of implementing the decisions that may arise from the analysis of measurable concepts. Examples of this include aspects related to the processing of images and data from communication systems to monitor and prevent crimes, or the use of information processing technologies to detect sensitive or false aspects that impact the analysis (such as fake news, exchange of messages among criminals, AI, linguistic analysis). This line of research addresses complex problems such as understanding the mechanisms and interactions among crime, violence, and corruption, analyzing their impacts on and repercussions in national security and society, public health, and the human rights of men and women, in addition to conceiving proposals for methodologically sound public policies and interventions.

Table 1: Description of IRP 2

SUSTAINABLE DEVELOPMENT IN THE CONTEXT OF CLIMATE CHANGE: WATER SECURITY, CIRCULAR ECONOMY, AND ENERGY TRANSITION

The challenges of sustainable development are considered "perverse" problems, which are defined as dilemmas of social and political planning that resist clear definitions and pre-determined set of solutions arising from the natural and engineering sciences. The study of perverse problems requires that researchers recognize the interconnection between natural and social systems over time. At the same time, enterprises deal with uncertainties about the magnitude, the timing of the effects of climate change, and the risks that they will probably have to face. These uncertainties include national and international public policies, obscure and evolving regulatory structures, short-term outlooks, and behavior of risk denial at the individual, organizational, and institutional levels, in addition to a relative scarcity of low-carbon innovations. Addressing these uncertainties requires that companies and institutions use significant financial, technological and human resources. Given the uncertainty of the effects of climate change, this interdisciplinary program will reciprocally foster the research project, involving local, national, and international players in the proposal of solutions and strategies for a knowledge-based society. To reach water, energy, and food security is a broadly desired goal in projects related to sustainable development. Water, energy, and food play an essential role in environmental, economic, and social integrity; thus adequate management and sustainable use of these resources are paramount to the reduction of adverse impacts on biological diversity and local society. The

study and management of these three resources is often developed in separate analyses, with an imbalance in ensuring security of one factor in favor of the development of another. The innovative aspect of the NEXUS approach consists in its integration, representing an alternative for climate change adaptation aimed at securing the three basic natural resources for the progress of society, ensuring production, employment, and income for the population, in addition to providing for the sustainable use of the environment and the conservation of local ecosystems, contributing to improved quality of life. The transition to a circular and low-carbon economy takes place at multiple levels (e.g., individual, entrepreneurial, and systemic), and in a temporal and spatial context. This program adopts an analytical framework capable of identifying collaborative and adaptive governance regimens, and the necessary cycles of social learning to promote this transition process. A structured, yet flexible approach is required for the development of studies that allow for comparative analyses, involving multiple players, enterprises, and institutions, and that allows for an assessment of the institutional dynamics that result from the proposal of interdisciplinary solutions.

Table 3: Description of IRP 3

MEASURING AND ASSESSING EDUCATIONAL POLICIES FOR SOCIAL DEVELOPMENT
<p>Education is a human undertaking based on scientific rationality whose primary objective is to shape individuals through the employment of formal and informal procedures, fostering the development of skills and useful knowledge for harmonious interactions in complex and heterogeneous societies. To this end, education resorts to knowledge from a gamut of sciences, such as pedagogy, psychology, sociology, administration, and economics in order to constitute a theoretical body whose aim is to understand the facts and phenomena that impact educational processes and their results. It is worth noting that the catalyzing element of the sciences that compose education is the employment of systematic observation of empirical phenomena and scientific methodology, with the goal of interpreting and explaining them. In this undertaking, at different degrees and times, education also resort to philosophy, scientific epistemology, and mathematics. Therefore, this evidence-based view is nothing more than an epistemological proposal to conceive of educational knowledge as that which stems from the systematic observation of facts and phenomena that compose the educational field. In this particular case, we refer to formal education, i.e., the modality in which one resorts to pedagogical processes and rational spaces (educational institutions) to educate individuals. Among the several elements that compose formal education, there are some that are absolutely relevant to estimating the quality of educational processes, namely:</p> <ul style="list-style-type: none"> a) Education institutions, which have their own designs and models of education that must be suited to the social function and the concepts of education they wish to implement; b) Pedagogical curricula, which must mold within them the view of mankind, society, and professionals that they wish to achieve; c) Education processes, which are based on didactic principles and are supported by various technological inputs, which one way of another impact the learning of students;

- d) Pedagogical management processes, which are based on models from administration and other areas of the human and social sciences, and that one way or another impact education processes and quality of student learning;
- e) Student learning, which is the visible part of the educational iceberg, and therefore is the most studied aspect and the one on which society most focuses on, as well as researchers from different areas;
- f) Teachers and their professional conditions and recognition, labor health and process-related issues, because teachers' mediation is understood to be essential in any conception of formal education;
- g) Impacts of the COVID-19 epidemic on the work of teachers and student learning, with emphasis on the use of digital information technologies and the development of the school curriculum.

To understand these elements, researchers employ numerous scientific procedures, resorting to soft methodologies (qualitative research) and/or hard methodologies (quantitative research). In some modalities, there are cross-sectional studies, while in others, longitudinal observations are adopted. Some cases use primary data, while others use secondary data.

Table 4: Description of IRP 4

GENERATING, ANALYZING, AND PREDICTING LONGITUDINAL DATA FOR MICRO-SOCIAL CHANGE

Despite improvements in some social indicators, Brazil has severe socioeconomic problems, especially poverty and inequality. A summary carried out by the Brazilian Institute of Geography and Statistics (IBGE) showed that extreme poverty in Brazil increased from 5.8%, in 2012 to 6.5% in 2019. In terms of inequality, the GINI index places Brazil as the 9th most unequal country in the world. Not least important are the profound present and future impacts of the COVID-19 pandemic that will be complex, challenging and that will reverberate for at least a decade. The main objective of this program is the theoretically grounded and methodologically sophisticated quantitative analysis of inequality, segregation, and inter- and intra-group inequalities (in its different dimensions, such as income, access to education, access to healthcare and medical-hospital care, fundamental rights, gender, and opportunities) of poverty, its inter-relations with gender, race, education, health, and violence, via the development of statistical, computational, and economic methodologies, and the collection and use of social, econometric, hospital, and educational data. More specifically we can highlight collection from primary databases, the use of time series models, panel data models (longitudinal), the production and analysis of census surveys and hospital indicators, application of Big Data and Machine Learning, development of open and multiuse infrastructures (Experimental Labs in Economy, Social Behavior, Psychology, educational Assessments, Survey Centers dedicated to longitudinal data, Repositories of "Massive" Microdata, Cloud Computing, Computational Social Science & Humanities, High-Performance Computing for the Human, Social, and Behavioral Sciences, Social Simulation, and Big Spatiotemporal Socioeconomic Data, among others). These approaches and their data analysis tools will provide a better understanding, validation and quantification of the causality of public policies and the

possibility of reformulating higher-quality predictions (in sample and out sample). Strong activity will be promoted in the direction of new longitudinal data collection, in areas where we have comparative advantages and intersections with other CEA/EIDEIA programs: 1) crime and violence; 2) educational data and educational performance; 3) poverty, inequality and social mobility; 4) gender statistics; and 5) Business Intelligence applied to hospital management and analysis of hospital data and indicators (Indicators of Health Supply Acquisition and Consumption, Hospital Census, Outpatient and Hospital Care production - DATASUS, Indicators for Lack and Shortage of Electronic Health Records, Indicators for Hospital Revenue Leakage). There are several possible applications in each of these lines of research, such as: longitudinal analysis of academic performance; carrying out research with students who dropped out of UFC to identify factors associated with evasion, promoting actions to address with the phenomenon via academic programs; developing studies with evidence from institutional self-assessments to underpin academic units when planning their actions; research with the use of Machine Learning and Big Data in the social sciences; and the use of longitudinal and geo-referenced microdata to carry out spatial-temporal predictions of the occurrence of crimes. It will be essential to lend statistical robustness to our approach, giving priority to the reduction of bias of key parameters estimated in complex models necessary for high-quality research and collaborating with answers to new questions that have not yet been answered via conventional methods. The program will also be responsible for establishing an information center, maintaining databases, information networks and archives of documents relating to projects and activities linked to CEA/EIDEIA.

The research programs are aligned with CEA/EIDEIA's methodological choice: primarily analytical with the use of rigorously defined and collected empirical evidence, based on validated quantitative and qualitative approaches that contribute to solving problems that are highly relevant to society.

This will allow us to collaborate in a qualified and ethical way with the solution of "complex problems" of modern societies (such as crime, violence, discrimination, gender, climate change, biodiversity, poverty, inequality, natural disasters, epidemics, public health, conflict, security, urbanization, democracy, human rights, media & social networks, education, cognitive development, artificial intelligence, and networks), and with the great scientific questions and their implications for policymaking.

3. Process of Developing the Strategic Plan

For the process to function fully, we arranged to work in coordination with representatives of the Strategic Planning and Management Coordination (CPGE) of the UFC Pro-Rectorate of Planning. The coordinator of CPGE, Ms. Roberta Queirós Viana Maia designed a strategic planning process that was executed by the CEA Board in partnership with the CEA/EIDEIA/UFC IDP 2021-2024 Technical-Scientific Committee" (See Figure 3).

Similarly, we identified the need to compose a Technical-Scientific Committee for the Institute of Advanced Studies of UFC to further help with strategic planning. This Committee was instituted by ORDINANCE NO. 3, OF MAY 7, 2021 and consists of the following members:

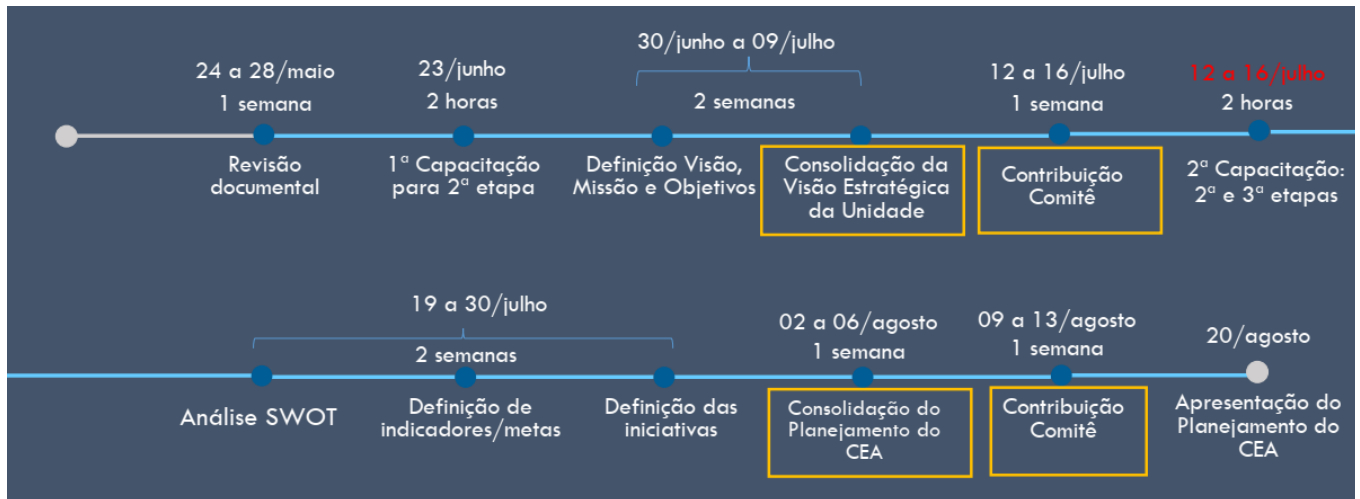
- A) Prof. ALDO ÂNGELO MOREIRA LIMA (School of Medicine/UFC)
- B) Prof. ANTÔNIO CLÉCIO FONTELLES THOMAZ (Department of Statistics and Applied Mathematics/UFC)
- C) Prof. ARMÊNIO AGUIAR DOS SANTOS (School of Medicine/UFC)
- D) Prof. CHARLES CASIMIRO CAVALCANTE (Department of Teleinformatics Engineering/UFC)
- E) Prof. DALILA CEREJO (School of Social and Human Sciences of the NOVA University of Lisbon and Researcher of the CICSNOVA and the National Observatory of Violence and Gender, Portugal)
- F) Prof. FABIANA FONTES ROCHA (School of Economics, Administration and Accounting/USP)
- G) Gen. GUILHERME CALS THEOPHILO GASPARD DE OLIVEIRA (CEO of the Combustível Legal Institute - ICL/Rio de Janeiro)
- H) Prof. JOÃO CÉSAR MOURA MOTA (Director of the Integrated School of Academic Development and Innovation – EIDEIA/UFC)
- I) Prof. JOSÉ RAIMUNDO DE ARAÚJO CARVALHO JÚNIOR (Graduate Program in Economics/CAEN/DEA/UFC)
- J) Prof. JUVÊNCIO SANTOS NOBRE (Department of Statistics and Applied Mathematics/UFC)
- K) Prof. LÚCIA VALÉRIA RAMOS DE ARRUDA (Graduate Program in Electrical Engineering and Industrial Informatics/UTFPR)
- L) Prof. LUCILA MARIA DE SOUZA CAMPOS (Department of System Engineering/UFSC)
- M) Prof. MÔNICA CAVALCANTI SÁ DE ABREU (Department of Administration/UFC)
- N) Prof. MONIQUE SOCHACZEWSKI GOLDFELD (Brazilian Institute of Education, Development and Research/IDP/Brasília)
- O) Ms. ROBERTA QUEIRÓS VIANA MAIA (Coordinator of the Strategic Planning and Management Coordination/PROPLAD/UFC)
- P) Ms. SARAH RENATA MENEZES E SILVA (Strategic Planning and Management Coordination/PROPLAD/UFC)
- Q) Prof. SUSANA CARLA FARIAS PEREIRA (Getulio Vargas Foundation/EAESP)
- R) Dr. THOMAZ EDSON VELOSO DA SILVA, Education Consultant
- S) Dr. VICTOR HUGO DE OLIVEIRA SILVA, Senior Policy Analyst, DISOC/IPECE
- T) Prof. WAGNER BANDEIRA ANDRIOLA, School of Education/UFC and Advisor EIDEIA/UFC

The main objective of the committee was to prepare the CEA/EIDEIA/UFC 2021-2024 Strategic Plan, as presented in this document. To this end, the following meetings took place via videoconferences, using the Google Meet platform (see Figure 3):

- In the first meeting, on May 20, from 2 pm to 3 pm, all the committee members introduced themselves, and there was a presentation of the Institute of Advanced Studies of the Integrated School of Academic Development and Innovation (CEA/EIDEIA/UFC). Next, the scope of the CEA/EIDEIA Strategic Plan and guidelines for developing the plan were outlined.
- On June 22, from 2:30 pm to 4 pm, the training phase for Phase 2 took place, with the EXCLUSIVE participation of UFC members part of the CEA/EIDEIA management team.

- On July 12 (10:30 am to 12 pm), 14 (1:30 pm to 3 pm) and 16 (3 pm to 4:30 pm) the Committee's subgroups met, formed according to the members' availability, with the goal of collecting suggestions and critiques to improve the CEA strategic map (MISSION, VISION, OBJECTIVES, SWOT ANALYSIS) presented by Prof. José Raimundo Carvalho.
- On August 3 (3 pm to 4:30 pm), 4, (10 am to 11:30 am), and 6 (3 pm to 4:30 pm), the adjusted version of the CEA Strategic Plan was discussed, focusing on the suggestions and critiques relative to the "Actions" part.

Figure 3: CEA/EIDEIA Strategy Development Schedule



We would like to express our gratitude to CEA/EIDEIA staff Alexandre de Almeida Silva and Iago Oliveira for their administrative support during the entire strategic planning process.

4. CEA/EIDEIA's Focus of Activity, Mission, and Vision

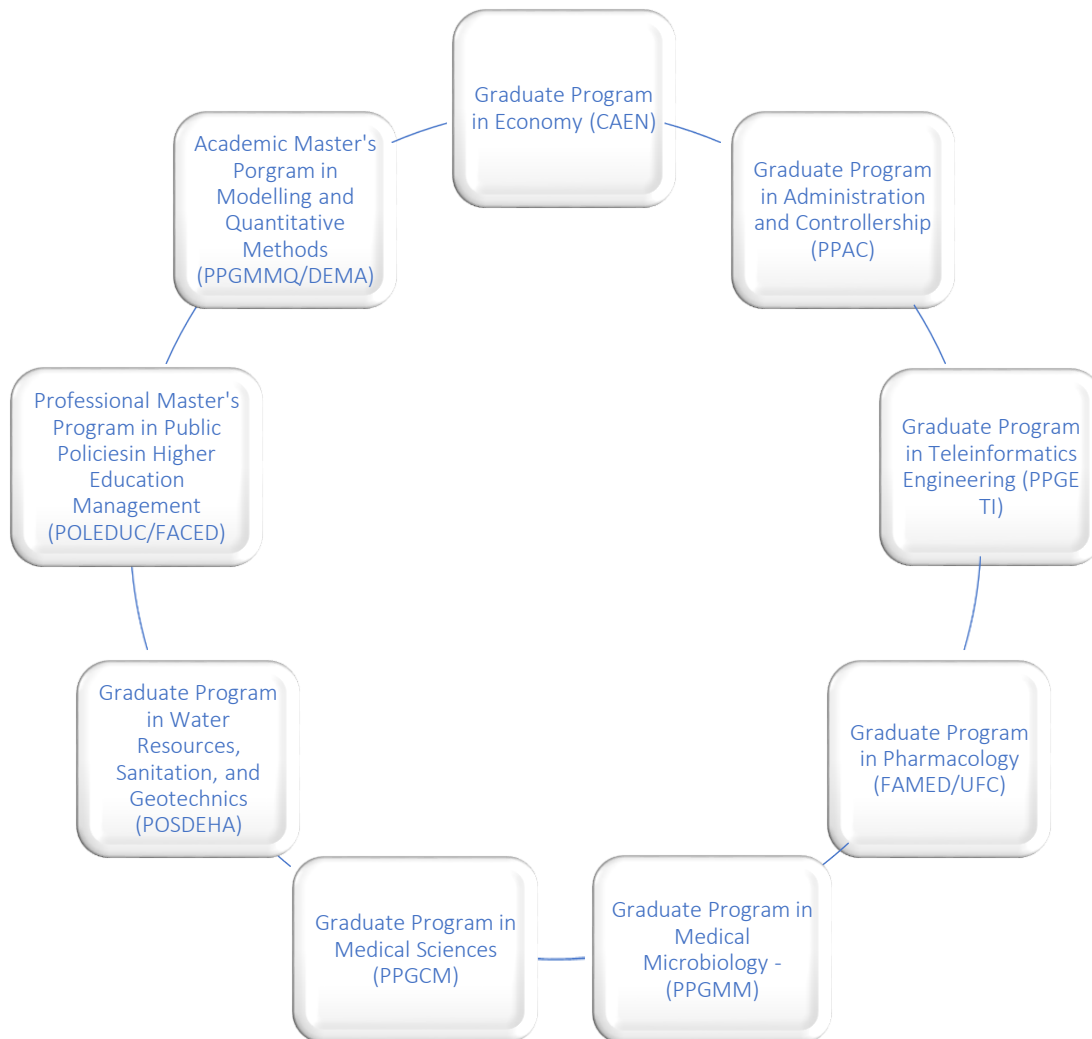
4.1 Focus of Activity

CEA/EIDEIA's focus of activity is interdisciplinarity that puts social and human sciences in contact with the exact and engineering sciences – a clear global trend in more scientifically developed country. For example, the article *“The need to integrate the Social Sciences and Humanities with Science and Engineering in Horizon 2020 and beyond”* published in the European Union report "Future and Emerging Technologies Advisory Group" analyzed scientific development in light of technological transformations and innovations (available at <https://ec.europa.eu/programmes/horizon2020/en/news/report-need-integrate-social-sciences-and-humanities-science-and-engineering-horizon-2020>).

The report clearly states that those responsible for technological innovations must pay close attention to the social context in which they wish to be inserted, and recommend that more support be given to multidisciplinary and interdisciplinary research that brings together engineering, the natural sciences, and social and human

sciences. The inner interdisciplinary capacity of the scientists at CEA/EIDEIA has already been established, considering that the eight researchers that compose the four boards of the interdisciplinary research programs, the Board of CEA/EIDEIA itself, and Prof. João César Mota (EIDEIA/UFC and DETI/UFC) bring with them a research network that directly nine UFC graduate programs.

Figure 4: CEA/EIDEIA Internal Network



4.2 Mission

To promote and develop advanced interdisciplinary scientific research projects in the Federal University of Ceará through actions carried out by a diverse and inclusive group of scientists and that involve: interinstitutional and international cooperation; academic, scientific, and technological development; cultural valorization of the university and of Brazilian society.

4.3 Vision

To be a leading interdisciplinary research center that effectively contributes to human, economic, social, and environmental development and well-being via scientific activity that aims to solve the "complex problems" of society and nature, both current and future.

5. SWOT Analysis for CEA/EIDEIA

Strengths

- A) The coordination and boards of the CEA/EIDEIA research programs have representatives of high scientific quality, international insertion, and experience in research management
- B) Willingness to develop and implement the strategic plan
- C) Diversified and differentiated project portfolio, focused on "complex problems" that are highly relevant to the local and national context and with a "translational" inclination
- D) Ambitious interdisciplinary program, involving nine UFC graduate programs in the areas of economics, teleinformatics engineering, civil engineering statistics, business administration, medicine, and education

Weaknesses

- A) Lack of an institutional structure for the CEA/EIDEIA, mainly regarding research and project support
- B) Lack of mechanisms for prospecting interdisciplinary research funding opportunities, public or private, national or foreign
- C) Incipient entrepreneurial and competitive culture in scientific production activities and deficits in the level of "internationalization" of the faculty, students and administrative staff
- D) Dissipation of resources and institutional energy as a result of interactions, processes and specific modus operandi within the departments, collegiate bodies, graduate programs and other UFC bodies.



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Opportunities

- A) The currentness, comprehensiveness, suitability, and differentiation of the research lines proposed by CEA/EIDEIA
- B) Local and regional leadership of UFC
- C) Low level of dissemination of interdisciplinary research in UFC and in the North and Northeast regions of Brazil
- D) Geographically located in a region characterized by its great demands for solutions to "complex problems" of social, economic, technological, and environmental nature.

Threats

- A) Competition for funding and scientific leadership with more consolidated and higher quality interdisciplinary centers
- B) Political plans, legislation, and restrictions at federal and state level
- C) Lack of funding mechanisms for interdisciplinary research, both public or private, and a national scientific framework to guide and discipline the coexistence between interdisciplinary and monodisciplinary research
- D) Insufficient level of "internationalization" of the country's scientific structure and human resources

6. CEA/EIDEIA Objectives

Objective 1 To optimize partnerships, conventions, and agreements related to science, research, and innovation with public and private, national and international stakeholders, interested in joining scientific and technical knowledge to improve the efficiency, efficacy, and effectiveness of their businesses, decisions, public policies, programs, and interventions of those genuinely committed to the development of Brazil and the social inclusion of its population.

Objective 2 To improve the interdisciplinary education of UFC undergraduate and graduate students, who will have access a rich educational experience in more than one discipline, discover new knowledge among disciplines, improve their critical thinking skills and their capacity to conduct scientific research independently, and hone their educational experience in general, especially when this education is complemented by the participation in interdisciplinary scientific research.

Objective 3 To develop Interdisciplinary Research Projects in CEA/EIDEIA with rigorously defined scopes of research, which are internationally competitive and are based on academic meritocracy, the inclusion of women in science, and on the comprehensive view of scientific knowledge. Furthermore, CEA/EIDEIA will have the scientific leadership, program identity, institutional coordination, decision-making coherence, and management capacity to promote, support, develop, and implement inter and transdisciplinary, self-financed research projects, with a focus on the most urgent and impactful "complex problems" of Brazilian society.

Objective 4 To internationalize CEA/EIDEIA through the development, improvement, and adaptation of its processes of organizational change, curricular innovation, professional improvement of academic faculty, management and administrative teams, though technical-scientific counseling and advisory, and academic, cultural, and communication mobility and development aimed at achieving excellence in interdisciplinary research.

Objective 5 To build up budgetary, financial, managerial, and administrative resilience and sustainability of CEA/EIDEIA, understood here as the capacity of identifying alternative budgetary sources (national or international, public or private), mastering their legal and administrative processes, raising research funds, implementing budgets in a timely and efficient way, in addition to adapting and responding quickly to all types of risks - natural, technological, institutional, financial, and economic, among others, including the challenges presented by new environments and circumstances.

Attachment 1 presents a summarized version of the CEA/EIDEIA Strategic Map, emphasizing its alignment with the UFC's IDP.

7. Actions Associated with CEA/EIDEIA Objectives

7.1 Actions of Strategic Objective 1

Objective 1: To optimize partnerships, conventions, and partnerships related to science, research, and innovation.

1.1 Map out and participate in external events that function as venues for disseminating CEA/EIDEIA and attracting partners and resources.

1.2 Leverage the coordination of CEA/EIDEIA with relevant universities and centers of national scientific research and/or technological innovation using consolidated multi and interdisciplinary experience of strategic interest to UFC and to the scientific development policy of Ceará and the Northeast region.

1.3 Promote thematic seminars, internal and external to UFC, with the participation of representatives of companies, institutions, governments, and organizations - national and international, and of professors and researchers with the purpose of identifying potential demands and offers, aligning languages and formalizing technological and knowledge transfer projects and programs.

1.4 Incentivize the partnership and permanent relationship with agents and institutions of the scientific and innovation funding ecosystem of Ceará and Brazil, e.g. Secretaries and Bodies of the Government of the State of Ceará and its Municipal Governments, FIEC, SEBRAE, FUNCAP, SECITECE, SDE, ADECE, BNB, BNDES, SUDENE, FINEP, CNPq, CAPES, Federal Ministries (MJSP, MS, MDS, MCTI, MDR, MEC, Ministry of Defense, MMFDH, SisDIA - Defense System, Industry and Academy of Innovation) in search for financial support for research projects and scientific and technological development, with priority to methodologically rigorous approaches and interdisciplinarity.

1.5 Highlight the social contribution and potential for dialogue and coordination with alumni, especially those who occupy prominent roles in the business, government, political, and scientific scenarios, both national and international, with the goal of approaching them.

7.2 Actions of Strategic Objective 2

Objective 2: To improve interdisciplinary training of UFC undergraduate and graduate students

2.1 To develop strategies to support UFC undergraduate and graduate programs in the implementation of interdisciplinary aspects in their curricula and in their teaching and research practices, promoting student and faculty training integrated with social reality and environmental sustainability, including the possibility of combining master's and PhD programs to build and offer innovative "dual title" proposals.

2.2 To promote the development of faculty and students' proficiency in foreign languages, taking advantage of the experiences acquired by mobile students and professors or foreign exchange students for the purpose of knowledge sharing.

2.3 Support the expansion of undergraduate and graduate teaching offerings, more specifically toward the creation of new courses (or combination of pre-existing course sequences) with interdisciplinary content, both to attract undergraduate students to research and graduate studies and to disseminate what is produced within CEA/EIDEIA.

2.4 To develop research projects and studies on topics of high interest to the improvement of the quality of education at UFC, provided they are internally or externally funded, involving themes such as: 1) student academic performance, academic monitoring, pedagogical actions and systematic evaluations to stimulate student permanence in the program; 2) analysis of student evasion in UFC to identify etiological factors; and 3) studies with microdata from institutional self-assessments to underpin action planning; and 4) analysis of UFC undergraduate and graduate alumni.

2.5 Based on exceptional academic performance and foreign language proficiency, promote the participation of UFC undergraduate and graduate students and those from other national or international institutions in CEA/EIDEIA projects of mutual interest, including mobility programs between institutions and participation in Summer Schools.

7.3 Actions of Strategic Objective 3

Objective 3: Develop Interdisciplinary Research Programs in CEA/EIDEIA

3.1 Create four comprehensive, viable, internationally competitive, financially resilient Interdisciplinary Research Programs (IRP), that are of high scientific, social, and economic interest and impact, which prioritize studies and research aimed at advancing the analysis and understanding of "complex problems".

3.2 Carry out an innovation process in CEA/EIDEIA that will seek to consolidate, qualify, and internationalize these interdisciplinary research programs and their scientific, administrative, and managerial structures for the production of this knowledge.

3.3 Encourage the influx of national and international researchers who can collaborate both with frontier scientific knowledge and practices and with their managerial capacity and insertion in global interdisciplinary research networks.

3.4 Incentivize actions such as courses, events, and disciplines, among others, with the goal of disseminating good practices in the implementation and publication of research, in particular, Summer School activities.

3.5 Design and develop institutional multi-user laboratories, adapted to the characteristics CEA/EIDEIA's interdisciplinarity that can service a broad community of users internal and external to the university. Possible thematic areas: 1) Interdisciplinary Experimental Laboratories - Economics, Social Behavior, Psychology, Educational Assessment, and Business Analytics; 2) Survey Centers, 3) "Massive" Microdata Repository, 4) Cloud Computing, 5) High-Performance Computing for Human, Social and Behavioral Sciences, 6) Social Simulation, and 7) Big Spatiotemporal Socioeconomic Data, among others.

7.4 Actions of Strategic Objective 4

Objective 4: Internationalize CEA/EIDEIA

4.1 Expand the relationship of CEA/EIDEIA Research Programs and Groups with relevant universities and international scientific research centers with consolidated interdisciplinary experience, located in both developed and emerging countries (BRICS, Mercosur, "Global South", Arab League, Israel, Turkey, Eastern Europe, CPLP among others) of strategic interest to UFC and to the national scientific development policy.

4.2 Encourage and support the publication of scientific and technological production in international journals with high circulation, giving ample visibility to the knowledge generated in UFC.

4.3 Establish an "Interdisciplinary Chairs" program to attract international senior researchers and implement a cycle of permanent "Interdisciplinary Seminars" (in English), with a minimum monthly frequency, stimulating international missions and international mobility in both directions in institutions of excellence according to criteria and/or programs in Brazil, other countries, or those resulting from international partnerships.

4.4 Create an "International Advisory Committee", composed of Brazilian and foreign researchers of recognized scientific merit, exclusively based in international institutions or organizations, to guide and advise the scientific internationalization strategy of CEA/EIDEIA and expand its capacity to attract international funding.

4.5 Promote an ongoing relationship with international organizations (Ministry of Foreign Affairs, Embassies, UN, UN-Women, World Bank, Inter-American Bank, WHO, PAHO, FAO, UNDOC, UNDP, European Community, Gulf Cooperation Council - Arab League, OECD), public or private international institutions (IPA, UK Aid, FKA, US AID, BRICS, MERCOSUR, Bill Gates Foundation, SVRI), and foreign governments for partnerships and funding.

7.5 Actions of Strategic Objective 5

Objective 5: To build up the budgetary, financial, management, and administrative resilience and sustainability of CEA/EIDEIA

5.1 Support and encourage initiatives to develop projects, agreements or scientific-technological agreements in a partnership or in networks with international institutions, making the necessary procedures more flexible, agile, and simple.

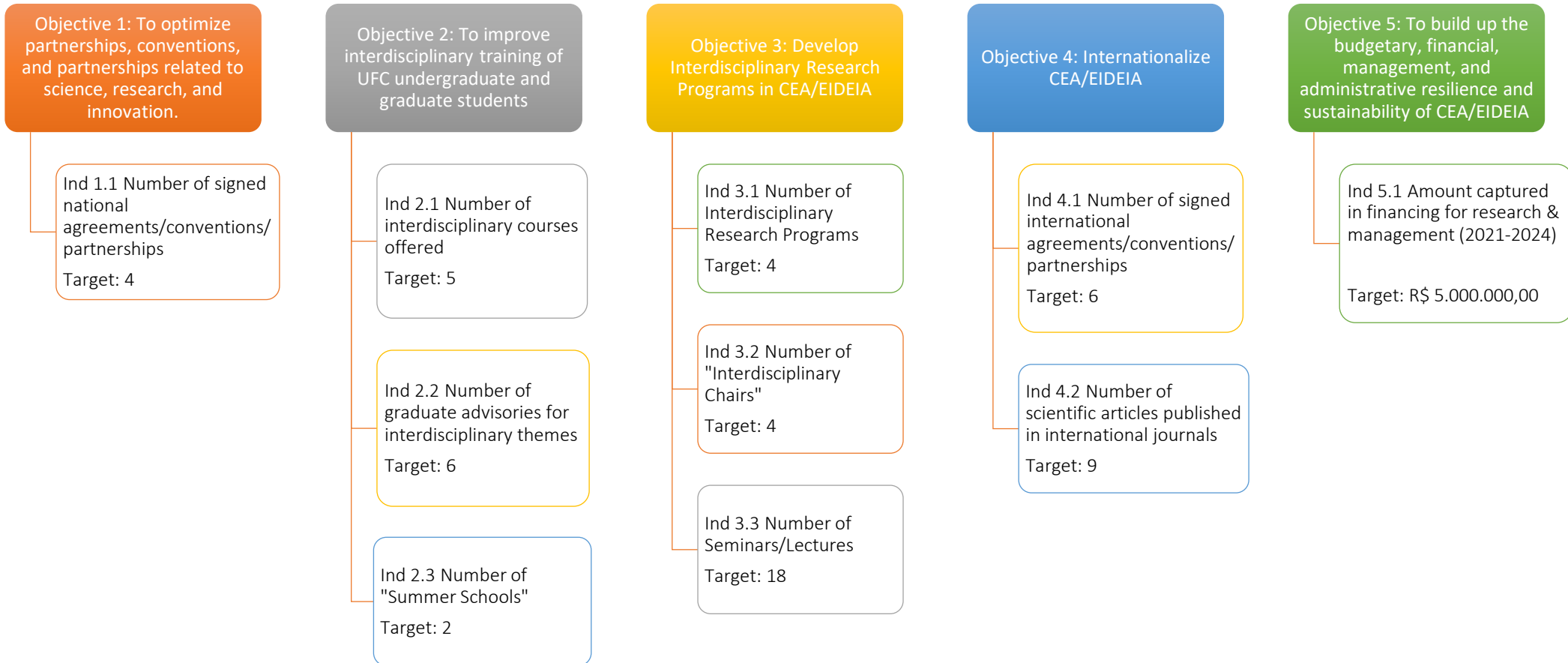
5.2 Establish criteria for the creation of the *Interdisciplinary-UFC* endowment fund - Law 13.490/2017 - aimed exclusively at financing CEA/EIDEIA activities (interdisciplinary research, seminars, and international professorships) through the receipt of donations (goods and monetary values) directed at specific projects, as per the agreement made with donors.

5.3 Identify and share innovative management practices and create mechanisms that stimulate managerial innovation of CEA/EIDEIA, seeking greater involvement, cooperation, support, and coordination with the foundations that support UFC, updating and harmonizing its Regulation with the EIDEIA/UFC Regulation and ensuring legal, administrative and accounting support for the implementation of projects and the funding of research-related activities, products, and services (from publication fees to equipment purchases).

5.4 Train secretaries, directors of research programs, and researchers, fully qualifying them for scientific management and its bureaucratic intricacies, including communication with scientific institutions and national and international funding agencies, helping to increase the efficiency of and decrease the red tape involved in the process of establishing partnerships with public and private institutions outside the university, both at the national and international level.

5.5 Assemble a professional bilingual administrative and managerial staff (internal or external to CEA/EIDEIA) - potentially formed by professors, and active or retired UFC civil servants, in addition to professionals hired from the labor market - to work exclusively to support the prospection and management of research projects (Research Support Office), raise funds, and develop projects, partnerships and agreements with public and private, national and international entities.

8. Indicators & Targets 2021-2024



9. Indicator & Target Timeline

	3rd trim. 2021	4th trim.	1st trim.	2nd trim.	3rd trim.	4th trim.	1st trim. 2023	2nd trim.	3rd trim.	4th trim.	1st trim.	2nd trim.	3rd trim.	4th trim.
Objective 1: Establish CEA/EIDEIA as a source of social return on investment in research & innovation														
Ind 1.1 Number of signed national agreements/conventions/partnerships					AC1 AC2				AC3 AC4					
Objective 2: To improve interdisciplinary training of UFC undergraduate and graduate students														
Ind 2.1 Number of interdisciplinary courses offered					D1		D2		D3		D4		D5	
Ind 2.2 Number of graduate advisories for interdisciplinary themes					OR1 OR2		OR3 OR4		OR5 OR6					
Ind 2.3 Number of "Summer Schools"							EV1				EV2			
Objective 3: Develop Interdisciplinary Research Programs in CEA/EIDEIA														
Ind 3.1 Number of Interdisciplinary Research Programs	PP1 PP2	PP3 PP4												
Ind 3.2 Number of "Interdisciplinary Chairs"					CAT1 CAT2				CAT3 CAT4					
Ind 3.3 Number of Seminars/Lectures			S1	S2 S3	S4 S5	S6	S7	S8 S9	S10 S11	S12	S13	S14 S15	S16 S17	S18
Objective 4: Internationalize CEA/EIDEIA														
Ind 4.1 Number of signed international agreements/conventions/partnerships					AC1 AC2				AC3 AC4				AC5 AC6	
Ind 4.3 Number of scientific articles published in international journals							A1, A2, A3				A4, A5, A6			A7, A8, A9
Objective 5: To build up the budgetary, financial, managerial, and administrative resilience and sustainability of CEA/EIDEIA														
Ind 5.1 Amount captured in financing for research & management			R\$ 1 million				R\$ 1 million				R\$ 1.5 million			R\$ 1.5 million

10. Alignment with other Institutional Spheres

An important strategic point was the need to align the CEA/EIDEIA strategic plan, in addition to its implementation, with the following essential guiding documents to ensure high-level interdisciplinary research, the competitive internationalization of the institution, qualified management, and ethical scientific praxis in harmony with the universal principles of human rights:

- A) CAPES National Graduate Program Plan (PNPG/CAPES) 2011-2020 Volume I
<https://www.gov.br/capes/pt-br/centrais-de-conteudo/livros-pnpg-volume-i-mont-pdf>
- B) CNPq Strategic Planning 2025
https://www.gov.br/cnpq/pt-br/aceso-a-informacao/institucional/planejamento_estrategico_2025.pdf
- C) The UN 2030 Agenda for Sustainable Development
<https://www.undp.org/content/dam/brazil/docs/agenda2030/undp-br-Agenda2030-completo-pt-br-2016.pdf>
- D) National Science, Technology, and Innovation Strategy 2016-2022, "Science, Technology and Innovation for Economic and Social Development", of the Ministry of Science, Technology, Innovations and Communications.
http://www.finep.gov.br/images/a-finep/Politica/16_03_2018_Estrategia_Nacional_de_Ciencia_Tecnologia_e_Inovacao_2016_2022.pdf
- E) Science, Technology and Innovation Plan for the Sustainable Development of the Brazilian Northeast of the Center of Strategic Management and Studies
https://www.cgee.org.br/documents/10195/734063/2014_SDT_PCTI-NE_Web_30102014_9915.pdf/945baf61-3f1a-4a37-b296-674be872fe25?version=1.4
- F) The State Science, Technology, and Innovation Plan for the Sustainable Development of Ceará, available at
https://www.sct.ce.gov.br/wp-content/uploads/sites/34/2019/01/Plano-estrategico-CTI-do-Ceara-versao-final-com-metas-29_08_2018.pdf
- G) The 2018-2022 Institutional Development Plan of the Federal University of Ceará and 1st Review
<https://proplad.ufc.br/wp-content/uploads/2018/04/cartilha-pdi-formato-digital-2018-04-26-1.pdf>
<https://proplad.ufc.br/wp-content/uploads/2021/02/cartilha-revisao-pdi-revisao-igg.pdf>
- H) EIDEIA Regiment

<https://eideia.ufc.br/wp-content/uploads/2018/05/resolucao-criacao-eideia.pdf>

I) CEA Regiment

<https://cea.ufc.br/wp-content/uploads/2017/04/regimento-colegio-de-estudos-avancados-da-ufc.pdf>

J) "Statement of Principles on Interdisciplinarity" do Global Research Council

https://www.globalresearchcouncil.org/fileadmin//documents/GRC_Publications/Statement_of_Principles_on_Interdisciplinarity.pdf

K) "Statement of Principles and Actions Promoting the Equality and Status of Women in Research" of the Global Research Council

<http://serb.gov.in/pdfs/gcr-report/Action%20Plans%20and%20statements%20GRC2016StatusofWomen-pdf.pdf>

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<https://doi.org/10.1201/9780429288548>
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3. CAPES (2019), Documento de Área, Área 45: Interdisciplinar, disponível em <https://www.gov.br/capes/pt-br/centrais-de-conteudo/INTERDISCIPLINAR.pdf>
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ANNEX 1 Strategic Map of CEA/EIDEIA

<p>CEA/EIDEIA STRATEGIC PLAN 2021-2024</p>	 <p>UNIVERSIDADE FEDERAL DO CEARÁ</p>		 <p>eideia <small>ESCOLA INTEGRADA DE DESENVOLVIMENTO E INOVAÇÃO ACADÊMICA</small></p>		 <p>COLÉGIO DE ESTUDOS AVANÇADOS</p>	
<p>MISSION</p>	<p>To promote and develop advanced interdisciplinary scientific research projects in the Federal University of Ceará through actions carried out by a diverse and inclusive group of scientists and that involve: interinstitutional and international cooperation; academic, scientific, and technological development; cultural valorization of the University and Brazilian society.</p>		<p>VISION</p>	<p>To be a leading interdisciplinary research center, effectively contributing to human, economic, social, and environmental development and well-being via scientific activity towards the solution of the "complex problems" of society and nature, both current and future.</p>		
<p>GUIDING PRINCIPLES-UFC</p>	<p>Sustainability</p>	<p>Entrepreneurship</p>	<p>Governance</p>	<p>Innovation</p>	<p>Inclusion</p>	<p>Internationalization</p>
<p>OBJECTIVES OF THE STRATEGIC MAP OF THE FEDERAL UNIVERSITY OF CEARÁ</p>			<p>CEA/EIDEIA OBJECTIVES</p>			
<p>Strategic Objective 1 [Results for Society]</p>	<p>Position ourselves nationally and internationally as a leading player in the training of professionals of excellence in developing science and technology and in innovation.</p>		<p>Objective 1</p>	<p><u>To optimize partnerships, conventions, and partnerships related to science, research, and innovation.</u></p>		
<p>Strategic Objective 3 [Excellence in Education, Research and Outreach Programs]</p>	<p>Improve student education</p>		<p>Objective 2</p>	<p><u>Improve interdisciplinary education of UFC undergraduate and graduate students</u></p>		
<p>Strategic Objective 4 [Excellence in Education, Research and Outreach Programs]</p>	<p>Consolidate the quality of graduate programs and the scientific and technological innovation policy, intensifying internationalization</p>		<p>Objective 3</p>	<p><u>Develop Interdisciplinary Research Programs in in CEA/EIDEIA</u></p>		
<p>Strategic Objective 11 [Excellence in Management]</p>	<p>Increase efficiency, efficacy, and effectiveness of management processes, ensuring budgetary/financial sustainability</p>		<p>Objective 4</p>	<p><u>Internationalize CEA/EIDEIA</u></p>		
			<p>Objective 5</p>	<p><u>Objective 5: To build up the budgetary, financial, managerial, and administrative resilience and sustainability of CEA/EIDEIA</u></p>		

ANNEX 2 UFC Organogram



ADMINISTRAÇÃO SUPERIOR - SIAPE

