

GRADUATE PROGRAM IN ENVIRONMENTAL ENGINEERING PPEAMB - UFRPE

STRATEGIC PLANNING(2021-2028)



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1. DYNAMICS AND TEMPORALITY USED FOR ITS ELABORATION

The 2020-24 Strategic Planning was developed in a participatory, remote way, and this process was strongly impacted by the occurrence of the Covid pandemic (2020-21). This process was collaborative, with consultation of the academic community, by the concertation of the Permanent Internal Commission for Planning and Evaluation, with the application of the docs form. The work began in 2020, starting from the reassessment of the 2017-20 Strategic Planning, with the redefinition of the objectives of the Strategic Planning based on the Evaluation Form of the Sucupira Report and the Area Notebook; updating strategies; evaluation and choice of methodologies; and definition of goals.

The operational steps were:

(i) definition of the objectives of the 2020-2024 Strategic Planning: (i.a) improvement in the quality of teaching and research was observed, with an increase in scientific production, the quality of dissertations, and the social relevance of research; (i.b) strengthening internationalization, aiming to expand collaboration with foreign institutions, participation in international events and the attraction of foreign students and researchers; (i.c) the improvement of management, optimizing administrative processes, the allocation of resources and internal and external communication; (i.d) the expansion of infrastructure, aiming to improve the physical facilities, equipment and technological resources available to students and researchers; and (i.e) the increase in visibility and social impact, through the dissemination of the program's activities to society, establishing partnerships with companies and organizations, and contributing to regional and national development.

(ii) strategies for involving the academic community, (ii.a) through meetings and workshops that promoted debates and discussions on the challenges and opportunities of the program, and encouraged the participation of students, faculty, staff, and alumni; (ii.b) in addition to the creation of working groups, seeking to form multidisciplinary teams to analyze data, prepare proposals and monitor the progress of the plan; (ii.c) in addition to the use of online tools: such as digital platforms to collect suggestions, disseminate information and facilitate communication between participants; and (ii.d) the promotion of transparency, through the dissemination of the results of the planning to the entire academic community, and the encouragement of monitoring and evaluation of the actions implemented.

(iii) choice of methodologies, SWOT Analysis and Responsibility Matrix - RAC:I): R (Responsible) - the person or team that performs the task; A (Approver) - the person who approves the completion of the task; C (Consulted) - ass people who provide information or opinions for the task; and I (Informed) – the people who are kept informed of the progress of the task.

(iv) definition of goals and actions, (iv.a) clear and measurable goals were established, through the use of performance indicators to monitor the progress of the program in relation to its objectives; (iv.b) Creation of a detailed action plan, with the definition of responsibilities, deadlines and resources necessary for each action; and (iv.c) the prioritization of actions concentrates efforts on the actions that have the greatest impact and feasibility. In (v) Monitoring of indicators and achievement of goals, (v.a) monitoring of the progress of actions took place, through the monitoring of performance indicators and the results of the actions implemented; a (v.b) carrying out periodic evaluations, seeking to measure the impact of the plan on the performance of the program, and the need for adjustments and corrections; and (v.c) communication of results, via dissemination of monitoring and evaluation results to the academic community, and use of information to improve planning.

The Goals linked to the 2025-28 Strategic Planning are linked to the guidelines specified in the SWOT Analysis, articulating with the guidelines of the UFRPE Strategic Planning. These strategic actions of the PPEAMB are dimensioned in the short (1 year), medium (2 to 3 years) and long (4 to 5 years) terms.

2. INTEGRATION WITH THE INSTITUTION'S STRATEGIC PLANNING AND THE NEEDS OF THE PROGRAM, INCLUDING INSTITUTIONAL ACTIONS OF LOGISTICAL OR FINANCIAL SUPPORT ACCESSIBLE TO THE PROGRAM.

PPEAMB's mission is: "To train professionals of excellence who can promote the advancement of scientific and technological knowledge of Environmental Engineering in the area of Technology and Environmental Management". As for the vision, it intends: "To be recognized as a program of excellence in lato sensu academic training in the area of Environmental Engineering, having relevant contributions to society in the formation of strategies, techniques and products that raise socio-environmental sustainability".

The objectives of the PPEAMB are: (i) To provide a technical-scientific basis that allows the professional in training to recognize, evaluate and mitigate the environmental impacts resulting from anthropogenic actions that lead to the degradation of natural resources and the environment; (ii) To provide the conditions for the training and improvement of teachers and researchers in the area of environmental engineering; (iii) Strengthen the interaction between graduate and undergraduate courses at the Federal Rural University of Pernambuco; (iv) To provide national and international exchange of students, professors and researchers with the best universities in Brazil and the world; (v) To stimulate interaction between universities, companies, government and public and private sectors representative of society; (vi) To support the character of technological innovation through the development of products and their respective patents within the relevant legislation; and (vii) To provide for the dissemination of research results.

On the other hand, UFRPE's Strategic Planning 2021-2030 establishes guidelines for the various academic activities at the different undergraduate and graduate levels. In the field of research, it envisions: (i) the expansion of research and innovation activities; (ii) the increase in the scientific production rates of professors; tutors and students; (iii) the increase of quantitative/qualitative indicators in the organization of research projects, (iv) the formation of research groups and (v) the promotion and participation of professors, tutors and students in scientific events. Observing the alignment with the institutional Strategic Planning, PPEAMB promoted discussion with the academic community, following the methodological steps defined by the Commission.

UFRPE has the Rural in Motion Program - PRM, regulated by Resolution 701/2024 - CEPE, provides logistical support and institutional support for the development of academic projects, provides cars and fuel for the transportation of UFRPE employees and students and other team members of any type of academic project. The PRM also provides, in addition to the use of official cars, the possibility of hiring, by the university and, exceptionally, by the project coordinator, a vehicle rental service to meet the demands under the program. The PRM democratizes logistical support for any and all types of academic projects that comply with institutional standards.

3. PPEAMB SWOT ANALYSIS

The PPEAMB Strategic Planning is focused on 9 guidelines:

(i) Expansion of research and innovation activities, the analysis of the Internal Environment is:
FORCES:

- have a multidisciplinary faculty that denotes synergy between areas of knowledge;
- work with convergence on emerging themes for Environmental Engineering;
- present articulation with the private sector, in particular with sectors that are part of the Strategic planning of the government of the state of Pernambuco, with regard to specific Productive Sectors (Red Ceramics Sector, Electrical and Electronic Waste; shellfish);
- to be proactive in seeking financial and institutional support;
- The synergetic potential between the dissertations and lines of action was higher.

WEAKNESSES:

- thematic areas and emerging themes linked to Environmental Engineering in the productive sectors that are not yet the object of PPEAMB research.

STRATEGIES: PPEAMB made efforts in the 2020-24 quadrennium to have umbrella research projects, synergetic of the various thematic competencies present in the faculty, expanding areas of action for emerging themes. There was a round of internal seminars linked to the three thematic areas:

- (i) innovative and sustainable technologies in the management of solid, liquid and gaseous waste (establish new waste management practices with innovative, sustainable and circular technologies in the various production processes, seeking to reduce potential impacts and pressure on natural resources, related to solid, liquid and gaseous waste in industrial production, service sector and urban environments);
- (ii) management of natural and energy resources to improve procedural sustainability (seeking forms of sustainable use of natural resources, increasing procedural efficiency and effectiveness);
- (iii) strengthening of the textile industrial pole of the agreste of Pernambuco (development of research with innovative potential in the various areas of knowledge, with a view to establishing a prosperous relationship between the productive/industrial sector and academia).

FUTURE STRATEGIES (2025-28)

SHORT:

- Mapping opportunities, identifying areas of research and innovation with potential for immediate impact

Target: 3 areas identified

- Identification of Young Doctors

Goal: 1 Young Doctor identified by PPEAMB line of action

- Creation of multidisciplinary working groups to develop specific projects, deepen inter-institutional articulation with the public and private initiative.

Goal: 1 working group

- Implementation of management tools (open software) and methodologies to optimize the workflow among PPEAMB researchers, seeking to find interfaces.

Goal: 1 work methodology

- Conducting workshops/lives, discussing emerging lines and training researchers on relevant topics in the international sphere, articulating research and innovation, with the participation of other institutions

Goal: 2 workshops/lives per year

- Search for national funding as well as international entities, through the exploration of public notices and programs to support research and innovation.

Goal: 2 proposals submitted

MEDIUM:

- Development of multidisciplinary and interinstitutional projects and identification of new partnerships, with a focus on medium-term research projects.

Goal: 1 structured project

- Partnerships with national and international universities and research centers, establishing collaborations to expand the expertise and resources available.

Goal: 1 partnership in office

- Improvement of laboratories and general infrastructure, through dialogue with the central management of UFRPE and search for forms of public-private investment in infrastructure for research and innovation.

Goal: 1 laboratory with structural improvements

- Participation in national and international events, aiming to disseminate the lines of research, advances found and strengthen the network of contacts.

Goal: 1 participation in national or international congress per year, per PPEAMB research line

LONG

- Strengthening of Research Groups registered by UFRPE and certified by CNPq to cover research in technological innovation, and partnerships with national and international Innovation Centers.

Goal: 1 line of research in technology innovation per Research Group

- Development of disruptive technologies, through long-term research with potential for transformation.

Goal: 1 line of research in disruptive technology per Research Group

- Internationalization of research activities, expanding operations to other countries and markets.

Goal: 1 partnership with an international entity per PPEAMB research line

- Creation of specialization programs, to assist in initial training in the sphere of graduate studies

Goal: 1 Specialization course in Environmental Engineering

(ii) Increase in the scientific production rates of professors; tutors and students

STRENGTH:

- Commitment of professors and students in the elevation of scientific writing
- Dissertations of high academic standard
- Free access to international publications

WEAKNESS:

- lack of fluency in English on the part of some teachers and students

STRATEGIES: Inter-institutional articulations, participation in international scientific events, conducting courses in a foreign language and seeking funding for post-doctoral studies abroad. In this sense, the following initiatives stand out: (i) integration of the PRINT/Capes program seeking the establishment of research in cooperation, as well as increasing the exchange of graduate students; (ii) regular participation in international events, collaboration of international researchers; (iii) participation in committees for the discussion of policies and international agreements, aiming to increase the international insertion of PPEAMB in negotiation rounds linked especially to the 2030 Agenda, the study of sustainability indicators, the structuring and transnational strategies in the field of sustainable consumption and in the search for international partnerships.

FUTURE STRATEGIES (2025-28)

SHORT:

- Promotion of events on scientific writing, submission of articles and use of research tools, such as databases and reference management software

Goal: 1 event per year.

- Conducting workshops on research ethics and scientific integrity, with the participation of researchers from other institutions and graduate programs

Goal: 1 event per year

- Encouraging participation in events through the dissemination of relevant scientific events

Goal: 1 participation in an event per PPEAMB line of research.

- Strengthening of the Brazilian Congress on Solid Waste, through the dissemination of the annual notice for the submission of articles that will make up the annual ebook

Goal: 1 ebook chapter per PPEAMB research line

- Organize internal events for the presentation of papers and exchange of experiences, in support of the disciplines Seminars (I and II - master's degree; I to IV - doctorate).

Goal: 1 annual event

MEDIUM:

- Encourage the strengthening of existing Research Groups, with interdisciplinary activities.

Goal: 10% growth in the number of researchers in the current Research Groups

- To promote collaboration between professors, tutors and students in interdisciplinary research projects.

Goal: 1 interdisciplinary research project per PPEAMB research line

- Establish partnerships with national and international universities and research centers.

Goal: 1 partnership per PPEAMB research line

- Encourage the exchange of professors and students to carry out joint research, through the dissemination of public notices

Goal: 1 professor and/or student doing an exchange per PPEAMB line of research

LONG:

- Strengthen existing lines of research with the discussion of new strategic research areas in emerging themes

Goal: 1 new area per line of research.

- Encourage long-term multidisciplinary and inter-institutional research projects with the potential for significant impact on emerging topics.

Goal: 1 project per line of research

- To attract high-level researchers to strengthen research groups through the submission of proposals in postdoctoral notices.

Goal: 1 postdoctoral fellow per line of research

- To offer co-supervision opportunities in master's and doctoral research projects for young doctors (with up to 5 years of PhD)

Goal: 1 young doctor as co-supervisor per line of research.

- Establish double degree programs with foreign universities to strengthen the internationalization process of PPEAMB

Goal: 1 double degree per line of research.

- Attract foreign professors to the graduate program to assume co-supervision or participation in program disciplines

Goal: 1 foreign student with participation in each of the lines of research

- Encouragement of the participation of permanent professors in national and international research networks.

Goal: 1 professor participating in a research network per PPEAMB research line

(iii) Increase of quantitative/qualitative indicators in the organization of research projects

STRENGTH:

- Environment of dialogue and cooperation among teachers;
- Integration of research lines in the consolidation of umbrella projects;
- Disciplines that prioritize the production of texts for book chapters and/or scientific articles;
- Negotiation with specific sectors of research project proposals in a public-private partnership, in the dimension of researcher in the company, directed to the study and search for resolution of emerging and urgent sectoral problems (Ex: red ceramics pole, Moxotó irrigation agriculture pole, Association of recyclable waste pickers)
- Alignment with emerging public policy issues, through articulation with government entities, seeking dialogue for the establishment of research that is aimed at overcoming relevant issues (e.g., research with waste electrical and electronic equipment)

WEAKNESS:

- Absence of specific notices that help the financial contribution to make research and graduate studies viable;
- low level of institutional financial support for publications in foreign journals that charge fees for editing and proofreading articles

STRATEGIES: The PPEAMB is making efforts to continue the articulations, seeking to establish agreements with a view to financial support directed primarily to scholarships. This line of action will bring an increase in the contextualization of dissertations with sectoral demands, as well as the insertion of the graduate student in the labor market and with the corporate reality. It is also worth mentioning the concern to approach various entities of the public initiative, placing researchers to think about corporate solutions to sectoral issues, in addition to seeking the managerial, technical and administrative improvement of these partners. The development of indicators and indexes that denote sectoral sustainability is relevant so that these partners can understand which activities can be better developed and which technologies can be added to the corporate routine, with the improvement of institutional performance.

FUTURE STRATEGIES (2025-28)

SHORT:

- Hold lives focused on seeking funding for research projects and public-private partnerships.

Goal: 1 live per year

- Articulate training on project management tools and data analysis software

Goal: 1 training offer per year.

- Provision of bibliographic reference management, bibliometric analysis, infometrics and scientometrics training

Goal: 1 training per year

MEDIUM:

- Encourage participation in scientific events with the profile of technological innovation and the dissemination of research results and scientific innovation.

Goal: 1 participation per line of research

- Organize internal events for the presentation of works that have technological innovations and exchange of experiences, in support of the disciplines Seminars (I and II - master's degree; I to IV - doctorate).

Goal: 1 biannual event

LONG

- Consolidation of Research Lines, with the strengthening of existing research lines and the creation of new strategic areas linked to technological innovation.

Goal: 1 insertion of a new strategic area per line of research

- South-South or North-South Technology Transfer, with a view to internationalization, seeking to identify similar problems and the ability to adapt the technologies developed for application in other locations

Goal: 1 South-South or North-South multilateral relationship per line of research

(iv) Formation of research groups

STRENGTH

- Presence of well-structured research groups, with thematic work groups and multidisciplinary activities, articulating undergraduates, graduates, and postgraduates from different levels and different institutions;

- Development of research, extension and teaching activities, with professional empowerment as a constant theme in the activities developed;

- Structuring of events that increase the visibility and social insertion of PPEAMB's research and studies.

- Financial support for the activities of the Research Groups linking graduate studies to extension activities

WEAKNESS

- Low level of financial support for Tutorial Education Programs (PET) of the Federal Government, despite this work in Teaching, Culture, Research and Extension.

STRATEGY: Seeks, through institutional partnerships, the consolidation of lines of action that are in tune with sectoral demands and emerging problems; Articulation between teachers for collaborative work focused on thematic areas and specific projects; Presentation of inter-institutional proposals for fundraising.

FUTURE STRATEGIES (2025-28)

SHORT:

- To facilitate the meeting of researchers with common interests, creating spaces for dialogue and collaboration.

Goal: 1 meeting every semester

- Create space within the PPEAMB website for a link to reports about existing research groups, with information about their areas of expertise and ongoing projects, as well as other pertinent communications, increasing their visibility.

Goal: 1 locus on the PPEAMB website for existing research groups

MEDIUM:

- To promote collaboration between research groups led by PPEAMB researchers with other institutions, national and international, making such a movement institutional

Goal: 1 research group positively impacted by PPEAMB research line

LONG:

- Institutionally support the consolidation of strategic lines of research, focusing on areas of excellence and social relevance, in addition to the articulation with public policies and emerging themes of Environmental Engineering in the global sphere (local and global).

Goal: 1 research group positively impacted by PPEAMB research line

- Regarding the evaluation and recognition of the work developed by the research groups, implement a system of regular evaluation of the research groups, based on criteria of quality and impact of extension activities, research and writings

Goal: 1 research group evaluated per PPEAMB research line

(v) Promotion and participation of professors, tutors and students in scientific events

STRENGTH:

- Organization of the Brazilian Congress of Solid Waste - Epersol (www.epersol.com.br), which is in its thirteenth year, being an annual event that has already produced 22 ebooks with the participation of researchers from national and international researchers, Technical-Scientific Committee with 250 doctors;

- Continuous flow of information about events, with intellectual encouragement from advisors so that master's students participate and can dialogue with peers about research;

- Search for financial support for the participation of professors and master's students in national and international events;

- Socialization of information about national and international events for the discussion groups, making the information available to all;

- Structuring of an ebook series on Environmental Legal Instruments, with one ebook published (https://repository.ufrpe.br/bitstream/123456789/5045/1/livro_instrumentoslegaisambientaiseagenda2030.pdf) and two in press, for publication in the first half of 2025.

WEAKNESS

- Absence of institutional support from UFRPE for participation in a national or international event;
- Limitation of resources for financial support for participation in a scientific event abroad by the Foundation for the Support of Science and Technology of the State of Pernambuco (FACEPE) and by the Federal Government.

STRATEGY: PPEAMB professors are looking for online events to enable the participation and discussion of the work and research of master's students with their peers, especially since 2020, in the face of the pandemic process that covid-19 imposes on the whole world. However, there is an urgent need for professors and students to have the opportunity to discuss the data from the studies with colleagues from other universities and research centers in order to have a counterpoint from other scholars on the subject, as well as to raise the criticality of those involved in the process.

FUTURE STRATEGIES (2025-28)

SHORT:

- Create an online calendar fed in a participatory way with relevant scientific events, both national and international.

Goal: 1 locus on the PPEAMB website and social networks

- Use the university's communication channels (website, social networks, email) to publicize events and participation opportunities.

Goal: 1 locus on the PPEAMB website and social networks

MEDIUM:

- Regarding the creation and/or strengthening of a collaboration network, establish partnerships with other universities and research centers to facilitate the exchange of professors and students in scientific events and postdoctoral or post-graduate sandwich internships

Goal: 1 institutional partnership per year, per line of research

- Encourage the organization of scientific events at the university itself, attracting researchers from other institutions and promoting the visibility of local scientific production.

Goal: 1 supported event per year

LONG:

- To measure the impact of participation in events, implement a system for monitoring participation in scientific events on scientific production and on the training of teachers and students

Goal: 1 Monitoring System

(vi) To stimulate the innovative and entrepreneurial character in the research activities of the Graduate Programs of UFRPE

STRENGTH

- high degree of knowledge of sectoral problems and the articulation of teachers with specific sectors;

- recognition of the technical-operational and scientific capacity of the faculty by society and public and private entities;

- Academically updated and productive teachers.

WEAKNESS

- Financial support for field activities, technical visits, proposition trips and knowledge of production units in other Brazilian states or abroad.

STRATEGY: The search to structure umbrella projects that articulate professors and master's students is an attempt to minimize the costs of research activities and field visits, as well as the construction of an articulation that increases the operational synergy of all those involved. Technological innovation takes place when the knowledge of the state of the art and the exercise of boldness and inventiveness of those involved in the search for the establishment of technical-scientific innovations are made. On the other hand, the participation of professors and master's students in spaces of sectoral dialogue such as Councils and Sectoral Bodies, makes it possible to monitor emerging issues and raise the articulation of the social actors of each of these spaces. The media (web, radio, TV) also identify in the PPEAMB competence for the discussion of topics of relevance to society, putting professors and master's students face-to-face with issues of the daily life of the population or productive sectors.

FUTURE STRATEGIES (2025-28)

SHORT:

- Conduct workshops and/or lives on design thinking, lean startup, and other innovation methodologies

Goal: 1 event per year

- Identify the offer of training on intellectual property, technology transfer and technology-based entrepreneurship

Goal: 1 locus on PPEAMB's social networks for dissemination

MEDIUM:

- Promote lectures and/or lives with successful entrepreneurs to inspire and motivate researchers.

Goal: 1 event per year

- Provide coworking spaces and prototyping labs to stimulate interaction and experimentation among graduate students

Goal: 1 coworking space

- Strengthen the contact of graduate students with the UFRPE technology transfer office (IPÊ Institute) to facilitate the protection of intellectual property and the commercialization of technologies

Goal: 1 lecture or live per year

LONG:

- Encourage participation in idea contests and hackathons to identify projects with innovative potential.

Goal: 1 post per year on social media

- Establish partnerships with accelerators and business incubators to support technology-based startups

Goal: 1 institutional partnership

- Contribute to the creation of a regional or national innovation ecosystem, with the participation of PPEAMB, companies, government and investors

Goal: 1 innovation ecosystem at PPEAMB

(vii) Promote integration between research activities and the Advanced Campi at UFRPE

STRENGTH

- The existence of advanced *campuses* in the various biomes of the State of Pernambuco, with infrastructure compatible with the needs of fieldwork in various disciplines, in addition to support for institutional transportation through the Rural in Motion program;

- Lines of research that are linked to experimental field work and that are developed in the various biomes of the state;

- Graduate resources that can be allocated to field activities.

WEAKNESS

- Low additional financial support with daily allowances to enable the stay in the field and the development of research.

STRATEGY: The Program organizes field activities in an articulated way so that the operating costs are apportioned by the researchers, in addition to encouraging collaborative activities among professors and master's students. Such activities also have the purpose of teaching and interdisciplinary dialogue between those involved with PPEAMB, who can work in a synergetic way, as well as seek to understand the analyzed reality through different thematic perspectives.

FUTURE STRATEGIES (2025-28)

SHORT:

- Encourage the presentation of UFRPE campuses to PPEAMB professors and students in order to stimulate their use in the development of research and technologies

Goal: 1 submission every 2 years

MEDIUM

- Encourage field visits to UFRPE campuses

Goal: 1 visit every 2 years

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LONG:

- Structure research developed on UFRPE campuses

Goal: 1 research developed on a UFRPE campus

(viii) Strengthen the self-assessment policy in graduate programs

STRENGTH

- Free communication channel with the Program Coordination and Secretariat and the faculty, with bimonthly meetings, in addition to the structuring of Commissions for the different administrative-managerial areas of PPEAMB, with collaborative activities that are developed in an organic and complementary way, with the involvement of all professors;

- Continuous flow of dialogue between the Coordination, Secretariat, Master's and PhD students of the Program, both in formal classroom spaces in the discipline Seminars I, II, III and VI, as well as informal space for Discussion Group on WhatsApp, in addition to free access to the Coordination;

- There is free access to the internet at the UFRPE main campus, where PPEAMB activities take place.

WEAKNESS

- better understanding of the need for self-evaluation by graduate students, in addition to the identification of continuous improvement strategies.

STRATEGY: The coordination seeks to maintain an open and unbureaucratic channel with professors, master's and doctoral students for possible conflict resolutions, in addition to the legal and bureaucratic apparatus made available by the Higher Education Institution itself, making the Ombudsman available to the entire academic community and, in particular, to the institution's graduate students. Such a posture represents a clear direction in the sense of seeking to improve the services and products of UFRPE to the whole society and in particular, to the Master's students of the Program.

FUTURE STRATEGIES (2025-28)

SHORT:

- Have a self-assessment practice, with annual cycles
Goal: 1 self-assessment report
- Maintain the Permanent Commission for Self-Assessment and Strategic Planning active
Target: 1 Commission with regular meetings

MEDIUM

- Discuss new strategies for the practice of self-assessment, knowing the practices adopted in other graduate programs in the area of Engineering I

Goal: :1 lecture and/or live with coordinators from other Graduate Programs

LONG:

- Have a PPEAMB self-assessment workshop, with an immersive methodology
Goal: 1 immersion workshop every 2 years

(ix) Expand actions related to mental health in Graduate Studies

STRENGTH

- support from the Department of Quality of Life (DQV) at UFRPE has a welcoming program carried out virtually that actively listens to the needy, as well as a wide network of information and guidance on how to keep a healthy mind during the period of social isolation, the pandemic, as well as after overcoming this stage of health and environmental insecurity;

- Guidance for professors to closely monitor advisees for changes in behavior or apparent mood disorders, advising them to seek the DQV/UFRPE;

- Conducting a trimonthly survey on the physical and mental health condition of UFRPE faculty, students and technicians, seeking to identify non-conformities and possible disorders.

WEAKNESS

- The lack of constant activities of the DQV/UFRPE that generate proximity to graduate students.

STRATEGY: PPEAMB professors are in constant contact, through face-to-face activities, virtual rooms and collaborative work, as well as discussing the situation of the advisees when relevant, in order to seek a resolution of situations that need support from the Program. Given the friendly environment among the professors, where most have been since the beginning of the PPEAMB, there is an environment of collegiality favorable to a possible support to the students to be carried out in an agile and discreet way, but with the necessary support.

FUTURE STRATEGIES (2025-28)

Mental health in graduate school is a crucial topic that requires attention and concrete actions. Academic pressure, competitiveness, and the uncertainties of the future can negatively impact the well-being of

faculty and students. To expand actions related to mental health in graduate studies, it is essential to adopt a strategic approach

SHORT:

- To give visibility to students of existing institutional communication channels, in an accessible and confidential way, so that they can seek psychological support if necessary.

Goal: 1 communication every 6 months for students

- Publicize events on topics such as stress management, anxiety, depression, and other mental health challenges.

Goal: 1 communication every 6 months for students

MEDIUM

- Inform about disciplines or modules on mental health in graduate programs

Goal: 1 communication each year:

- Support institutional training courses at UFRPE for teachers and tutors on how to identify and deal with mental health problems in their students.

Goal: 1 communication each year

LONG:

- Promote a culture of care and respect in graduate studies, where mental health is valued and prioritized.

Goal: 1 activity each semester

- Encourage research by the appropriate instances of UFRPE on mental health in graduate studies, focusing on the identification of risk factors and the evaluation of the effectiveness of interventions

Goal: 1 survey every 2 years

- Disseminate the results of research developed by the body responsible for the theme at UFRPE, as well as institutional policies and practices in the area

Goal: 1 disclosure every 2 years, in the survey file

4. MONITORING OF TEACHER AND STUDENT PERFORMANCE.

The monitoring of the academic production of permanent professors and collaborators has been developed through the indicators of the Evaluation Form. As described in item 1.2.3, the idea is to expand the criteria for better evaluation. Although there is a renewal of the teaching staff, it is intended to make a more detailed monitoring of the teachers to ensure and guide the transfer of teachers from the permanent group to the collaborating group. The idea is that in 2025 (beginning of the quadrennium), as soon as the new criteria for evaluating intellectual production are released, there will be an opening of a specific notice for permanent professors, increasing their number. A policy for improving these mechanisms is under discussion, based on the following precepts:

- a) analysis of academic production with the quantification of academic production of scientific articles, expanded abstracts in annals of events, book chapters and/or ebooks, organization of books and/or ebooks, integral writing of books and/or ebooks, taking as a guide the Qualis of journals and books, technical and technological products
- b) faculty involvement in master's and doctoral advising,
- c) development and search for funding for individual, group or network projects;
- d) social impact of the teacher's performance, contemplating all the sub-items and specificities of this issue

From the first quartile, half of the professors with the lowest score will be automatically accredited as collaborators, while a specific notice will be opened for such vacancies, thus seeking to increase the academic production of the group of permanent professors, in addition to encouraging everyone to remain academically active and committed to the various metrics to be achieved by PPEAMB. This notice will

also open vacancies for collaborating professors, respecting the percentage of 30% allowed by the Engineering Evaluation Form I, aiming that everyone is within the best possible performance, helping the program as a whole to maintain the level achieved and seek higher levels of classification. Current collaborating professors can compete for the vacancies open for permanent professors or compete for the vacancies of collaborators. Thus, the idea is conveyed that collaborating professor is a transitory and not permanent state in PPEAMB.

It should be noted that in the regular annual meetings, where the PPEAMB metrics are discussed, in the presentation of the individualized results of the professors, there is already the presentation of the quartiles and everyone is aware of the general position of the group and the position in which it is in the PPEAMB. In this way, everyone is having the possibility to better organize future academic productions, preparing their particular strategic planning regarding the metrics to be achieved.

5. POLICIES FOR THE RENEWAL AND EXPANSION OF THE FACULTY, INCLUDING THE ATTRACTION OF YOUNG PERMANENT PROFESSORS (JDP).

In addition to the process described in the item above, the notice will score young doctors, seeking to capture such expertise in the market, in addition to the mechanism of approximation via co-supervision and formation of qualification and defense boards. Such approximation procedures are fundamental to identify thematic expertise complementary to the current faculty of PPEAMB, seeking to achieve themes of Environmental Engineering that at the moment are not yet intensively worked on. In this thematic criterion, the issue of atmospheric pollution, linked to meteorological climate change, is a very relevant theme for the program and does not yet have a professor with such investigative specificity.