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PONTIFÍCIA UNIVERSIDADE CATÓLICA DO RIO GRANDE DO SUL

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DIAGNOSTICS

Strengths

Title - Consolidated collaborations with research centers of excellence abroad

Justification - Over the past decade, PUCRS has invested heavily in internationalization. Because of the joint efforts in research, innovation and development, PUCRS has been able to set up international partnerships, carry out concrete projects and enjoy a position of excellence at the Graduate level. The existing collaborations and international agreements play an important role in the strengthening of internationalization actions. In this sense, it is important to mention that PUCRS professors are highly visible internationally as can be attested by the number of research projects carried out with international partners. When it comes to such research projects, the number of active collaborations has seen a significant growth. From 2012 up until today, a growth of 52% in the number of scientific research projects with international partners has been observed (189 international projects). Besides, PUCRS' Graduate-level professors play a leading role in international projects, many of which are financially sponsored by CAPES or other international agencies, such as the European Union and the National Institutes of Health (United States of America). Among such partnerships, the strengthening of ties with Germany has been a driving force at the institution. Relevant projects in the area of Environmental Studies, including the one involving the Pró-Mata Center for Research and Conservation of Nature and the University of Tuebingen, have been developed. Germany has collaborated other projects in areas such as Philosophy, Information Technology, Law and Modern Languages. Germany has been such an important country because of the historical institutional efforts for the materialization of projects and consolidation of international relationships. Because of that, 2017 saw the opening of the first Center for European and German Studies (CDEA) in Latin America and in the Southern Hemisphere at the premises of PUCRS. The center is sponsored by DAAD and by the Ministry of External Relations of Germany and has been conceived in partnership with the Universidade Federal do Rio Grande do Sul. It is an interdisciplinary center designed for training, mobility and research activities. The significant number of partnerships for the development of research projects with centers of excellence in countries abroad shows how mature our professors is and this has resulted in the privileged status of our Graduate Programs, which are evaluated every four years.

Title - Internationally-recognized scientific production

Justification - The excellence of PUCRS' Graduate Programs is the fruit of the high-quality scientific production of its professors, researchers and students, at the international level. When comparing the scientific production of 2014 with that of 2017, we can see that it has grown in quality and in numbers. Web of Science data showed that the number of international publications has kept steady, with 315 articles in 2014 against 312 in 2017. However, according to InCites, the impact of citations in the articles produced has seen an increase: 0.83 in 2014 against 0.96 in 2017, and a significant increase in 2016, at 1.12. On Scopus, we can see an increase from 656 articles in 2014 to 855 international publications in 2017. In 2016 alone, there were 392 publications, according to Web of Science, and 800, according to Scopus. In view of that, it is worth mentioning that 2016 signals the closing of the 4-year period of evaluation of Graduate Programs, which coincided with a typical increase in the scientific production of Graduate Programs in general. Besides, the 2018 QS BRICS Region University Rankings shows the institution at number 115, which is quite a relevant position overall. In number of Citations, PUCRS enjoys an enviable position (2nd in Brazil), which shows the relevance and visibility of the institution's scientific production. Joint publications involving international higher education institutions show the

greater integration between our professors and other research groups abroad. The professors' work is internationally-recognized. For instance, many of our researchers play a unique role in some of the most relevant international congresses in their areas as both speakers and organizers; our professors play an important role in advising theses/doctoral and delivering courses overseas; and many of them work in editorial boards of international journals, having published books, book chapters and articles that have been immensely cited. Many of them have won major awards as well.

Title - Research infrastructure and support to internationalization

Justification - The University relies on an excellent research complex, with more than 550 structures, including 359 groups, 63 multidisciplinary groups, 116 laboratories and 17 nationally and internationally-accredited research centers. Today, PUCRS has 4 other Research Institutes, where research is carried out in a comprehensive, cross-sectional and interdisciplinary perspective, in complete integration with teaching, extension and society, with an eye to meeting the needs and producing results for society. They are as follows: the Brain Institute, the Institute for the Environment, the Institute of Petroleum and Natural Resources and the Institute of Geriatrics and Gerontology. These structures are strongly connected to Graduate Programs and provide high-quality infrastructure, to be shared by researchers, and the development of major research projects. Investing in infrastructures for research activities has been a driving force for attracting new international partners and, consequently, for bringing Graduate programs to a higher level of quality. Besides, Tecnopuc's Project Management team provides administrative, financial and tax support for international projects, which has been important to make these initiatives a reality. The conception of international projects has also made it possible for the university to provide continuous training for staff. This has been fruitful for the development of linguistic competences and exchanges involving the administrative departments of international universities for it ensures a higher level of quality to our processes. PUCRS' Language Center, Lexis, is one of its component departments that has a direct relationship with the internationalization program. The center's language programs are designed for both the internal and external community of the University. English language programs are also offered for staff. Lastly, the University relies on the Office for International Cooperation (OIC), which oversees international projects of cooperation and the university's Academic Mobility programs (incoming and outgoing), with the purpose of facilitating the exchange of its students in higher education institutions from abroad and of international students here. OIC works together with the Office of the Vice President for Research and Graduate Studies and welcomes foreign researchers at PUCRS as well as oversees the academic mobility programs for graduate students.

Title - An internationally-accredited ecosystem of innovation and development

Justification - Tecnopuc, elected the best Science and Technology Park of Brazil in 2004, 2009 and 2016, is one of the highlights of the University. The recognition came from the National Association of Entities Promoting Innovative Ventures (Anprotec); Ministry of Science, Technology, Innovations and Communications (MCTIC); the Brazilian Micro and Small Business Support Service (SEBRAE) and the Ministry of Industry, Foreign Trade and Service (MDIC). Tecnopuc is part of the ecosystem of innovation and development of PUCRS, with more than 120 companies headquartered and 6500 people currently employed. The Park has entered into agreements with several science and technology parks and innovation environments, including partners in the UK, Germany, Israel, Italy and China. These agreements have produced important results, such as the soft landing projects that are intended to promote the internationalization at Tecnopuc. Its association to platforms such as the Land2Land Platform, and international networks such as the EBN Innovation network, have made it possible for Tecnopuc and the companies to join several internationalization projects, including workshops, training programs and seminars. RAIAR incubator is fully developed within the park's ecosystem and has been accredited as a EU-BIC/Business Innovation Center, which facilitates the process of development, innovation and creation of new businesses. This has been one of the highlights of the institution

for the development of research projects in cooperation with global companies such as HP, Dell, Motorola, Huawei, Qualcomm, SAP, Samsung, HPE, Google, Apple and PRPL Foundation, among others. Research and development (R&D) projects bring the academic community and international companies together at the ecosystem of innovation of PUCRS, and serve to generate solutions that meet the needs of society. Besides, it has made a solid contribution to the creation of new startups, involving students of the university, who are now able to expand their business overseas through the partnerships established at Tecnopuc.

Title - The quality of Graduate Programs

Justification - PUCRS plays a leading role both in the national and international scenario because of the outstanding performance in the evaluation of its graduate programs. The University's Research and Graduate Programs have been gaining momentum as can be attested in the recent evaluation records. According to the Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES), in 2010-2012, PUCRS' Graduate Programs were awarded 5.21, which earned the University the 4th position among all Graduate-level programs in the country in a list that includes all public and private universities offering 10 or more Graduate Programs. All the structural efforts undertaken towards professors training and research infrastructures, as well as incentives to the internationalization of Graduate Programs, have resulted in an enviable position in 2013-2016. In 2017, PUCRS achieved the best scores in the country (5.36), among the higher education institutions, either public or private ones, considering universities with 10 or more Graduate Programs. In summary, the university counts on 25 Graduate programs, 8% of which have been awarded grade 7 (2 Programs), 36% with grade 6 (9 Programs), 40 % with grade 5 (10 Programs) and 16% with grade 4 (4 Programs). The quality of our programs bears a strong relationship with the position the institution earned in international rankings. The University is among the 1000th best higher education institutions from all over the world, according to the Times Higher Education (THE), published in 2017. Knowledge transfer, internationalization and number of citations were some of the highlights of the University. According with QS World University Ranking 2018, PUCRS ranks 3rd among the private universities of Brazil and 13th among all institutions in the country. In the QS World University Ranking by Subject, Medicine and Computer Science and Information Systems stayed atop.

Weaknesses

Title - Students' low proficiency in additional languages

Justification - Graduate students' and staff's low proficiency in additional languages is a factor that hinders the development of actions of internationalization at Universities, especially in Graduate Programs. Foreign / second language education in Brazil is still very limited and some students are admitted into Graduate programs without being able to communicate effectively in English. These language difficulties are a problem to student mobility overseas, especially for Sandwich PhD programs, double degree programs or even the students' mere participation in international events, since a certificate of proficiency in additional languages is required for Sandwich Doctorate abroad, in programs such as the Doctoral Sandwich Program Abroad (*Programa de Doutorado Sanduíche no Exterior* - PDSE). Low proficiency in English also has an impact on the Graduate program's scientific production, as it lowers the quality of publications. Another aspect to be considered is the language proficiency of the University's staff. Although fluency in English and in other languages is a reality at the departments that specialize in internationalization, the proficiency level at other departments that deal with graduate students' services is still very low. This is a problem to the provision of services and assistance to international students and professors in our Graduate Programs.

Title – Leadership to draw international network projects

Justification - Despite the significant number of Graduate Programs being awarded grades 6 and 7 (44% of all Graduate

Programs), which shows how internationally recognized they are, we still have a shortage of researchers with potential to attract international research projects. PUCRS' researchers participate in international projects, but mostly as collaborators rather than coordinators. This may be explained by the fact that we need to enhance the scientific production with the collaboration of international partners, which could earn the University's researchers more visibility and, therefore, a larger number of leaders and international recognition in their academic areas. In addition to that, it is mandatory that the university increase the number of research projects submitted to international agencies or even internationalization projects from Brazilian agencies. In this regard, it is mandatory that we develop other mechanisms in search for new opportunities and international projects to which researchers can submit their projects. Besides, despite relying on a very well organized structure for running international projects, more support and monitoring to researchers in drafting their proposals is an issue to be addressed, as it will lead to a larger number of submissions for international projects. Such aspects related to the attraction of projects have an impact on other indicators, such as the small number of foreign professors at the Institution, the small number of international students in Graduate Programs, because our visibility and protagonism in research groups at the international scenario are still in need of improvement.

Title - Ineffective implementation of international partnerships

Justification - PUCRS has a significant number of agreements with international institutions, 370 of which were active in institutions from 36 countries in 2017. However, the institutionalization of some of these partnerships is still very restricted and they do not produce the expected results. Besides, some collaborations with international institutions of teaching and research have been implemented with individual professors rather than with the institution as a whole. This shows that we need to make efforts to institutionalize these international partnerships. Although the university may have close institutional relationships with a given partner institution, the effective implementation of some agreements depend on the personal intervention of some specific professors and, therefore, their results cannot be enjoyed fully by the entire university community. New directions given to the lines of research or even the lack of interest from both Brazilian and international researchers may hinder the continuation of the cooperation with a given institution from abroad, because of the strong individual ties with individual professors. Therefore, we understand that genuinely joint projects require major efforts for the production of results. This will call for a higher level of institutionalization of international partnerships involving the several dimensions of the University, such as teaching, research, innovation and management.

Title - Reduced number of international students and professors

Justification - The small number of international students in Graduate Programs and the small number of foreign professors in both undergraduate and graduate programs are factors that pose limitations to the process of internationalization at the University. We understand that this small number is due to a plethora of factors, but we can mention the social and political instability in the country, the geographical position of the University in the south of the country and the low visibility when compared to other universities in Rio de Janeiro and São Paulo. In 2017, only 2.15% of students at the University's Graduate Programs was born overseas. On top of that, the hiring of permanent foreign professors is also very limited. In 2017, only 1.5% of permanent professors teaching at the University's Graduate Programs was born overseas. This shows that a policy for attraction of international students and for hiring foreign professors to Graduate Programs is necessary. Although information about our Graduate Programs are available online in both English and Spanish, we still do not have a plan of international promotion for students and professors.

Goals of the Institutional Project - The Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS) is an institution committed to academic excellence and generation of knowledge and innovation, as it seeks to become a Research University, oriented towards a global world-class culture, which looks at internationalization in all aspects of University. This commitment is stated in its Vision of Future: "By 2022, PUCRS will have become, in accordance with its Mission, an international reference in Higher Education through Innovation and social, environmental, scientific, cultural and economic development."

In this sense, the University's Institutional Plan of Internationalization aims to develop, consolidate and integrate the international and intercultural elements in teaching, research, innovation and extension at the University to seek academic excellence in order to create an impact on the development of society, thus contributing to the development of citizens for a multicultural and interconnected world.

Throughout its history, PUCRS has been nationally and internationally accredited for the scientific, technological and social relevance and quality of the research produced in the University. Therefore, the Institution enjoys an enviable position among the best universities in Latin America, as shown in the most important international rankings. It is worth mentioning that according to evaluation promoted by Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES), PUCRS has climbed atop the public and private higher education institutions with the highest national average (5.36), as a result of the excellence of its Graduate Programs (2013-2016). This is the result of a number of structural strategies and actions carried out by the University, especially concerning professor development and research infrastructure as well as the promotion of interdisciplinary work. The University has developed several other initiatives geared towards the promotion of internationalization, which have had a positive impact on PUCRS' Graduate Programs.

In this sense, PUCRS aims to reach even higher in order to become a world-class university with relevance at the local, national and international levels.

The Institutional Project of Internationalization of PUCRS, in application for Call 41/2017 – CAPES/PrInt, is intended to develop and incorporate international perspectives into the University's Graduate Programs and Research, with an eye to academic excellence and effective actions for society's global issues. In view of that, the University defined five strategic themes in Institutional Plan of Internationalization: Health in Human Development; World in Motion: Individuals and Society; Humanism, Education and Culture in the Age of Interconnectivity; Technology and Biodiversity: Sustainability, Energy and Environment; Technological Innovations for a Dynamic and Interconnected World. These Themes are in line with the main research and innovation areas, which have been previously set forth by the University and which will tackle complex issues of our society. Among them, the University has set forth three priority areas for the development of the Institutional Project of Internationalization. The institution is competent enough to deal with these issues at a more profound level and is in quest of alternatives to change reality.

The priority themes are as follows:

- Health in Human Development: This Theme includes clinical, psychosocial and educational aspects related to the different stages of human development, with focus on infancy and aging, under the perspective of health. This Theme embraces new investigations on the development of innovative technologies for the diagnosis and treatment of several diseases.

- World in Motion: Individuals and Society:

This Theme is intended to embrace investigations on how society adapts to the changes that involve social and economic development, migrations, violence and human rights as well as the judicious use of technology for the maintenance of ethical aspects.

- Technology and Biodiversity: Sustainability, Energy and Environment

This Theme addresses the ways in which sustainable development can be maximized for the development of new

technologies, as well as the importance of the emergence of new technological advances for the new findings in biodiversity and in the rational use of natural resources.

We have set forth a number of strategic goals in order to develop the Institutional Plan of Internationalization:

- To contribute for the implementation of strategies and policies of the Institutional Plan of Internationalization of PUCRS;
- To bring research and the training of human resources to a higher level of quality in Graduate Studies in priority areas that can create an impact on the development of society;
- To promote the consolidation of international research networks with an eye to excellence in academic production at the Graduate level;
- To increase mobility for students, professors, researchers and staff development and create mechanisms to disseminate the knowledge gained overseas to consolidate the internationalization of teaching and research at the Graduate level;
- To promote actions to attract and assist international students, professors and researchers in order to build a concept of an International Campus at PUCRS;
- To get graduate students, professors and researchers to work in projects of global relevance whose innovative solutions would be used for the benefit of society;
- To develop graduate programs with international partner universities. These programs could include double-degree programs guided by an innovative and multidisciplinary view with focus on knowledge transfer;
- To promote the consolidation of the innovation ecosystem of PUCRS, maintaining Tecnopuc's status as a reference in innovation, by working together with Universities and Governments;
- To make the University a reference in the strategic research themes in order to put the country in a leading position all over the globe.

The successful development of the Institutional Project of Internationalization of PUCRS will bring about considerable changes to the University, as it will create an environment conducive to the exchange of different cultures and world views. This project will facilitate the development of strategic areas of research. These areas are directly related to the contemporary challenges we are faced with, and will be addressed in partnership with highly prestigious universities in order to make a high-quality contribution to the production of knowledge. We must highlight the importance of the development of these goals to make a continuous contribution to international exchanges, with positive impacts on the training of graduate students, and with benefits to the university community in all of its dimensions (teaching, research, extension and innovation).

On top of that, the implementation of a concept of an International Campus at PUCRS in Porto Alegre, to be fully integrated with the ecosystem of innovation and development of PUCRS, will maximize the production of solutions that could lead to knowledge transfer, and consequently bring multiple direct and indirect benefits for society.

THEMES

Theme 1 Health in Human Development

Theme - Health in Human Development

Partner countries – Finland; Japan; India; Canada; Spain; United Kingdom; Australia; United States of America; Italy; South Africa; Germany; Belgium; Argentina; Kenya; South Korea; Portugal; Switzerland; The Netherlands; France;

Justification - This theme seeks to address the clinical, psychosocial and educational aspects related to the different stages of human development, in an integrated way. It is known that the complete development of children up to the age of five, in large social inequality countries, is highly compromised because of the adversities that can affect their

health, well-being and learning over the course of their lives. This not only has negative long-term effects on individuals, but also contributes to the perpetuation of the cycle of poverty, inequality and social exclusion, which are issues that affect a great portion of the world's population. Because of the major socioeconomic changes that have occurred over the past decades, we are faced with a new epidemiological reality that calls us to look at some target aspects of public health from a different perspective. The continuous growth of aging population all over the world have resulted in constant challenges to be addressed for the maintenance of quality of life and disease management at this stage of life. In addition to that, chronic and neglected diseases, such as tuberculosis and other diseases, affect large numbers of individuals, leading to economic burden on health systems. Therefore, strategies aiming at the promotion of health, as well as at new treatments and development of innovative technologies will be investigated in studies in a translational perspective over the lifecycle. The University has chosen this theme because of the prominent role PUCRS plays in the health area of research, especially in infancy and aging. In this sense, our efforts will be undertaken in five research lines: (a) Child development, etiology of diseases, environmental impact, dieting and physical activities. (b) Epidemiological aspects, diagnosis and drug development for neglected diseases. (c) Biopsychosocial aspects related to the individual's health in adult life. (d) Studies on aging neuropsychology and molecular mechanisms associated with neurodegenerative diseases in the elderly population. (e) Development of technologies and innovative processes in health. The University is intent on developing international and multicenter studies through graduate programs of excellence, geared towards prevention and intervention in every stage of life with the employment of innovative strategies to improve the health of the individual.

Goal 1 - To promote the attraction of international professors, researchers and students

Description - The University seeks to attract international professors and students specializing in Health in Human Development. In this sense, policies to ensure adequate infrastructure to attend the needs of the hired professors, including resources for them to begin and continue with their research activities at the institution, will be implemented. Hiring foreign professors to the University's Graduate Programs will have a positive impact on the promotion of the internationalization of Graduate Programs as experienced professors will be able to join efforts in the development of specific research projects. In addition, the incoming of young talents and/or postdoctoral students will allow the eventual establishment of these researchers as professors linked to the Institution's faculty, developing their institutional competences within the priority themes. As for international students, new actions to attract and integrate them to the University will be developed. To follow are some of the initiatives that will help attract students in academic programs in this theme: meetings involving strategic departments of the University; the promotion of intensive programs of Portuguese as an Additional Language; the development of an accommodation and health care policy.

Goal 2 - To promote the mobility of professors, researchers and students

Description - The University aims to develop actions to promote incoming and outgoing mobility for professors, researchers and students of Graduate Programs specializing in Health in Human Development. Conducting missions and/or other activities overseas will contribute to professors' training and development as well as to the development of relevant research and, consequently, the recognition of our Graduate Programs. Therefore, the faculty mobility through missions and/or other activities abroad, in view of all the different types of benefits arising from this project, will foster new developments in the theme of Health in Human Development, and increase the relevance of the University internationally. As for incoming faculty mobility, it will bring many benefits and have positive impact at the institutional level, once several Graduate Programs will be working together under the scope of this theme. As for outgoing student mobility, the offer of Sandwich Doctorate programs or other training programs will bring the students' academic training and scientific production to a higher level. In addition to that, the University will be open to hiring these new talents and/or

postdoctoral researchers as permanent faculty of the Institution as they will be able to develop their projects in this theme. This strategy will also serve for PUCRS to strengthen its ties with other Higher Education Institutions from abroad, as the number of joint and/or double degrees may see an increase and other international Graduate Programs may be created.

Goal 3 - To foster joint and/or double-degree programs to create international Graduate Programs

Description - The implementation of international and interdisciplinary Graduate Programs can result in benefits under the theme of Health in Human Development. The programs will be guided by an innovative view in an international perspective with an eye to the production of qualified human resources in the area of health studies in every stage of human development. An important action to consolidate international partnerships is the offer of joint and double-degree programs with partner institutions. International Graduate Programs will bring several direct benefits to the institution, as the number of publications in collaboration with professors of international Higher Education Institutions and the number of projects receiving international funding might see an increase. It will also serve for the production of knowledge in the theme of Health and Human Development.

Goal 4 - Develop high-quality research with international partners

Description - In order to develop high-quality research in the Theme Health in Human Development, it is essential to consolidate international partnerships aiming the excellence in scientific production and increased competitiveness in seeking funding in the five areas that are embraced by this theme: (a) Assessment of environmental aspects, life habits and pathological condition in child development; (b) Advances in drug development, diagnosis and epidemiology of neglected diseases; (c) Biopsychosocial aspects related to the individual's health in adult life; (d) Studies on neuropsychology of aging and molecular mechanisms associated with neurodegenerative diseases in the elderly population; (e) Development of technologies and innovative processes in health. In this sense, the increased international relevance of the research carried out at PUCRS calls for the implementation of partnerships with international Higher Education Institutions of excellence. Therefore, expanding the number of international research networks will make the University an institution of reference in this particular theme and will attract a larger number of international students, professors and researchers.

Theme 2 Technology and Biodiversity: Sustainability, Energy and Environment

Theme - Technology and Biodiversity: Sustainability, Energy and Environment

Partner countries - China; Denmark; Spain; Estonia; France; The Netherlands; Portugal; New Zealand; Argentina; Australia; United Kingdom; Sweden; United States of America; Mexico; Switzerland; Italy; Canada; Belgium; Germany; Poland; Ireland;

Justification - Sustainable development is a systemic concept that translates as a model of development that can meet the needs of the current generation, without compromising the ability to meet the needs of future ones. Sustainable development calls for a harmonious relationship between economic development, environmental preservation, quality of life and the rational use of natural resources. In this sense, the sustainable development of humanity includes a thorough understanding of biodiversity, which has been maximized by the development of new technologies. Simultaneously, new technological advances arise from the demands resulting from research processes that lead to new findings associated with biodiversity and the reasonable use of natural resources.

Hence, studies in this Theme address the ways in which new technologies can contribute to the progress in biodiversity

and environmental studies, as well as the ways in which these technological advances can assist in the development of materials, products and processes that lead to the rational use of natural resources generating low impact on the environment. In this sense, our efforts will be undertaken in four major directions: (a) Advances in genomics and its impacts on the study of biodiversity, with focus on the production of knowledge in genomic scale for the understanding of evolution and conservation of biodiversity, involving the conduction of studies of several species, in several levels according to how endangered they are. This Theme will also focus on the study of microorganisms to create new technologies and provide the sustainable use of natural resources; (b) Technology, Energy and Natural Resources, new directions for sustainability, which seeks to explore the development of materials and processes, anchored in the rational use of natural resources, in the reduction of environmental impact and optimization of energy use; (c) Extraction of knowledge from large masses of data, with focus on scalability and reliability of algorithms for processing data and the use of parallel computing techniques for real-time analysis, whose applications can generate important social and ecological impacts; (d) Technological advances in an interconnected world, with focus on the development of protocols and methods for technologies to be used for the sustainable development of cities and environmental preservation. Studies in this Theme embrace researchers from five Graduate Programs of PUCRS in cooperation with highly prestigious Universities from several countries.

Goal 1 - To promote the mobility of students, professors and researchers

Description - The University aims to develop actions to promote incoming and outgoing mobility for professors, researchers and students of Graduate programs specializing in Technology and Biodiversity. Sustainability, Energy and Environment. Missions and/or other activities involving the university's professors abroad, in view of all the different types of benefits arising from this project, will promote the professors development in this Theme. Consequently, these missions and/or other activities abroad, in addition to serving for the faculty development, will bring the Institution to a higher level of competence. Therefore, the development of relevant research will increase the international protagonism of the University as a whole. When it comes to incoming professor mobility, its benefits will be very beneficial and positive for the entire institution, once several Graduate Programs will be working in collaboration given the complexity of the topics to be explored in this Theme. As for outgoing student mobility, the offer of Sandwich Doctoral Programs or other programs will bring the students' academic training and scientific production to a higher level. This strategy will also serve for PUCRS to strengthen its ties with other universities from abroad, as the number of joint or double degrees may see an increase and other international Graduate Programs in collaboration with international universities may be created.

Goal 2 - To foster joint and/or double-degree programs to create international Graduate Programs

Description - Offering joint and double-degree programs with partner institutions can be seen as an important action to consolidate international partnerships. In addition to the direct benefits associated with the possible increase in the number of publications in collaboration with professors from international universities, in the number of projects receiving international funding, and improvement of knowledge within the priority theme, the offer of joint or double-degree programs can foster the implementation of international graduate programs. The creation of international Graduate Programs in these priority themes can result in interdisciplinary programs guided by an innovative view with an eye to the production of qualified human resources in the technological areas with focus on sustainable development, under an international perspective.

Goal 3 - Develop high-quality research with international partners

Description - The increased level of international relevance of the research carried out at PUCRS calls for the

implementation of partnerships with international Higher Education Institutions of excellence. Hence, it is essential to consolidate international partnerships, with an eye to the excellence in scientific production and increased competitiveness in seeking funding in the four areas that are embraced by this Theme: (a) Advances in genomics and its impacts on the study of biodiversity, with focus on the production of knowledge in genomic scale for the understanding of evolution and conservation of biodiversity, involving the conduction of studies of several species, in several levels according to how endangered they are. This Theme will also focus on the study of microorganisms to create new technologies and provide the sustainable use of natural resources; (b) Technology, Energy and Natural Resources, new directions for sustainability, which seeks to explore the development of materials and processes, anchored in the rational use of natural resources, in the reduction of environmental impact and optimization of energy use; (c) Extraction of knowledge from large masses of data, with focus on scalability and reliability of algorithms for processing data and the use of parallel computing techniques for real-time analysis, whose applications can generate important social and ecological impacts; (d) Technological advances in an interconnected world aim to develop embedded systems related to different types of applications for the sustainable development of cities and environmental preservation, with focus on the development of new test methodologies and fault tolerance techniques as well as of new control, guidance and automation strategies. Lastly, all these aspects will make the University a reference institution in this particular Theme and will attract a larger number of international students, professors and researchers.

Goal 4 - To promote the attraction of international students, professors and researchers

Description - The University seeks to attract international professors and students specializing in this Theme. Hiring foreign professors to the University's Graduate Programs will have a positive impact on the promotion of the internationalization of Graduate Programs, as experienced professors in the development of international research projects will be able to join efforts. In this sense, policies to ensure adequate infrastructure to attend the needs of the hired professors, including resources for them to begin and continue with their research activities at the institution, will be implemented. As for international students, it is important to develop actions that attract and integrate them to the University. Among the initiatives that will help attract students in academic programs under this Theme of studies, are as follows: meetings involving strategic departments of the University; infrastructure for development the promotion of intensive programs of Portuguese as an Additional Language and the development of an accommodation and health care policy. Lastly, the university will be open to hiring these new talents and/or postdoctoral researchers as permanent professors of the Institution as they will be able to develop the institutional skills in this Theme.

Theme 3 World in Motion: Individuals and Society

Theme - World in Motion: Individuals and Society

Partner countries - France; Germany; Australia; Portugal; Belgium; Mexico; Italy; Sweden; Mozambique; United States of America; Norway; The Netherlands; Canada; Japan; Austria; Finland; Argentina; Chile; Spain; United Kingdom;

Justification - The world we live in is dynamic and interconnected. Economic factors, urbanization standards and technological development are elements that keep the society constantly changing. Migration patterns reflect economic trends of our planet and political and humanitarian crisis, and give a new meaning to the word community. The constant violation of human rights due to increased urban violence is a major challenge for the world's society. At the same time, we can see the emergence of a society that is globally interconnected through technology. The understanding of social development occurs in multiple ways, including welfare as well as human, economic, social and environmental development. Therefore, this Theme is intended to embrace investigations on how society adapts to these changes,

which involve social and economic development, migrations, violence and human rights as well as the judicious use of technology for the maintenance of ethical aspects and rights to individual privacy. In this sense, our efforts will be undertaken in five major directions: (a) Human Development: Knowledges and Practices for a World in Motion, focusing on contemporary discussions about humanism in all of its theoretical, conceptual and methodological dimensions; (b) Technology and Society in a Globalized World in Crisis, with focus on the impacts of technological development in individuals, institutions, cultures and the environment; (c) Macro and Microeconomic Aspects Associated to Economic, Social, Human and Environmental Development, with focus on the investigation of the macro and micro economic aspects involved in the different dimensions of analysis of development; (d) The Hidden Matrix of Violence in Contemporary Times: Crisis of Otherness, Morale and Ethics, with focus on violence after the analysis of conceptual aspects, public policies and intervention actions; (e) Migrations, with focus on the historic and conceptual perspectives and analysis of contemporary phenomena in Brazil and in Europe. Projects in this Theme embrace researchers from different Graduate Programs of PUCRS in collaboration with international universities of excellence.

Goal 1 - To promote the mobility of professors, students and researchers

Description - The University seeks to develop actions to promote the outgoing mobility for its professors, researchers and students of Graduate programs specializing in "World in Motion: Individuals and Society", and incoming mobility as well. The mobility of PUCRS faculty through missions and/or other activities overseas, in view of all the different types of benefits arising from this project, will promote the faculty development in the Theme World in Motion: Individuals and Society. Consequently, these missions and/or other activities overseas, in addition to serving for faculty development, will increase the number of research projects and scientific production in collaboration with international Higher Education Institutions. As for outgoing student mobility, the offer of Sandwich Doctoral Programs and other programs, will bring the students' academic training and scientific production to a higher level. This strategy will also serve for PUCRS to strengthen its ties with other universities from abroad, as the number of joint or double degrees may see an increase. Additionally, other Graduate Programs in collaboration with international Higher Education Institutions may be created. Incoming mobility of students and researchers will have a direct impact on the level of internationalization of PUCRS. Foreign professors will be formally invited to teach in the Graduate Programs in this Area as Visiting Scholars in Brazil. Not only will this make it possible for the University to create new courses but also student advising and co-advising activities as well as the development of research projects in partnership. The mobility of researchers, young talents and/or doctoral interns will facilitate the development of research projects in international collaboration and will have positive effect on the quality of research developed at the Graduate Programs. Additionally, international researchers coming to Brazil in a mobility program will be able to interact with Tecnopuc, PUCRS' ecosystem of innovation and development, and bring the academia, companies and the international market closer together. The University will be open to hiring these researchers as permanent professors in the Graduate Programs as they will be able to develop their projects in this Theme.

Goal 2 - To promote the attraction of international students, professors and researchers

Description - The University seeks to attract international professors and students specializing in the theme World in Motion: Individuals and Society. This goal takes academic mobility one step further as it seeks to attract international professors to teach at the Graduate Programs and increase the number of international students enrolled in graduate programs (Master's and PhD) embraced by this Theme. Today, PUCRS has a significant number of professors with international experience teaching in the graduate programs (they have completed their PhDs, a Sandwich Doctorate program and/or postdoctoral research overseas). The challenge, as stated in this document, is to increase the number of international professors teaching in our graduate programs, which would, among other things, expand the

development of research projects in collaboration with international Higher Education Institutions, facilitate the access to funding to research from external sources, the qualification of the scientific production to be published in international journals and the internationalization of curriculum topics and themes. In this sense, policies to ensure adequate infrastructure to hired professors, including resources for them to begin their research activities at the institution, will be implemented. As for international students, it is important to develop actions that attract and integrate them to the University. Among the initiatives that will help attract students in academic programs under this Theme of studies, are as follows: meetings involving strategic departments of the University; the promotion of intensive programs of Portuguese as an Additional Language; the development of an accommodation and health care policy.

Goal 3 - Develop high-quality research with international partners

Description - The University seeks to increase the international impact and relevance of the research carried out within its premises in partnership with international universities/research institutions. In this context, it is important to promote the consolidation of international research networks aiming the excellence in scientific production and the competitiveness increase in seeking funding for the five areas related to this Theme: (a) Human Development: Knowledges and Practices for a World in Motion, focusing on contemporary discussions about humanism in all of its theoretical, conceptual and methodological dimensions; (b) Technology and Society in a Globalized World in Crisis, with focus on the impacts of technological development in individuals, institutions, cultures and the environment; (c) Macro and Microeconomic Aspects Associated to Economic, Social, Human and Environmental Development, with focus on the investigation of the macro and micro economic aspects involved in the different dimensions of analysis of development; (d) The Hidden Matrix of Violence in Contemporary Times: Crisis of Otherness, Morale and Ethics, with focus on violence after the analysis of conceptual aspects, public policies and intervention proposals; (e) Migrations, with focus on the historic and conceptual perspectives and analysis of contemporary phenomena in the world.

Goal 4 - To foster joint and/or double-degree programs to create international Graduate Programs

Description - The University aims to increase the level of internationalization of student development at a higher level, by offering joint and double-degree programs and creating international Graduate Programs. Increasing the number of joint and double degrees is an important goal to be achieved, as this may lead to the gradual consolidation of partnerships with international Higher Education Institutions that are strategic to this Theme. Accordingly, we understand that it is possible to create international and interdisciplinary Graduate Programs in the Theme World in Motion: Individuals and Society because of the lines of research related to this Theme. These programs will be innovative for they suggest an interdisciplinary approach to research problems, as they are addressed in international collaboration and geared towards the production of highly-qualified human resources to face a number of complex social, economic, legal and moral problems (among other aspects) in a constantly changing world. These programs must result from institutional decisions made jointly by PUCRS and the partner universities, and must include the academic, administrative and legal frameworks. More importantly, they must result from the collaboration between professors in the consolidation of international research networks. The establishment of such programs will have a very positive impact on the number of publications involving international researchers as well as on the international funding for research projects and the provisions of theoretical and methodological insights in this Theme of study.

Activities Linked to the Themes

Theme 1 Health in Human Development

Goal 1 Promote the attraction of international professors, researchers and students

Activity 1 - Increase the number of foreign professors in the Graduate Programs in this Theme

Start date – 11/2018

End date – 07/2022

Description – This activity seeks to increase the number of foreign professors in the Graduate Programs related to the Theme Health in Human Development. These professors may work either as permanent members or as collaborators in the Graduate Programs. In this context, we intend to expand the network of international collaboration of the Graduate Programs in an attempt to take advantage of the foreign professors' expertise. Hence, PUCRS will disseminate specific calls throughout its international academic networks in order to attract foreign professors. Additionally, the Institution may commit itself to setting up committees to recruit potential relevant people at the international level in this particular Theme. As stated in the Institutional Plan of Internationalization PUCRS 2018-2022, in the section Institutional Policies of Internationalization, professors will be granted adequate infrastructure, including resources for starting their research activities at PUCRS. The goals related to the quantitative indicators are cumulative considering the current situation.

Activity 1 - Indicator 1

Type – Quantitative

Indicator - Number of foreign professors in the Graduate Programs related to the Theme

Current situation – 1

Goal for the 2nd year – 2

Final goal - 4

Activity 2 – Increase the number of international students in the Graduate Programs in this Theme

Start date – 11/2018

End date – 07/2022

Description – This activity aims to increase the number of international students in the Graduate Programs embraced by the Theme Health in Human Development. The strategic action for the development of a global culture, based on the idea of an International Campus at PUCRS, demands the implementation of an active policy of attraction and assistance for students, taking into consideration the services, the learning experiences, the culture and physical spaces that foster a comfortable multicultural experience at PUCRS (as shown in the Institutional Plan of Internationalization PUCRS 2018-2022; section Institutional Strategies). This includes, for instance, student support through orientation seminars, online Portuguese courses as an Additional Language (while they are still in their home countries), actions to encourage students to apply for the “University Buddy” program, as a tool to contribute to the international students' adaptation to the University as well as accommodation and health care policy for international students, among other actions. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 2 - Indicator 1

Type – Quantitative

Indicator - Number of international students in the Graduate Programs in this Theme

Current situation – 25

Goal for the 2nd year – 30

Final goal - 35

Activity 3 - Increase the number of postdoctoral researchers at PUCRS with experience abroad**Start date - 11/2018****End date – 07/2022**

Description – This activity seeks to increase the number of postdoctoral researchers with experience abroad, including researchers or professors, Brazilians or foreign, living in Brazil or abroad, who have relevant academic and scientific experience outside the country (such as a doctoral degree or postdoctoral research for at least 12 months), to work doing research or teaching (from 6 to 36 months) in the Graduate Programs related to the Theme. We understand that the development of postdoctoral research may be an effective way to attract researchers with promising careers, who could eventually become permanent professors at PUCRS. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 3 - Indicator 1**Type – Quantitative****Indicator - Number of postdoctoral researchers at PUCRS with experience abroad****Current situation – 5****Goal for the 2nd year – 9****Final goal - 16****Activity 4 - Increase the number of young talents with experience abroad****Start date - 11/2018****End date – 07/2022**

Description – This activity aims to increase the number of young researchers with relevant international academic and scientific experience researching or teaching (6 to 36 months) in the Graduate Programs embraced by this Theme. Such researchers may eventually be hired as permanent professors at PUCRS. Attracting young talents for acting in teaching and research activities during a specific period may be a key strategy to formally hire these researchers to be part of the Graduate Programs related to the Theme Health in Human Development in the future. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 4 - Indicator 1**Type – Quantitative****Indicator - Number of young researchers with international experience for researching or teaching in the Graduate Programs embraced by this Theme****Current situation – 12****Goal for the 2nd year – 14****Final goal - 16****Theme 1 Health in Human Development****Goal 2 Promote the mobility of professors, researchers and students**

Activity 1 - Increase the number of PUCRS professors and researchers doing postdoctoral research abroad**Start date – 11/2018****End date – 07/2022**

Description – This activity aims to promote and increase the number of professors and researchers related to PUCRS' Graduate Programs doing postdoctoral research abroad. We hope that PUCRS professors and researchers seek for qualification in the Theme Health in Human Development at international universities by using Senior or Junior Visiting Professor Scholarships. The continuous development of professors and researchers will have a positive impact on the visibility of PUCRS abroad. It is essential to mention that it is extremely important to ensure efficient mechanisms for professors and researchers to disseminate the knowledge gained abroad when returning to PUCRS, hence aiming to guarantee the benefit for the university as a whole. The final goal of the quantitative indicator considers professors and researchers doing postdoctoral research with scholars related to the Call 41/2017 – CAPES/PrInt.

Activity 1 - Indicator 1**Type – Quantitative****Indicator - Number of professors and researchers doing postdoctoral research abroad****Current situation – 5****Goal for the 2nd year – 10****Final goal - 16****Activity 1 - Indicator 2****Type – Qualitative****Indicator - Motivation of professors and researchers to develop postdoctoral research abroad****Current situation – Medium****Goal for the 2nd year – Medium****Final goal – High****Activity 2 - Increase the number of foreign professors and researchers at PUCRS****Start date – 11/2018****End date – 07/2022**

Description – This activity seeks to increase the number of foreign professors and researchers with relevant academic and scientific experience in the Theme Health in Human Development. Professors and researchers will be expected to stay at PUCRS from 15 days to 12 months, as a Visiting Professor in Brazil. International professors and researchers working in the partner universities will be invited to perform different activities in the Graduate Programs of PUCRS, such as teaching at regular courses offered by the Program, delivering lectures and training programs. It is important to mention that the Graduate Programs related to this Theme already have the tradition to receive foreign professors and researchers for giving courses, acting as joined committee members, delivering lectures and inaugural classes. The goals related to the quantitative indicators are cumulative and do not consider the current situation.

Activity 2 - Indicator 1**Type – Qualitative****Indicator - Resulting impact of foreign professors and researchers on the Graduate Programs**

Current situation – Low

Goal for the 2nd year – Medium

Final goal - High

Activity 2 - Indicator 2

Type – Quantitative

Indicator - Number of foreign visiting, collaborating or permanent professors and researchers in the Graduate Programs

Current situation – 11

Goal for the 2nd year – 24

Final goal - 50

Activity 2 - Indicator 3

Type – Quantitative

Indicator - Number of foreign professors and researchers teaching courses or co-advising students in the Graduate Programs

Current situation – 20

Goal for the 2nd year – 44

Final goal – 92

Activity 3 - Increase the number of PUCRS students participating in sandwich doctoral programs or training programs abroad

Start date – 11/2018

End date – 07/2022

Description – This activity seeks to increase the number of PUCRS students participating in a sandwich doctoral program at a partner university. On the one hand, PUCRS is intended to make every effort for its students to obtain proficiency certificates in additional languages, as stated in this Call, in Attachment 12, and to assist and advise our doctoral students in drafting their Work Plan as well as choosing the courses to be eventually taken at the partner university. The support to be provided in drafting their Work Plan and choosing the courses to be taken is essential to ensure that the gained knowledge is in line with and complementary to the topic of the student thesis. On the other hand, the training programs abroad are seen as an attempt to allow our students to complete short-term courses in order to get fresher insights into the academic area related to the Priority Theme. To ensure that the gained knowledge and experiences are properly disseminated and exchanged among the students involved in this Project, the Institution commits itself to offer Annual Seminars to the entire academic community and get some of these students to join some graduate-level courses in order to share the gained knowledge at institutional level. The final goals of the quantitative indicators consider students in sandwich doctoral programs or in training programs abroad with scholars related to the Call 41/2017 – CAPES/PrInt.

Activity 3 - Indicator 1

Type – Qualitative

Indicator - Level of foreign language proficiency of graduate students

Current situation – Low

Goal for the 2nd year – Low

Final goal - Medium

Activity 3 - Indicator 2

Type – Quantitative

Indicator - Number of students in sandwich doctoral programs abroad

Current situation – 16

Goal for the 2nd year – 40

Final goal - 80

Activity 3 - Indicator 3

Type – Quantitative

Indicator - Number of students doing training programs abroad

Current situation – 0

Goal for the 2nd year – 10

Final goal – 19

Activity 3 - Indicator 4

Type – Qualitative

Indicator - Student motivation for sandwich doctoral programs or training programs abroad

Current situation – Medium

Goal for the 2nd year – Medium

Final goal - High

Theme 1 Health in Human Development

Goal 3 Foster joint and/or double-degree programs in order to induce international Graduate Programs

Activity 1 - Increase the number of joint and/or double degrees with international universities in the Graduate Programs

Start date – 11/2018

End date – 07/2022

Description – This activity aims to increase the number of joint and/or double degrees with international universities in the Graduate Programs related to the Theme Health in Human Development at the doctoral level. Hence, the processes involving agreements and the establishment of joint and/or double degrees will be revised by PUCRS in order to ensure a higher level of efficiency. It is worth mentioning that in order to ensure more agility and efficiency from the Institution, providing the staff with the necessary training regarding the administrative processes and proficiency in additional languages is of utmost importance. The goals related to quantitative indicator are cumulative and do not consider the current situation.

Activity 1 - Indicator 1

Type – Qualitative

Indicator - PUCRS efficiency level in establishing joint and/or double degrees

Current situation – Low

Goal for the 2nd year – Medium

Final goal - High

Activity 1 - Indicator 2

Type – Quantitative

Indicator - Number of joint and/or double degrees

Current situation – 7

Goal for the 2nd year – 16

Final goal - 35

Activity 2 - Induce the creation of Graduate Programs in association with international universities

Start date – 11/2018

End date – 07/2022

Description – The Project of Internationalization of PUCRS, as stated in this document, will lead to the consolidation of existing partnerships, as well as the establishment of new strategic partnerships for the complete development of actions under the Area. In this context, it is possible to envision the prospect of creating new international Graduate Programs strongly related to this Theme in short and long terms. International Graduate Programs will lead to the development of qualified human resources able to work in a global scenario whose demands are increasingly complex, as well as the augmented scientific production with international impact in this specific Theme. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 2 - Indicator 1

Type – Quantitative

Indicator - Number of Master or PhD programs offered in partnership with international universities

Current situation – 0

Goal for the 2nd year – 0

Final goal - 1

Theme 1 Health in Human Development

Goal 4 Bring research to a higher level through international collaborations

Activity 1 - Increase the number of co-authored publications involving international universities

Start date – 11/2018

End date – 07/2022

Description – The visibility of PUCRS in the international scenario requires the Institution to increase the number of co-authored publications involving international universities. Hence, it is extremely important to promote the publication of articles in annals of events and journals as well as books and chapters of international relevance in this specific Theme. It is important to mention that some of the Graduate Programs aim to publish their scientific production in national

publications and, therefore, it is necessary to work with professors and researchers to stimulate the publication of their research's results in international media. The goals related to the quantitative indicators are cumulative and do not consider the current situation.

Activity 1 - Indicator 1

Type – Quantitative

Indicator - Number of jointly published articles in annals of international events and journals involving international universities

Current situation – 225

Goal for the 2nd year – 464

Final goal - 966

Activity 1 - Indicator 2

Type – Qualitative

Indicator - English proficiency of professors and researchers to produce international publications

Current situation – Medium

Goal for the 2nd year – High

Final goal – High

Activity 1 - Indicator 3

Type – Quantitative

Indicator - Number of international relevant books and chapters jointly published with international universities

Current situation – 19

Goal for the 2nd year – 42

Final goal – 68

Activity 2 - Increase the number of professors and researchers in missions abroad

Start date – 11/2018

End date – 07/2022

Description – This activity aims to promote the participation of professors and researchers in work missions associated with international cooperation projects in the Theme. Further, this action aims to promote the number of individual missions in order to get our professors and researchers to attend a higher number of prestigious international events in the knowledge area related to the Project. These missions might lead to technical visits in international universities and initiate new partnerships. It is important to mention that this kind of mission, involving professors and researchers, increases the visibility of the PUCRS abroad, which is key to ensure the attraction of international professors, researchers and students. In addition to that, missions abroad will be very useful for PUCRS to increase the relevance and impact of the researches carried out within its premises through projects and/or publications co-authored with international universities. The final goal related to the quantitative indicator considers missions with financial support from Call 41/2017 – CAPES/PrInt.

Activity 2 - Indicator 1

Type – Qualitative

Indicator - Motivation of professors and researchers to go on missions abroad

Current situation – Low

Goal for the 2nd year – Medium

Final goal - High

Activity 2 - Indicator 2

Type – Quantitative

Indicator - Number of missions abroad

Current situation – 25

Goal for the 2nd year – 48

Final goal - 92

Activity 3 - Increase the number of funded research projects with international partners

Start date – 11/2018

End date – 07/2022

Description – This activity seeks to increase the number of externally funded research projects with international collaborators. Coordinating international projects or collaborating in projects involving international research networks will be essential to take the quality of the research carried out at PUCRS to a higher level, as well as to increase the impact of the resulting scientific production. Institutional support in spotting opportunities for researchers associated to the Theme as well as for the projects management will be very important. The goals related to quantitative indicator are cumulative considering the current situation.

Activity 3 - Indicator 1

Type – Quantitative

Indicator - Number of research projects with international partners

Current situation – 128

Goal for the 2nd year – 135

Final goal - 150

Theme 2 Technology and Biodiversity: Sustainability, Energy and Environment**Goal 1 Promote the mobility of professors, researchers and students****Activity 1 - Increase the number of PUCRS professors and researchers doing postdoctoral research abroad**

Start date – 11/2018

End date - 07/2022

Description – This activity aims to promote and increase the number of professors and researchers related to PUCRS' Graduate Programs doing postdoctoral research abroad. In more detail, we hope that PUCRS professors and researchers seek qualification in the Theme Technology and Biodiversity: Sustainability, Energy and Environment at

international universities by using Senior or Junior Visiting Professor Scholarships. The continuous development of professors and researchers will have a positive impact on the visibility of PUCRS abroad. It is essential to mention that it is extremely important to ensure efficient mechanisms for professors and researchers to disseminate at PUCRS the knowledge gained abroad aiming to guarantee the benefit at PUCRS as a whole. The final goal of the quantitative indicator considers professors and researchers doing postdoctoral research with scholars related to the Call 41/2017 – CAPES/PrInt.

Activity 1 - Indicator 1

Type – Qualitative

Indicator - Motivation of professors and researchers to develop postdoctoral research abroad

Current situation – Medium

Goal for the 2nd year – High

Final goal - High

Activity 1 - Indicator 2

Type – Quantitative

Indicator - Number of professors and researchers doing postdoctoral research abroad

Current situation – 2

Goal for the 2nd year – 18

Final goal - 25

Activity 2 - Increase the number of PUCRS students participating in sandwich doctoral programs or training programs abroad

Start date – 11/2018

End date – 07/2022

Description – This activity seeks to increase the number of PUCRS students participating a sandwich doctoral programs at a partner university. On the one hand, PUCRS is intended to make every effort for its students to obtain proficiency certificates in additional languages, as stated in this Call, in Attachment 12, and to assist and advise our doctoral students in drafting their Work Plan as well as choosing the courses to be eventually taken at the partner university. The support to be provided in drafting their Work Plan and choosing the courses to be taken is essential to ensure that the gained knowledge is in line with and complementary to the topic of the student thesis. On the other hand, the training programs abroad are seen as an attempt to allow our students to complete short-term courses in order to get fresher insights into the academic area related to the priority Theme. To ensure that the gained knowledge and experiences are properly disseminated and exchanged among the students involved in this Project, the Institution commits itself to offer Annual Seminars to the entire academic community and get some of these students to join some graduate-level courses in order to share the gained knowledge at Institutional level. The final goals of the quantitative indicators consider students in sandwich doctoral programs or in training programs abroad with scholarships related to the Call 41/2017 – CAPES/PrInt.

Activity 2 - Indicator 1

Type – Qualitative

Indicator - Student motivation for sandwich doctoral programs or training programs abroad

Current situation – Medium

Goal for the 2nd year – High

Final goal - High

Activity 2 - Indicator 2

Type – Qualitative

Indicator - Level of foreign language proficiency of graduate students

Current situation – Low

Goal for the 2nd year – Medium

Final goal - Medium

Activity 2 - Indicator 3

Type – Quantitative

Indicator - Number of students doing training programs abroad

Current situation – 0

Goal for the 2nd year – 17

Final goal – 24

Activity 2 - Indicator 4

Type – Quantitative

Indicator - Number of students in a sandwich doctoral program abroad

Current situation – 5

Goal for the 2nd year – 21

Final goal - 42

Activity 3 - Increase the number of foreign professors and researchers at PUCRS

Start date – 11/2018

End date – 07/2022

Description – This activity seeks to increase the number of foreign professors and researchers with international recognized scientific performances in Brazil. Foreign professors and researchers working in the partner universities will be invited to perform different activities in the Graduate Programs of PUCRS, such as teaching at the regular courses offered by the Program, delivering lectures and training programs. Professors and researchers will be expected to stay at PUCRS from 15 days to 12 months using the benefit Visiting Professor in Brazil. It is important to mention that the Graduate Programs related to the Theme Technology and Biodiversity: Sustainability, Energy and Environment already have the tradition to receive foreign professors and researchers for giving courses, acting as joined committee members, and delivered lectures and inaugural classes. The goals related to the quantitative indicators are cumulative and do not consider the current situation.

Activity 3 - Indicator 1

Type – Quantitative

Indicator – Number of foreign professors and researchers teaching courses or co-advising students in the Graduate Programs

Current situation – 10

Goal for the 2nd year – 24

Final goal - 50

Activity 3 - Indicator 2**Type – Qualitative**

Indicator - Resulting impact of foreign professors and researchers on the Graduate Programs

Current situation – Low

Goal for the 2nd year – Medium

Final goal - High

Activity 3 - Indicator 3**Type – Quantitative**

Indicator - Number of visiting, collaborating or permanent professors and researchers from abroad in the Graduate Programs

Current situation – 3

Goal for the 2nd year – 7

Final goal - 14

Theme 2 Technology and Biodiversity: Sustainability, Energy and Environment

Goal 2 Foster joint and/or double-degree programs in order to induce international Graduate Programs

Activity 1 - Increase the number of joint and/or double degrees with international universities in the Graduate Programs

Start date – 11/2018

End date – 07/2022

Description – This activity aims to increase the number of joint and/or double degrees at the doctoral level with international universities in the Graduate Programs related to this Theme. Hence, the processes involving agreements and the establishment of joint and/or double degrees will be revised by PUCRS in order to ensure a higher level of efficiency. It is worth mentioning that in order to ensure more agility and efficiency from the Institution, providing the staff with the necessary training regarding the administrative processes and proficiency in additional languages is of utmost importance. The goals related to quantitative indicator are cumulative and do not consider the current situation.

Activity 1 - Indicator 1**Type – Qualitative**

Indicator - PUCRS efficiency level in establishing joint and/or double degrees

Current situation – Low

Goal for the 2nd year – Medium

Final goal - High

Activity 1 - Indicator 2

Type – Quantitative

Indicator - Number of joint and/or double degrees

Current situation – 4

Goal for the 2nd year – 10

Final goal - 22

Activity 2 - Induce the creation of Graduate Programs in association with international universities

Start date - 11/2018

End date – 07/2022

Description – The Project of Internationalization of PUCRS, as stated in this document, will lead to the consolidation of existing partnerships, as well as the establishment of new strategic partnerships for the complete development of actions under the priority Theme. In this context, it is possible to envision the prospect of creating new international Graduate Programs strongly related to this Theme in short and long terms. International Graduate Programs will lead to the development of qualified human resources able to work in a global scenario whose demands are increasingly complex, as well as the increased scientific production with international impact in this specific Theme. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 2 - Indicator 1

Type – Quantitative

Indicator - Number of Master or PhD Programs offered in partnership with international universities

Current situation – 0

Goal for the 2nd year – 0

Final goal - 1

Theme 2 Technology and Biodiversity: Sustainability, Energy and Environment

Goal 3 Bring research to a higher level through international collaborations

Activity 1 - Increase the number of funded research projects with international partners

Start date – 11/2018

End date – 07/2022

Description – This activity seeks to increase the number of externally funded research projects with international collaborators. Institutional support to spot opportunities for researchers associated to the Theme as well as for the Project's management will be very important. Coordinating international projects or collaborating in projects involving international research networks will be essential to take the quality of the research carried out at PUCRS to a higher level, as well as to increase the impact of the resulting scientific production. The goals related to quantitative indicator are cumulative considering the current situation.

Activity 1 - Indicator 1

Type – Quantitative

Indicator - Number of research projects with international partners

Current situation – 50

Goal for the 2nd year – 55

Final goal - 60

Activity 2 - Increase the number of co-authored publications involving international universities

Start date - 11/2018

End date – 07/2022

Description – The visibility of PUCRS in the international scenario requires the Institution to increase the number of co-authored publications involving international universities. Hence, it is extremely important to promote the publication of articles in annals of events and journals as well as books and chapters of international relevance in this specific Theme. It is important to mention that some of the Graduate Programs aims to publish their scientific production in national publications and, therefore, it is necessary to work with professors and researchers to motivate the publication of their research's results in international media. The goals related to the quantitative indicators are cumulative and do not consider the current situation.

Activity 2 - Indicator 1

Type – Qualitative

Indicator - English proficiency of professors and researchers to produce international publications

Current situation – Medium

Goal for the 2nd year – High

Final goal - High

Activity 2 - Indicator 2

Type – Quantitative

Indicator - Number of international books and chapters jointly published with international universities

Current situation – 9

Goal for the 2nd year – 20

Final goal - 42

Activity 2 - Indicator 3

Type – Quantitative

Indicator Number of jointly published articles in annals of international events and journals involving international universities

Current situation – 112

Goal for the 2nd year – 230

Final goal - 470

Activity 3 - Increase the number of professors and researchers in missions abroad

Start date - 11/2018**End date – 07/2022**

Description – This activity aims to promote the participation of professors and researchers in work missions associated with international cooperation projects in the Theme. Further, this action aims to promote the number of individual missions to get our professors and researchers to attend a higher number of prestigious international events in the knowledge area related to the Project. These missions might lead to technical visits in international universities for spotting new partnerships. It is important to mention that this kind of mission involving professors and researchers increases the visibility of the PUCRS abroad, which is key to ensure the attraction of foreign professors, researchers and students. In addition to that, missions abroad will be very useful for PUCRS to increase the relevance and impact of the researches carried out within its premises through projects and/or publications co-authored with international Higher Education Institutions. The final goal related to the quantitative indicator considers missions with financial support from Call 41/2017 – CAPES/PrInt.

Activity 3 - Indicator 1**Type – Qualitative****Indicator - Motivation of professors and researchers to go on missions abroad****Current situation – Medium****Goal for the 2nd year – High****Final goal - High****Activity 3 - Indicator 2****Type – Quantitative****Indicator – Number of missions abroad****Current situation – 36****Goal for the 2nd year – 50****Final goal - 92****Theme 2 Technology and Biodiversity: Sustainability, Energy and Environment****Goal 4 Promote the attraction of foreign professors, researchers and students****Activity 1 - Increase the number of postdoctoral researchers at PUCRS with experience abroad****Start date – 11/2018****End date – 07/2022**

Description – This activity seeks to increase the number of postdoctoral researchers with experience abroad, including researchers or professors, Brazilians or foreign, living in Brazil or abroad, who have relevant academic and scientific experience outside the country (such as a doctoral degree or postdoctoral research for at least 12 months), researching or teaching (from 6 to 36 months) in the Graduate Programs related to the Theme. We understand that the development of postdoctoral research may be an effective way to attract researchers with promising careers, who could eventually become permanent professors at PUCRS. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 1 - Indicator 1

Type – Quantitative
Indicator - Number of postdoctoral researchers at PUCRS with experience abroad
Current situation – 3
Goal for the 2nd year – 5
Final goal - 9
Activity 2 - Increase the number of young talents with experience abroad
Start date - 11/2018
End date – 07/2022

Description – This activity seeks to increase the number of young researchers with relevant international academic and scientific experience researching or teaching (6 to 36 months) in the Graduate Programs embraced by this Theme. Such researchers may eventually be hired as permanent professors at PUCRS. Attracting young talents for acting in teaching and research activities during a specific period may be a key strategy to formally hire these researchers to be part of the Graduate Programs related to the Theme Technology and Biodiversity: Sustainability, Energy and Environment in the future. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 2 - Indicator 1
Type – Quantitative
Indicator - Number of young researchers with international experience researching or teaching in the Graduate Programs
Current situation – 7
Goal for the 2nd year – 8
Final goal - 10
Activity 3 - Increase the number of foreign professors in the Graduate Programs related to this Theme
Start date - 11/2018
End date – 07/2022

Description – This activity seeks to increase the number of foreign professors in the Graduate Programs related to the Theme Technology and Biodiversity: Sustainability, Energy and Environment. These professors may work either as permanent members or as collaborators in the Graduate Programs. In this context, we intend to expand the network of international collaboration of the Graduate Programs in an attempt to take advantage of the foreign professors' expertise. Hence, PUCRS will disseminate specific calls throughout its international academic networks in order to attract foreign professors. Additionally, PUCRS may commit itself to set up committees in order to recruit relevant people at the international level in this particular Theme. As stated in the Institutional Plan of Internationalization PUCRS 2018-2022, in the section Institutional Policies of Internationalization, professors will be granted adequate infrastructure, including resources for starting their research activities at PUCRS. The goals related to the quantitative indicators are cumulative considering the current situation.

Activity 3 - Indicator 1
Type – Quantitative
Indicator - Number of foreign professors in the Graduate Programs related to this Theme
Current situation – 2
Goal for the 2nd year – 3

Final goal - 4
Activity 4 - Increase the number of international students in the Graduate Programs in this Theme
Start date - 11/2018
End date – 07/2022

Description – This activity aims to increase the number of international students in the Graduate Programs embraced by the Theme Technology and Biodiversity: Sustainability, Energy and Environment. The strategic action for the development of a global culture, based on the idea of an International Campus at PUCRS, demands the implementation of an active policy of attraction and assistance for students, considering the services, the learning experiences, the culture and physical spaces that foster a comfortable multicultural experience at PUCRS (as shown in the Institutional Plan of Internationalization PUCRS 2018-2022; section Institutional Strategies). This includes, for instance, student support through orientation seminars, online Portuguese courses as an Additional Language (while they are still in their home countries), actions to encourage students to apply for the “University Buddy” program, as a tool to contribute to the international students' adaptation to the University as well as accommodation and health care policy for international students, among other actions. The goals related to quantitative indicator are cumulative considering the current situation.

Activity 4 - Indicator 1
Type – Quantitative
Indicator - Number of international students in the Graduate Programs in this Theme Current situation – 14
Goal for the 2nd year – 16
Final goal - 18
Theme 3 World in Motion: Individuals and Society
Goal 1 Promote the mobility of professors, researchers and students
Activity 1 - Increase the number of PUCRS students participating in sandwich doctoral programs or training programs abroad
Start date – 11/2018
End date - 07/2022

Description – This activity seeks to increase the number of PUCRS students in a sandwich doctoral program at a partner university. We understand that a sandwich doctoral program, to be completed from 6 to 12 months in an international excellence university, is a fundamental stage of development for an internationally recognized academic career. The abroad experience is considered an opportunity for students to improve their skills and knowledge related to their research project with international partners. On the one hand, PUCRS is intended to make every effort for its students to obtain proficiency certificates in additional languages, as stated in this Call, in Attachment 12, in order to increase the number of students in these programs. Additionally, the PUCRS Graduate Programs will commit themselves to provide pre-departure sessions and to assist and advise doctoral students in drafting their Work Plan as well as choosing the courses to be eventually taken at the partner university. This is essential to ensure that the gained knowledge is in line with and complementary to the topic of the student thesis. In order to ensure that the gained knowledge and experiences are properly disseminated and exchanged among the students involved in this Project, the Institution commits itself to offer Annual Seminars to be open to the entire academic community and get some of these students to join some graduate-level courses in order to share the knowledge gained at the Institutional level, when they return from their sandwich doctoral program. The final goals of the quantitative indicators consider students in sandwich

doctoral programs or in training programs abroad with scholars related to the Call 41/2017 – CAPES/Print.

Activity 1 - Indicator 1

Type – Qualitative

Indicator - Student motivation for sandwich doctoral programs or training programs abroad

Current situation – Medium

Goal for the 2nd year – High

Final goal - High

Activity 1 - Indicator 2

Type – Qualitative

Indicator - Level of foreign language proficiency of graduate students

Current situation – Low

Goal for the 2nd year – Medium

Final goal - Medium

Activity 1 - Indicator 3

Type – Quantitative

Indicator - Number of students doing training programs abroad

Current situation – 0

Goal for the 2nd year – 29

Final goal - 43

Activity 1 - Indicator 4

Type – Quantitative

Indicator - Number of students in a sandwich doctoral program abroad

Current situation – 25

Goal for the 2nd year – 60

Final goal - 120

Activity 2 - Increase the number of foreign professors and researchers at PUCRS

Start date – 11/2018

End date – 07/2022

Description – This action seeks to increase the number of foreign professors and researchers with international recognized scientific performance acting at PUCRS Graduate Programs related to this Theme. The Graduate Programs related to the Theme World in Motion: Individuals and Society already have the habit to receive foreign professors and researchers. In order to further increase this number, foreign professors and researchers working at partner universities will be invited to perform different activities at PUCRS Graduate Programs, such as teaching at the regular courses offered by the Program, delivering lectures and training programs. Professors and researchers will be expected to stay at PUCRS from 15 days to 12 months using the Visiting Professor in Brazil benefit. The goals related to the quantitative

indicators are cumulative and do not consider the current situation.

Activity 2 - Indicator 1

Type – Quantitative

Indicator - Number of visiting, collaborating or permanent professors and researchers from abroad in the Graduate Programs

Current situation – 21

Goal for the 2nd year – 42

Final goal - 86

Activity 2 - Indicator 2

Type – Quantitative

Indicator - Number of foreign professors and researchers teaching courses or co-advising students in the Graduate Programs

Current situation – 20

Goal for the 2nd year – 40

Final goal - 78

Activity 2 - Indicator 3

Type – Qualitative

Indicator - Resulting impact of foreign professors and researchers on the Graduate Programs

Current situation – Low

Goal for the 2nd year – Medium

Final goal – High

Activity 3 - Increase the number of PUCRS professors and researchers doing postdoctoral research abroad

Start date – 11/2018

End date – 07/2022

Description – This activity aims to promote and increase the number of professors and researchers related to PUCRS' Graduate Programs doing postdoctoral research abroad. In more detail, we hope that PUCRS professors and researchers seek qualification in the Theme World in Motion: Individuals and Society at international universities by using Senior or Junior Visiting Professor scholarships. The continuous development of professors and researchers will have a positive impact on the visibility of PUCRS abroad. It is essential to mention that it is extremely important to ensure efficient mechanisms for professors and researchers to disseminate the knowledge gained abroad at PUCRS, aiming to guarantee benefits for the University as a whole. The final goal of the quantitative indicator considers professors and researchers doing postdoctoral research with scholars related to the Call 41/2017 – CAPES/PrInt.

Activity 3 - Indicator 1

Type – Quantitative

Indicator – Number of professors and researchers doing postdoctoral research abroad

Current situation – 7

Goal for the 2nd year – 14

Final goal - 18

Activity 3 - Indicator 2

Type – Qualitative

Indicator - Strategic planning of the Graduate Programs in promoting postdoctoral programs abroad

Current situation – Low

Goal for the 2nd year – Medium

Final goal - High

Activity 3 - Indicator 3

Type – Qualitative

Indicator - Motivation of professors and researchers to develop postdoctoral research abroad

Current situation – Medium

Goal for the 2nd year – High

Final goal - High

Theme 3 World in Motion: Individuals and Society

Goal 2 Promote the attraction of foreign professors, researchers and students

Activity 1 - Increase the number of foreign students in the Graduate Programs in this Theme

Start date – 11/2018

End date - 07/2022

Description – This activity aims to increase the number of foreign students in the Graduate Programs embraced by the Theme World in Motion: Individuals and Society. The strategic action for the development of a global culture, based on the idea of an International Campus at PUCRS, demands the implementation of an active policy of attraction and assistance for students, considering the services, the learning experiences, the culture and physical spaces that foster a comfortable multicultural experience at PUCRS (as shown in the Institutional Plan of Internationalization PUCRS 2018-2022; section Institutional Strategies). This includes, for instance, student support through orientation seminars, online Portuguese courses as an Additional Language (while they are still in their home countries), actions to encourage students to apply for the “University Buddy” program, as a tool to contribute to the international students' adaptation to the University as well as accommodation and health care policy for international students, among other actions. The goals related to quantitative indicator are cumulative considering the current situation.

Activity 1 - Indicator 1

Type – Quantitative

Indicator - Number of international students in the Graduate Programs

Current situation – 22

Goal for the 2nd year – 30

Final goal - 40
Activity 2 - Increase the number of young talents with experience abroad
Start date – 11/2018
End date – 07/2022

Description – This activity seeks to increase the number of young researchers with relevant international academic and scientific experience researching or teaching (6 to 36 months) in the Graduate Programs embraced by this Theme. Such researchers may eventually be hired as permanent professors at PUCRS. Attracting young talents for teaching and research activities during a specific period is considered a key strategy to formally hire these researchers to be part of the Graduate Programs related to the Theme World in Motion: Individuals and Society in the future. The final goal related to the quantitative indicator considers the attraction of young talents using resources related to the Call 41/2017 – CAPES/PrInt.

Activity 2 - Indicator 1
Type – Quantitative
Indicator - Number of young researchers with international experience researching or teaching in the Graduate Programs
Current situation – 0
Goal for the 2nd year – 2
Final goal - 4
Activity 3 - Increase the number of foreign professors in the Graduate Programs in this Theme
Start date – 11/2018
End date – 07/2022

Description – This activity seeks to increase the number of foreign professors in the Graduate Programs related to the Theme World in Motion: Individuals and Society. These professors may work either as permanent members or as collaborators in the Graduate Programs. In this context, we intend to expand the network of international collaboration of the Graduate Programs in an attempt to take advantage of the foreign professors' expertise. Hence, PUCRS will disseminate specific calls throughout its international academic networks in order to attract foreign professors. Additionally, PUCRS will commit itself to set up committees in order to recruit relevant people at the international level in this particular Theme. As stated in the Institutional Plan of Internationalization PUCRS 2018-2022, in the section Institutional Policies of Internationalization, professors will be granted adequate infrastructure, including resources for starting their research activities at PUCRS. The goals related to the quantitative indicators are cumulative considering the current situation.

Activity 3 - Indicator 1
Type – Quantitative
Indicator – Number of foreign professors in the Graduate Programs
Current situation – 2
Goal for the 2nd year – 3
Final goal - 5
Activity 4 - Increase the number of postdoctoral researchers at PUCRS with experience abroad

Start date – 11/2018**End date – 07/2022**

Description – This activity seeks to increase the number of postdoctoral researchers with experience abroad, including researchers or professors, Brazilians or foreign, living in Brazil or abroad, who have relevant academic and scientific experience outside the country (such as a doctoral degree or postdoctoral research for at least 12 months), researching or teaching (from 6 to 36 months) in the Graduate Programs related to the Theme World in Motion: Individuals and Society. We understand that the development of postdoctoral research may be an effective means to attract researchers with promising careers, who could eventually become permanent professors at PUCRS. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 4 - Indicator 1**Type – Quantitative****Indicator – Number of postdoctoral researchers at PUCRS with experience abroad****Current situation – 1****Goal for the 2nd year – 3****Final goal - 4****Theme 3 World in Motion: Individuals and Society****Goal 3 Bring research to a higher level through international collaborations****Activity 1 - Increase the number of professors and researchers in missions abroad****Start date – 11/2018****End date - 07/2022**

Description – This activity seeks to promote missions abroad, executing research projects in international cooperation involving PUCRS researchers and strategic university or research institute for the development of the Theme World in Motion: Individuals and Society. Further, this action also aims to promote the number of individual missions in order to get our professors and researchers to attend a higher number of prestigious international events in the knowledge area related to the project. These missions might lead to technical visits in international universities and the identification of potential new partnerships. The final goal related to the quantitative indicator considers missions with financial support from Call 41/2017 – CAPES/PrInt.

Activity 1 - Indicator 1**Type – Qualitative****Indicator - Motivation of professors and researchers to go on missions abroad****Current situation – Medium****Goal for the 2nd year – High****Final goal - High****Activity 1 - Indicator 2****Type – Quantitative****Indicator – Number of missions abroad****Current situation – 151**

Goal for the 2nd year – 75

Final goal - 137

Activity 2 - Increase the number of co-authored publications involving international universities

Start date – 11/2018

End date – 07/2022

Description – The visibility of PUCRS in the international scenario requires the Institution to increase the number of co-authored publications involving international universities. Hence, it is extremely important to promote the publication of articles in annals of events and journals as well as books and chapters of international relevance in this specific Theme. It is important to mention that some of the Graduate Programs aim to publish their scientific production in national publications and, therefore, it is necessary to work with professors and researchers to promote the publication of their research's results in international media. The goals related to the quantitative indicators are cumulative and do not consider the current situation.

Activity 2 - Indicator 1

Type – Quantitative

Indicator - Number of international books and chapters jointly published with international universities

Current situation – 71

Goal for the 2nd year – 146

Final goal - 250

Activity 2 - Indicator 2

Type – Qualitative

Indicator - English proficiency of professors and researchers to produce international publications

Current situation – Medium

Goal for the 2nd year – High

Final goal – High

Activity 2 - Indicator 3

Type – Quantitative

Indicator - Number of jointly published articles in annals of international events and journals involving international universities

Current situation – 124

Goal for the 2nd year – 252

Final goal - 520

Activity 3 - Increase the number of funded research projects with international partners

Start date – 11/2018

End date – 07/2022

Description – This action seeks to increase the number of externally funded research projects with international universities/research institutes. Institutional support in order to spot opportunities for researchers as well as for the project management will be very important. Coordinating international projects or collaborating in projects involving

international research networks will be essential to take the quality of the research carried out at PUCRS to a higher level, as well as to increase the impact of the resulting scientific production resulting. The goals related to quantitative indicator are cumulative considering the current situation.

Activity 3 - Indicator 1

Type – Quantitative

Indicator – Number of research projects with international partners

Current situation – 113

Goal for the 2nd year – 120

Final goal - 130

Theme 3 World in Motion: Individuals and Society

Goal 4 Foster joint and/or double-degree programs in order to induce international Graduate Programs

Activity 1 - Increase the number of joint and/or double degrees with international universities in the Graduate Programs

Start date – 11/2018

End date - 07/2022

Description – This activity aims to increase the number of joint and/or double degrees at the doctoral level with international universities in the Graduate Programs related to the Theme World in Motion: Individuals and Society. Hence, the processes involving agreements and the establishment of joint and/or double degrees will be revised by PUCRS in order to ensure a higher level of efficiency. It is worth mentioning that in order to ensure more agility and efficiency from the Institution, providing the staff with the necessary training regarding the administrative processes (for instance, European Credit Transfer and Accumulation System, and the like) and proficiency in additional languages, specially in English, is of utmost importance. The goals related to quantitative indicator are cumulative and do not consider the current situation.

Activity 1 - Indicator 1

Type – Qualitative

Indicator - PUCRS efficiency level in establishing joint and/or double degrees

Current situation – Low

Goal for the 2nd year – Medium

Final goal - High

Activity 1 - Indicator 2

Type – Quantitative

Indicator – Number of joint and/or double degrees

Current situation – 4

Goal for the 2nd year – 10

Final goal - 22

Activity 2 - Induce the creation of Graduate Programs in association with international universities

Start date – 11/2018

End date – 07/2022

Description – This activity seeks to induce the creation of Graduate Programs in association with international universities for the development of the Theme World in Motion: Individuals and Society. These programs will be highly innovative, by employing an interdisciplinary research approach, taking advantage of international collaborations and producing highly-qualified human resources, in order to face the complexity of social, economic, legal and moral problems (among other aspects) in a constantly changing world. Additionally, we hope that these programs foster positive impacts on the increase of international publications and of co-authored publications with researchers from universities abroad as well as on the creation of research projects with international funding. The goals related to the quantitative indicator are cumulative considering the current situation.

Activity 2 - Indicator 1

Type – Quantitative

Indicator - Number of Master or PhD Programs offered in partnership with international universities

Current situation – 0

Goal for the 2nd year – 0

Final goal - 1

STRATEGIES

1. Strategy for the consolidation of existing international partnerships, as well as the construction of new partnerships and cooperation projects to increase the relationship between the Brazilian institution and research groups abroad.

The strategies for consolidating existing international partnerships and the establishment of new scientific collaborations, in line with the strategic areas set forth by the University, involve the attraction, expansion and strengthening of international cooperation as well as the development of projects with international research institutions of excellence. Hence, it is important to make a decision as to which international partners the institution is going to work with. These partners may be affiliated to research institutions of excellence in the strategic themes, and with which PUCRS has worked together in Research and Graduate Programs, either at the individual level, with researchers, or institutional level.

The strategy for the establishment or consolidation of partnerships is anchored in the following goals:

- Increase funding arising from international programs in collaboration with centers of excellence with an eye to bringing the quality of scientific and technological production and human resource development to a higher level. This increase will be possible with the institution's active engagement in international funding opportunities, as well as with the institutional support in the drafting of proposals and management of resources by the departments responsible for project management;
- Encourage the participation of graduate students in international cooperation projects, especially in projects involving study missions or incoming and outgoing mobility;
 - Joint degrees of double degree programs between partner universities, as well as the production of high quality scientific research in the long run;
- Define a group of indicators to be revised periodically in order to assess how efficient the strategies of

internationalization of Graduate Programs and Research are;

Besides, this strategy involves the increased engagement between the institutions and research groups from abroad, the implementation of faculty and research missions abroad and their engagement in high-quality projects of relevance in strategic themes in collaboration with top researchers overseas. PUCRS will keep its doors open to these outstanding researchers in the development of these projects and this will have a significant and far-reaching effect on the Universities' overall courses and programs.

2. Strategy to attract foreign students to Brazil.

The strategy of internationalization of Graduate-level education requires the attraction and recruitment of international students as well as and the internationalization of the graduate curricula. In addition to courses being offered in languages other than Portuguese, the different Graduate programs must foster international perspectives and highlight global issues and topics in every academic area. Internationalized curricula and co-curricula ensure that all students be exposed to international perspectives and develop global competences. Therefore, learning outcomes must result directly from the development of issues and curricular, co-curricular and extracurricular skills in this respect. Among the main strategies for recruiting international students are:

- Promotion of activities to be developed in graduate curricula in order to promote the interaction between students with distinct academic backgrounds and different countries.
- Encouragement to short-term Summer / Winter Courses which will make it possible for international students to have an academic experience at the University and, consequently, work in research groups.
- Establishment of joint actions to promote teaching, research and community extension activities at the international level and promotion of the opportunities between the university and companies, involving the University's ecosystem of innovation - Tecnopuc - which will have a direct impact on the number of international students.
- Provision of assistance and services to international students and the adequate training to staff including the Schools' secretaries and the University's Graduate Programs.
- Offer of joint and double degree programs with partner institutions as an important tool for recruiting international students.

These strategies can facilitate the creation of Graduate programs in international cooperation, guided by an innovative and interdisciplinary vision, with focus on knowledge transfer for the resolution of problems in society.

3. Strategy to attract faculty and researchers with international experience.

Attracting foreign professors and researchers is key for the promotion of internationalization of Graduate Programs and may also contribute to the expansion and development of the university's professors. Some strategies to be employed to attract international faculty and researchers are as follows:

- Develop high quality projects of relevance in strategic themes with outstanding international researchers. PUCRS will keep its doors open to these outstanding researchers in the development of these projects and this will have a knock-on effect on the Universities' Graduate Programs;
- Increase the communication and promotional efforts at the international level in the areas of research and innovation in order to contribute to the recruitment of international faculty.
- Promote the attraction of young talents relying on relevant academic and scientific background internationally. These talents could eventually become permanent members of the institution.
- Welcome international faculty and researchers to PUCRS and provide them with the necessary infrastructure for the development of their research activities;
- Provide support to the development of the plan of work of international faculty and researchers, which must be in line

with the strategic view of Graduate Programs;

Additionally, opportunities with Tecnopuc, an internationally-accredited ecosystem of innovation and development, can also be an interesting mechanism of attraction for faculty and researchers with an academic attitude and entrepreneurial vision. Such faculty and researchers will be able to promote the integration of the ecosystem with the academia, companies and the international market.

We hope that the strategies of integration, assistance and communication will help attract highly experienced faculty and researchers, which will improve this project of internationalization.

4. Strategy to prepare the scholarship holders for the period abroad as well as for their return, especially in order to increase the knowledge appropriation by the institution.

The preparation of students, professors and researchers for their exchange overseas will bring the academic experience in international institutions to a higher level. Among the preparation strategies, especially those intended to improve their adaptation at the institution, are:

- Offer courses in languages other than Portuguese for students, professors and researchers will make it possible for them to have a better exchange experience;
- Provide further insights into the reality and culture of the host country in order to ensure a better adaptation abroad;
- Provide support to ensure that students, faculty and researchers meet all the legal requirements needed for the exchange overseas, which will be offered by the Office of International Cooperation and the other academic units directly accountable to the higher administration of the university in cooperation with the coordinators of the Graduate programs;
- Provide orientation sessions to the faculty members and researchers to inform them of the steps to be taken in order to establish formal partnerships through bilateral agreements between PUCRS and host institutions, as well as other formal aspects such as materials and intellectual property transfer.

The strategies for the dissemination of knowledge and sharing of student, professors and researchers experiences after their exchange overseas will be promoted by specific events, and a seminar to be held every year by the University. Graduate students will also be invited to share their experiences in graduate courses that are directly related to the topics addressed during their exchange overseas, which will bring undergraduate and graduate students closer together. This will serve to create an environment where the experiences and skills will be shared and promote new perspectives for research projects.

5. Describe innovative strategies that will be used by the institution that were not mentioned above.

Among the innovative strategies under the institution's third mission, lies the integration of the concept of an International Campus at PUCRS to the ecosystem of innovation and development of PUCRS, which is represented by the groups of areas and actors that form the Inovapucrs Network. Among such actors, we can mention Tecnopuc, a world-class technology park, relying on large and medium-sized international companies from several countries, as well as national companies of several sizes. The park is in line with the institutional project of internationalization, as its companies specialize in the areas of creative industry, health and biotechnology, information and communication technologies, energy and natural resources. Tecnopuc now works together with other local, national and international partners intensively. These partners have maximized the materialization of research into benefits for society, through innovation, either through job creation or income generation and social development. Such integration will help create solutions that could lead to knowledge transfer, thus bringing multiple direct and indirect benefits for society. Five are the fundamental pillars that underlie the strategy for promotion of internationalization in the areas of innovation and development. 1) impartial spirit of cooperation; 2) soft landing program; 3) exchange of entrepreneurs; 4) generation of startups and 5) international events. Items 1, 2 and 5 are strongly connected to this strategy, which looks at innovation as the expression

of the basic and applied research developed at the University.

As for items 3 and 4, we can also see the encouragement to entrepreneurship in the academic community and the creation of new businesses (academic spinoffs and startups). In this sense, the Inovapucrs Network plays a prominent role as it fosters the actions involving the eight Schools, the Academic Departments and the area of Innovation and Development (Tecnopuc, Crialab and Startups).

Then, we hope that this strategy of integration will contribute to an entrepreneurial environment at the University, with faculty, students and staff. We also hope that it will contribute to the attraction of international faculty and researchers capable of bringing the academic potential and an entrepreneur view together, with an eye to fostering strategic opportunities of collaboration with the academia, companies and the international market.

POLICIES

1. Policy for selection of foreign partners, considering that 70% (at least) of the resources should be earmarked for partnerships with institutions based on countries that Capes maintains effective cooperation (listed in Annex I of the call).

The policies for selecting partners will be guided to the consolidation of existing productive partnerships and to the possibility of finding new partners and establishing new strategic colorations. Hence, the following actions will be adopted: (a) The following criteria will be taken into consideration to consolidate the existing partnerships: Number of co-authored publications with the international institution; Number of research projects whose funding has been approved; Funding for projects in partnership; Application of completed activities in priority areas; Number of students in publications and projects; Number of joint or double degrees with the international institution; Number of joint activities involving professors or researchers from the international institution in international events for the dissemination of knowledge for the students of the institutions involved; and relevance of the Partnership Plan, including future planning and potential institutional benefits; (b) The following criteria will be taken into consideration for establishing new partnerships: Expertise of international partners in the priority areas selected; Availability of an existing agreement between PUCRS and the international institution; Co-authored publications involving the international institution; Possibility of submission of a funded project; Possibility of implementing joint or double degrees with the international institution; and relevance of the Partnership Plan, including future planning and potential institutional benefits; (c) As for the analysis of the evolution of partnerships, the following quantitative criteria will be taken into consideration: Number of co-authored publications involving faculty, researchers and/or students of the Graduate Program of PUCRS and of the international institution; Number of missions involving students for split PhDs and/or other training programs; Number of joint or double degrees; and Number of funded projects approved under this partnership. The following qualitative criteria will be taken into consideration: Relevance of publications for advances in the priority areas selected; Impact on the involvement and dissemination of knowledge in the Graduate Program of PUCRS from the actions carried out by foreign professors and researchers.

2. Grant policy and internal selection process for specific actions, within the funding lines of the Capes-Print program. In the case of cooperation projects with foreign institutions, the proposer should specify the application of funds, the plan of activities, reciprocal funding, academic mobility, technical - scientific production, counterparts in the partner institutions, among others.

A specific selection process will internally select beneficiaries once a year according to the different types of benefits. The selection process will take the policies related to the following aspects into consideration: (a) The relevance of the Work Plan to be judged in view of the following criteria: Consistency and relevance; Clear goals; State-of-the-art

knowledge domain; and qualitative as well as quantitative analysis of expected results. The Work Plan (in English) must include the following items: Abstract, Introduction (including context, challenges and goals), Background (including the state-of-the-art), Proposal, Expected Results, Final Remarks and References; (b) As for the analysis of the applicant's résumé, the following aspects will be taken into consideration: CNPq PQ or DT grants being granted; Number of publications in relevant journals and international events in the area of expertise; Participation in funded research projects in collaboration with international Higher Education Institutions; Applicant's international visibility (participation in editorial boards, organization of events, etc.); (c) Certification of proficiency in additional languages as per the requirements set forth in Attachment 12 (sandwich doctoral programs and training programs). For other types of grants, professors or researchers will be expected to present their proficiency level; However, for project selection, the following criteria will be taken into consideration: (a) Relevance of the proposal as to: Application of the project to the area selected; Consistency and relevance of goals; Clarity and details of the execution plan; and Relevance of expected results; (b) For consolidated partnerships, the joint actions involving the international partner will be looked at in view of the following criteria: Number of joint publications in international events and journals involving the international Higher Education Institutions; Number of students who went on an academic mobility program at the international Higher Education Institution; Number of funded research projects within the realm of the partnership; Application of the project to the area selected; (c) For projects involving not fully consolidated partners, the following aspects will be taken into consideration: Number of joint publications in international events and journals involving international Higher Education Institutions; Expertise of partners in the priority areas selected; Availability of an existing agreement between PUCRS and the international institution; Possibility of submission of a project to be funded internationally; and the possibility of implementing joint or double-degree programs with the international universities.

3. Policy for hiring faculty with recognized scientific performance at an international level.

PUCRS has been working towards academic and scientific excellence as well as towards its international recognition. Hence, the following policies to promote the hiring of professors with relevant international scientific experience will be implemented: (a) Promotion and publication of postings in English for recruiting faculty, in view of the following evaluation criteria: Academic degree from international institutions of excellence; Funding for projects involving development agencies or international companies, to be preferably in line with the priority theme selected; Participation in committees of relevant international events in the themes selected as priority areas by PUCRS; Participation in editorial boards of international journals; and proficiency in additional languages. (b) Provision of assistance from PUCRS. For foreign professors, the Institution will seek to provide assistance in legal issues related to the hiring of the professors in Brazil; (c) A policy to ensure adequate infrastructure for the hired professors, including resources for them to begin their research activities at PUCRS.

4. Policy to increase proficiency in foreign languages for students, postgraduate faculty and technical staff that have a direct relationship with the proposed Internationalization Project.

The consolidation of PUCRS' international visibility as an institution capable of attracting international students, professors and researchers calls for a number of policies for the provision of training to the academic community as a whole. This means that it is essential to increase the level of proficiency in additional languages of the institution's students, professors and administration staff. Although most of our professors are proficient in at least one additional language, especially English, languages are still seen as a barrier for internationalization at the Institution. Hence, some of the policies that have been set forth are listed below: (a) to promote Internationalization at Home - IaH, with an eye to personal and professional growth of the academic community as a whole; (b) to intensify the promotion and encourage the enrollment of students, professors, researchers and staff in additional language programs offered by the Institution.

The primary focus will be on English being the first additional language. The University gradually expects that at least one staff member of each Department / School is proficient in English in order to meet the needs of this Project; (c) To require higher levels of proficiency for faculty in Graduate Programs, especially at the Doctoral level. The University gradually expects that PhD students present a certificate of proficiency in English, as per Attachment 12 “Language proficiency for students on a scholarship”; (d) To create mechanisms of support for them to get certificates of proficiency in additional languages, aiming at the promotion of effective academic communication at the international level, in view of the list of exams presented in Attachment 12 “Language proficiency for students on a scholarship”. It is worth mentioning that although this is a requirement to be applicable to students, PUCRS will also be keen to implement this policy for professors, researchers and staff.

5. Policy for recognition of academic and scientific activities performed by faculty and students abroad.

In order to ensure that the credits and other activities completed abroad by students, professors and researchers be transferred, the following policies have been set forth: (a) Provide assistance to graduate students doing a Sandwich Doctoral Program in drafting their Plan of Work and choosing the courses to be eventually taken abroad in order to maximize the research opportunities in the area of their dissertation. For students doing any training programs abroad, PUCRS will ensure that the partner institution maximizes the training opportunities in the priority area the student has selected; (b) To set the rules for transferring credits completed by students abroad to all Graduate Programs of PUCRS; (c) To enhance the credit transfer processes for courses completed abroad in order to ensure a higher level of efficiency; (d) To provide support for students, professors and researchers in applying for funding for participating in conferences abroad and international award events in the priority areas selected; (e) To set the criteria for the formal accreditation of academic activities, such as the publication of articles in conferences and international journals, presentation of papers in international events, international awards, short-term study missions in international institutions, among others; (f) To foster the participation of PUCRS' professors at the Graduate level in international academic activities, as coordinators or collaborators in international projects, co-authored publications with international Higher Education Institutions within the realm of this Project, editing or participation as an editorial member in international journals, membership in committees or ad hoc consultancy in international development agencies and development of research projects with international companies; (g) To look at their involvement in international activities as part of the criteria for accrediting professors to teach in PUCRS' Graduate Programs.

6. Policy for hosting and support of foreign faculty, researchers and students.

Today, the University has a number of actions to assist international professors, researchers and students. However, policies for maximizing the impact of these actions have been set forth. They will ensure that international professors, researchers and students be adequately welcomed and assisted. They are as follows: (a) To create an assistance protocol to be managed by the University's Office of International Cooperation (OIC). This protocol will not only involve the administrative departments of the University but also the Academic Units. In detail, we expect that this protocol addresses administrative issues, such as those related to the international professors', researchers' or students' legal status in the country and at the Institution, and other issues related to the assistance to be provided to them in the Academic Units they will be working at during their stay in Brazil; (b) To ensure adequate infrastructure to begin their research and/or teaching activities during their stay at the Institution; (c) To encourage the integration of students at the university with seminars addressing academic and social issues; (d) To encourage the integration of professors and researchers in the Academic Units they will be working at with an eye to consolidating the partnership at the institutional level. This will be possible through their involvement with the managers of the Academic Units and other strategic departments of the University; (e) To offer seminars involving international students, faculty and researchers and the

academic community as a whole in order to promote the exchange of experiences and the dissemination of knowledge. These seminars will be a means to keep track of and improve the policy for welcoming and assisting international students, faculty and researchers at the University and to foster the integration of these professors in different Academic Units. As a consequence, this will foster the establishment of new partnerships.

7. Policy for the appropriation of knowledge and experience acquired abroad by the beneficiaries of the actions of the Institutional Internationalization Project.

This project will consolidate PUCRS as a University of international scientific and academic relevance in the priority areas selected. Student, professor and research missions as well as other activities abroad will facilitate their individual scientific growth. The knowledge gained will be disseminated at PUCRS for the benefit of the Institution as a whole. Hence, PUCRS has set forth a number of policies geared towards the appropriation of knowledge and exchange of experiences gained abroad: (a) Organization of annual seminars featuring lectures delivered by professors and researchers who worked on projects abroad and presentation of their research findings, as well as other discussions involving students with the purpose of exchanging experiences; (b) Designing of printed and/or online material for publishing the result findings and the experiences of students, professors and researchers who worked abroad; (c) Promotion of lectures by students who participated in a Sandwich Doctoral Program or who did training programs abroad. These lectures will be delivered to undergraduate and graduate courses in order to disseminate the knowledge gained and ultimately contribute to the development of our courses; (d) Provide assistance to students doing a Sandwich Doctoral Program in drafting their Plan of Work and choosing the courses to be eventually taken abroad in order to maximize the research opportunities at the graduate level; (e) Setting of clearly-defined criteria for the transfer of credits of activities undertaken abroad by students; (f) Qualitative and quantitative assessment of the results of the professors' and researchers' activities completed abroad in order to contribute to the Plan of Work; (g) Development of mechanisms for the appropriation of knowledge related to administrative and organizational aspects of international institutions visited by students, professors and researchers, vising to improve PUCRS's administrative actions.

8. Policy for management and operationalization of the Institutional Internationalization Project.

For the first time at PUCRS, internationalization is seen and treated as an action to be coordinated at the institutional level. Therefore, it is essential to define the policies for the right administration and operation of this Project. (a) To establish a Management Group to work on the activities set forth in the Call 41/2017 – CAPES/PrInt. As for internal members, professors and researchers with relevant international scientific production have been selected. These professors and researchers receive funding from the government through Research Productivity (PQ) or Technological Development and Innovative Extension (DT) grants. Besides, it was very important that the Project included at least one member of the Management Group in each of the priority areas. As for international members, two faculty members / researchers have been selected due to their relevant scientific production and their experience in developing international projects and activities; (b) To create specialized structures that will meet the operational demands of this Project. This structure will combine the efforts from the Office of International Cooperation (ASCIN), of the Office of the Vice President of Research and Graduate Studies (Propesq) and the Academic Units (Schools); (c) To define the process vising the implementation of all activities established within this Project, such as the provision of assistance to international professors and researchers, mobility of students, professors and researchers for missions abroad, etc.

9. Policy for monitoring and internal evaluation of the goals of the Institutional Internationalization Project.

In order for this Project to achieve its expected goals, it will be necessary to monitor and assess the activities established in this Project on a regular basis. In addition to the attributions set forth in Project No. 41/2017 – Institutional Program of

Internationalization – CAPES/PrInt for the Management Group, the following policies will be implemented: (a) Conduct regular meetings with the coordinators of the projects involved to make sure that the project is being developed, and make adjustments, if necessary; (b) Conduct regular meetings with the Management Group in order to write financial and technical reports and other documents necessary to make sure that the project is being developed; (c) Monitor the development of the projects in the priority areas by analyzing the goals established for them, in view of the qualitative and quantitative indicators; (d) Suggest adjustments in the actions set forth for the projects in the priority areas in view of the qualitative and quantitative indicators, if necessary; (e) Assess students', professors', and researchers' findings in projects carried out abroad (Sandwich Doctoral Programs, Junior Visiting Professors, Missions, etc.), in order to meet the Work Plan's goals for the Selection of Beneficiaries; (f) The Management Group will conduct quarterly meetings to monitor and assess the Project.

10. Policy for the conciliation of national development programs supported by Capes to the internationalization effort.

PUCRS' Institutional Plan of Internationalization embraces developments in five strategic areas: 1) Health and Human Development, 2) World in Motion: Individuals and Society, 3) Humanism, Education and Culture in the Area of Connectivity; 4) Technology and Biodiversity: Sustainability, Energy and Environment and 5) Technological Innovations for a Dynamic and Interconnected World. We have chosen three priority themes for internationalization under the Call 41/2017 - CAPES/PrInt: 1) Health and Human Development, 2) World in Motion: Individuals and Society, and 3) Technology and Biodiversity: Sustainability, Energy and Environment. Although the Institutional Plan embraces five areas, the CAPES/PrInt Project focuses on developments in three areas. These priority themes have been chosen because they embody the institutional competences in a comprehensive way and look at issues that are addressed in our Graduate Programs in an attempt to find solutions for complex problems in the current society. In this context, other development programs supported by CAPES will be taken into consideration to make sure that the other two strategic areas stated in the Institutional Plan of Internationalization of PUCRS are developed. Hence, we hope that the funding from the Project CAPES/PrInt and other national programs of development supported by CAPES can make a contribution to the comprehensive development of the Institutional Plan of Internationalization of PUCRS. Therefore, several funding sources from CAPES national development programs will be used to foster the research carried out at the Institution. This will ensure the international scientific production of relevance and the development of qualified human resources for the new global challenges. These aspects will have a direct impact on the development of new strategic areas, as well as on international partnerships. Further, the policies set forth under the CAPES/PrInt Program will be adopted by the entire Institution in order to bring the University's actions of internationalization to a higher level.

11. Describe here other innovative policies that will be adopted by the institution that were not addressed in the above items.

PUCRS possesses an environment and a culture devoted to the promotion of innovation in academic and scientific areas with the needs of society in mind. Internationalization, when it comes to the area of Innovation and Development, is anchored in scientific research of excellence and the five pillars: international cooperation, soft landing programs, entrepreneurial mobility, generation of startups and international events. The innovative policies set forth in the area of Innovation and Development that are related to Graduate Programs and its actions of internationalization, are listed below: (a) promotion of the development of an environment that brings the academic community and international companies together at the ecosystem of innovation of PUCRS, with focus on Tecnopuc; (b) promotion of strategic seminars aiming to inform PUCRS' professors and researchers about the demands of international companies; (c) participation in international conferences and business missions and also in the organization of events that foster

internationalization at Tecnopuc, thus contributing to a better position of the institution at the international level; (d) creation of startups to meet the needs of international projects involving students, professors and researchers; (e) bringing international companies to Tecnopuc and promoting the internationalization of its companies through soft landing agreements; (f) promotion of the generation of globally-oriented startups, in view of the insights gained and produced at PUCRS' Schools. These actions are strongly connected with the institution's strategic positioning of innovation and development and can be an interesting mechanism to attract international professors and researchers with an academic attitude and entrepreneurial vision.

FURTHER INFORMATION

1. **Number of postgraduate courses taught in English between 2013 and 2016.**

Quantity of courses 68

2. **Number of joint supervision postgraduate programs between 2013 and 2016.**

Quantity of programs 13

3. **Number of double degree postgraduate programs between 2013 and 2016.**

Quantity of programs 3

4. **Number of bilateral postgraduate programs between 2013 and 2016.**

Quantity of programs 0

5. **Number of products derived from research projects and contributions to international databases between 2013 and 2016.**

Quantity of products and contributions 1136

6. **Number of Capes' development programs from which the institution benefited between 2013 and 2016.**

Quantity of programs 23

7. **Number of Capes' international cooperation projects from which the institution benefited between 2013 and 2016.**

Quantity of projects 65

8. **Insertion of materials, themes and subjects in foreign language in the postgraduate program curricular structure.**

Description

The number of courses in the Graduate Programs of PUCRS delivered in languages other than Portuguese is expected to increase. Today, Graduate courses are being offered in Portuguese, English, Spanish and French. These courses have been gaining momentum as the number of students registered has been gradually increasing. The goal is to offer at least two courses entirely in a language other than Portuguese (preferably English) in each Graduate Program by 2020. In addition to that, other actions will be developed with the Graduate Programs to foster the actions of internationalization in line with this project, and guided by the Institutional Plan of Internationalization of PUCRS 2018-2022, including the promotion of courses in a language other than Portuguese. In addition to the regular courses, the institution seeks to increase the number of "Research Seminars" in the Graduate Programs. These courses will be concentrated (15 credits delivered in a week) and address cross-sectional perspectives in the Programs and are intended to take advantage of foreign professors who cannot teach a regular course throughout the academic semester. In addition to that, the content produced in lectures and courses taught by professors and researchers receiving funds from this Project will be made available in the University's institutional repository to be used in the graduate and undergraduate programs. The institution also seeks to make use of open online platforms in their curriculum activities as well as several teaching tools available in the online library. This will have a positive impact on researchers who will have access to material published in languages other than Portuguese.

Lastly, one of the strategic guidelines of the Strategic Plan of PUCRS 2016-2022 is the promotion of internationalization and interculturality. Therefore, in addition to courses being offered in languages other than Portuguese, the Graduate Programs must foster international perspectives and highlight issues and topics of global nature in every academic area. Internationalized curricula and co-curricula must ensure that students are exposed to international perspectives and seek to develop intercultural competences.

EXPECTED BENEFITS

Theme 1 Health in Human Development

INTERNATIONAL COOPERATION PROJECTS

Name of the project Assessment of environmental aspects, life habits and pathological condition in child development

Start date 01/11/2018 **End date** 31/07/2022

Description The early years of life are a moment of great opportunities but also of extreme vulnerability. According to the WHO, the complete development of 1 out of 3 children is highly compromised. This has important implications for health throughout life and results in a considerable loss of human capital for their countries. Therefore, this framework project is characterized by highly integrated research involving international groups of excellence, which will trigger the perspectives of innovation in the diagnosis and treatment of childhood diseases. The main areas of the framework project for child health will be described as follows: (1) Impact of the environment on brain and emotional development: underlying epigenetic mechanisms. This collaborative research is intended to study how childhood environments affect the brain and the emotional development of individuals as well as the underlying epigenetic mechanisms. (2) Neonatal Seizures: the relationship between electroclinical aspects and etiology. This project is embraced by the task-force on Neonatal Seizures of the International League Against Epilepsy (ILAE) and is intended to set up an international database for electroclinical and electrographic seizures to study whether specific etiologies of neonatal seizures have semiological and electrographic characteristics that facilitate their recognition and the selection of the right treatment.

(3) Analysis of the role of derivative metabolites of dietary components in human respiratory syncytial virus (HRSV) infection. Therefore, this study is intended to analyze whether treatments with short-chain fat acids facilitate the recognition of HRSV by the immune system. (4) Analysis of the effect of an exercising program about physical conditions, intestinal and respiratory microbiota and inflammatory state in a group of kids and adolescents suffering from Cystic Fibrosis (CF). In this sense, these clinically relevant and innovative complementary actions can minimize the effects in the early stages of life and may have implications in adult life as well. In addition to ILAE, the projects are being developed by the National Institute of Environmental Health Sciences (NIEHS), a center that is accountable to the National Institute of Health (NIH), from the USA, in partnership with Concordia University, from Canada and with the Universidad Europea de Madrid (UEM) in Spain.

Name of the project Advances in drug development, diagnosis and epidemiology of neglected diseases

Start date 01/11/2018 End date 31/07/2022

Description Neglected diseases inflict impoverished people and are caused by infectious agents. It is estimated that 2 billion individuals are infected by the Mycobacterium tuberculosis (Mtb), the causative agent of tuberculosis (TB), and that schistosomiasis affects more than 200 million people. The dissemination of Mtb lineages that are resistant to existing drugs and the increased vulnerability of HIV+ individuals are among the main challenges in the fight against TB. This proposal is intended for researchers from PUCRS and partner institutions to join efforts in the development of drugs, diagnostic methods and epidemiological aspects of neglected diseases. University of Queensland (Australia), Birla Institute of Technology & Science, Pilani (BITS-Pilani, India) and the University of Newcastle (UK) are strategic partners in this project. We seek to continue with and expand the consolidated actions involving these partner institutions, including mobility of graduate students, researchers and faculty as well as the coordination of research activities and joint publications. Activities will be developed in four areas: 1) Development of new anti-TB agents through strategies of rational planning of drugs and phenotype screening. This area will involve PUCRS researchers who work at the National Institute of Tuberculosis Science and Technology (INCT-TB), which is coordinated by PUCRS. 2) Studies on psychosocial aspects that interfere in the epidemiology of AIDS in Porto Alegre and Greater Metropolitan Area. We intend to identify the barriers to the access of health services imposed on transexual women and males who have sex with other males (HSHs), resulting from discriminatory practices against sexual and gender diversity. 3) Development of new diagnostic methods for schistosomiasis to be used in low endemic areas. This actions seeks to (a) improve the helminthex method for detection of Schistosoma eggs (b) assess new monitoring strategies in low endemic areas and (c) increase the precision of geospatial analyses of risk distribution of Schistosoma infection. 4) Development and application of computational intelligence to the large scale development of molecular docking simulations of a totally flexible protein receptor against small molecules that are candidates to drugs.

Name of the project Biopsychosocial aspects related to the individual's health in adult life

Start date 01/11/2018 End date 31/07/2022

Description The concept of health encompasses not only the absence of disease but also the individual's complete physical, psychological and social well-being. Health determinants can be observed in the physical, social and psychological arenas, especially in adulthood, once individuals experience different changes and must adapt to them. Hence, research on the promotion of the development of prevention strategies and promotion of health, treatment and rehabilitation, in view of all these different aspects, is essential for the development of other professionals and promotion of better quality of life. Therefore, this project embraces studies that will look at the different aspects of health in two major aspects: clinical and experimental. The former embraces studies intended to investigate individuals' health in a

comprehensive way, including exposure to risk factors for infectious diseases, mental health (cognitive, neurological and emotional aspects) and other aspects associated with physiopathological aspects of diseases. The latter embraces experimental studies that are intended for practitioners to understand neurotoxicity and its possible involvement with neurological disorders. We expect to find the following results with the development of this project: development of predictive models of clinical success and induction of prediction models with the use of artificial intelligence and the improvement of technologies to be applied in clinical practice as a method in the area of Health Sciences, such as neuroimaging tools and the construction of the first brain bank in the south of Brazil. This project will benefit from the contributions from different areas, such as Psychology, Psychiatry, Neurology, Nephrology, Pharmacy and Biology and can result in intervention and health promotion practices with the population. Additionally, the development of these studies, through basic and applied research, will lead to a better understanding of the health-disease process, as well as to the development of new methods, theories and interventions in the area of health in adult life. This project will be carried out in partnership with the following institutions: Mayo Clinic (EUA), a world leader in non-profit medical assistance; Università degli Studi di Milano, a leading institution in Italy and Europe in terms of scientific production; and University of Pretoria, a leading research university in South Africa and one of the largest ones in the country.

Name of the project Development of technologies and innovative processes in health

Start date 01/11/2018 End date 31/07/2022

Description Over the last decade, the technology and innovation advances have made remarkable contributions to several areas in society. However, there is a lot to be made in implementing new technological and innovative models in different aspects of human health. In view of this scenario, it is extremely important to form multidisciplinary teams with a broad view in order to find solution for real problems in society, by seeking strategic partners abroad, from existing international collaborations with relevant research centers in the areas of technology and innovation in health. Such collaborations must be geared towards the training and development of human resources, with the production of technological knowledge and products, so that its benefits be transferred to society. In strategic terms, this project is geared towards the development of innovative technologies and processes in the area of health, with a focus on the assessment of nanotechnological products, health solutions with the employment of information technologies, use of stem cells in different areas and the improvement of diagnostic methods. As examples of that we can mention: the characterization of restorative nanotechnological products for aesthetic uses in Dentistry; investigations into the toxicity potential in nanoparticle materials used in medicine; development of computer-based technologies for facial recognition, as a method of assistance for affective disorders; the use of smartphone applications for assessing falls in the elderly; application of artificial intelligence for analysis of electronic medical charts; the employment of virtual planning strategies for surgical correction of facial deformities; use of stem cells for nerve injuries and sepsis, as well as the characterization of markers and models for investigating neurodegenerative processes. In order to reach the proposed goals, partnerships have been established with the University Hospital of Montpellier (France), which is renowned for tissue regeneration research; Roseman University of Health Sciences, in Henderson, Nevada, USA, which is renowned for advanced nanotechnology studies and University of Groningen, in Groningen, Netherlands, which is renowned for the development of basic and clinical research in health technologies.

Name of the project Studies on aging neuropsychology and molecular mechanisms associated with neurodegenerative diseases in the elderly population

Start date 01/11/2018 End date 31/07/2022

Description Population Aging is a reality. The United Nations (UN)'s 2015 World Population Prospects estimates an increase in the number of individuals aged 60+ between 2015 and 2030 from 901 million to 1.4 billion. Most elderly will

be living in developing regions that are affected by their inherent socioeconomic problems. Among the illnesses afflicting the elderly, non-transmissible chronic diseases are the most frequent ones, especially dementias (such as Alzheimer's disease), ischemic cardiovascular diseases (coronary artery disease and strokes) and cancers. In this sense, researchers need to make every effort to understand the mechanisms involved in the genesis and evolution of chronic non-transmissible diseases in details, as well as their administration and rehabilitation in aging and aged individuals. Hence, this framework project embraces four sub-projects: (1) Molecular mechanisms of neurodegenerative diseases in the elderly; (2) Maintenance of safety and autonomy during aging: the benefits of Earth-Space Neurobiomedicine to the improvement of elderly resilience in everyday life and health; (3) Neuropsychology of aging: clinical and neuropsychological evaluation and neuroimaging and intervention; (4) Cognitive skills and quality of life in the elderly: a longitudinal study. The sub-projects will be carried out in partnership with institutions from Italy (Università degli Studi di Milano - the Department of Pharmaceutical and Biomolecular Sciences is one of the best research centers in neurosciences in the country); Canada (Simon Fraser University - the School of Engineering and Mechatronics Systems is known for its leading and interdisciplinary research; the University of Montreal - the Centre de Recherche de l'Institut Universitaire de Gériatrie is one of the most renowned behavioral and clinical research centers in neuroimaging studies in aging; Laval University - the CERVO Research Center is one of the most important centers for neurosciences and mental health in Canada); and Spain (Universidad Católica San Vicente Mártir). International cooperation will be essential for the consolidation of research networks for academic mobility of faculty and students and relevant academic production.

Theme 2 Technology and Biodiversity: Sustainability, Energy and Environment

INTERNATIONAL COOPERATION PROJECTS

Name of the project **Genomic Advances and their Impacts to the Study of Biodiversity**

Start date 01/11/2018 End date 31/07/2022

Description With the high rates of endangered species resulting from anthropogenic environmental alterations, the conservation of biodiversity is one of the major priorities for humanity today and is even more relevant in Brazil, due to the unrivalled diversity to be found in the country. The genomics of conservation is considered to be essential in the establishment of management and conservation strategies of species, as it encompasses the strategies that preserve evolutionary history, the levels of genetic diversity and their adaptive power, but is still understudied in Brazil. The project's internationalization actions are intended to produce and use information in genomic scale for the community to understand the evolution and assist in the preservation of biodiversity in the country, which will involve collaborative studies of species, in several levels according to how endangered they are. In addition to the intrinsic importance of the conservation of species, the development of humanity involves the study of biodiversity, especially of micro-organisms, as a condition for creating new technologies and the sustainable use of the country's natural resources. However, the fact that the diversity of micro-organisms in natural settings is still understudied represents a barrier to the understanding of the structure and dynamics of the microbial communities associated with the biogeochemical cycles. It also hinders the discovery of properties to be found in these organisms that could be biotechnologically relevant. Therefore, the actions of internationalization will also be useful for the dissemination of knowledge in genomics on microbial communities of unexplored environments and the discovery of groups of biotechnologically interesting micro-organisms. The large amount of data analyzed in this project calls for the collaboration of researchers in the area of data sciences, especially when it comes to the expertise and infrastructure of high performance laboratories. The most strategic institutions with which have carried out actions of internationalization are: Oregon State University (USA), a long-time partner with its important center for marine biodiversity studies; Texas A&M University (USA), a long-time partner in genomics projects and Linnaeus University (Sweden), with joint projects related to the description of microbial diversity and physical, chemical and geochemical characteristics of different environments.

Name of the project Extracting Knowledge from Big Data**Start date 01/11/2018 End date 31/07/2022**

Description Extracting knowledge from big data has become paramount in a world where we can collect data about anything in our lives on a regular basis. The set of techniques employed for extraction of knowledge makes it possible, for instance, to build sets of large and complex data at a deeper level, although they may not have been collected for this purpose. The main challenges in this area relate to the following aspects: (i) scalability of algorithms for processing big data; (ii) reliability of scalable systems; (iii) ability to visualize these data in order for humans to have a better perception; and (iv) use of parallel computing techniques for processing these data in real-time. This project seeks to trigger international collaborations to improve the state-of-the-art for each of the aforementioned challenges through strategic partnerships with renowned research laboratories in renowned universities in this area. The project involving the University of Pisa (Italy) seeks to investigate parallelization techniques in line with adaptive and autonomous computing algorithms to improve the efficiency of the process of analysis of big data in real-time. The project involving the University of Lugano (Switzerland) seeks to develop new approaches to improve the scalability and reliability of distributed systems through the use of State Machine Replication (SMR) techniques. It is expected that these investigations will culminate in the development of protocols to support distributed systems in the presence of arbitrary or malicious behaviors of the computational processes. Lastly, the partnership with Carnegie Mellon University (USA) explores two distinct areas. The first involves the development of new visualization techniques to highlight key aspects of sets of data during any process of analysis, with focus on the pre-processing stage. The second addresses the development of artificial intelligence techniques for the recognition of goals for human behavior based on the employment of real-life big data without the need of a human specialist to think up a model for plan recognition.

Name of the project Technological Advances for the Development of an Interconnected World**Start date 01/11/2018 End date 31/07/2022**

Description Today, technological development follows three domains brought forth by Moore's Law. They are as follows: More-More, Beyond CMOS and More Than Moore. More Than Moore is based on the principle of integrating different types of devices to meet the needs of today's society. In this sense, the concept of Smart Systems (SSs) is used for a category of systems formed by interconnected, energetically autonomous miniature and smart devices. SSs incorporate functionalities such as sensing, performance and control, including predictive or adaptive decision-making to solve complex problems. Hence, SSs feature heterogeneous components and sub-systems, such as analog devices and other devices for digital processing of signals, storage and energy sources. In this context, we can see the emergence of the Internet of Things (IoT) which is based on the principle of connecting different types of systems to allow for the exchange of data. Interconnecting SSs and Cyber-Physical Systems are made possible through IoT, as they are associated with what is known as the fourth industrial revolution, and are employable in several applications. Therefore, as the application of the IoT in essential sectors of our society moves forward, we can see the need for development of fault-tolerance techniques that are capable to ensure the robustness of SSs as well as methodologies that are capable of monitoring data content and flow, with low energy consumption. Another important aspect concerns decision-making processes, control and simulation of complex systems. In this sense, we can mention the application of concepts of Artificial Intelligence and, particularly, Autonomous Agents and Multi-Agent Systems. Please note that advanced control and decision-making techniques, associated with robust networks, can help us find the solution for intangible problems or even problems that did not exist until recently. Ultimately, this project will rely on the support of important Higher Education Institutions, such as the Politecnico di Torino (Italy), UPENN (USA) and University of Newcastle (Australia). These institutions are characterized by their academic excellence in the international scenario

and relevance of their research in the areas of testing and fault-tolerance of critical systems, simulation of complex systems and control and automation of systems. Further, these institutions are renowned for their competence in the production of human resources capable of dealing with the main challenges of a global and interconnected world.

Name of the project Technology, Energy and Natural Resources: New Paths to Sustainability

Start date 01/11/2018 End date 31/07/2022

Description Society's sustainable development includes the rational use of natural resources, the production of products from renewable sources. This optimizes energy consumption and minimizes environmental impact. Agriculture, energy production and industry make use of natural resources as raw materials in their processes. As a consequence, new technologies are developed as polymerization processes employing natural phenolic compounds and energy production processes, such as biogas, that employs organic waste to generate electrical energy and extraction processes applied to plants (biodiversity) resulting in compounds from biological activities. In this context, the cooperation activities between PUCRS and the Center of Environmental Sciences – CSIC (Spain) is worth mentioning. The projects involving these institutions have resulted in patents, publications and training of human resources. Besides, knowledge about transport and sediment disposal through mathematical models can generate tools that minimize the damages produced in the processing of raw materials such as metals and petroleum, which have an important environmental impact. In this regard, the cooperation activities between PUCRS and the Imperial College London (UK) have been very productive as a number of articles has been published, training programs have been developed and mobility of researchers has taken place. Energy consumption is a criterion for defining the viability of new technologies. In the metal-mechanical industry, the use of cast alloy products has led to significant energy reduction. In addition to that, the area of information technology is concerned with the development of virtualization techniques to minimize energy consumption of computer systems and thus, make use of machines for the rational use of resources. The development of technologies to capture CO₂ has a direct relationship to environmental sustainability as we are aware that the optimization of productive processes and minimization of energy consumption are not always enough to reduce the production of greenhouse-gases. The cooperation activities between PUCRS and Université Toulouse III - Paul Sabatier (France) are very strategic as they foster the development of actions in this area and have resulted in several publications, joint degrees and researcher mobility. As it brings technology and biodiversity together, sustainability is the driving force of the projects based on the studies on the rational use of natural resources, the reduction of environmental impact and the optimization of energy consumption presented above.

Theme 3 World in Motion: Individuals and Society

INTERNATIONAL COOPERATION PROJECTS

Name of the project Migrations: Historic and Conceptual Perspectives and Analysis of Contemporary Phenomena

Start date 01/11/2018 End date 31/07/2022

Description This project seeks to analyze the complex phenomenon of migration from different perspectives, by taking into consideration cross-cultural exchanges, social practices and patterns of interaction among individuals. These perspectives take place when individuals from different settings face stressful situations, at both the personal and family levels. Migration will be studied both in peaceful and conflicting contexts. In the first case, the feelings and perceptions of both migrants and the target setting locals where they move to will be an important factor to be explored. In addition to that, longitudinal processes involving the coexistence of traditions, practices, values and educational dynamics of the

source and target cultures will also be investigated. In the second case, the mere deterritorialization (a cause of significant suffering) is maximized by the trauma caused in the contexts that these migratory movements occur, such as in armed conflicts. The phenomenon of migration will be carefully assessed based on different complementary perspectives. This will allow for approaches at the macro (social, political, historical, legal, cultural and philosophical dynamics) and the micro (mental health of migrants and refugees - as well as the analysis of some evaluation methods - the feeling of strangeness, significance of loss and the reestablishment of ties with the old and new contexts, etc.) level of analysis. Such elements will be mapped out empirically and also in view of the theoretical, conceptual and normative productions on this issue. We will give special attention to the normative and legal discussions on the status of immigrants and the right to belonging. The most important strategic partnerships in this area are, as follows: (1) Universität Bonn: one of the most prestigious universities in Germany and Europe. This university has a long tradition of academic cooperation with CAPES and has been partners with PUCRS; (2) Università degli Studi del Molise – UNIMOL (Italy): a university partners projects with PUCRS in the area of migrations and general studies on transcultural processes between Mediterranean Europe and South America and; (3) Université Bourgogne Franche-Comté (UBFC): a traditional institution offering more than 400 academic programs. This university is highly internationalized and has a formal agreement with PUCRS.

Name of the project The Hidden Matrix of Violence in Contemporary Times: Crisis of Otherness, Morale and Ethics

Start date 01/11/2018 End date 31/07/2022

Description The project "The Hidden Matrix of Violence in Contemporary Times: Crisis of Otherness, Morale and Ethics" addresses violence from different disciplinary and theoretical perspectives. Additionally, topics related to violence, as a broad phenomenon, including human rights, human dignity, moral behavior and religious practices are addressed. On that line, the following issues will be investigated: incarceration policies and violation of rights; the consequences of the antidemocratic discourse in the production of violence; the concept of human dignity in everyday practices and the relationship between religious views and practices and morally virtuous behavior. Under a practical point of view, this project will investigate ideas to improve indicators in social vulnerable regions, such as psychosocial interventions for the prevention of childhood abuse. The analysis of these phenomena calls for an interdisciplinary perspective involving researchers from different graduate programs, such as: Criminal Sciences, Philosophy, Law, Psychology, Social Sciences, Social Work and Theology. Lastly, we have established partnerships with renowned institutions from abroad: University of Padova, second oldest university in Italy and a world reference in the areas this project seeks to address; Queen Mary University of London, renowned for its excellence in the areas of Philosophy, Law and Psychology and the University of Liège, in Belgium, a relevant institution in the area of Violence and Human Rights.

Name of the project Human Development: knowledges and practices for a world in motion

Start date 01/11/2018 End date 31/07/2022

Description "Human Development: knowledges and practices for a world in motion" brings together investigations that contribute to contemporary discussions about humanism in all of its theoretical, conceptual and methodological dimensions. In this sense, the project embraces actions that are intended to investigate the reality of Latin America, especially the Brazilian reality - which has strong historical ties with the European tradition - based on two perspectives, namely, internationalization and subjectivation. The former embraces investigations on the processes of internationalization both from a sociohistoric perspective, as it looks at educational changes caused by the actions in urban centers in Brazil populated by different groups of immigrants and their descendants, and from a contemporary

perspective, which seeks to compare the educational policies from Latin America to understand how effective the responses are for the challenges faced and for the construction of a model of curriculum internationalization. This model is key for the social and professional development of individuals who will be working in an increasingly international and multicultural context, guided by the principles of a global market. The latter involves the processes of subjectivation from specific philosophical currents. This will serve to foster discussions on the formation of democratic ethos of Brazil after the military dictatorship and economic, social and gender equality. These are indicators that make the Brazilian society one of the most unequal ones on the planet. Existing partnerships will be useful for the development of actions in this project, such as those with universities in Latin America, North America and Europe. Among such universities are the Universidad Nacional de La Plata, in Argentina, which has been partners with PUCRS since 2008. The institutions have an international cooperation agreement and have participated in the Bi-national Program for Associate Graduate Centers Brazil-Argentina, from 2009-2012, with support from CAPES and the Office for University Policies of the Ministry of Education of Argentina. PUCRS has also been partners with the University of Texas at Austin (USA), since 2002. This partnership has made it possible for both institutions to publish a number of articles and faculty and student mobility, especially through the Institute of Latin American Studies. Lastly, Newcastle University, in the UK, one of the members of the Russel Group, has had an active cooperation with PUCRS since 2014 for the development of research, publications and human resources.

Name of the project Macro and microeconomic aspects associated with economic, social, human and environmental development

Start date 01/11/2018 End date 31/07/2022

Description This research project looks at the macro and microeconomic aspects associated with social and economic development. The increased complexity of the business environment justifies the need to create new strategic capacities in companies. Active companies need to constantly adapt to new market conditions and develop capacities that propel their activities, their competitiveness and performance, including innovation processes, strategic orientations, resilience abilities, absorption capacities, knowledge management, understanding of market behavior and social relations in consumption contexts. This innovative and interdisciplinary project is calling for a new understanding of social development and socioeconomic dynamics and their multiple aspects, in terms of welfare, human, economic, social and environmental development. Therefore, the project is in line with the idea that development must embrace social equity and quality of life and foster improvements in the management and provision of responses to social and market forces. This will make the access to products and services universal (shared economy) and promote sustainable transitions through the efficient use of resources. This project is in line with international partnerships that had been developed in the area of internationalization with several countries (USA, Canada, Japan, UK, Spain, France, Sweden, Norway, Australia, Mexico, Portugal and Argentina). In this sense, three international universities, which PUCRS has been partners, are strategic for the development of this project: (a) HEC Montréal – research on social innovation (Centre for Research on Social Innovation) and creative economy (MOSAIC – accelerator of innovation and creativity); (b) University of Illinois at Urbana-Champaign – regional economy research (REAL – Regional Economics Applications Laboratory); (c) University of Georgia – research on consumption behaviors and on social relations in consumption contexts (Terry College of Business). The interdisciplinary and innovative nature of the project involves partnerships with different Graduate programs at PUCRS: Graduate Program in Business Administration (PPGAd), Graduate Program in Economics (PPGE), Graduate Program in Psychology (PPGP), Graduate Program in Computer Science (PPGCC), Graduate Program in History (PPGH), Graduate Program in Social Work (PPGSS) and Graduate Program in Social Sciences (PPGCS).

Name of the project Technology and Society in a globalized world in crisis
Start date 01/11/2018 End date 31/07/2022

Description Technological changes are largely responsible for the evolution of basic parameters of human conditions, such as the size of the world's population, life expectancy, schooling, material standards of life, nature of work, communication, health and the anthropic effects on the natural environment. Other aspects of society and individuals are influenced by direct and indirect technologies, too, and they involve governance, entertainment, human relationship and perceptions on morality, cosmology and human nature. Technological capacity - in its complex interactions with individuals, institutions, cultures and the environment - is a determining factor of the basic rules within which human civilization is called into play at anytime. Over the course of life, we can all become involved with one of more technological innovations: either as inventors, financial providers, investors, regulators, opinion leaders or as citizens, workers and consumers. Given the fact that technological revolutions have such profound consequences, one might think that they should be the focus on intense ethical deliberation and play a central role in the analysis of public policies of a common objective. If there is so much into play, it seems necessary to make a consider amount of effort to make sure we make the right decisions. However, they share some of the features of the same global trends that make us envision a gloomy and challenging future ahead of us, but also point to trends and opportunities of choice that lead us to believe in more hopeful and safer futures. In this sense, the projects developed in the academia are essential as are the joint efforts from Graduate Programs in several academic areas to face this issue in different aspects in a cross-sectional perspective. The project "Technology and Society in a globalized world in crisis" will congregate the efforts from the Graduate Programs in Computer Science, Law, Social Communication, Business Administration and Letters to address this problem with the employment of their unique skills and insights. The following international partners have been chosen: University of Jyväskylä (Finland), Universidade Paul – Valery III (Montpellier, France) and University of Hamburg (Germany). These institutions have a solid tradition of collaboration with the aforementioned Graduate Programs and are a reference for their intense scientific production in the areas of technology and humanities.

VALUES OF EXPECTED BENEFITS REGISTERED

BENEFITS	Amount
Cooperation project amount	R\$ 19.305.593,54
Work Missions not related to the cooperation project	R\$ 607.000,00
Scholarships not related to the cooperation project	R\$ 4.514.885,91
Other actions	R\$ 0,00
Project Total Amount	R\$ 24.427.479,45