

Evaluation Panel: SOCIAL SCIENCES - Psychology

Panel Members

Valéria Csépe (Chair)	MTA RCNS Brain Imaging Centre, Hungary
Gretty Mirdal	University of Copenhagen, Denmark
Jan Theeuwes	Vrije Universiteit Amsterdam, The Netherlands
Marie Tervaniemi	University of Helsinki, Finland
Michal Wierzchon	Institute of Psychology, Jagiellonian University, Poland
Timothy Papadopoulos	Centre for Applied Neuroscience, University of Cyprus, Cyprus

R&D Units

Centro de Estudos de Bem-Estar Psicológico, Familiar e Social (CRC-W)	Universidade Católica Portuguesa (UCP)
Centro de Investigação e Intervenção Social (CIS-IUL)	ISCTE - Instituto Universitário de Lisboa (ISCTE-IUL)
Centro de Investigação em Ciência Psicológica (CICPSI)	Faculdade de Psicologia da Universidade de Lisboa (FP/ULisboa)
Centro de investigação em ciências sociais e do comportamento (FP.B2S)	Fundação Ensino e Cultura Fernando Pessoa (FECFP)
Centro de Investigação em Neuropsicologia e Intervenção Cognitivo Comportamental (CINEICC)	Universidade de Coimbra (UC)
Centro de Investigação em Psicologia (CIP)	C.E.U. - Cooperativa de Ensino Universitário, C.R.L. (CEU)
Centro de Investigação em Psicologia (CIPsi)	Universidade do Minho (UM)
Centro de Investigação em Psicologia Aplicada - Capacidades & Inclusão (APPsy)	ISPA,CRL (ISPA)
Centro de Investigação em Psicologia para o Desenvolvimento (CIPD)	Fundação Minerva - Cultura - Ensino e Investigação Científica (FMinerva)
Centro de Investigação para o Desenvolvimento Humano (CEDH)	Universidade Católica Portuguesa (UCP)
Centro de Investigação William James (WJCR)	ISPA,CRL (ISPA)
Centro de Psicologia da Universidade do Porto (CPUP)	Faculdade de Psicologia e de Ciências da Educação da Universidade do Porto (FPCE/UP)
Centro Interdisciplinar de Investigação Psicossocial (CIIPSO)	Instituto Superior Miguel Torga (ISMT)
Instituto de Desenvolvimento Humano Portucalense (INPP)	Universidade Portucalense Infante D. Henrique (UPIDH)
Instituto de Psicologia Cognitiva, Desenvolvimento Humano e Social (IPCDHS)	Universidade de Coimbra (UC)
Laboratórios Digitais de Ambientes e Interações Humanas (HEI-Lab)	COFAC, Cooperativa de Formação e Animação Cultural, CRL (COFAC)

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Estudos de Bem-Estar Psicológico, Familiar e Social (CRC-W)

Coordinator: Rita Mafalda Costa Francisco

Integrated PhD Researchers: 21

Overall Quality Grade: WEAK

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 2
- (B) Merit of the team of Integrated Researchers: 2
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 3

Justification, Comments and Recommendations

The original scientific background of this Center is in social work. There is an ambition to strengthen psychological research further. It was clear from the presentation that this would be very much interdisciplinary psychological research with a very applied outlook. To attain this goal, the Unit aims to offer a doctoral program in Applied Psychology soon. The main contributions of the Unit focus on psychological, family and social wellbeing and digital environments. These include the study of predictors of empathy and prosociality, antecedents of healthy hygiene, literacy and health information processing, with particular attention to vulnerable groups such as children, adolescents, and illiterate adults. Other studies focus on families of different kinds, searching to have an impact on policies, and social wellbeing while trying to incorporate technology as a mediator of relationships.

However, the extent to which all these activities represent community work or structured scientific research is not entirely clear from the application. Rather, the Unit aims to harness knowledge from research to producing new treatment options for vulnerable societal groups. This interface between research and clinical applications is set as a priority. Nevertheless, albeit important this approach requires several resources and expertise to accommodate the needs of prospective students who can graduate as certified psychologists and register in the National Registry of Psychologists.

Other achievements include the Unit involvement in 2 Master studies programs, the organization of scientific meetings, and knowledge transfer to the community. They have also created and validated evaluation tools for the Portuguese population, on several fields, including sleep quality and empathy. One important step that needs to be taken to justify any funding is the development of a PhD program in applied psychology. The report suggests that accreditation has taken place (or will have taken place) by 2019, but during the discussion, we learned that the plan for accreditation still has not been submitted (expected submission somewhere after the summer). They request among other things 14 fellowships for this PhD program funded by FCT even though there is no evidence that this PhD will program ever see the light of day.

Furthermore, the Center is very much oriented locally, addressing very applied questions which all seem to have a firm footing in social work. There are few international publications and only a handful of activities with an international character. There is not a proper lab in place, but plans for such a lab are described in the report. We were not able to talk to any PhD students of psychology because there were none. Of the 6 post-doc that we spoke to only three were psychologists, yet all with a keen interest in social work. The ambitions of the Center are adequate. There are people in charge that envision a move towards psychological research and the overall work atmosphere seems to be collegial and supportive. Yet, the question remains whether it is advisable to invest in a Center that is at such an early stage of development, that has a very applied outlook on what psychological science entails and does not have a PhD program yet.

The team has a clear view of the future. Yet, there is not much evidence for solid psychological science. There are bits and pieces of some international research but the overall impression that it is local, very applied and very much directed towards societal issues in Portugal. There are 21 PhD integrated researchers, nine of which are psychologists which indicates that currently the critical mass to conduct solid psychological research is not in place. Given the current structure, it is unlikely that in the near future this RU will be able to attract substantial international grants. There was some discussion on Q1/Q2 publications, but the total number (14 in 2018 for the whole Center) remained relatively low.

The ambition for the future, the commitment of the organization and the ideas expressed were excellent. Ideas were formulated in a strategic plan indicating how basic and applied psychological science could work hand in hand to foster proper research. That being said, great ideas, good management but at this point limited evidence that these will result in a thriving research Center.

The Center requested 14 fellowships for the new PhD program and 8 fellows for the social work PhD. In addition, they asked for 2 post-docs. There are also some funds requested for infrastructure. The impression was that the request for infrastructural investments was driven by demands of individual researchers, not necessarily with a clear strategic plan for why investment in this infrastructure was crucial. There should be an idea of what infrastructure is needed above and beyond the individual researchers.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação e Intervenção Social (CIS-IUL)

Coordinator: Carla Marina de Matos Moleiro

Integrated PhD Researchers: 52

Overall Quality Grade: EXCELLENT

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 5
- (B) Merit of the team of Integrated Researchers: 5
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 4

Base Funding for (2020-2023): 908 K€

Recommended Programmatic Support

PhD Fellowships: 6

Programmatic Funding: 550 K€, including for 2 (1 Junior, 1 Auxiliar) New PhD Researchers Contracts.

Justification, Comments and Recommendations

Management: The organization is professional, due to excellent and effective leadership. It seems that there is active steering on the quality assurance of both research and researchers. The evident non-hierarchical structure promotes communication. Organization aspects shape up the team by consistent monitoring of research output. The CIS-IUL Center is backed-up by an efficient and international External Supervisory Board.

Research Coherence: The quality and scientific relevance of the group is remarkable with evident academic reputation. The research work of the Unit is organized in four groups: (1) Health for all (H4A); (2) Behavior, Emotion, and Cognition (BEC); (3) Community, Education and Development (CED); and (4) Psychology of Social Change (PsyChange). All research programs have the necessary cohort experience and strong links with relevant regional actors to play a significant role in Portugal and beyond.

Scientific quality: The Center is characterized by a robust research focus addressing current global and societal concerns. Research outputs of the faculty and young researchers of the CIS-IUL are numerous and range from basic and theoretical papers to published meta-analyses, major handbooks and other dissemination means with societal impact and value. The publications are strong as the state-of-the-art research performed by the R&D Unit has led to over 230 publications in the last five years in international Q1 (SJR) journals such as JESP, PUS, Brain, PAIN, or Dev Psych. The quality of the scientific output is verified by the high-quality publications, the international collaborations, and the significant funding that the members of the CIS-IUL have secured from several sources, including Horizon 2020. These achievements have been based on and led to adequate international collaboration.

Human Resource and Training: Resources are outstanding for the research carried out at the Center. The group members have taken maximum advantage of all funding opportunities that were offered over the last four years in Portugal and E.C. There are supporting programs at several career levels and, at a higher level, the PhD and Post-doc training. The latter offers young scientists a clear career track leading to an adjunct- and in the end to a full professorship. The Unit pays attention to the proper involvement of PhD students (52 integrated). The Center has also managed to sustain an adequate number of young researchers over the last 3-4 years. The onsite visit confirmed the high achievement observed in all of the above areas in the self-assessment report both for the research groups and for the individual researchers.

Theoretical advances: Research carried out in the Unit maps out the conceptual landscape of several social psychology topics with the critical ingredients for theoretical contributions to social psychology research. For instance, a previous study funded by the FCT research on common inclusive identities has theoretically expanded existing work on the Common Ingroup Identity Model, developing a new conceptualization (minority groups).

Multidisciplinary: The active collaboration among the members of the CIS-IUL also becomes evident from an integrative approach to psychological research. Cross-discipline collaborations and efforts involving principles such as biology, ICT, urban studies, architecture, sociology, or medicine are central to the scope of several studies. Integrated

Researchers are engaged in projects with significant theoretical and societal impact. Some of these projects are the INHERIT, a Horizon 2020 research project encouraging lifestyle changes from “take, consume, dispose” models, the ISOTIS and SAGE, EU-funded projects aiming at decreasing social and educational inequalities and increasing gender equality in academic settings, respectively.

Best Practices: The CIS-IUL supports the international mobility of the integrated and young researchers as part of the networking activities foreseen under the various ongoing projects. The mobility opportunities are designed, as an additional aspect of the Unit, to reinforce the contacts between different groups and to allow young researchers to begin early to establish international collaborations. Students participate in summer school and international conferences. Finally, through the reliable and valid assessment tools that the Unit develops, adapts, and standardizes, it contributes to the identification of conditions, establishment of preventive methods, accurate assessment, and management decisions to reduce social and economic burden. Several of these tools relate to the development of educational materials (games).

The Unit general aspiration is to engage in international networks. Among other objectives, LAPSO (the Laboratory of Social and Organizational Psychology), the central facility that supports research at CIS-IUL is planning to invest in EEG and eye-tracking and BIOPAC (psychophysiological measures), expanding the lab and its capacities. With the research themes being highly relevant and having a high scientific and societal impact with significant connections to clinical motivations, the research carried out the CIS-IUL will continue to provide an important link with the world outside the labs and even across the national borders. Therefore, the future perspectives are equally promising and are expected to continue to contribute to the vitality and international visibility of the CIS-IUL Center. Finally, with regard to the Quality assurance of the R&D, it is highly recommended to continue to attract prominent researchers in the field.

Overall, the members of the FCT Evaluation Panel conclude that the CIS-IUL effectively documented its strengths and needs and gave ammunition to advocate for additional key resources to the Institute administration and the State. The group capitalized on its strengths and opportunities with an emphasis on multidisciplinary in scientific areas spanning from developmental and social psychology to clinical, health psychology and cognitive neuroscience. This broad spectrum of research opportunities guarantees a significant incentive for new faculty members who join the Center and who once they find a research roof, they exhibit a remarkable development.

The budgetary request related to the strategy seems to be exaggeratedly high and therefore difficult to attain.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação em Ciência Psicológica (CICPSI)

Coordinator: Leonel Garcia Marques

Integrated PhD Researchers: 52

Overall Quality Grade: EXCELLENT

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 5
- (B) Merit of the team of Integrated Researchers: 5
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 5

Base Funding for (2020-2023): 808 K€

Recommended Programmatic Support

PhD Fellowships: 6

Programmatic Funding: 605 K€, including for 2 (Junior) New PhD Researchers Contracts.

Justification, Comments and Recommendations

The CICPI was founded in 2013. The Center has two lines of research: one fundamental and one more translational applied research. The fundamental line of research (called Cognition in Context or CO2) is very basic, with a focus on theory driven research in memory, speech perception, reading, and social cognition. These topics were introduced as independent subunits of the CO2, however, we were informed that research across these topics is conducted in many projects. The Unit uses the most modern techniques to investigate these issues including advanced behavioral techniques (eye tracking) and EEG, fMRI. During the interviews it became clear that the researchers using these techniques are very knowledgeable and were able to answer even the most difficult questions.

The applied research line is called ProAdapt with a focus on the applied issues regarding work life, education, and family, and changes in them (for example, leadership, teachers, cyberbullying, family resilience and various psychological interventions). Even though the research regarding the applied subjects is typically conducted in the field during the interviews or using questionnaires it became clear that even in these applied settings, basic theories were used to design interventions and methodologies. Answering questions of possible confused results in applied research (such as the danger of placebo effects), the researcher showed adequate knowledge and answered the question in a satisfactory way based on the advances of the design used (waiting-list control). So also the research with direct societal relevance is conducted well, using theoretical knowledge, adequate methodology and expertise from basic research. This is the optimal way to conduct applied research.

The research output between 2013 and 2017 was quite substantial with 442 papers (65% of the papers in Q1 journals). In the report, several high impact papers were named. The Unit CO2 had 18 researchers, 4 post-doc and 9 PhDs; ProAdapt had 38 researchers and 37 PhDs. The sizes of these Units are a bit uneven. Upon asking why there are differences in size, the answer was that this is mainly determined by the needs of the faculty of Psychology, this is mainly determined by the type of researchers that are needed to run the faculty of Psychology.

The Unit focused strongly on high quality training of its PhD students; several high level courses were available to be chosen and tailored to the specific needs of the students. Overall, the quality was excellent both in basic and applied research with a clear vision on how these different fields benefited from each other. This Center is a great example of how basic and applied research can go hand in hand stimulating basic, applied and translational research.

The groups of researchers that we talked to were driven, and passionate about their research. There were many examples of excellent theory-driven behavioral and neuroscientific research. In addition, also the applied and translational research was at a very high level. All 25 PhD students (except one) that we talked to were to publish their thesis in English. Most students had already at least one international paper and as a general requirement it is expected that at least two papers are submitted to international journals before a PhD degree can be obtained. In 2017 there were 49 integrated researchers with a PhD, and a total of 42 PhD students received advice from members of the Center. The amount of funding from international sources was a bit on the low side, and given excellent quality of research this should be stimulated more. All programs still teach in the Portuguese language except the cognitive science program. It

is highly advisable to have more programs with teaching in English so that better qualified students and staff from a larger pool of candidates can be attracted and, in parallel, those recruited be trained on a daily basis to use English as their working language. In other words, because one of the main goals for the future is to attract top researchers and top students developing more programs using the English language is advisable. It became also clear that the PhD students are all stimulated to go abroad and of the 25 PhD students that we interviewed about half of them indicated that they have spent some months in foreign labs. What was also excellent is that about half of the students were able to obtain some funding for their own research. Overall, our impression was that the Integrated Researchers were excellent, took great care of training and mentoring their students working in a collegial atmosphere.

The members of the Unit all showed clear ambition for the future. The commitment of the organization was evident, and management was in place. During the interview there was not much attention devoted to the way the management functioned but from the website we learned that there was an adequate structure. We also learned that the Advisory Board consisted of top researchers that strongly supported the Center. How exactly the Advisory Board affected the policy making did not become immediately clear. Our impression generally taken was that this is a thriving research Center which deserves the FCT support, too.

The Center requested in total 36 fellows for the various PhD programs and 2 post-docs. Furthermore, the Center requested money for support for participation in infrastructures and international networks and provided detailed account of the equipment that would be needed (for example, adaptation of two EEG rooms; acquisition of fMRI scanning sessions and installing a sound-proof faraday). It was good to read that all the investments planned were described in detail with a clear explanation why and how. Overall, the proposal and site visit were an exemplary case of a research Center with clear objectives, a well-thought strategy, and well developed plans for the future.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação em Ciências Sociais e do Comportamento (FP.B2S)

Coordinator: Ana Maria Sacau Fontenla

Integrated PhD Researchers: 30

Overall Quality Grade: WEAK

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 2
- (B) Merit of the team of Integrated Researchers: 3
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 2

Justification, Comments and Recommendations

The Behavior and Social Sciences Research Center was founded in 2013 and is composed of 30 Integrated PhD Researchers, 6 PhD students, and several collaborators. The members comprise a diversified group of scholars from the Faculty of Human and Social Sciences; half of them have Psychology training, and the remaining come from other disciplines such as Education or Literature. The general aim of the R&D Unit is studying human behavior while considering at the same time its contextual dependency, and with a strong emphasis on applicability. The challenges of the society that focus the work at the Unit are crime, health/quality of life and (digital) communication. These subjects are summarized by the interdisciplinarity of members and research lines, the applicability of knowledge and social commitment.

As described in the application, research at the Center is organized around three main themes. These are “Crime, justice and society” (the study of human behavior, from the perspective of crime), “Development, Health and quality of life” (the study of human behavior, from the perspective of normal and pathological human development), and “Media and digital humanities” (the study of the media and digital humanities, considering their impact on human behavior). During the site visit, where the Panel inquired members about details of the projects, it was observed that their approach focuses mostly on sociological and qualitative analyses.

Management: The Coordinator leads the RU, along with one representative of each of their three research lines. During the site visit, the Panel learned that one of the primary missions of this board had been restructuring the focus of the R&D Unit following the feedback from a previous evaluation. However, due to the lack of funding, they have not been able to set in place a more elaborated strategy. The application does not address specific goals and details of the research performed and characterized by abstract formulations and by missing relevant experimental information about the study of human behavior.

Scientific quality: The R&D Unit has conducted activities toward internationalization, such as presence in international networks and conferences, and serving as reviewers for international journals. However, the profile of representative publications reflects a rather limited international impact, as it includes mostly local journals or international ones with low impact in the field or even no JCR metrics. A significant majority of the contents of these publications reflect survey data or observatory analyses, and research linked to psychology and human behavior with a translational aim to effective interventions is not explicitly documented.

The limited international impact of the RU is also reflected in the profile of external advisors proposed. It is suggested to invite an External Advisory Board able to steer the R&D Unit towards contents and methods closer to international, high-impact R&D in the field of psychology.

Research Coherence: As stated in the application and stressed during the visit, one of the descriptors of the work performed in the Unit is its multidisciplinary. This is reflected in the academic background of the members, and also on their lines of research. There are common interests among the members, who share a social commitment and aim at obtaining knowledge that can be applied to society. However, during the site visit, the Panel did not observe clear strategic goals to bridge across the research lines, but rather researchers working on different topics of their interest. The R&D Unit is advised to continue to modify its strategy to ensure its competitiveness in the research area it specializes in. Equally important is the search for external funding, which not only has not yet been secured by the Center, but it does not seem to be among the primary objectives for the next period.

Human Resources and Training: The R&D Unit is linked to two PhD research programs, "Language Development and Disorders" and "Information Sciences". In the application, three research projects were described to support the request to the current call of 3 PhD scholarships. However, the international standards of novelty were not met by the content of these proposals, which blurs their benefits and deters high-impact future publications. During the site visit the Panel had no opportunity of interviewing PhD students or early postdoctoral researchers, who could provide a positive addition to the evaluation. The Center should seek ways to attract the right people and recruit both top-researchers and young investigators, aiming at increasing international recognition and visibility. This objective should be vigorously pursued.

The CVs of the researchers shows limited internationalization and the majority of publications in national (Portuguese) journals, and with contents with limited reach of behavioral, psychological quantitative research. Whereas some of the reference researchers of the Unit display certain levels of internationalization of their activities, other reference researchers present either low publication rates or mostly local contributions without international impact.

The plan of activities of the Unit taps areas that would improve the impact and aims of the group, intensification of scientific research, promotion of national and international recognition and transfer of knowledge to society. However, the lines of activities planned to reach those goals do not seem, in part, to be focused on quantitative psychological research but rather on general abstract analyses of "crime, justice", "development, health, quality of life" and "media and digital humanities". The R&D Unit maintains the database of the Archive for Portuguese Experimental Literature, although this seems more a bibliographic or literary goal, rather than a means to increase research impact.

For the Center to develop into a recognizable R&D Unit, it is important to grow both in focus of research and on internationally competitive psychological contents. This growth could lead to improve the funding, the number of investigators involved, and the number of outside collaborations within Portugal and abroad. Most importantly, a strategic plan for the development of trained junior researchers and the number of papers published in peer-reviewed journals with international impact is desired and should be highly valued.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação em Neuropsicologia e Intervenção Cognitivo Comportamental (CINEICC)

Coordinator: Maria Cristina Cruz Sousa Portocarrero Canavarro

Integrated PhD Researchers: 39

Overall Quality Grade: EXCELLENT

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 5
- (B) Merit of the team of Integrated Researchers: 5
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 5

Base Funding for (2020-2023): 615 K€

Recommended Programmatic Support

PhD Fellowships: 6

Programmatic Funding: 510 K€, including for 1 (Junior) New PhD Researcher Contract.

Justification, Comments and Recommendations

The Center for Research in Neuropsychology and Cognitive and Behavioral Intervention (CINEICC) in the University of Coimbra was founded in 2003. It incorporates a significant number of researchers: 39 integrated Ph.D., 93 Ph.D. students, plus an extended network of collaborators. They work in four different but interrelated research lines, with both specific scientific interests and transversal goals and projects. These are “The study of determinants and processes of mental health and disease”, “The development of screening and (neuro)psychological assessment tools”, “The development, application, and assessment of empirically-based psychological interventions”, and “The study of neurocognitive processes with translational potential”. The Unit members collectively form a highly active community that generates research both at basic and applied levels and also lead several lines of application of this research to interventions for different populations and transfer of knowledge to society. This transfer also includes stakeholders, which have the potential to influence the lines of research pursued about problems faced by society. As they summarized during the site visit, their overall research goals are (neuro)psychological functions and basic neural and cognitive processes, and developing and implementing empirically-based clinical interventions towards the promotion of health and wellbeing in different developmental stages, in clinical and community settings.

Management: The management board is composed by the Unit Coordinator and a board of directors, including the 4 leaders of each of the primary research lines of the Unit. The organizational strength of the Center is a key feature of its success. As evaluated during the site visit, there seems to be constant awareness in what happens within the Center as well as in the scientific community at large and what is needed to keep up standards and quality proactively. Also, there is a high number of Principal Investigators who are young and included in the decision-making process of the Unit, which strengthen their management structure. The Center is also backed-up by an efficient and internationally renowned External Supervisory Board.

Scientific quality: A robust research characterizes the Center, which focuses on addressing current global and societal concerns. The translation of research in intervention programs, such as for juvenile offenders or school teachers, neuropsychological adaptation to Portuguese population and cognitive testing represents a high-priority for the funds obtained from society. Another strength lies in the willingness to use innovative tools for testing the interventions, including several biological sources of information, which aligns the Unit with forefront current tendencies.

Their productivity is at present overall quite good. Given the high-quality of the projects running on the Center, it would be expected that the impact of the journals reached by the Unit members increases to higher levels. Also noteworthy is the large number of collaborations that the Unit members maintain with national and international researchers, and the significant funding that they have secured from several sources, including Horizon 2020 and an ERC individual starting grant.

Research Coherence: The quality and scientific relevance of the group is remarkable with evident academic reputation and also essential ties to the community. All research programs have the necessary cohort experience and strong links with relevant regional actors to play a significant role in Portugal and beyond. The researchers have the potential to

grow and excel in their specific research fields and continue to acquire the competencies that are necessary for the future.

Human Resources and Training: The PhD programs, particularly considering the strong leadership and academic mission, but also the interdisciplinary approach and the strong organization, are excellent. The strategic development and ties with the doctoral programs have enabled this group with the ability to provide training for psychology scientists in Portugal but also from other parts of the world.

As ascertained during the visit, the research activities of the postdoctoral researchers and PhD students are intense, well-focused with the general and specific goals of the Center, and aimed at excellence in international terms. Also, PhD students receive training in accordance with international standards, which will help them build their career and have future competitiveness in international markets. This training includes stays in international labs for part of their training when possible, a write-up of applications to obtain further funding and networking with national and international colleagues who work in areas of common scientific interests.

Postdoctoral researchers also have an international orientation. Several of them have already secured funding (for which they are Principal Investigators) and run lines of research in collaboration with more senior partners. They are also involved in grant writing with their colleagues and collaborate in the supervision of master and PhD students.

Societal impact: The research themes are highly relevant and have a high societal impact with significant connections to clinical motivations. On the one hand, they provide a strong link with the world outside the labs and even across the national borders. On the other hand, the group also has strong ties to basic research, and several research lines focus on testing neuroscientific theories and clinical interventions. During the site visit, it was discussed how the Unit has a right balance between basic and applied research, which helps to reach its goal efficiently. The Unit has a highly interesting combination of these two sides of research, which results in the real application of experimental results to the development of novel and potentially highly innovative avenues for therapy.

The scientific productivity is at present overall very good. The CVs of the Coordinators of the research groups show high levels of scientific activities sustained in time. Most of the members of the Unit show strong publication records in JCR, international journals, often in collaboration with foreign researchers. The quality of the scientific output is verified by high-quality publications in journals such as Cerebral Cortex. However, the range of impact of part of the international journals where the research is published is medium, which suggests that the group can still grow in terms of the quality of their research and international impact. Given the high-quality of the projects running in the Center, it would be expected that the impact of the publications disseminated by the Unit members increases to higher levels.

The incorporation of international researchers improves the profile of the researchers. The Unit has increased its capacity to attract international talent, and some of the young researchers are joining from countries other than Portugal. This widens the visibility and outreach of the Unit and its cultural diversity.

Although the organization and aims of the Unit direct the activities toward internationalization, they also manage to maintain a balance between national and international fronts. For example, some of their work on neuropsychological evaluation is focused on the Portuguese population, and some of their health interventions take place in Portuguese communities.

The objectives set for 2018-22 are aligned with the Unit previous activities and seem adequate to maintain and increase the activities of the Unit. These strategic goals include:

(1) Strengthening the international recognition of the Unit, by applying for European and other research funding, participating in projects with international researchers, contributing to international consortiums, increasing the quality and quantity of international publications, the international co-supervision of PhD students, taking part of editorial boards of international journals, participating in international science evaluation panels, providing consultancy to international institutions and projects, giving keynote talks in international conferences, and aspiring to prestigious international prizes. They also aim at attracting international researchers to visit and collaborate with the Unit and to have their researchers do the same in international labs.

(2) Increasing national partnerships, which include many different Portuguese governmental and non-governmental institutions, R&D Units and industry partners. They also plan to participate in national consortiums, such as the ProChild CoLAB.

(3) Building research capacity, by promoting research innovation and independence of postdoctoral fellows and Ph.D. students. They also aim to continuing to improve the graduate and postgraduate training of researchers.

- (4) Optimizing dissemination of research by increasing the quality and quantity of publications in peer-reviewed journals, and the organization and participation in scientific meetings.
- (5) Promoting the transfer of knowledge to the communities, with projects, products, manuals, assessment tools for the Portuguese population, consultancy, and media outlets.
- (6) Capturing further external funding for research projects and human resources (individual fellowships and contracts).

Their budget requests refer to several types of support, including:

16 PhD scholarships, four postdoctoral researchers (2 junior, 2 at the assistant level) to support the central research axes in the Center: big data scientists, translational neuroscience, and a psychologist with a profile of clinical interventions, two positions for science management and coordination, support for the building and lab renovations that are currently taking place to upgrade old installations and allow more shared space for researchers, funds for participation in international networks and devising web-based interventions, as well as conference organization

The budget contains sections that were underspecified, for example, the 100,000 Euros requested to obtain epigenetic correlates of behavioural interventions. The utility of a navigation system for a tdCS protocol (as requested) is not yet established.

In spite of the above, the Unit should also pursue the following goals:

- Elaborate a plan to establish general guidelines to test the pertinence and efficacy of innovative markers to evaluate interventions. In the same manner, general guidelines should be in place to assess the innovative interventions being tested before the products are offered as research-confirmed to the general population. This plan could benefit from the inclusion of frequent training activities, for both young and senior researchers, related to open science best practices such as pre-registration, power-calculated sample-sizes, or replication of results across different experiments and labs.
- Potentiate the publication of research in even higher-tier journals in relevant fields.
- The majority of students in the RU graduated from the same or close universities and would like to stay in Portuguese organizations after their graduation. To fully insert the Unit in the international scientific community, it would be advisable that its researchers also move to foreign laboratories for postdoctoral and senior positions. To promote this, the Unit could elaborate a plan to potentiate the international aspirations of young researchers, by showing them the benefits of this mobility.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação em Psicologia (CIP)

Coordinator: Maria Odete Neves Fernandes dos Santos Nunes

Integrated PhD Researchers: 27

Overall Quality Grade: GOOD

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 3
- (B) Merit of the team of Integrated Researchers: 2
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 2

Base Funding for (2020-2023): 329 K€

Recommended Programmatic Support

Programmatic Funding: 10 K€.

Justification, Comments and Recommendations

Management: CIP has integrated a group of researchers as a result of the partnership with another Management Institution (UALG), which might in the future allow setting more ambitious objectives in terms of the CIP's national and international visibility and recognition. Earlier in 2015, the two teams were already working together mainly based on professional affinities. Now the cooperation happens through Skype and occasional visits. It was however difficult to see the result of the integration, and the added value of the merger, especially because the Lisbon group did not have PhD students which could have reinforced the collaboration between the two Centers (see also section on training). At the project level, however, it is difficult to see the integration.

Scientific quality: The main projects were in the following areas: (1) stress and potential vulnerability, such as family, work and societies in situations of armed conflict (war, post-war, peace operations); (2) action-research with concrete positive effects on the populations studied; (3) relationship between the psychological and biological and cultural variables that interfere with the disease and health mechanisms (4) to adapt psychometric instruments to the populations involved (5) the predictors of well-being in different countries and cultures based on the analysis of certain individual characteristics; (6) changes in the world of labour, (7) health prevention and promotion factors and more efficient pedagogical strategies and methodologies.

The Panel appreciated the societal importance of the topics but had also several concerns, the main one being that most of the research is based on the evaluations of intervention without reflection on theoretical justifications of the interventions or hypotheses on how and why they have an effect. The methodology is inspired by phenomenological and qualitative methods, which is of absolutely legitimate, but not always adequate to answer the questions that are asked in the projects. More controlled methods could improve the reliability and validity of the results.

Research coherence. The dissemination of the research is not circumscribed to the academic community, there is an emphasis on sharing the research with front-line practitioners and stakeholders. In this respect publishing in *Psike* is useful, and the contributions of the Center at the national level are good, but the amount of publications in international high level journals was judged not to be encompassing enough.

Human resources and training: There are both strengths and weaknesses that appear in the application and the presentations during the site visit. There was a remarkable engagement among the researchers. The Panel found it is positive that research is produced and disseminated through scientific events, publications (though mainly at the national level), co-operation with other national and international research institutions, and it is positive that there is training of junior researchers. Students are integrated in the ongoing projects which are generally societally meaningful and important. It was also appreciated that a high level journal, *Psike*, gives a platform for scientific publications and dissemination in Portuguese, but it entails the risk that PhD do not aim at publishing in international journals.

The Panel is aware that there is a vicious circle in the fact that not having funding for PhD students handicaps the Unit, but it cannot be denied that the amount, quality and internationality of the research is not at an optimal level. The Panel regrets not to have been able to interview the PhD students affiliated to Algarve.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação em Psicologia (CIPsi)

Coordinator: Pedro José Sales Luis Fonseca Rosário

Integrated PhD Researchers: 44

Overall Quality Grade: EXCELLENT

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 5
- (B) Merit of the team of Integrated Researchers: 5
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 4

Base Funding for (2020-2023): 801 K€

Recommended Programmatic Support

PhD Fellowships: 6

Programmatic Funding: 605 K€, including for 2 (Junior) New PhD Researchers Contracts.

Justification, Comments and Recommendations

Management: CIPsi seems to be a renewed group, and compared to previous assessments has achieved a lot and showed an incremental development in performance. The Center meets the eligibility criteria for further financial support in several ways which span from management and scientific output to quality assessment. The leadership of the group is excellent, including a Board of Directors, a Scientific Council, and a Scientific Manager. The academic reputation of the Board members is of high standards, and the team has the potential to continue to pursue and achieve the specific research objectives of the R&D Unit.

Scientific quality: Collaborations with other groups, mainly from abroad, have not only enhanced visibility, but they have also intensified and led to synergy in both quality and output of the research in top-tier journals. Publication output is of very high standards. Research output has been increased by almost 50% whereas the number of citations has nearly tripled since 2012. Although research quality cannot be easily quantified, these indicators speak for the research productivity, influence, and recognition of the scientific output of the Unit. The R&D Unit shows a significant focus in confining its research to eight significant themes in cognitive, clinical, educational, developmental, and forensic psychology as described in its mission. This line of research seems to be well-aligned with the know-how and existing infrastructure of the Unit.

Human Resource and Training: The Integrated Researchers provide active support to the training of doctoral and post-doctoral fellows and seek ways to keep people aboard after graduation from their doctorate. CIPsi members identify this objective as being of paramount importance for the development of the young researchers and set it as a priority.

Research Coherence: The Center has taken advantage of the presence of the unique population of the northern provinces of Portugal. Specifically, the group of researchers has been critically involved in the development of various intervention and clinical programs and has capitalized on the strong links to bring clinical and epidemiological expertise together. However, the impact of the intervention practices that bear the trademark of the Unit, such as the MENTOR program, has expanded in several other regions in the country and abroad. Therefore, the research agenda is highly relevant both on a scientific and societal level. The level of internationalization is notable with strong bonds not only within Europe but also worldwide.

The notable delay in the promotion procedures of the Assistant Professors might be a threat, but the group seems to have developed mechanisms not only to support and motivate the junior faculty but also to attract other bright young people, making a strong effort to continue producing high impact work. Several of these young researchers have obtained research experience elsewhere, while others are encouraged to use the existing network of collaborations to gain more exposure abroad. After they broadened their scientific view, and with the support of the senior faculty of the research group, they are invited to write grants. A significant proportion of the young post-docs have established an independent research program, bringing in new funds (primarily national) to the Unit. This development ensures the quality of the new research programs developed by junior investigators. The funding also guarantees the independence of the young investigators.

CIPsi also believes in giving its doctoral students opportunities to access to as much knowledge as possible. That is why the Unit, through internal funding, provides grants for students, contributing to the cost of traveling abroad to attend or participate in academic conferences. The research grant is also used for thesis or dissertation related research and training.

Future potential: With a focus on clinical applications, the group can continue building strong research collaborations with other national and international Centers, studying phenomena that are both theoretically and societally central. The Unit has also led the development and support of new doctoral programs and furthered the scope of PhD activities on offer. Judging from the admission numbers, the programs are a success, and are likely to grow in popularity over the next years.

Societal impact: The work of the group is of very high relevance both on a scientific and a societal significance, as identified by aspects of the health services research performed, and by the substantial future potential of the cohorts participating in the study with a neurodevelopmental disorder focus (ASD, WS). The research themes provide an essential link with the world outside the labs and even across the national borders. Regarding quality assurance, with emphasis also placed on the undergraduate psychology programs, it is advised that the integrated researchers and post-docs supporting the doctoral programs are continuously and systematically involved in the training of young researchers.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação em Psicologia Aplicada - Capacidades & Inclusão (APPsy)

Coordinator: José Henrique Pinheiro Ornelas

Integrated PhD Researchers: 32

Overall Quality Grade: GOOD

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 3
- (B) Merit of the team of Integrated Researchers: 4
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 4

Base Funding for (2020-2023): 347 K€

Recommended Programmatic Support

PhD Fellowships: 2

Programmatic Funding: 155 K€, including for 1 (Junior) New PhD Researcher Contract.

Justification, Comments and Recommendations

The APPsy Research Center has been established recently, in the beginning of 2018, and is thus to be evaluated as a new proposal. At the time of proposal submission, it was composed of 32 integrated PIs, 17 collaborators and 12 integrated non-doctor members, 10 with PhD student status.

Prior to the Center was established, the Integrated Researchers have displayed various fields of training and scientific expertise in the domains of applied and social psychology as well as psychotherapy research and practice. However, based on the documentation in the proposal, the evolving Center was initially rather fragmentary and, besides good success in obtaining Horizon2020 funding, the international merits of the integrated researchers were relatively limited. Yet, some high-level publications and congress activities were documented in the proposal as well. As evident during the site visit, in 2018 the number of international peer-reviewed publications has increased remarkably, being over 30.

As also evident during the site visit, the Center has invested considerable time and effort in order to structure their research activities and, in parallel, to find cohesion in it. Currently, the Center consists of eight teams, each with several senior and junior researchers with appropriate qualifications. It is noteworthy that this does not always imply scientific qualifications, instead, also professional merits (e.g., in clinical psychology) are of importance. This dialogue in its best is highly likely to ensure scientific efforts which carry high-impact societal implications.

As a result, the Center has a logical, innovative, and meaningful structure which enables high-level training and research activities. Both of these were explained to have well justified origins either in societal or scientific demands and initiatives, or in both (an issue which remained highly unspecified in the original proposal).

Scientific leadership and coordination is at a high level so the systematic development of the Center activities is also likely to be ensured in the future.

The Integrated Researchers have promising individual profiles in scientific, dissemination, and societal activities. In some cases, their international profiles are not at the optimal level. However, in some cases there is strong international background which can be predicted to be highly useful for the Center as a whole. Engagement and motivation in various academic and clinical roles (which are active in parallel) is noteworthy at individual and organizational level.

In the future, it would be advisable to enable all or the majority of the Integrated Researchers to invest full or part time efforts in research and clinical roles according to their plans for future career prospects. Training and teaching activities are naturally of importance as well.

The objectives and strategy of the Center are innovative and feasible. For instance, an issue which might be considered as a weakness, namely life-span approach which deposits challenges for psychological background theories and methodological choices, was considered as a strength with high promises to give integrated "big picture" of human developmental time course later on.

In an adequate plan of scientific and PhD training activities and organization, the Center introduced a coherent, dynamic, and multimethodological approach for their future work. The plans also include good future plans regarding research projects and community activities. For each of the areas there is already a programmed calendar for institutional thematic colloquia on Clinical, Health, Social or Community Psychology (one for each year). There is also the weekly regular Conference Cycle where integrated members and collaborators are going to present their research. The APPsy also proposes internal, but open, seminars and an annual open day.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação em Psicologia para o Desenvolvimento (CIPD)

Coordinator: Paulo Alexandre Soares Moreira

Integrated PhD Researchers: 16

Overall Quality Grade: GOOD

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 3
- (B) Merit of the team of Integrated Researchers: 2
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 2

Base Funding for (2020-2023): 138 K€

Recommended Programmatic Support

Programmatic Funding: 10 K€.

Justification, Comments and Recommendations

During the evaluation period, the researchers of the Center published 93 papers in scientific journals on personality psychology and wellbeing with broad societal implications in the field of educational sciences and school psychology. They also published in edited volumes and national journals and have initiated launching a new national journal in order to disseminate their research output among a readership without sufficient knowledge in English. By these means, their knowledge of societal issues in the field of school psychology and educational sciences will get larger national attention among specialists in education and clinical psychology.

International collaboration and activities are exemplified by close collaboration with professor Cloninger, joint project with southern American researchers in Chile based on invitation (Prof. Moreira), collaboration with Anthropedia foundation, as well as contributions in the International School Psychology Association (Dr. Coelho). However, large-scale contributions in international scientific organizations, congress management or editorial services in international peer-reviewed fora were not made explicit.

The Center pays attention to the proper scientific involvement of their PhD students (2 Integrated) within the Center. However, there is a lack of a local PhD program in which they could be involved, leaving systematic research training somewhat scarce within the Center. It seems advisable to involve more Integrated Researchers on the pre-PhD level. Students of the Master program are well integrated in the research activities.

In sum, the Center performs relatively well both in basic research and in R&D of societal value, including plans for consultation, apps, and also patents to protect their product on self-development of schools (the strategic plan for the registration and commercialization has not been present yet at the visit). However, their research funding is currently solely based on the national FCT projects governed by Prof. Moreira and thus can be considered as relatively vulnerable in the future. International funding agencies are worth consideration in future.

The Unit main aims and contributions are documented in the proposal as follows:

- 1) Knowledge advancement and applications such as a) Basic research; b) Translational research (integrating contributions from different basic research, person-centered and population-oriented research); c) Applied research (e.g. developing and testing assessments and interventions for use in different contexts). The Unit is also involved in counselling activities (e.g. within Anthropedia Foundation project). Is not clear whether all the applied activities fulfil the definition of R&D.
- 2) Publications: Preparing and submitting publications with an orientation toward high quality, international, peer-reviewed journals.
- 3) Training: Initiating undergraduate students to research and involving Masters and PhD students in ongoing research projects.
- 4) Dissemination: Publishing a bi-annual peer-review scientific journal and organizing 2 annual conferences/seminars.
- 5) Knowledge and technology transfer and promotion of scientific and technological culture e.g., in collaboration with schools.
- 6) Respecting the practices and principles of Open Science: 3/5 selected publications are in open access journals.

7) Internationalization: Development and participation in cross cultural research groups and projects, and inclusion of international researchers in projects.

During the site visit, emphasis was given on collaborative activities with schools which are closely related with studies on engagement. Also a project with prisoners was highlighted. These collaborations have resulted in successful collection of large longitudinal data sets using self-report questionnaires. Due to practical reasons, no systematic RCT trials using different interventions or questionnaires to the use of teachers or parents in order to cross-validate the evaluations have been launched.

Broadening the methodological and theoretical scope might be worth considering in future. Steps towards comparative theoretical work (Cloninger vs. Rothbach) have been already taken.

In the original proposal, the research work of the Unit was organized in five groups. During the site visit, new organization based on four groups was introduced: (1) Psychobiological personality, (2) Socio-emotional Learning, (3) Deviant Behavior, and (4) Engagement. Each of the groups is coordinated by a PI who also participates in a Directive Board, internally nominated by the Center.

However, it remained unspecified how the coordinating and research responsibilities are distributed between the PIs and between the PIs and the rest of the groups. Future strategies about the research and training activities remained unspecified as well. This holds also for internationalization which is currently mainly conducted via individual researchers work in international societies and networks as well as via research collaborations.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação para o Desenvolvimento Humano (CEDH)

Coordinator: Raquel Maria Navais de Carvalho Matos

Integrated PhD Researchers: 23

Overall Quality Grade: GOOD

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 3
- (B) Merit of the team of Integrated Researchers: 3
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 2

Base Funding for (2020-2023): 250 K€

Recommended Programmatic Support

Programmatic Funding: 10 K€.

Justification, Comments and Recommendations

Management: Unit management is project driven. This Center is newly founded, and although there are potential opportunities for a robust integrated research program, if the groups were to work on a joint string of themes, at the moment, each group seems to focus solely on its own specialty, even though some researchers participate in several of them. There is an evident need, as also declared in the Center self-assessment report, for scientific infrastructure, that is not currently available for the Center to use it to its full advantage. However, the Panel devoted appropriate time and insisted on clarifying whether the development of the research infrastructure should include neuroscience tools, that seem not suitable for the set objectives.

Scientific quality: CEDH is an R&D Unit with a team of 23 (25 at the time of the visit) Integrated PhD Researchers having performed applied studies of diverse methodology and focus. The research activity has significant societal impact and outreach at the national level. However, the visibility of the Unit at the international level is limited. CEDH has listed 595 publications over the 2013-2017 evaluation. Nevertheless, the majority of these publications are not published in top of tier international journals and they do not provide a clear picture of the leading areas of research realized within the R&D Unit. Integrated Researchers have secured a significant amount of external funding both from national and European sources, primarily as collaborators in projects coordinated by other sites in Portugal and abroad. Although this is a significant achievement, they are highly encouraged also to pursue external funding as projects Coordinators.

Human Resource and Training: CEDH has also established an international collaboration network in Europe and beyond. However, this network is neither intrinsically involved in the research agenda of the Unit, nor contributes to the research outcomes of the Unit or the training of the young researchers. Even more, the External Advisory Board, albeit it consists of renowned scientists has a somewhat limited internationally impact. For the R&D Unit to continue to improve, it is required not only to capitalize on existing collaborations but most importantly to build partnerships which will allow reinforcing the necessary international contacts for further development. Such international scientific cooperation will also be improved by an increased focus on attracting researchers from international groups at the postdoctoral level.

Research Coherence: The Unit identifies its research background on educational sciences and more recently on social and educational psychology. Ongoing and completed studies touch on issues of education and of the judicial system, and also include action studies on drug addiction in refugees' population, eating disorders, and other relevant themes. The Integrated Researchers have various professional backgrounds such as education, psychology, biology, and art. This variety of subjects, although promising, has shown the inherent difficulties of integrating research lines of high complexity. As a result, the members of the FCT Evaluation Panel observed a weakness in possible synergies between different topics and projects both at a theoretical and methodological level. It is highly recommended that the research focus should become more directed to create intertwined programs with critical mass. The Unit, as a team, should devote the required time and energy to look for ways to develop further so that the Unit may be benefited from the existing expertise. Networking with other institutions in Portugal and abroad and with colleagues with extensive experience in publishing in top-tier journals will channel the energy of the Center in a new and promising direction.

Research at CEDH is carried out in the context of focused efforts to improve the quality of life of different societal groups. It is designed and conducted in collaboration with practitioners and the public with the aim to analyze the data and improve their practice and well-being. However, the theoretical contribution is vague, and the methodology of the studies is not optimal in some research activities under development (e.g. tapping neuroscience). At this stage, the Unit needs more time to develop a solid ground and expertise to build up and run a new laboratory devoted to neuroscience.

The strategy of the Unit includes the development of the PhD program in collaboration with Nottingham Trent University and Blanquerna University Ramon Llull. However, the description of the relevant actions did not convince the Panel that the Unit utilizes the full potential of the existing international network, as the responsibilities of different partners toward this endeavor are not clearly defined.

The Unit has presented a strategic plan for 2018-2022. However, the strategic plan lacks a clear flow of activities and organizational structure supporting the R&D Unit development in a concrete and feasible manner. To improve productivity, and to encourage the development of a coherent research plan, the Center should be strongly advised to create and to take the guidance of a high-quality External Advisory Board. Such an EAB with relevant expertise and international background could contribute to a visible development of the Center.

Finally, management and leadership are performed on a liberal basis, which seems to be successful in the good workplace atmosphere of the R&D Unit. However, the strategic plans of the Unit require more robust management protocols and consistent attempts to justify research that would produce a research team mentality, project coordination, and scientific synergy. The future success of the Unit is based upon a more deliberate coordination between the four CEDH research theme areas. Better value could be achieved by shared PhD students and joint appointment of postdocs between research programs to leverage talent and resources, and produce innovative capabilities.

The Panel members do not propose to not allocate Programatic Funding to this Unit due to lack of coherent and feasible strategic plan of development.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Investigação William James (WJCR)

Coordinator: Gün R. Semin

Integrated PhD Researchers: 28

Overall Quality Grade: EXCELLENT

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 5
- (B) Merit of the team of Integrated Researchers: 4
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 5

Base Funding for (2020-2023): 510 K€

Recommended Programmatic Support

PhD Fellowships: 6

Programmatic Funding: 200 K€.

Justification, Comments and Recommendations

The RU results from the combination of researchers from different universities (UA, ISPA) who recently merged but had a continued relationship in PhD supervision, grant application and research collaborations. During the site visit, we inquired the Coordinator about the reasons for not merging with other researchers in the same university, and the reasons explained were differences in research interests and methods. The research of the Unit is organized around four clusters, Emotion and Olfaction, Translational Evaluation Psychology, Social Development, and Cognition. The activities of the RU encompass both basic research (behavioral relevance of odor and memory processing), with a link to biological markers (e.g. chemosensory processing and its effect on behavior) and applications with social network approaches to emotional wellbeing and health, adjustment to crises, and family social development.

Management: the Unit is run by a Coordinator and a representative of each of the two universities, which are assisted by a scientific Coordinator and also uses the advice of an External Advisory Board. The Unit members are divided in two groups, according to their scientific qualifications in number and quality of publications and related merits (this status is revised every two years). "Core" members are entitled to funding, whereas "auxiliary" members are not. In the application, it was not fully clear the benefits (vs. downsides) of separating researchers between core and auxiliary categories.

During the site visit, we learned that there are no specific actions in place to support the increase in qualifications of auxiliary members, and that the basic strategy for this relies in attracting talented postdoctoral researchers to the Center. The general impression of management of the RU is that most of the strategy and core decisions rely on a very limited number of researchers of the Unit.

Scientific quality: The productivity of the Unit in research publications is of high quality, including journals of high international impact and significant theoretical reach (e.g. Perspectives on Psychological Science). The reference researchers present an extended set of activities that show their international impact and influence. It is however noticeable that a large part of the milestones presented in terms of impact are associated with individual leading researchers and not with the Unit as a whole. This resonates with the feeling that some lines of research are far apart from each other, and that different families of researchers live in the Unit (although some collaborations exist).

The Unit also collaborates with engineering departments to generate innovative research and markers using wearable technologies for psychophysiological assessment of emotions and task performance. This research could potentially offer highly applicable results and patents. They also work on chemosignals, which could also offer a great deal of applications, but could however generate ethical issues if results were misused.

Research Coherence: The research in the Unit takes place in four different domains, mentioned above. Although there is overlap in the research carried out in these domains, there is also a certain degree of separation among them. During the site visit, we learned that whereas individual research groups meet very frequently, there are fewer activities aimed

at increasing the collaborations among the different lines. However, the Unit plans to have lab retreats with all Unit members in both Lisbon and Aveiro, to facilitate lab cohesion and incentivize collaborations.

Human Resources and Training: The Unit includes a high number of PhD students, with significant representation of both genders. They belong to two different doctorate programs. During the site visit, we learned that students showed ample satisfaction with their training, and mentioned scientific quality and networking as key assets of the Center. Most of them, however, are of Portuguese origin, which suggests that the capacity of attraction of international talent of the Unit still has ample space to grow.

During the site visit, principal researchers and postdoctoral investigators showed a rather differentiated profile. Whereas the former had very limited support for their research and had compulsory teaching responsibilities (which depend on their outputs in terms of publications and funding attracted), younger researcher had a more competitive profile in terms of funding acquired and internationalization of their research profile.

The Unit researchers present CVs with international character, many of them with publications in medium and high-profile journals in their fields, which highlights the international projection of the group. Several of them have spent years of training in foreign universities, which increases the cultural and scientific diversity of the Unit and favors its international profile.

The plan of activities and goals seem adjusted and appropriate for the Unit and expand on activities and research lines previously represented in the groups. These include networking of different types, organizing research workshops and symposia, establishing further collaborations and maintaining high levels of quality research in their different lines of action.

In general, the request for personnel is quite high given the size of the Unit. The number of PhD fellowships requested seems very high for the number of researchers in the Unit, which could potentially overload some of the most demanded supervisors. However, during the site visit we learned that the team has a rule in place by which researchers are not allowed to supervise more than 5 PhD students, which avoids potential overload.

The 6 postdoc positions requested are supposed to reinforce existing lines of research and join lines that are currently more separated. It would be advisable that these positions are used to attract international talented researchers who bring novel ideas to the Unit and increase internationalization and the reach of the Unit. Ten additional RA are requested. During the site visit, we learned that researchers felt they needed more technical support and science advice, although this last request was not unanimously backed by all the members present.

In addition, the application requests funds for multiple research equipment, without a clear specification of the need of each of them, as well as materials for an animal research lab.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro de Psicologia da Universidade do Porto (CPUP)

Coordinator: Maria de São Luís de Vasconcelos da Fonseca e Castro Schöner

Integrated PhD Researchers: 67

Overall Quality Grade: VERY GOOD

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 4
- (B) Merit of the team of Integrated Researchers: 4
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 5

Base Funding for (2020-2023): 945 K€

Recommended Programmatic Support

PhD Fellowships: 4

Programmatic Funding: 335 K€, including for 1 (Junior) New PhD Researcher Contract.

Justification, Comments and Recommendations

The impression is that the Center is well run; management is in place. There are many procedures to ensure that research gets done. From the report there is a clear strategy for the future. It is a large Unit that conducts research in quite some different and diverse areas. There is basic and applied research. The speech lab seems to be the subunit that does most basic science, including fMRI. There is no fMRI infrastructure directly within the Center (there is also no ambition in this direction); fMRI research is mainly done through collaborations with others (including local hospitals). The lab on human sexuality is unique with Portugal. The other Units do a mixture of applied and basic research (including cultural diversity, developmental and education, wellbeing (Psychotherapy). The overall Unit has a lot of potential also because of its size, its critical mass and the management. The quality of research overall is high, and there are publications in Q1 journals. Because of the focus on quality, the percentage of papers in this Q1 journals has risen from 16% in 2016 to 40% in 2018. The applied research finds its way to society including assessment tools for educational and clinical contexts, intervention tools for targeting sexual problems and emotion focused therapy to treat depression. There are three PhD programs. The funding is appropriate (funds from foundations and from FCT).

The only critical point is that the 5 subunits do research that seems to be unrelated, and there is little cross-fertilization between the groups. During the site visit, we learned that there used to be 8 subunits that have been brought down to 5 subunits now. The approach is that the questions that are researched are very much bottom-up in origin, which by itself is good, but one does run the risk that there is too much diversity in approaches and research questions asked. This problem was recognized by the young Assistant Professors and the Post-docs, and some more integration of subjects and especially research tools would be welcomed. One suggestion put forward during the site visit is to have for each PhD two supervisors from different subunits. This will then ultimately result in more collaboration among the subunits. Another suggestion is to have more often meetings of all the subunits together to foster ideas and collaborations. The management may want to stimulate this.

It is a strong group of researchers doing basic and applied research. During the site visit, the members of the Center mentioned that applied and basic research have a "peaceful coexistence". The researchers help each other out; there is a collegial work attitude, all of them trying to improve the research of the group as a whole instead of them individually. This is excellent. The young researchers have the feeling that they can develop their own ideas and research programme (which is good). The only critical point that was brought up was that young researchers that become Assistant Professors will also immediately get quite some teaching to do (up to 12 hours a week). At this point in their careers it may be better to teach a bit less to get the research going and possibly apply for (international) grants. It can be frustrating that due to the large teaching load the research suffers especially at a point in their careers that research output is critical.

The ambition of the Center is excellent. There is a clear strategic plan to push the quality of research for the next period. The focus is on more publications in Q1 journals, to strengthen the international visibility and strategic partnership. The PhD program in human sexuality is unique as it is the only program in Europe with this focus. There is also the goal to attract more international students to the Center. It would be good to increase a culture of increasing mobility among

the PhD students to spend some time in foreign labs. There are clear strategies for translational research and knowledge dissemination. Another focus for the future is to have better sharing of resources and equipment. There is support from the university to help researchers obtaining international grants. It is important that this type of support is in place. Issues about ethics were well covered in various well laid out procedures. Overall, great ambition and well developed ideas.

In the application, the Center requested a very high number of PhD fellowships (72) and postdoc contracts (26), as well as much other lab equipment to be used in each R&D Unit. During the site visit we learned that the high number of personnel requests was a strategy to increase the possibility to obtain a large number of contracts.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Centro Interdisciplinar de Investigação Psicossocial (CIIPSO)

Coordinator: Helena Maria Amaral do Espírito Santo

Integrated PhD Researchers: 5

Overall Quality Grade: INSUFFICIENT

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 1
- (B) Merit of the team of Integrated Researchers: 1
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 1

Justification, Comments and Recommendations

This Unit has only five integrated members, no integrated PhD students, and can therefore not automatically qualify, on the basis of the approved regulation.

The integrated researchers are of different areas of studies and even different disciplines, so there is not enough synergy and integration one should expect within such a small Unit. Furthermore, non-integrated members of the Unit are currently employed in other Units, so the Unit lacks a unique specialisation that will constitute its identity.

The Panel is aware that there is a vicious circle that prevents the Unit to develop its own graduate school programme and to recruit PhD students, but the fact is that the Unit is not at the international level that justifies the allocation of funding.

The Unit has emerged from a school of social work, and this history can still be seen in its choice of activities which are societally relevant and geared towards consulting. The thematic areas, for example ageing and social networks are pertinent for this type of Unit which does applied rather than basic research.

The interventions range from yoga through cognitive behavioural therapy to psychoanalysis. Students in the master programme profit from this expertise in the Center.

In terms of research, it was noted that the group has employed a computer scientist who supports the researchers and students to plan their studies, and especially to adapt instruments to computer based versions. However, the research plans used in the studies seem to lack the theoretical reflection and rigorous methodology that is required in academic research.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Instituto de Desenvolvimento Humano Portucalense (INPP)

Coordinator: António Jorge da Costa Leite

Integrated PhD Researchers: 11

Overall Quality Grade: WEAK

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 2
- (B) Merit of the team of Integrated Researchers: 2
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 2

Justification, Comments and Recommendations

Management: INPP was founded in 2015, and although it shows some promise, its course of development and what has been accomplished does not indicate that the R&D Unit can reach its full potential. The R&D Unit comprises the Cognitive Development Lab and the Therapeutic Innovation Lab. However, the available resources and research results are limited. This comment applies to the vision as well, since the present self-assessment report covers only specific aspects of human development. Likewise, the current decision-making process researchers employ in choosing a research agenda does not help to build expertise on a particular field of knowledge, strengthen the research environment, and promote young researchers' career development.

Furthermore, the detailed discussion of ongoing or planned projects underscored the limited synergies and the lack of strategic directions. The FCT Evaluation Panel found it challenging to identify the priorities and strategic objectives of the Unit. It is necessary that the INPP develops and refines a purposeful and feasible strategic plan.

Scientific quality: The publication productivity of the Unit is still low, although there are some publications of high quality. The publication criteria that were set by the Coordinator and the members of the INPP will lead to improved quality and quantity of publications in top-tier journals (as also noted in the SWOT analysis) only if the Unit gradually shifts the focus to joint projects on Cognitive Neuroscience and Clinical Psychology and to consolidate focus at the same time. As things stand now, the five research areas which the Unit pursues, spanning from knowledge about causality between brain and behavior to transition into higher education do not contribute to knowledge accumulation and advancement.

Human Resource and Training: International networks and collaborations also show some promise, but it is vital that the R&D Unit seeks ways to broaden the participation and internationalization of an expert External Advisory Board including members with an international impact within the research field. Having them also represented in the published outcomes will enhance the visibility of the Center and attract researchers from international groups at the post-doc level. Also, it is suggested to initiate more PhD projects in collaboration with faculties in other places and perhaps international institutions, as the INPP will benefit from new and joint PhD projects.

Research Coherence: At this crucial turn of its development, the Center ought to seek ways to bring together clinical and academic researchers (as noted in the self-assessment report), a necessity to both translate the research outputs and make an impact and to benefit the members of the team. Also, with the current projects concentrating primarily on adult populations and only partly on childhood cohorts, and on typical rather than clinical groups, the central scope of the INPP, that is, the study and assessment of mental health indicators across the lifespan, is not achievable.

The FCT Evaluation Panel was somewhat worried about the relatively low numbers of tenured staff involved in the research program of the Unit, and the available research time of the projects coordinators to fulfill the input that is needed for this group. The INPP needs to develop a robust research agenda with the required synergies. Otherwise, funding capacity will remain low, as it is now.

The group obtained only a couple of grants over the assessment period. However, it was unclear to the Panel what future funding the Unit would apply for. The group should develop a strategy on research funding and grant application. Researchers at INPP are highly encouraged to seek extra funding opportunities in research infrastructures, including among other EU Funding from Horizon 2020 or the European Structural and Investment Funds (ESI Funds). This source

of funding would not only provide the group with the opportunity to equip the Unit as desired, but most importantly, would support the expansion of the group by attracting additional talented postdocs and PhD students to improve programming, research, and impact.

It is recommended that the Unit should capitalize more on areas of research that could better inform the newly founded Doctoral program in Clinical Psychology and Counseling, which seems to be unique in the country, attracting, in turn, high-caliber students. Such a focus would offer significant potential to support experimental studies throughout the program and to gradually increase the visibility of the Center in areas of interest. The INPP has to develop an effective strategy to take advantage of or improve its international collaborations. Although the possibilities are there, the group does not seem to have the expertise and know-how to elaborate a feasible plan for continuous development.

Future potential: To attain the above objectives the Center ought to explore possibilities to attract European funding aiming at developing a structural support program by the introduction of a career system for intermediate positions such as postdocs. Also, it is important that in the framework of Quality Assurance, the Center focuses on the reassessment and the impact of such exogenous variables as organizational incentives, institutional support, and funding availability and time constraints on the research decision-making of researchers. Likewise, a reassessment of the new Doctoral program is deemed necessary. As it stands now, the program aims to prepare its graduates for a fine career in academia but not to translating research methods in mental healthcare to clinical practice.

Societal impact: Likewise, the Unit does not seem to have pursued innovative research actively by structural incentives and in that way to have the anticipated societal impact yet. Strengthening team spirit to identify suitable and fruitful areas to work together and to obtain joint sponsoring for projects will offer new opportunities.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Instituto de Psicologia Cognitiva, Desenvolvimento Humano e Social (IPCDHS)

Coordinator: Eduardo João Ribeiro dos Santos

Integrated PhD Researchers: 33

Overall Quality Grade: WEAK

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 2
- (B) Merit of the team of Integrated Researchers: 2
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 1

Justification, Comments and Recommendations

Management: This relatively senior R&D Unit is characterized by a broad disciplinary base built on seven pillars (experimental, cognitive, educational, clinical and health, social, organizational and counseling/psychotherapy) each of which, however, is not equally represented. The main focus of this group is on translational research. Although the combination of research and practice seems to be the primary objective of the IPCDHS, the junior faculty, and doctoral students are not very much engaged in planning, designing, or managing their research programs or other types of collaborative efforts. Management seems to be top-down, and management roles are not clearly determined, a situation that does not encourage all levels of the R&D Unit to become a part of the process and help junior faculty and students feel a large part of the goal. The productivity of the Unit is fragmented in some areas of research. The international recognition of the Unit is also somehow limited.

Scientific Quality: What the members of the R&D Unit seem to consider as a strong point is that IPCDHS is succeeding in creating an interdisciplinary research environment. However, the Evaluation Panel identified somewhat fragmented endeavors, more “silos than networks”, meaning that the traditional scientific disciplines do not reach beyond their borders to engage with interdisciplinary projects and programs. This lack of cross-cut research within the Unit prevents translational psychology from coming to fruition. The Evaluation Panel believes that the importance of fundamental basic research underpinning organizational and neuroeconomics psychology, and perhaps cognitive psychology, should be the primary directions as they are the most promising among the ongoing research programs and, thus, can improve the visibility of the Unit in the future.

Human Resource and Training: Regarding PhD training, the Evaluation Panel had the opportunity to meet only with a small group of students. All students seemed to be happy working within the IPCDHS members and satisfied with the supervision they receive, although their opportunities for training elsewhere might be limited. Students can present their research at national meetings, but not all do have the necessary financial support to travel and participate in international conferences that would prepare them well for their future careers. Among the post-docs, the situation was similar with no evident strategic planning for the recruitment of young researchers or the development of their career trajectories.

Research Coherence: The Evaluation Panel was somewhat disappointed by the emphasis on aspects of research that are not optimally realized and by the future strategy that the IPCDHS presented in the written self-assessment report. Also, it was not adequately made clear what are the Unit main lines of research. Equally disappointing was the oral presentation of the Unit which the Panel members considered more appropriate for advertisement rather than scientific purposes. Here the Unit missed the opportunity on taking and presenting a forward-looking perspective. Perhaps a careful SWOT analysis could help the team identify the implications of the several practical needs in expertise and complementarity of skills existing in the Unit.

The FCT Evaluation Panel had concerns about the insufficient numbers of post-docs, and doctoral students involved in the research program of the R&D Unit. IPCDHS needs to develop a research agenda that should include the required synergies. If a clear strategy is not established, it is expected that the funding capacity will remain low and that the Unit will not be able to attract high-quality prospective students or prominent scientists in the fields considered fundamental for its operation. The Panel feels that the research program would be significantly more robust with the attraction and retention of additional scientists. For example, the educational psychology group would be strengthened if researchers studying neurodevelopmental disorders in pediatric populations could be attracted to and retained in the group. The

expertise brought in the Unit from the existing collaborations is sufficient. However, the Unit should consider recruiting staff that could offer the services on the premises of the Unit as part of the local team.

Furthermore, the FCT Evaluation Panel strongly advises IPCDHS to develop a PR-strategy for greater visibility, in addition to pursuing publications in the best international journals possible. At present, the broad spectrum of research topics results in a heterogeneity of publications ranging from marginal contributions to significant scientific findings. The impression of the Panel members is that IPCDHS inherent quality exceeds its external reputation, both nationally and internationally. Internationalization at staff level may further contribute to an increase in international visibility.

Finally, IPCDHS did not demonstrate how it responded to the previous external review. Two critical remarks, therefore, emerged in this evaluation: the need for more cohesion and greater interdisciplinarity. Both of these remarks are essential makers of the vitality of IPCDHS, alongside with the need for more focus towards the future.

Future potential: There are some good researchers within the various groups, but the Unit needs to strengthen synergy and coherence. Concerns are expressed about whether the interactions with external partners are any stronger, or offer greater potential for synergy than their interactions with any of the other groups of IPCDHS. A focused research strategy is required, which can be better achieved if the R&D Unit identifies what the real overarching issues that it wants to pursue are.

Societal impact: IPCDHS research focuses on themes with high societal relevance and influence, ranging from financial literacy, financial decision making, and behavioral economics, to the studies in the field of elderly care, including the assessment of general programs for fostering the life quality of the final users. These directions deserve nothing less than an integrated multidisciplinary approach with a clear focus on adult populations. This is to be pursued by the Unit.

Overall the site visit has left the committee with a weak impression of the IPCDHS in general, concerning its scientific quality, leadership, organization, resources, budget allocation, and PhD programs. It was unclear that a considerable increase in scientific output was realized during the assessed period, as well as an increase in the numbers of staff and the amount of external funding. Although hardly any serious complaints were brought up to the attention of the Panel, it was naturally recognized by several members that an increase in funding would be necessary for the Unit. However, with the internal resources being limited, that funding has to come predominantly from external sources on a competitive basis, which the Unit does not set as a priority for the next years. This is an unfortunate development, especially when considering that generating funding from patents, such as new paradigms, new lab techniques, standardized assessments or intervention designs would be possible, given the central activities of the Unit.

Evaluation Panel: SOCIAL SCIENCES - Psychology

R&D Unit: Laboratórios Digitais de Ambientes e Interações Humanas (HEI-Lab)

Coordinator: Pedro Santos Pinto Gamito

Integrated PhD Researchers: 37

Overall Quality Grade: GOOD

Evaluation Criteria Ratings

- (A) Quality, merit, relevance and internationalization of the R&D activities of the Integrated Researchers in the R&D Unit Application: 3
- (B) Merit of the team of Integrated Researchers: 2
- (C) Appropriateness of objectives, strategy, plan of activities and organization: 2

Base Funding for (2020-2023): 459 K€

Recommended Programmatic Support

PhD Fellowships:

Programmatic Funding: 10 K€.

Justification, Comments and Recommendations

Management: The Unit is organised in two virtual groups: Contextual Change Lab and Human Change Lab. The aim is to identify social needs of stakeholders and perform research on previously identified and digitally-modelled systems to mimic the real ones. The groups have realised multiple projects applying VR environments and avatars to study and intervene behaviour aiming at develop digital approach to therapy. However, the integration of the projects and strategic management is limited. This relates the management of whole Unit, coordination between two local groups involved (Lisbon and Porto branches) and management of specific projects. It seems advisable to make use of the flat organisational structure of the Unit and to implement a management model that will pursue the the realisation of the strategic goals.

Scientific quality: HEI-Lab is an R&D Unit with a team of 37 Integrated PhD Researchers having performed innovative R&D of recognized quality and merit, contributing for advancement of knowledge and its application in multiple areas of activity, in a national perspective, but with limited international recognition of the group and limited theoretical contribution. The statistical data for the 2013-2017 publication outcome has not been provided, but integrated researchers have published at international level and secured external funding both from national and European sources. The Unit has also extended its international collaboration network, including scientific and industrial institutions globally.

Human Resources and Training: The team of Integrated PhD Researchers is involved in MA training. They also occasionally supervise PhD students. The Center is backed-up by an efficient External Supervisory Board with relevant expertise. The identified challenges include the overload of the teaching duties of the integrated PhD researchers, lack of coordination between project groups, and most importantly, the lack of PhD candidates involved in the projects.

Research Coherence: The Unit derives its approach from clinical and health psychology. The unique added value involves the application of virtual reality and transdisciplinary approach integrating specialists in Psychology, Art & Design and Gaming to investigate how new technologies can be accommodated in psychological context. Such an approach is unique, innovative and worth to continue. However, the scope of research projects realised within the lab is somehow fragmented and the systematic approach to validate the technological solutions has not been proposed.

The HEI-Lab team is composed of investigators with mixed levels of research activity and internationalization of publications. Whereas some of them have an extensive international track record, others present publications mainly of local scope. This may limit the impact of the Unit reduce the probability of reaching high international standards. The team needs to grow in increasing the internalization of the publication profile of some of its members, especially if they are to be reference researchers of the Unit.

The HEI-Lab Unit carries out basic and applied research and implements results on interventions and activities aligned with society interests. The research projects aim at developing theories, promoting education and training, and developing digital solutions. However, the theoretical contribution is questionable and the methodology of the studies is

not always optimal (lack of systematic tests with control groups for many solutions proposed). Importantly, it is not clear whether the studies always follow the required ethical standards as the advantages of the VR over classical interventions has not always been proven, e.g. it is not fully confirmed whether the effects of PTSD or divorce treatments proposed by the Unit are sufficiently controlled. It is also evident that the research focuses on the development of the VR environments rather than systematic tests of a theory. Thus, the contribution to the psychological theories is somewhat limited. It is not clear whether the Unit, as managed and functioning now, should be supported within a social sciences panel. It seems also possible that the majority of studies could be in fact ordered and funded by private companies specialising in the eHealth and VR development.

The Unit is pursuing objectives, strategy, plan of activities and organization for 2018-2022 which are adequate to the R&D activities. The plan of action for the next four years is promising and expected to broaden the international networking of the Centre. The group has secured European funding, increasing the chances to attain the stated objectives. However, the Panel has noted that no funding is requested to hire new PhD students. Taking into account the small number of current PhDs, this seems not optimal. Whereas supervision and overall initiative corresponds to senior researchers, graduate students are needed to carry the load of day-to-day research activities, especially given the teaching load of the Unit integrated researchers.

The Unit aims at developing two PhD programs in Design and Innovation and Psychology. The proposal of the former has been already submitted. The latter will be proposed late 2019. The programs will be interconnected making use of the transdisciplinary approach of the research team and may increase international recognition and visibility of the Centre. It is advisable to plan more carefully the curricula of both programs so the PhD students make use of the Unit interdisciplinary potential.

The funds requested are rather underspecified. Large amounts of money are requested for software and licenses as well as international missions and equipment. The Panel was informed that the software is needed to support programming of the research protocols in both branches of the Unit, but it is not clear why the equipment should be provided also for the Porto group.