



Polytechnic Institute of Viana do Castelo

Center for Research and Development
in Agrifood Systems and Sustainability

PLAN OF ACTIVITIES 2021

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SUMMARY

The purpose of this document is to systematize the set of activities to be carried out by CISAS during the year 2021 considering the contents specified in the financing application proposal submitted to the Foundation for Science and Technology (FCT) in 2018, and the adjusted project financial budget approved in March 2020, including base (UIDB/05937/2020) and programmatic (UIDP/05937/2020) funding.

The year 2020, derived from the pandemic caused by COVID-19, was a completely atypical year in terms of what were the activities projections. Thus, there is a need to adjust the activity plan due to the various cancellations and postponements of activities, with the consequent impact on the expected outputs.

Of contours that are still totally unforeseen, the impacts caused by COVID-19 are expected to be felt also in 2021, with the need to anticipate scenarios of contraction of scientific production and investment, as well as outlining alternative strategies that will allow the work to continue as well as raising awareness of the importance of innovation and digital communication.

1. Introduction

CISAS Research Unit's Activity Plan for the year 2021 to be presented should be aligned with the contents specified in the financing application proposal submitted to the Foundation for Science and Technology (FCT) on the 9th of February 2018, adjusted to the 2020-2023 funding approval in December 2019, comprising a base funding of 198,400.00 € (UIDB/05937/2020) and programmatic funding of 355,000.00€ (UIDP/05937/2020), whose pluriannual distribution was approved in the contract signed in 3rd of March 2020.

In the aforementioned original proposal submitted for funding in 2018, it is mentioned that CISAS implementation program foresees 3 distinct stages, however complementary, where internationalization is an important goal, reinforcing the strategy to promote mobility programs, increase the participation in projects, societies and publications and the involvement in doctoral programs.

It was considered that in 2021 will start the second stage - Affirmation (2021-22), intended to: i) Stimulate scientific publications; ii) increase the number of HR financing (post)doctoral grants, scholarships to support R&D activities in parallel with the leverage protocols, and contracts for specialized services; iii) increase the number of researchers and undergraduates to stimulate coordination and integration between the work areas; iv) increase the number of publications in terms of quantity and quality of the output in peer-reviewed journals. Scientific events (seminars, lectures, exhibitions, workshops) will be also promoted.

In view of the evolution of the Center's activity and the signs that are emerging from the national and international situation due to COVID-19, considering that some objectives for 2020 were not achieved but with a view to their implementation in 2021 and, simultaneously, to accomplish the activities originally previewed for 2021 under the "affirmation" stage, CISAS aims for 2021 are presented in the following chapter.

2. Objectives for 2021

The year 2021 corresponded to the 2nd year of implementation of the 2020-2023 pluriannual financing program. Despite of the COVID-19 impacts most of the activities previewed for the "organization" stage have been fully or partially implemented during 2020. In this context, to end the implementation of the "organization" stage, and simultaneously to accomplish with what was expected for the "affirmation" stage, the following objectives are foreseen for 2021 year:

1. To activate the consultative stakeholders board
2. To encourage scientific productivity and project funding applications, putting into practice merit awards
3. To increase the number of HR financing (post)doctoral grants and scholarships to support R&D activities
4. To increase the number of researchers and undergraduates to stimulate coordination and integration between the work areas

5. To increase the number of publications in terms of quantity and quality of the output in peer-reviewed journals
6. To organize scientific events

3. CISAS Activities 2021

To pursue the aforementioned objectives the following activities will take place:

1. The activation of the consultative stake holders board will be set and the first presential meeting will take place before March 2021.
2. Merit awards will be put into practice in 2021 by attributing and distributing budgets to CISAS members who accomplish the merit criteria approved in 2020, based on 2018, 2019 and 2020 individual achievements.
3. CISAS number of applications/consortia for national and international project funding opportunities for R&D, reequipment, and scholarships to support R&D activities in parallel with the leverage protocols and contracts for specialized services will be take place in 2021.
4. The PhD junior researcher fully allocated to CISAS will be hired in January 2021.
5. Ongoing research activities within CISAS' main research lines and R&D projects funding predict 7 Master Grants during 2021, 4 PhD student grants and 4 PhD researcher grants will be starting in 2021.
7. Participation in missions for dissemination of the data and results of ongoing activities and projects and, sequentially, communications in congresses, seminars and colloquia, publications in refereed journals and technical journals will be promoted in 2021.
8. The establishment of protocols/partnerships with other national and international R&D Units and networks of institutions and infrastructures of international relevance.

3. FCT pluriannual budget 2020-2023

The accounting balance of FCT base and programmatic budgets, regarding to consulting, missions, acquisition of goods and services and other expenses that took place in 2020 and the previewed for 2021, the distribution of the budget was adjusted as shown in Tables 1 and 2.

TABLE 1. FCT pluriannual funding 2020-23 - Base (UIDB/05937/2020)

Current expenses		2020	2021	2022	2023	Total
Recursos Humanos (RH)	62 276,04 €	8 267,75 €	€ 12 490,93	€ 20 758,68	€ 20 758,68	62 276,04 €
Missões no país e estrangeiro (M)	32 000,00 €	€ 899,72	€ 9 100,28	€ 11 000,00	€ 11 000,00	32 000,00 €
Consultores nacionais ou estrangeiros (C)	13 563,59 €	€ -	€ 4 521,20	€ 4 521,20	€ 4 521,19	13 563,59 €
Aquisição de bens e serviços (AQ)	47 880,37 €	€ 2 976,08	€ 14 960,12	€ 14 960,12	€ 14 984,05	47 880,37 €
Registo nacional e no estrangeiro de patentes (P)	3 000,00 €				€ 3 000,00	3 000,00 €
Adaptação de edifícios e outras instalações (AE)	- €					- €
Encargos Gerais (EG)	39 680,00 €	3 035,89 €	10 268,13 €	12 810,00 €	13 565,98 €	39 680,00 €
Demonstração, Promoção e Divulgação (DPD)						- €
Outras despesas correntes						- €
Equipamento (E)						
TOTAL	198 400,00 €	15 179,44 €	51 340,66 €	64 050,00 €	67 829,90 €	198 400,00 €

TABLE 2. FCT pluriannual funding 2020-23- Programmatic (UIDP/05937/2020)

Current expenses		2020	2021	2022	2023	Total
Recursos Humanos (RH)	121 895,00 €	4 663,31 €	39 077,23 €	39 077,23 €	39 077,23 €	121 895,00 €
Missões no país e estrangeiro (M)	5 000,01 €		1 666,67 €	1 666,67 €	1 666,67 €	5 000,01 €
Demonstração, Promoção e Divulgação (DPD)	- €	- €	- €	- €	- €	- €
Aquisição de bens e serviços (AQ)	124 105,00 €	3 189,96 €	41 035,00 €	41 035,00 €	38 845,04 €	124 105,00 €
Outras despesas correntes	3 999,99 €	3 000,00 €	333,33 €	333,33 €	333,33 €	3 999,99 €
Equipamento (E)	100 000,00 €		33 266,67 €	33 266,67 €	33 466,66 €	100 000,00 €
TOTAL	355 000,00 €	10 853,27 €	115 378,90 €	115 378,90 €	113 388,93 €	355 000,00 €

Overall, a portion of the budget allocated to the activities consulting, missions and acquisition of goods and services, linked to previewed 2020 FCT pluriannual budgets that have not been implemented due to the pandemic situation, will be moved to 2021 and following years, as it can be seen in tables above. In the programmatic funding the PhD contract is considered to start in January 2021. The post-doc scholarship previewed in 2020 to start in 2021 will be consider only for 2022. It will only make sense to start this grant after hiring the doctoral researcher, so that a complementary area of knowledge can be considered in his profile. Thus, in 2021, the budget for RH in base funding is to be applied in master students' scholarships.

CISAS in 2020 became an associate of Colab4Foob, a national Collaborative Laboratory, and in 2021 aims to be an institutional membership of the ISEKI Food Association, an independent European non-profit organization established in 2005 by representatives of university institutions, research institutes, companies and associations related to food, coming from all over the world. Membership fees will be considered in budget allocated to "Other expenses". CISAS also aims in 2021 to be a full member of TECMEAT- Centro de Valorização e Transferência de Tecnologia da Indústria das Carnes recently approved without association fees. Membership fees will be considered in budget allocated to "Other expenses".

4. R&D Projects funding in 2021

The ongoing projects that end in 2021 as well as the recently approved projects for 2021, involve an IPVC budget of € 3 767 501,34, as shown in Table 3.

TABLE 3 - IPVC 2021 R&D projects (ongoing and submitted for funding) with CISAS' members participation	Status	PERIOD	FUNDING (€)	IPVC	Funding Entity
INTERNOVAMARKET - Programa acelerador INTERNOVAMARKET para aumentar la competitividad del sector alimentario de Galicia-Norte de Portugal	Running	2017-2021	€ 212 823,51		POCTEP
Acontece in Loco - Montanhado Alto Minho.	Running	2017-2021	€ 29 125,94		PDR2020
ClimCast-Os novos desafios para o soto no contexto das alterações climáticas	Running	2017-2021	€ 19 157,46		PDR2020
Estratégias de proteção fitossanitária para a produção sustentável da maçã	Running	2017-2021	€ 25 279,04		PDR2020
Minho –Região Europeia da Gastronomia	Running	2017-2021	€ 50 992,85		NORTE2020
MOBFOOD – Mobilização de conhecimento científico e tecnológico em resposta aos desafios do mercado Agroalimentar (PP56)	Running	2017-2021	€ 126 406,37		COMPETE2020
NUTRIAGE – Soluciones Avanzadas para un Envejecimiento Saludable A través de la Nutrición en el marco de la Euroregión Galicia Norte de Portugal	Running	2017-2021	€ 152 838,04		POCTEP
VALORMAR - Valorização integral dos recursos marinhos: potencial, inovação tecnológica e novas aplicações (PP51)	Running	2017-2021	€ 377 203,96		COMPETE2020
BioPest-Estratégias integradas de luta contra pragas-chave em espécies de frutos secos	Running	2017-2021	€ 34 044,41		PDR2020
GesPSA Kiwi- Ferramenta Operacional para gestão sustentável do cancro bacteriano (Psa) da Actinídea	Running	2018-2021	€ 148 251,56		NORTE2020
Innovative Cooperation Business – HBI Learning Model for Tourism (INCOME)	Running	2018-2021	€ 115 865,00		ERASMUS+
IECPBI - Interactive ecosystem for Portuguese business internationalization	Running	2018-2021	n/a		COMPETE2020
RICEPLUS - Desenvolvimento de soluções inovadoras de funcionalização tecnológica e nutricional de arroz Carolino	Running	2018-2021	€ 190 087,05		COMPETE2020
BioChetnut-IPV-Implementar estratégias de luta eficazes contra doenças do castanheiro e amendoeira	Running	2018-2021	€ 32 214,57		PDR2020
BEYONDSCALE: Developing the organizational capacity of higher education institutions using the innovative platform to facilitate peer learning and a pan-european community of practice	Running	2019-2021	€ 51 226,00		ERASMUS+
ReFill_H2O	Approved 2020	2020-2022	€ 130 412,14		EEA Grants
S4Agro - Soluções Sustentáveis para o Setor Agroindustrial	Approved 2020	2020-2022	€ 142 576,80		COMPETE2020
BIOMA-Soluções integradas de BioEconomia para a Mobilização da cadeia Agroalimentar	Approved 2020	2020-2023	€ 373 032,94		COMPETE2020
TECH - Technology, Environment, Creativity and Health - Line of Research 2	Approved 2020	2020-2023	€ 442 905,23		NORTE2020
TECCo- Lab - Rumo a um laboratório de testes Covid19 mais eficiente, abrangente e colaborativo	Approved 2020	2020-2023	€ 364 346,44		SAICT NORTE2020
Soil-Recon: Soil Ecosystems in the XXI Century: pressures, conservation and future scenarios	Approved 2020	2021-2023	€ 248 644,25		FCT
NUTRIR - Núcleo Tecnológico para a Sustentabilidade Agroalimentar	Approved 2020	2021-2023	€ 500 467,79		NORTE2020
TOTAL BUDGET IPVC			€ 3 767 901,34		

Under the TECH – Technology, Environment, Creativity and Health – Line of Research 2 Project, approved in 2020, 1 PhD researcher, 1 PhD student plus 3 MSc Student’ grants will be considered in 2021. Another approved project, NUTRIR - Núcleo Tecnológico para a Sustentabilidade Agroalimentar will include 3 PhD researchers in the fields of vine and wine production and meat production and marketing, starting in 2021.

The seven recently approved projects will involve a € 2 201 985,59 starting in 2021. Six other projects submitted in 2020 (COMPETE and Erasmus) are waiting for approval to start in 2021.

In January 2021, 3 more projects are expected to be submitted within Horizon 2020: European Green Deal call, area 6 - Farm to Fork: Testing and demonstrating systemic innovations in support of the Farm to Fork Strategy, 1 under Subtopics B, E and F; and INNOSUP-2018-2020 call.

The research activities carried out by CISAS researchers and research grants within all these projects, are expected to increase the number of participations in scientific conferences, either externally or internally organized, as well as the number of publications in 2021 and following years.

5. Stimulating scientific productivity- Credits and criteria

The accounting balance of IPVC 2018-2020 budget (5.706,14€) will be distributed in 2021 among CISAS’s members according to criteria established in CISAS Financing Regulation approved in 2020 (Article 11.º). The integrated (18) and collaborator (16) members considered in year 2020, will receive a fund of respectively 269,16€ and 53,83€ to be applied in research activities and respective outputs.

One fifth of the 2021 IPVC budget, 5.000€, is going to be distributed in 2021 according to the same criteria established in CISAS Financing Regulation approved in 2020 (Article 11.º), as it is

considered that the extraordinary events of 2020 did not allow most of the expected achievements.

In 2021 based on 2018, 2019 and 2020 individual members reports, credits related to scientific productivity will be attributed and 4/5 of the IPVC budget (20.000€) will be distributed to those that accomplished the merit criteria (Annex 1 of CISAS Financing Regulation).

6. CISAS previewed outputs - 2021

Publications:

Books/book chapter - **10**

Articles in international indexed journals – **20**

Articles in national journals and technical journals- **30**

Communications in congresses/seminars:

Oral presentation:

International congresses: **10**

National congresses: **40**

Posters:

International congresses: **30**

National congresses: **50**

Congresses/seminars organization:

Nationals: **3**

International: **2**

R&D new running projects:

National: **4**

International: **2**

Contracts for specialized services:

6

Master's thesis completed:

15

Grants running in 2021

PhD Students: **4**

PhD researchers- **4**

Master Students- **7**