

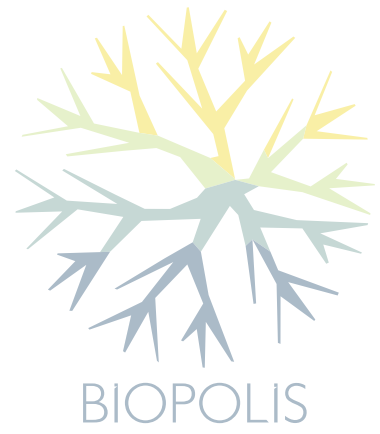


BIOPOLIS

**WP10**

# 1<sup>st</sup> Implementation Report

## Deliverable 10.1



# **1<sup>st</sup> Implementation Report**

## **Deliverable 10.1**

<b>Lead beneficiary</b>	BIOPOLIS/CIBIO
1st Submission date	March 31 <sup>st</sup> 2020
Revised version submitted on	October 8th 2021

## **Implementation Report**

Call: H2020-WIDESPREAD-2018-2020/H2020-WIDESPREAD-2018-01

Project number: 857251

Project acronym: BIOPOLIS

Deliverable number: D37

Period covered by the implementation report: 01/10/2019 to 31/12/2020

**Update requested on the 25<sup>th</sup> of June 2021, by the PO, regarding the Complementary  
Funding from CCDRN**

Version number, date of the implementation report: V2, 4<sup>th</sup> of October 2021

## i. Key aspects of the implementation of the project

### 1.1. Autonomy, Decision-making

Provide details on the decision-making mechanisms (management structure, nomination mechanism) applied at the organisation/when setting up the new legal entity or upgrading the existing one. Please report on the functioning of the management structure of the CoE and its decision-making structure.

Describe those elements that were not known/specified at the time of the GA signatures (both FPA and SGA). Were there any changes in the structure proposed in the GA? If yes, please specify them and provide their reasons.

As foreseen in the Description of Action, the management and decision-making structure of BIOPOLIS Center of Excellence is outlined in Fig. 1, and this determines how the Teaming project will be coordinated and implemented, including the relation with the European Commission. The Board of Directors is the main responsible for executive decisions within the CoE, including aspects related to administration, finances, innovation, and top-level relations with key stakeholders and the wider society, among others. The Science Council will be the main responsible for coordinating the implementation of the research strategy and programme, working in strong collaboration with the International Advisory Council and the responsible for the Research Units. The Supervisory Board and the General Assembly have the key role of validating strategies prepared under the coordination of the executive governance bodies, and to assure that they are aligned with the vision, mission and objectives of the CoE. The operational decision making in four core areas of CoE implementation and operation are described below.

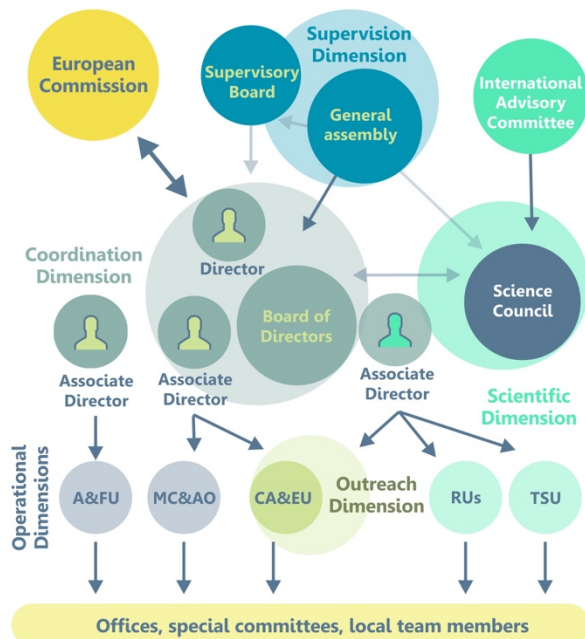


Figure 1 - Management and decision-making structure of BIOPOLIS Center of Excellence.

**Administration and Finances** The BoD coordinate the preparation of strategies regarding the administration and finances of the CoE, including HR management, which will then be subject to validation by the SB and GA. The BoD will then supervise and take the key operational decisions regarding the implementation of these strategies, which will be under the direct responsibility of the Administration and Finances Unit (A&FU). The SB will closely supervise the BoD to assure the sensible financial management of the CoE, taking responsibility for final approval of venture capital investments, with the decision being ratified by the GA.

This Unit will provide support to all aspects regarding the administration and finances of BIOPOLIS. The responsibilities of the A&F Unit include: strategic planning of all issues related to A&F; the sensible management of assets and liabilities to ensure long term sustainability; the preparation and management of all contracts; the internal accountancy and external auditing; the management of funding received from external entities; the reporting to funding agencies, including FCT; the procurement procedures and the purchase of equipment, other goods and services; the recruitment and management of human resources; and the preparation of the annual budget and financial reporting. The Associate Director (AD) for Administration and Finances, Cláudia Ribeiro, is the direct responsible for this component of the CoE, and she is supervising the work and decision-making of the A&F Unit, coordinating the strategic planning and reporting of this unit.

Under the mandate of the BoD, she will also approve the purchases of large equipment, the hiring of personnel, and other activities involving major financial commitments and/or long-term responsibilities. The Head of Unit will work directly with her staff, reporting to the AD, and taking the responsibility for daily decisions required for the normal functioning of the A&FU. This Unit will be responsible for assuring the CoE's investment portfolio.

The recently nominated Associate Director for Operations, Fund Raising and Technology Transfer, Pedro Beja, will prepare protocols and contracts with external entities, through the work of the Legal Affairs Officer, and with collaboration of other Officers and researchers involved in each particular protocol/project.

### **Technical support to BIOPOLIS CoE research and outreach operations**

The research and outreach operation of BIOPOLIS CoE requires a number of technical support activities, including the management of infrastructures and equipment (WP3), the management of the IT infrastructure (T3.3), the support to routine lab and field research tasks (WP4), and the support to research project applications (T8.1), among others. These activities will be attributed to the Technical Support Unit (TSU), which will be under the direct coordination of a Head of Unit. The Head of Unit will take responsibility for the decisions regarding the daily operation of

the TSU, and will report to the AD coordinating this area, the AD for O, FR&KT. The AD for O,FR&KT is taking the responsibility to coordinate strategic planning and key decisions. Given the importance of this Unit for the development of research activities, the decisions of the AD will be taken in consultation with the Ado for R&I and under proposal of the SC. The TSU will be responsible for organising the maintenance of infrastructures and equipment, and for preparing the processes for the purchase of equipment and consumables. Decisions regarding the acquisition of equipment will be made by the BoD, in consultation with or under the proposal from the SC. The decisions regarding the acquisition of small equipment and the ordering of consumables associated with specific projects will be made by the Coordinators of RU or the project leaders, after checking the availability of funds with the A&FU.

This Unit will provide support to all aspects regarding the functioning of BIOPOLIS, including support to field and lab research activities. The responsibilities of the TS Unit include: maintenance and management of physical infrastructures and large equipment; organization of access and use of laboratory facilities and equipment; management and maintenance of vehicles; management and maintenance of the IT infrastructure and IT support to researchers and general staff; and supervision and organisation of the work of lab and field technicians. The TS Unit will have officers dedicated to support the identification, preparation and submission of grant proposals by researchers, and undertake post-award negotiation with funding agencies. Besides these tasks, the Unit will be responsible for developing and implementing the Health & Safety and Quality policies.

### **Communication, Advancement and Engagement**

BIOPOLIS CoE is developing a range of interrelated tasks mainly related to outreach, aim to enhance the visibility and profile of BIOPOLIS while raising public awareness and appreciation for science and biodiversity, advance the technical, scientific and personal skills and competences of students and researchers at different career stages, and engage with stakeholders, and business and academic partners, at the national and international levels. All these activities are currently attributed to the interim officer that coordinates the initial Communication, Dissemination and Exploitation activities, and will, in the future, be attributed to staff working on the Communication, Advancement and Engagement Unit (CA&EU), which will be under the direct coordination of a Head of Unit. The Head of Unit will take responsibility for the decisions regarding the daily operation of the CA&EU, and will report to the AD supervising this area, the AD for O, FR&KT. This AD will take responsibility for the strategic planning and key decisions such as the hiring of personnel, the purchase of scientific equipment,

and the allocation of funds. Given its dimension and importance, the CA&EU will be organised in various offices, which will be flexible bodies that may change over time in line with the challenges faced by the CoE. One of these will be the Innovation Management Office described below.

This Unit will provide support to a wide range of interrelated tasks that aim to enhance the visibility and profile of BIOPOLIS, while raising public awareness and appreciation for science and biodiversity, advance the technical, scientific and personal skills and competences of students and researchers at different career stages, and engage with the public administration, business and academic partners, and other stakeholders, at the national and international levels. Given its dimension and importance, the CA&EU will be organised in various offices, which will be flexible bodies that may change over time in line with the challenges faced by the AL. The Education and Training Office will implement and support the education and training strategies of BIOPOLIS, and link with Higher Education Institutions regarding the doctoral training programmes. The International Relations Office will coordinate and implement the international relations strategy, including development of strategic alliances and management of institutional partnerships. The Stakeholder Relations Office will coordinate relations with the public administration and other stakeholders, as well as the Affiliate Programme, promoting the use of InBIO's research to support public policies addressing societal challenges. The Knowledge Transfer Office will knowledge transfer activities and management of IP rights, working closely with the Stakeholder Relations Office and researchers. Finally, the Communication and Dissemination Office will coordinate communication and dissemination activities, working to promote the visibility and profile of BIOPOLIS at the national and international levels, and to raise public awareness regarding science and biodiversity.

## **Research**

Research Planning and implementation of the CoE strategic roadmap for excellence in research and innovation will be coordinated by the SC, in consultation with the BoD, and validated by the SB and GA. The SC will also be responsible for monitoring and evaluating the research programme, and to support the work of the Research Units (RU).

Decisions will be taken in consultation with the Coordinator Researchers of each RU. Within each RU, the corresponding Coordinator Researchers, in consultation with their researchers, will take the daily decisions. The SC will work closely with the external IAC, which will advise on the strategic research programme and on research and innovation opportunities, as well as on the achievements and impact of the CoE. The SC and the RUs will work closely with the 3 technical

Units, and its researchers will be directly involved in some of their activities through special panels and committees designated by the BoD or SC to solve specific practical issues. This will include the panels designated to recruit technical and research staff (T2.2 to T2.4), and the committees dealing with: Quality of Life on the Workplace and Social Actions (T2.5), Infrastructures and Equipment (T3.2), IT (T3.3), Ethics and Animal Welfare (Task 4.4), and Data Management and Open Access Committee (Task 4.5), among others. Researchers will also contribute to the work of BIOPOLIS CoE regarding communication and dissemination, knowledge transfer, training, and other outreach activities. The SC and the RUs will also coordinate all aspects regarding the raising of funding through research projects, working closely with the Project Support Officers. They will be responsible for identifying relevant opportunities at national and international public funding and at private funding. This will be done jointly with the IAB and the BoD. Through the CoE Virtual Laboratory hosted by Agropolis International in Montpellier, the CoE will seek international funding opportunities to apply jointly with UM and its partners.

Despite maintaining this general structure, some relevant changes and upgrading were and will continue to be introduced to face the challenges and opportunities of the new decade. In particular, the most important change involved the replacement of the main management institution of CIBIO - ICETA - by the Non-Profit Scientific Association BIOPOLIS, which is expected to provide a much stronger and cost-efficient management structure. The Association BIOPOLIS was formally created in July 2020 by its promoter founding members ICETA, the University of Porto, the Porto Business School and the University of Montpellier. A number of additional members were also invited to join the Association, including other research centres, organisms from the public administration and State Laboratories, non-governmental organisations, and private corporations.

During 2020, and initiated by the BIOPOLIS Installation Committee (meanwhile extinguished) there has been a process of transition of assets and liabilities of CIBIO from ICETA to BIOPOLIS, which is in its final stage and it is expected to be concluded by the end of 2021. This included, among other aspects, the transition to BIOPOLIS of all contracts established between ICETA and the different funding sources (FCT, EC, CCDRN among others).

## **1.2. Complementary funding**

*Please provide a breakdown of funds received/due (if the precise information is not available, provide estimation for the relevant period) and the linked objective: activities/infrastructure to be funded. Please describe the link between the complementary budget and the Teaming action according to DOA.*



*Please provide signed letters from the regional/national granting authorities, formalising the funds allocated to the project (i. e. Law on the Budget, decision of the relevant public body etc.). Please provide feedback on whether there are/were any major obstacles in receiving complementary funding in terms of rules and procedures in the different funding sources.*

The Business Plan developed for BIOPOLIS estimated the potential revenues and costs of BIOPOLIS CoE operation, providing the basis to design the financial strategy for sustainability. Sustainability was considered during the project development (years 1 to 7), and in the following 3 years (years 8-10).

**Revenues.** The revenues were estimated considering a mix of public and private contributions to BIOPOLIS activity, ranging from research projects to Invited Chairs sponsored by industrial and commercial partners.

The other part of the revenues was estimated considering the historical fundraising capacity of ICETA-CIBIO in 2013-2017, when it was able to generate over 30 million euros (M€) in projects, grants and contracts from multiple sources, as reported in the 2018 evaluation of research centres by FCT. When estimating the revenues, a conservative stance was taken, to avoid an overly optimistic perspective that could in the long term compromise the sustainability of the CoE.

Bellow the overall rationale for the sources of revenue to BIOPOLIS CoE:

#### **Sources and rationale**

**H2020 Teaming Grant.** Corresponds to 15 M€, which is the amount requested to the European Commission, and will be spent during the seven years of project development as described in 3.3. H2020 (other grants). Corresponds to funding opportunities through H2020 until the closure of the programme, including new applications to Widening (Twinning and ERA Chairs), to other calls for projects, and to ERC grants.

Based on the past success of ICETA-CIBIO in attracting H2020 funding, we have made a conservative estimate of new grants amounting to 1.75 M€ overall, that would be spent in the first 4 years of project development. Horizon Europe. The new European Framework Programme Horizon Europe (2021-27) represents a unique opportunity to an emerging CoE such as BIOPOLIS, which will strongly benefit from the new capacities and competencies gained through the Teaming project and the coaching of UM, including international networking, insertion into international consortia, and increased visibility among the scientific community and stakeholders.

Therefore, we have envisaged that attracting 7M€ of Horizon Europe funding during the project development is an ambitious, but realistic goal. About 0.7M€ is expected to be raised in year 3 of the project, with the annual value rising progressively until year 7, when 2.1M€ is expected to be attracted. The same amount is maintained annually in years 8 to 10, as by then a transition to a new Framework Programme will be ongoing.

During the reporting period two BIOPOLIS researchers were awarded ERC Consolidator Grants (2M€ each): Rita Covas, in 2019 (<https://cibio.up.pt/news/details/rita-covas-has-been-awarded-a-consolidator-grant-from-the-european-research-council-erc>), and more recently, Miguel Carneiro, in December 2020 (<https://cibio.up.pt/news/details/cibio-inbio-researcher-miguel-carneiro-is-awarded-an-erc-consolidator-grant#prettyPhoto>).

**FCT.** The Portuguese Science and Technology Foundation (FCT) committed to the development of the BIOPOLIS project a total of 25M€, as expressed in its commitment letter. This value is already secured, and it recognises the exceptional track record of CIBIO in attracting competitive funding from FCT, including PhD and Post-Doctoral grants, contracts for researchers at different levels of career, and research projects. For instance, FCT awarded to CIBIO, in 2018, 36 research projects (about 7M€) and 16 new research contracts (about 3.8M€), which will be developed during the next 3-6 years. Furthermore, FCT is very supportive of the partnerships established with private corporations, and is willing to provide the co-funding required for the Invited Chairs that will be implemented during BIOPOLIS. Besides this value, the sustainability plan assumed that BIOPOLIS CoE will expand the level of success of CIBIO in attracting FCT funding for research projects, implying that during project development a minimum of 10 M€ in competitive funding will be attracted, which is a conservative estimate given CIBIO's track record. A total of 0.5M€ is expected to be attracted in the 2nd year of the project, rising annually to 2.5M€ in the 7th year. The annual funding from FCT projects is expected to be sustained thereafter.

During the reporting and the requested update period 7 news project applications were approved by FCT totalizing more than 5M€. Also during this period, CIBIO was able to secure 13 new contracts from the 3<sup>rd</sup> Edition of the FCT Individual Call to Scientific Employment. During the update period additional 70 applications were submitted to the 4<sup>th</sup> Edition of the FCT Individual Call to Scientific Employment. The results are expected to be launched soon.

**Regional funds.** Regional funds have represented important sources of funding for ICETA-CIBIO, and support will continue to be given to the CoE. The sustainability plan includes the amount of

15M€ already guaranteed through the Comissão de Coordenação e Desenvolvimento da Região Norte (CCDR-N), as stressed in the commitment letter. It also includes 2.6M€ already secured through three departments of the Regional Government of Azores (an European ultra-peripheral region), which will support the engagement of researchers from the region in BIOPOLIS activities. It was also assumed that regional funds will remain available, despite uncertainties concerning the amount and management of Cohesion and Structural Funds in the next framework programmes.

Given the previous track record of ICETA-CIBIO it is expected that during the new Framework BIOPOLIS CoE will be able to raise from regional funds annual totals of at least 500k€ in year 5, 750k€ in years 6-7, and 1 M€ thereafter.

During the reporting period we have developed and submit to the Comissão de Coordenação e Desenvolvimento da Região Norte - CCDR-N the application NORTE-01-0246-FEDER-000063 *BIOPOLIS- Enhancing the transference of scientific and technological knowledge through a new Centre of Excellence in Environmental Biology, Ecosystems and AgroBiodiversity*, a **15M€ application referring to the matching funds to the BIOPOLIS teaming project.**

The call for this application (invitation call) included the possibility of using 20% of the total budget (3.7 M€) for buildings rehabilitation (as previously discussed and agreed with CCDRN on a meeting that took place on December 2019). The formal communication of application approval was initially expected by the end of March 2021. However, the decision took on December 2019, was reversed on the 5<sup>th</sup> of January 2021 when CCDRN informed us that the infrastructure rehabilitation component could not be included in the previously submitted application. Several meetings with CCDRN's new elected President and technicians took place in order to overcome this issue having the BIOPOLIS Installation Committee and BIOPOLIS Director expressed their concerns about the deadlines for concluding the complementary funds process, and requiring for an urgent solution to finalize this procedure.

The solution proposed by CCDRN was to approve the application NORTE-01-0246-FEDER-000063 excluding the expenses for building's rehabilitation (requiring also other small adjustments resulting from the change in the total financing amount) and consider the adaptation and remodeling of buildings to be part of another financing program in the North 2020, to be supported in the very short term by CCDR, totalizing in this way, the commitment of 15 Million Euros, assumed for complementary financing to the TEAMING project.

The revised proposal was submitted to CCDRN in 31<sup>st</sup> of March 2021. Since then, several additional documents were being requested by CCDRN including the demerger agreement between ICETA and BIOPOLIS Association; and proof of the transference from ICETA to BIOPOLIS Association of all the contracts of the human resources included in the project team.

The final approval from CCDRN was received on 14<sup>th</sup> of June 2021 and the respective Acceptance Term was signed on the 23<sup>rd</sup> of June 2021. CCDRN proceeded with the first payment – corresponding to 15% of the budget- on the 9<sup>th</sup> of July 2021.

During the RP1 another application was submitted to CCDRN, the NORTE-01-0145-FEDER-000046 (*“Research Towards the Conservation, Restoration and Sustainable Use of Tropical Biodiversity and Ecosystems”*), a 2M€ matching funds to the TROPBIO ERA Chair already approved and running. The application was submitted on the 30<sup>th</sup> of July 2020 and it was approved on the 13<sup>th</sup> of November 2020 and the Acceptance Term was signed immediately. The expenses were eligible since the 1<sup>st</sup> of September 2020 and the first payment (15% of the total budget) was made on the 23 of April 2021.

The 3.7M€ infrastructural call was launched on the 28<sup>th</sup> of September 2021 (ANNEX 13). In this regard, as previously mentioned, the documents needed for the preliminary consultation of fees for the rehabilitation project management and the preliminary consultation of fees for the architectural and engineering specialties design execution services are being prepared.

**New Contracts and consultancy services.** ICETA-CIBIO has a strong track record of providing services to a number of stakeholders, including a range of genetic analysis at its labs, and consultancy services regarding for instance environmental impact assessment and monitoring, wildlife management, and landscape planning and management. The capacity to provide these services will be greatly expanded through BIOPOLIS, based on the increased critical mass of highly-qualified research and technical staff, the visibility and prestige of the centre, the close contact with stakeholders, and the support of UM in numerous areas. The sustainability plan has thus considered this to be a key component for the sustainability of the CoE. The Plan assumes that annual values of around 0.8-1.0M€ will be attracted during the first 3 years of BIOPOLIS operation, maintaining approximately the same levels currently achieved by ICETA-CIBIO. The value of services is then expected to rise at about 25% per year, reaching a maximum of about 3.5M€ in the 7<sup>th</sup> year, in line with the greatly increased capacities and competences of the CoE. After year 7, the provision of services is assumed to stabilise, growing at about 1% per year.

The CTM - Molecular Analysis Centre, an integral unit of CIBIO was contracted for a total of 168 services in the period of reporting, totalizing a total income of EUR 637,821.67.

Of these 168 services, 149 were specialised in Molecular Genetics, which include i) Genetic identification and Analysis of biological filiation (paternity/maternity) in domestic species (cattle, horses, donkeys, sheep, pigs, goats and dogs); ii) Assessment of the occurrence of hybridization in game species for repopulation purposes (rabbit, partridge and quail); iii) Molecular sex determination in birds and mammals; iv) Development and analysis of SNPs and Microsatellites; and v) Sanger sequencing. The remaining 19 referred to NGS services: (i) Gene Expression, (ii) Custom Amplicon, (iii) Genome Sequencing, (iv) Library QC, (v) Chip-Seq, (vi) Metagenomics, (vii) Whole genome sequencing, (viii) Resequencing and Plasmid sequencing.

Other services provisions from GEPE - Centre for Studies and Projects in Applied Ecology, an unit of CIBIO created in 1998 to provide services in the areas of management and conservation of biodiversity, and monitoring, totalized an income of more than 500,000.00 euros during the reporting period

**Invited Chairs.** The Invited Chairs Programme was established by FCT to strengthen links between research centres and business partners, involving co-funding by FCT (25%) and a private corporation (75%)<sup>6</sup>. Invited Chairs are established for a period up to five years, and they can be either junior (120k€/year) or senior chairs (180k€/year).

This funding mechanism provides an ideal link to provide a setting for the development of problem-driven research, in close collaboration with stakeholders, and thus the dissemination of and exploitation research and innovation with high commercial and/or societal value. ICETA-CIBIO has been one of the most successful research centres in Portugal regarding the creation of these invited chairs, which have involved until now 4 chairs with major Portuguese corporations (EDP, REN, DELTA, and REFER/IP). Building on this success, during the development of the Business Plan negotiations have been started with a number of additional national and international corporations (e.g., SONAE MC, ACHLI, GALP, HOGOOD, Consortium EG&WC, AMBATOVVY, ACHLI,) that demonstrated their interest in joining the Invited Chairs Programme, making this an important component of BIOPOLIS' financial plan. Considering the track record and the expectations developed, the plan assumes that at the beginning of BIOPOLIS there will be 4 active Invited Chairs, and that the number will raise progressively to 10 Chairs in the 6<sup>th</sup> year. The same value would be maintained thereafter, including in years 8 to 10. These expectations were considered reasonable and prudent given the interest in this programme, and the commitment of FCT in providing co-funding for the invited chairs.

The engagement activities conducted with private corporations led, during the reporting and update period, to the establishment of four new Invited Chairs – Parques de Sinta e Monte da Lua, EDIA, TOTAL Angola and Fundação Belmiro de Azevedo; and to the renewal of another two – EDP and REN.

In addition a collaboration agreement was established with SONAE for the design and implementation of Sonae's Strategy for Nature and Biodiversity.

Since March 2021 two new protocols have been established between BIOPOLIS Association and the company Movhera (<https://www.movhera.pt>) the second large hydropower player in Portugal, for the services provided by BIOPOLIS in the context of the environmental impact of the Tua and Baixo Sabor dams, totalizing around 150 thousand Euros.

### **1.3. Sustainability of the Centre of Excellence**

*Please provide your outlook for the long-term sustainability and growth of the CoE and include relevant information/data, such as the other sources of financing (funds, services, etc.), the linked activities and main strategic lines.*

*Please provide the amount and percentage of funding received by the CoE from sources other than government support (e.g. services, other grants, prizes) and this EU grant. Describe the financing situation of the CoE as compared to the plans described in the GA for the actual period.*

The diversification of funding sources is one of the key elements of the Business Plan of BIOPOLIS for the next years. Specifically, the Business Plan was developed considering the need to reduce dependency of FCT funding, by attracting funds from a mix of public and private sources, national and international, thereby increasing the resilience of the CoE to unexpected fluctuations in the public funding of science in Portugal. In fact, while the average component of FCT funding was around 55% in the period 2015-2019, for 2021-2025 this value is expected to decrease to around 40%. A similar level of non-FCT funding is planned for 2026-2030, but predictions for this period are much less robust due to uncertainties related to the economic situation and the implementation of EU frameworks at the time. The overall sustainability of BIOPOLIS CoE considers the following five main components:

**1. Promoting successful application to research funding.** Attracting project-based funding is one of the key components of the strategy for assuring the long-term sustainability of BIOPOLIS. Particular attention will be given to creating the skills and capacities to participate successfully in Horizon Europe (2021-2027), and future framework Programmes, while maintaining or even enhancing the abilities to access funding from Portuguese agencies (FCT, ANI). This is particularly important given the huge opportunities created by Horizon Europe and the European Green Deal, where issues related to sustainability, biodiversity and

ecological restoration are clear priorities. To achieve these goals, the following actions will be implemented:

- i. Creation and implementation of a Project Support Office. This Office will coordinate the research and innovation project work of BIOPOLIS, including information watch, raising awareness of opportunities, a proposal writing support service, assistance to partner searches, project and consortium management. The staff will include dedicated Project Support Officers, working in close collaboration with researchers and Project Management Officers.
  - ii. Training of researchers to preparing and writing research proposals, with the organization of in-house training sessions and participation in external workshops. In-house workshops on research proposal preparation will be organised at least each semester, which will be attended by research staff and post- doctoral researchers with project concepts and ideas. Workshops will include the discussion of case studies and will benefit from inputs by international invited researchers. BIOPOLIS will also support the participation of researchers in external training courses, to complement in-house training.
  - iii. Regular application to research funding, benefiting from the foreseeable increase in funding opportunities in Portugal and the EU. To foster this activity, the Project Support Office will continuously review and disseminate information on oncoming funding opportunities, at national, bilateral, European and international levels. The Project Support Office will provide support on the preparation of applications, particularly on non-scientific aspects of proposal writing. Researchers will be incentivized to spend time on finding funding and writing proposals, by considering the success in attracting research funding as key elements for career development, remuneration packages, the allocation of lab space and technicians' time, and the allocation of funding.
- 2. Promoting partnerships with stakeholders through problem-solving research.** This component will involve the development of innovation-led, problem-solving research together with the public administration, business corporations, and other stakeholders, providing a mechanism to diversify funding sources and contribute to AL sustainability. The following main actions will be taken.
- i. Creation and implementation of a Project Support Office. This Office will manage short- and medium- term contracts to develop specific projects leading to new products, services or processes, and it will focus on establishing more long-term

partnerships whereby the public administration and corporations co-fund a research group tackling more general research and innovation issues.

ii. Development of an ambitious portfolio of Invited Chairs and Programmes.

Collaboration with corporations will benefit from the Invited Chair Programme of FCT. The current Chairs (EDP and REN) were renewed, four new Invited Chairs were established (Fundação Belmiro de Azevedo; Parques de Sintra e Monte da Lua, TOTAL, and EDIA); others are currently under negotiation to be implemented (e.g., AMBATOVY, ACHLI, HOGOOD, SONAE MC, NESTLE), and new Chairs will be created through actively seeking partnerships with corporations. The network of Business partnerships will thus be greatly increased, through regular and systematic contact with corporations, either through meetings and other direct contacts, or through participation in business, technical and scientific events.

iii. Internationalisation of collaborations with stakeholders. Since many of the research and innovation outputs of BIOPOLIS are relevant in all countries, and many projects will be co-developed with international research institutions, a particular effort will be developed for establishing new contracts and partnerships at the international level. This will involve partnerships with key institutions, including the creation of a virtual InBIO Lab in Agropolis International, to foster collaborations in France.

**3. Intellectual Property Rights and Licensing of BIOPOLIS Innovation.** Return on research investment and thus the long-term sustainability of BIOPOLIS will also be sought through licensing of rights to use specific research outputs (IP such as patentable ideas or products). This process will be steered by a dedicated Knowledge Transfer Officer (KTO), who will work in the Stakeholder Relations and Knowledge Transfer Office. The KTO will work together with researchers to evaluate the potential for intellectual property protection and eventual commercialisation of research results. She/he will also be in charge to prepare the processes of patent application, working together with the Legal Affairs Officer. Finally, the KTO will work with the Stakeholder Relations Officer to establish licensing agreements with business corporations, to facilitate the transformation of research products into new commercial services and products.

**4. Consultancy and services provision.** BIOPOLIS will continue to offer consultancy and lab analysis services, which will contribute to its revenues and long-term sustainability. This component will upgrade the range of services already provided by BIOPOLIS, aiming to deploy a more cost-effective structure of service provisioning and to achieve and to attract potential clients more effectively. This component will build on research



and innovation results produced by BIOPOLIS, and on the considerable experience of its researchers and technical staff. Considering the track record of CIBIO, the following services will be routinely provided: i) Laboratory analysis of tissues and non-invasive genetic samples for species identification, DNA fingerprinting, sex determination, parentage analysis; ii) Environmental monitoring and assessment of water, soil and air based on eDNA and NGS; iii) Wildlife management; iv) Environmental consultancy related to environmental impact assessment and monitoring; v) Regional and landscape planning, including the design of green and blue infrastructures; vi) Environmental management of urban areas and nature-based solutions.

- 5. New businesses and spin-offs.** BIOPOLIS will promote the creation of new businesses and spin-offs, mainly to commercialise research results for which there is not an obvious partner, or in cases where direct commercialisation by a spin-off linked to the CoE might create a competitive advantage to foster a constellation of start-ups and of small and medium-size enterprises, providing highly-qualified job opportunities, and contributing to regional and national development. Activities will be carried out in close liaison with experienced teams from the Porto Business School, and will involve training on research entrepreneurship, training on how to apply for EU specific funding for innovative start-up and spin-off, legal and financial support to the creation of spin-offs, mentoring from practitioners, favourable conditions for access to office space and labs, and contributions to initial investment of particularly promising initiatives.

#### **1.4. Impact**

*Specify any additional short term/long term impact of the project not foreseen in the DoA (and described already in the periodic report).*

*Please describe any financial/administrative (e.g. efficiency gains), scientific aspects/innovation-related aspects or regional/political impacts that go beyond the scope of the project and are foreseen for the next period.*

*Please provide details on major stakeholder involvement, regional or local connections, activities with Living Labs, which contribute to the strategy of the CoE and have been developed since the CoE started to operate. How do they contribute to the strategy/operation of the CoE and in what ways do they have an impact on the regional/local/research-related conditions?*

The project was conceived and it has been implemented with the overarching goal of maximising the impacts stated in the call text on the H2020 Work Programme 2018-2019 on Spreading Excellence and Widening Participation [Teaming Phase 2]. In the proposal, the diagnostic of impacts considered the engagement of BIOPOLIS CoE in the implementation of the Europe 2020 objectives policies, including EU's Bioeconomy Strategy, The Common Agricultural Policy (CAP), and the Portuguese Research and Innovation Strategy for Smart Specialization (RIS3). During the

first period of implementation the diagnostic of impacts has been revised and enhanced because there have been major advances in European policies that are at the core of BIOPOLIS CoE Vision, Mission and Objectives, namely the European Green Deal, the Biodiversity Strategy for 2030, the Farm to Fork Strategy, the forthcoming EU Forest Strategy, and the associated plans and activities. Below we summarise the progress beyond the state of the art, expected results until the end of the project and potential impacts detailed in the grant agreement, and outline the socio-economic impact and the wider societal implications of the project so far.

Despite the challenges of the pandemic times, the implementation of the BIOPOLIS already resulted in some noticeable impacts.

The BIOPOLIS implementation already attracted the attention of the “Norte” Portugal entrepreneurial and academic community. The first consulting with the community already helped planning for research platforms that were missing in the region and in the country, which are now considered to be incorporated in BIOPOLIS facilities. For example, an open and referential platform for plant phenotyping was missing and in great need in the northern region of Portugal. This facility and the expertise that goes with it is of extreme importance for plant breeding companies (e.g., selected vine lineages) and for researchers conducting studies on plant physiology and genetics. For this, BIOPOLIS got engaged in the EMPHASIS EU project together with other research labs and academic institutions to launch a center for plant phenotyping that will provide access not only to the local community but as well for the whole country and with the Spanish neighbor region of Galicia. Another impact was the recruitment and attraction of experienced and internationally renowned scientists to help growing and sustainably improve the organizational structure of the research body of BIOPOLIS. The two consolidator ERC grants and an ERA chair in tropical biology are the two “instruments” that are leveraging the funding of new high-quality research as they offer unique opportunities to recruit young talents and attract senior experts. These and the hiring of an associate director for R&D are already improving the organizational structuring that is required to CoE to be competitive and maximize its outputs. Another measurable impact was the number of PhD scholarships that have been shared between the two teaming partners (UM and UP). The last year already brought an increase of young Portuguese PhD students starting their postgraduations in UM and vice-versa, as well as new working groups from both countries sharing the same research interests are emerging and starting to apply for larger funding projects.

During this period several public and private institutions have been approached and attracted by BIOPOLIS looking for support their I&D departments. The power and promise of the new omics technologies have been opening new opportunities in areas like the agrifood sector, forestry, and environmental management, among others. The private economic

sector needs highly trained human resources in omics technologies as well as miss expertise to use these state-of-the-art technological advances. Companies from other regions of Portugal have already engaged with BIOPOLIS to start a custom-made genomic test for quality control and traceability of their products like the frozen-fish company, Congelagos SA, or worldwide producer of wood-based panels, SonaeArauco, which is now funding a research project to improve the management of the forests, reduce the impact of the forest practices in the environment, and increase forest productivity. Several forest plots are now being study to understand the impact on the soil quality, carbon retention and tree-species combination to increase their resilience to the climate changing, productivity and spontaneous fire resistance. Also, the biologging research capacities based on BIOPOLIS have worldwide attracted partners and potential investors in this technology to build networks of environmental sensors to help monitoring human activities foot printings and/or mitigate their impact.

Another impact was on the training of human resources from underdevelopment countries, in which BIOPOLIS have already started the training of young researches from Angola, Namibia, Cape Verde, Mozambique, that will be the main vector of knowledge transfer and capabilities in to their countries in areas such as Agrigenomics, Conservation, and Ecosystem services. The project is therefore rendering positive impacts by (i) contributing to the objectives of regional and national smart specialisation strategies , (ii) the development of innovations regarding the sustainability of food production systems and the use of agrobiodiversity to develop new products and processes, and (iii) enhancing cooperation with least developed countries regarding the conservation and sustainable use of natural resources, and the agrifood sector.

A more detailed description of the way BIOPOLIS is achieving the impacts outlined in the work programme will be made in the following progress reports.

### **1.5. HR Strategy of the CoE (Personnel, Recruitment)**

*Please describe the general selection procedures and personnel to be hired until the next reporting period with view of the total recruitment plans. Please cover details of the HR strategy in terms of salary rates/package of key personnel, % of working hours spent on the project for key staff, incentives, additional HR issues to be tackled when hiring international experts, etc.*

*Did you encounter any major problems in recruiting that required or will require the revision of the HR strategy? In what ways do you offer a more competitive package for those being employed by the CoE than those offered by other (public) research institutions of the country? If the project has separate deliverables on HR issues, refer to the corresponding deliverable(s).*

A deliverable describing the human resource strategy of the CoE for the next decade, addressing among other components the development of scientific and technical careers, categories and functions of doctorates. The human resource strategy of BIOPOLIS was drafted with the support

of Porto Business School, and will be fully implemented after 2021. This human resource strategy encompassed all staff of the CoE, including administrative and technical staff, and not only for doctorates. Below we provide a summary of the HR strategy, focusing primarily on the component related to the scientific and technical careers of doctorates.

The Human Resource (HR) strategy was benchmarked in relation to that of research institutions at the European level, and assumed as its **Vision** to be **recognized as the best in class Human Resources management function among Research Centers in Portugal**. Considering this vision, the **Mission** of the HR Strategy is to **enable BIOPOLIS with the suitable, talented and diverse workforce** for the pursuit and achievement of its every organizational unit goal, **through excellent human resources management practices, procedures and programs**, towards assuring its scientific success and societal impact. In this way, the **purpose** of the HR strategy is to **foster individual and group performance, satisfaction and fulfilment**, of high-quality researchers and support staff, fuelling BIOPOLIS as a top level research center, **providing a positive collaborator experience to everyone, while being a reference inclusive and parity great place to work**.

The HR Strategy was also rooted in a number of **key values**, which will guide the organization and activities of the organization, fueling a culture of human resources excellence. These values include: **Happiness**, aiming to balance working performance with one's personal life challenges and needs; **Learning & Growing**, to match the appetite of every worker to evolve in one's hard/soft skills, to the always evolving challenges facing the CoE; **Transparency**, as an attitude and general communication style, to fuel trust, loyalty and honesty in every worker; **Merit** based assessment, so that individual performance may be directly linked to new opportunities and rewards; **Equality**, to eliminate any gender, age, race, disability, religious and/or cultural barrier to the fully expression of every worker ability; **Teamwork** approach to potentiate every worker sense of community and mutual appreciation; and **Safety**, as a must to the working conditions and procedures under which every worker performs one's tasks.

#### **Human resources governance**

HR will be managed by the Administration and Finances Unit, involving dedicated officers. Attention will be given to all aspects of HR management, following the strategy outline below, including performance evaluation, training, career progressions, rewards, benefits and allowances, quality of life in the workplace, and social action, among others. To achieve recognition of excellent at the European level, BIOPOLIS will seek to obtain the HR Strategy for Researchers (HRS4R57) label. To monitor the implementation of the HR Strategy and Procedures, a HR Monitoring & Evaluation Plan will be prepared and implemented, which should

contribute to optimize productivity and satisfaction of the workforce. The HR officer will measure progress, identify areas for improvement, explain whether a strategy has success, and suggest corrective plans.

### **People attraction and recruitment**

Recruitment will follow all provisions of applicable legal frameworks, involving open, independent, merit-based and competitive calls, implementing the best international practice, and adjusted to the type and level of the position to be filled. Besides all provisions defined in Portuguese legislation and best practice guidelines, recruitment of Researchers will follow the European Charter & Code for Researchers<sup>58</sup>. More generally, recruitment will follow the tenets of the EU Employment Equality Directive (2000/78/EC<sup>59</sup>) and other relevant provisions regarding Equal Opportunities standards in the evaluation of the applicants. Calls will be widely advertised, with the level and scope of dissemination adjusted to the position to be filled. Selection criteria will be provided in the advertisement for the positions, and the selection procedures will include detailed assessment of CVs, reference and motivation letters, and interviews to assess professional experience, indication of creativity, communication capacities and interpersonal relationship skills and other relevant skills. Depending on the position to be filled, the selection panels may include researchers external to BIOPOLIS.

### **People on-boarding**

The HR strategy pays a strong attention to ensuring the full integration in BIOPOLIS of every new or rotating worker, while minimizing barriers to highly productive job kick-off, optimizing peer and team fitting and maximizing individual sense of belonging and welcoming. This will be achieved through the definition, development and implementation of a HR On-Boarding Internal Program, tailored to the job level. This includes provisions to make new researchers acquainted with all aspects of the CoE, including administrative and financial procedures, working conditions, lab facilities, rules and guidelines, among others. Strong effort will also be devoted for the social integration of new researchers, particularly those originating from abroad, either foreigners or Portuguese expatriates. This will be achieved through the definition, development and implementation of a HR On-Boarding External Program, ensuring counselling and assistance with all aspects required to work in Portugal (e.g., housing, schools, tax information, among other aspects).

### **People performance management**

This component of the HR strategy involves a strong focus on the support of researchers to achieve optimal performance. This will involve the deployment of a Performance Management System (PMS), which will provide a structured framework to assess, evaluate, report and review employee performance. To enable every employee within the PMS scope to understand, engage and correctly participate in the performance management process, communication and training for PMS will be implemented. The PMS process roll-out strategy will be delineated, according to different evolution phases, regarding, namely: scope, appraisal dimensions, KPIs depth/ambition, salaries & benefits consequences. A pilot of PMS will be carried out to assess its suitability for the organisation, after which it will be improved and regularly implemented thereafter.

### **People career development**

The career development of researchers of BIOPOLIS will consider in general terms the categories and competences adopted by FCT under the CEEC Program. A Career Progression Plan will be defined and implemented, to enable researchers professional and personal progression fulfilment. The Career Progression plan will define the vertical (function) and horizontal (responsibility) different pathway possibilities, for the several organizational positions, according to know-how (academic & training) vs experience criteria. The Career Progression Plan will be developed using an Employee Potential Matrix, based upon a competence's vs performance assessment tool. Special attention will be in place to ensure race, gender, religion, sexual orientation, age and disability equality treatment of every worker. The output of the PMS process evaluation for each worker will be used as an input for the positioning of everyone in the Employee Potential Matrix. That positioning of each worker in the Employee Potential Matrix should be proposed by each manager and discussed with the HR officer, so that a suitable overall executive Career Progression Plan will be presented, analysed and approved by the Board of Directors.

### **People training and personal development**

Strategic & Tactical training plans will be established to enhance the workers (researchers, administrators, technical and administrative staff) competences, so that strategic resources may be available and current performance may be boosted. The Strategic Training plan will be developed to define the competences pathway that the suitable high potential collaborators will engage in, so that BIOPOLIS strategic objectives may be accomplished by internal resources, fueling staff career progression and motivation instead of external recruiting. A Tactical Training Plan will be developed to mitigate current collaborator performance gaps, resulting from the

Performance Appraisal process. The training plans will address the managerial, scientific technical and behavioral needs.

Within the training component, particular attention will be given to young researchers with a PhD. This will involve the creation of a Postdoctoral Training Programme, aiming to train researchers towards independence in the first few years after their PhD, and to provide additional professional development opportunities in the context of long-term career prospects. Post-doctoral researchers in the first years after obtaining the PhD will be offered the opportunity to join the Programme, with additional researchers after having the possibility to join if possible. Each Post-doctoral researcher will be supervised by two senior researchers, ideally one in-house and another from an international research institution. All Post-docs will be involved in research projects of their supervisor, where they will take responsibilities for developing key practical tasks. Post-doc researchers will be supported to spend extended periods in international, top-level research institutions, to receive training and to participate in collaborative research projects. Training will have strong components directly related to enhancing scientific potential, but also a strong component of transferable skills that are expected to foster career development opportunities, including interpersonal, organization, leadership, and communication skills. Particular attention will be given to training on innovation, knowledge transfer, and intellectual property rights. Training may also include temporary placement in business corporations and bodies of the public administration committed to the programme. Post-docs will be given the opportunity to attend international conferences and workshops.

### **People retaining**

Researchers at BIOPOLIS will be contracted in accordance with the Portuguese and European legal frameworks. Grants will be kept to a minimum (except in the case of PhD students supported by BIOPOLIS), following the current legal framework and FCT regulations. Salaries & Benefits and Allowances scheme will be established, linked to the organizational structure, type of contract and levels of BIOPOLIS. The reference values for the salaries of researchers will be set in line with those established for the research career in Portugal. However, these salaries are in general too low to attract and retain international, top-level researchers, either foreign or Portuguese expatriate researchers. Also, competitive salaries and side benefits are required to avoid brain drain, which has often occurred during the past decade, with talented researchers moving abroad to find much better working conditions. To overcome these problems, BIOPOLIS will consider a full complement of monetary or equivalent rewards, as the tangible levels of compensation, including a fixed remuneration correlated with the level of the researcher, a

variable bonus correlated with performance, other benefits (e.g., insurance, communications and IT devices, etc.), and allowances (e.g., to support newly arrived collaborator integration - e.g., housing, transportation, children school, etc.). There will be periodical assessment of Salaries & Benefits and Allowances gaps to other similar R&D&I organizations, namely by using national and international benchmarks from HR expert reports.

Great attention will also be given to quality of life in the workplace, setting an approach and actions to enable workplace life balance, considering that higher quality of life in the workplace leads to higher worker retention and satisfaction. To this end, BIOPOLIS will define a “Quality of Life in the Workplace” Policy to be implemented, addressing dimensions such as workload and occupational stress; work schedules, remote work and flexibility; leadership styles and recognition initiatives & awards; working conditions & adequacy of resources to enable job performance; health & nutrition programs; opportunity to use and develop personal human skills; social responsibility programs; child care; gender equality; and diversity and non-discrimination; among others.

To implement this Policy, a committee for quality of life in the workplace and social action will be set up, including representatives of all categories of personnel. With the help of the HR officers and questionnaires sent to all staff members, a short programme of actions for quality of life, relating in particular to health and safety in the workplace will be set up annually, including gender equality issues, for the following year. Making the CoE an inclusive lab is paramount: actions for handicaps will be developed to ensure best practices regarding disabled staff members. Gender equality will also be addressed. A number of social actions will be decided and implemented over time (e.g. annual festive get-together for staff members; meals grants). Furthermore, specific actions will be set up for the benefit of PhD students: training to improve coaching methods will be offered to all PhD advisors. Similarly, training for managers and Coordinator Researchers will be offered. All actions will be communicated to staff members to aid integration in the CoE and in the actions developed.

#### **Gender equality and gender mainstreaming in research**

Particular attention will be devoted to gender issues. To address this priority, the gender dimension will be integrated in the proposed programme and followed throughout all stages of the research cycle, by adopting the methods and strategic approaches on Gendered-Innovations in Science, Health and Medicine, Engineering, and Environment, defined by EC's Horizon 2020 programme. As such, BIOPOLIS will actively aim at achieving gender parity and equality during the recruitment process for all positions and for career development, and promote excellence in science and technology by integrating gender analysis into research.



## **IT and web-based tools for People Management**

To facilitate HR management, a number of IT and web-based tools will be implemented. This will include the external internet site, which will have a HR full section, enabling access and navigation across human resources related issues, targeting the attraction of potential candidates while emphasizing BIOPOLIS as a great place to work. There will also be an HR full section in the BIOPOLIS intranet site, for the interface with any internal password-enabled individual, to achieve crescent high levels of productivity for the HR management team, processes and procedures, while emphasising the high-tech characteristics of BIOPOLIS for its users. Both the internet and intranet tools will provide support and IT tools for implementing each strategic task outline above.

### **1.6. Infrastructure, equipment**

*A detailed description of the status is expected to be part of the periodic report. Please describe here the main upcoming milestones relevant for the infrastructure or equipment of the CoE. Please describe here what are the main lessons learnt if building/acquiring a new site, and/or building new infrastructure/renovating one for the CoE (as relevant to the project). Did you encounter or do you expect any major issues (e.g. ownership, financing, use) or obtaining complementary funding for infrastructure/equipment?*

During the reporting period a protocol was signed between the University of Porto and BIOPOLIS, whereby the former granted to the latter the full use and management of all infrastructures available at Campus de Vairão to serve as the headquarters and the main facilities of the BIOPOLIS. Moreover, a detailed inventory of all equipment and materials owned by ICETA but associated with CIBIO's activity was undertaken, which was the basis for a protocol transferring all these assets to the BIOPOLIS Association.

A number of activities were developed regarding the planning, implementation and monitoring of infrastructure and equipment management. A key component was the development of plans for the upgrade of infrastructures at Campus de Vairão, including the rehabilitation of a building that will be necessary to provide additional office space and lab facilities. This upgrade and rehabilitation of key research infrastructures will be supported through the complementary structural funds to be provided by the call from Commission of Coordination and Regional Development of the North region of Portugal (CCDRN) that opened on the 28<sup>th</sup> of September 2021. The detailed inventory of equipment described above was used to prepare the Management Plan of Infrastructures and Equipment submitted to EC on the 7<sup>th</sup> of September 2021.

There was significant progress in the management of the IT infrastructure, including the rehabilitation and upgrade of the computer room of CIBIO in Campus de Vairão, as well as the

purchase through additional funds of additional hardware that greatly increased the computational ability.

The Infrastructures and Equipment Committee (IEC), was nominated and includes two technicians and three researchers. The IEC is composed of the following BIOPOLIS researchers and technicians:

- Paulo Célio Alves, Researcher (Chair);
- Rita Araújo (Executive coordinator)
- Fernando Lima, Researcher;
- Sara João, Technician
- Diana Castro, Technician

## **2. Key aspects of the implementation for the coming period**

### **2.1. Strategy for the upcoming period**

*Summarize the strategy foreseen for the CoE in the upcoming period*

*\_What are the objectives, targets in view of the objectives of the grant agreement (major milestones e.g. in the infrastructure, defining research strategy or in the operation of the CoE)?*

*\_What are the main activities within the work packages (e.g. deliverables) that require special attention or offer specific policy/communication input?*

*\_Are there any foreseen obstacles or bottlenecks?*

*Do any of them lead to any deviation from the current Description of Action for the project?*

Major targets for the coming period include to:

Complete the organizational set up of the BIOPOLIS Association.

Complete the transition of human resources, assets and liabilities from ICETA to BIOPOLIS by the end of the year.

Recruit and manage BIOPOLIS Human Resources.

Submit the application to the infrastructural call and start the rehabilitation and upgrade of infrastructures and equipment.

Expand education and training activities, particularly the doctoral and post-doctoral programmes.

Having now the affiliates' programme established, continue to strength relations with private and public stakeholders.

Strengthen the training and support to researchers applying to funding.

Establish partnerships with the media to expand communication and dissemination.

The foreseen constraints and uncertainties are mainly associated with the funding uncertainties by private corporations and other end-users.

## 2.2. Communication activities for the upcoming period

*Please list any major events or achievements, which will be important on a project level/country level/EU level where a reinforced communication activity is expected or relevant. E.g. opening of the CoE site or its lab, prize, success in national or international projects with the participation of the CoE, etc.*

*Are there major scientific/political events or communication campaigns foreseen in the project, where the involvement of REA/RTD is beneficial and should be foreseen?*

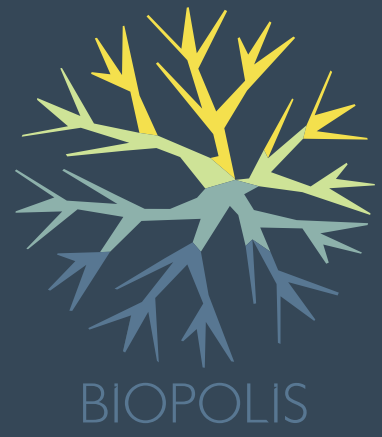
Within WP6 - Communication, Dissemination and Exploitation and to ensure the consistent development of the Exploitation and Dissemination activities, the Communication, Dissemination & Exploitation Plan was submitted during the update period on the 21st of September 2021, corresponding to deliverable 6.2.

The Plan was designed to assure consistent and effective application of CD&E procedures across all participants and activities related to BIOPOLIS. The aim is to have an integrated approach that strategically targets these activities and that is fully embedded in the work plan, thereby reaching out to society and showing the benefits of BIOPOLIS R&I, and contributing to maximise their societal and economic impact. In this document, it was introduced the requirements set out for the production of the Plan (Section 1). Second, it is provided the context of the Plan considering the vast range of CD&E activities previously carried out by CIBIO, and described its general and specific objectives (Section 2). Third, it is described the main strategic axes of the Plan (Section 3), and identify its main audiences (Section 4). Fourth, it is provided detailed accounts of the communication (Section 5), dissemination (Section 6) and dissemination (Section 7) actions and activities that will be carried out in the scope of the Plan. Finally, it is described the governance and management structure that will be involved in Plan's implementation (Section 8), and defined the processes and indicators that will be used in monitoring and evaluation (Section 9). The CD&E Plan will be implemented through the entire lifetime of the Teaming project and beyond, and will be regularly updated and improved to enhance its efficiency and cost-effectiveness. Eventual significant changes will be summarized in Implementation Reports.

It is important to mention that during the Reporting and update period the new BIOPOLIS/CIBIO institutional website was launched at <https://cibio.up.pt/en>.

Besides, the IC Chairman, Paulo Azevedo, and the BIOPOLIS Director, Nuno Ferrand de Almeida, are in communication with the Minister of Science, Technology and Higher Education, Manuel Heitor; the Portuguese Prime Minister, António Costa; and the European Commissioner, Elisa Ferreira, in order to get a compatible date for the public launch of the Associação BIOPOLIS, an event that is predicted to occur at the beginning of November 2021. During this event, the IC will publicly communicate the work being developed since November 2019.

**2.3. Optional questions by the PO**  
(To be decided by the PO, if any.)



BIOPOLIS



*This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under the Grant Agreement Number 857251.*