

BioData.pt | ELIXIR PT All Hands 2022 Report

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Participants at BioData.pt | ELIXIR PT All Hands 2022, held at CCMAR headquarters, in Faro.

Ana Portugal Melo, Jorge Oliveira

BioData.pt, Rua da Quinta Grande 6, 2780-156 Oeiras, Portugal. October 2022

Programme

Assessment of BioData.pt | ELIXIR PT by the External Scientific Advisory Board (ESAB)

Overview of BioData.pt | ELIXIR PT Activities

Meeting with SAB

Poster session with ELIXIR members and ESAB

ESAB meeting

Preliminary feedback from SAB and closing of SAB assessment meeting

Technical Meeting

Overview and discussion of BioData.pt | ELIXIR PT activities

Update from Communities' and Platforms' facilitators and discussion

Brainstorming the future of BioData.pt at Sunset

Keynote by Frederik Coppens, Head of Node of ELIXIR Belgium

Brainstorming outcomes

Collective discussion of four BioData.pt challenges

Introduction

BioData.pt | ELIXIR PT, the Portuguese Infrastructure of Biological Data and Portuguese Node of ELIXIR, held its All Hands in Faro, at CCMAR Headquarters, on September 28th-30th. The first part of the meeting consisted of the assessment of this research infrastructure (RI) by its external scientific advisory board, restricted to BioData.pt | ELIXIR PT members. The second part was open to everyone interested and consisted of a followed by a technical meeting, dedicated to an overview of BioData.pt | ELIXIR PT services and resources and intensive discussions of the challenges and goals of this RI. This meeting was attended by more than 30 BioData.pt | ELIXIR PT members and guests.

BioData.pt | ELIXIR PT is a non-for-profit Association of 12 academic and research and innovation organisations, from North to South of Portugal, bringing together their expertise in Bioinformatics, Data Management and Computing for the benefit of the Portuguese life and health sciences research community¹. CCMAR, the host of this meeting, has particular expertise in marine research and data management, being strongly committed to Open Science and the application of the FAIR principles in their research.

¹ BioData.pt 2021 Annual Report is available [here](#).

Of great interest to this meeting was the keynote of Professor Frederik Coppens, senior researcher at VIBS and head of Node of ELIXIR Belgium, about the experience of ELIXIR Belgium governance, funding and service provision to the Belgium for its national research community, as well as its relation with ELIXIR. The supercomputing facility of ELIXIR Belgium that provides computing power in a cloud environment, free of charge, the galaxy project and some of its developing tools, like the ENA upload tool, and the DataHub registry were the most discussed topics of the presentation.

Assessment of BioData.pt | ELIXIR PT by the External Scientific Advisory Board (ESAB)

A [document](#) presenting the past and planned activities from June 2019 to August 2022, as well as the strategies of BioData.pt | ELIXIR PT was shared in advance with the ESAB.

The ESAB assessment meeting was opened by Cymon Cox, on behalf of CCMAR, and Mário Gaspar da Silva as Head of Node of ELIXIR Portugal.

A presentation of BioData.pt | ELIXIR PT 21-25 Scientific programme and mid-term report by the Deputy Head of Node of ELIXIR Portugal and Executive Director of BioData.pt, Ana Portugal Melo, supported a 2 hours-discussion with the ESAB.



Ana Portugal Melo presenting the BioData.pt | ELIXIR PT 21-25 Scientific programme and mid-term report.

The ESAB congratulated BioData.pt for its amazing achievements with such little funding/resources. The following aspects are emphasised:

1. **Node services:** it was recommended that the management of the services is coordinated at BioData.pt Management Unit, including maintenance and quality control; The annual Service Delivery Plan should provide indication for maintaining and withdrawing services from ELIXIR PT Node Services portfolio; Submit Yeasttract+ to the Global BioData Coalition call for data services or to the ELIXIR call for Core data resources - the indicators fit in those of the Global Biodata Coalition.
2. **The Legal Entity:** the new organisation of BioData.pt as a non-for-profit Association BIP4DAB is a strength, and its growth should be thoroughly planned.
3. **Association sustainability:** think big in doing things that the associates cannot do - differentiate, deliver; privilege big projects; pass on the message that data hosting will be paid; show the government that we are at least getting even about recovering the investment in the ELIXIR fee and ask for more for BioData.pt activities, add the intangible returns like what Portugal would miss if it was not actively engaged with ELIXIR; attract more associates; in the Netherlands the fee of DTL is not a flat rate, maybe that should be considered; maybe organisations/researchers should be enforced to use BioData.pt services/resources to get value from their fee; show what would happen if BioData.pt disappeared.
4. **EGA:** BioData.pt needs to show it already has stuff it can build on, to convince hospitals to accept BioData EGA's. Ex.: tell that BioData.pt is already working with a company; this shows where BioData.pt is and where it wants to go; BioData.pt can pitch as a consultancy service to provide an independent report that can support the DG Reform report; also prepare a statement on what Portugal will lose if there is no EGA infrastructure.
5. **Users:** consider also developers, and not only users.
6. **International engagement:** BioData.pt can be the bridge between ELIXIR and Brazil (cooperation with Latin America, using BioData.pt joint activities with Brazil; also training is an easy entry point); take advantage of the language; Ana Teresa Freitas has contacts with Brazil that can be used; also Ana Portugal Melo has contacts in Cabo Verde, Angola and Mozambique; BioData.pt needs to contact ELIXIR immediately about this opportunity; the connection between BioData.pt and EOSC should be emphasised; insist in aligning BioData.pt | ELIXIR PT with communities and platforms.
7. **Communication/dissemination:** BioData.pt should communicate better its achievements - social networks, funders, associates, ELIXIR (to affirm as a reliable

natural partner). Regarding communication, there is a balance you need to find because if there is a feature you have and people don't know, it's the same as not having; the communication offices of BioData.pt associates could be leveraged to perform communication for BioData.pt; try to start with something small, a simple use case to showcase.

A poster session was prepared and shown to the ESAB to zoom-in the different activities of BioData.pt | ELIXIR PT. Posters are available in [Zenodo](#).



Poster session frames.

Preliminary feedback from the ESAB

1. **In the previous ESAB assessment that took place in 2019**, BioData.pt was recommended to enter the health domain, and so it did. It's good to see that you have EGA prototypes going on, so that you are prepared when it gets more definitive.
2. **BioData.pt is modest, it should communicate more about what it does**, but the ESAB understands there is a balance between the efforts; invest in the dissemination of the DS training program, there no DS training program including assignments; BioData.pt can start doing small efforts: maybe be selective once it has flagships; communicate also at the international level; don't worry if BioData.pt has gaps, everyone does.
3. **BioData.pt should try to lead platforms in ELIXIR.**
4. In 2 years BioData.pt **should show an outcome on EGA** (e.g. ethics, protection, genomes available for research).
5. **Partner with other ELIXIR Nodes** for complementary expertise and resources
6. **Expand BioData.pt international reputation** from plant sciences to other areas like Marine, Health, etc.
7. BioData.pt should have a topic where it is recognised as the “people to go to” in europe.



BioData.pt | ELIXIR PT External Advisory Board Members present in CCMAR. From left to right: Jaap Heringa (Chair and Head of Node of ELIXIR Netherlands), Frederik Coppens (Head of Node of ELIXIR Belgium), Emília Monteiro (Nova Medical School and Head of PT-CRIN), Luciano Milanese (ELIXIR Italy).

3rd Technical Meeting of BioData.pt Association

The Technical Meeting of BioData.pt was opened by Adelino Canário and Miguel Rocha as Head of CCMAR and Chair of BioData.pt Association, respectively.

Jorge Oliveira, Deputy Technical Coordinator of ELIXIR Portugal and Chief Technical Officer of BioData.pt delivered an overview of BioData.pt | ELIXIR PT services, training, platforms and community activities.

Jorge emphasised that since September 2021, when the 1st BioData.pt Technical Meeting took place, there is a new landing page in BioData.pt website that provides direct access to BioData.pt services and the regular monthly meeting of the BioData.pt Platforms and Communities with the presentation of a different service, community or platform activities.

This presentation launched a discussion about the “Ready for BioData Management?” capacity building program for life sciences, including the ongoing 1st edition of the Data Stewardship training programme that should be further disseminated nationally and internationally. It was recommended that the Data Management Plans courses are updated to use the ARGOS standard template, recommended by the FCT.

Concerning the background of data stewards, it was suggested that these should not be informaticians, because they provide complex solutions that no one will use because that's not how researchers work. They should have previous wet lab research experience. Further, it is important to work the motivation and interest of data stewards so that they do not get bored of their boring work.

Updates from Communities' and Platforms' facilitators



3D-Bioinfo-PT Community

Irina Moreira and Manuel Melo

The community is receiving new members.

During the year it has organised several BioData.pt talks that on average have an attendance of 50 people. It also organises community workshops, the last took place in September and the next is foreseen in December. In March, the community organises the so-called expert annual meeting that usually gathers 60-80 participants.

The community fosters sharing students and projects.

Finally, it was informed that the 3D-Bioinfo-PT Community is already engaged with the ELIXIR 3D-BioInfo Community, being represented by Irina Moreira.



Marine Data Resources Community

Cymon Cox

This is a very new group and the 1st meeting had poor attendance.

The community needs to work to improve in attracting people.

At a certain point, the viability of the community should be discussed; it is possible that this community can also fit the Microbiome community. This needs to be discussed with Filipe Castro.



Microbial Biotechnology and Systems Biology Community

Miguel Rocha

We have failed to identify facilitators to this community to date, nonetheless, this issue is being addressed. Recently the ELIXIR community of systems biology was approved and an implementation study for its establishment is in place, in which ELIXIR PT is involved through Miguel Rocha.



Plant Sciences Community

Pedro Barros

The community is welcoming new members at a slow pace. Currently it is focused on the development of tools and standards (annotation and storage of plant phenotype data; ontology, MIAPPE). It is the community's ambition that other researchers implement these tools in their labs.



Compute Platform

Jorge Oliveira

The platform has been ensuring the operation of ELIXIR-PT | BioData.pt services, namely by providing and maintaining a distributed compute infrastructure, supporting the community in the creation of new services and tools and linking the information to ELIXIR at European level.

In the future they plan to continue the current activities and improve the regular dissemination of available infrastructures and software tools, organise presentations and training and expand resources.

A major activity for our platform will be the participation in the project "Genomics Data Infrastructure" (GDI) that starts in November.



Data/Interoperability Platform

Cátia Pesquita and Daniel Faria

This platform promotes good data management practices. Its current activities are: working with the Plant Sciences community, delivering courses in the Ready for “BioData Management?” program, and workshops like “My data are your data”, managing the BioData.pt DMPortal (Dataverse). In addition, there is a committed involvement in ELIXIR Converge, where the RDMKit (webportal) is being developed and becoming a reference manual, mentioned by EU.

Seventy one people from different institutions interested in using the services of the community; Two platform meetings were hosted.

The platform aims at:

- Writing a white paper about data management best practices to disseminate the FAIR principles and Open Science and propose incentive mechanisms to comply with good data management practices;
- Assessing the portuguese landscape of data management in health and life sciences;
- Publishing plant FAIR data, through MIAPPE.

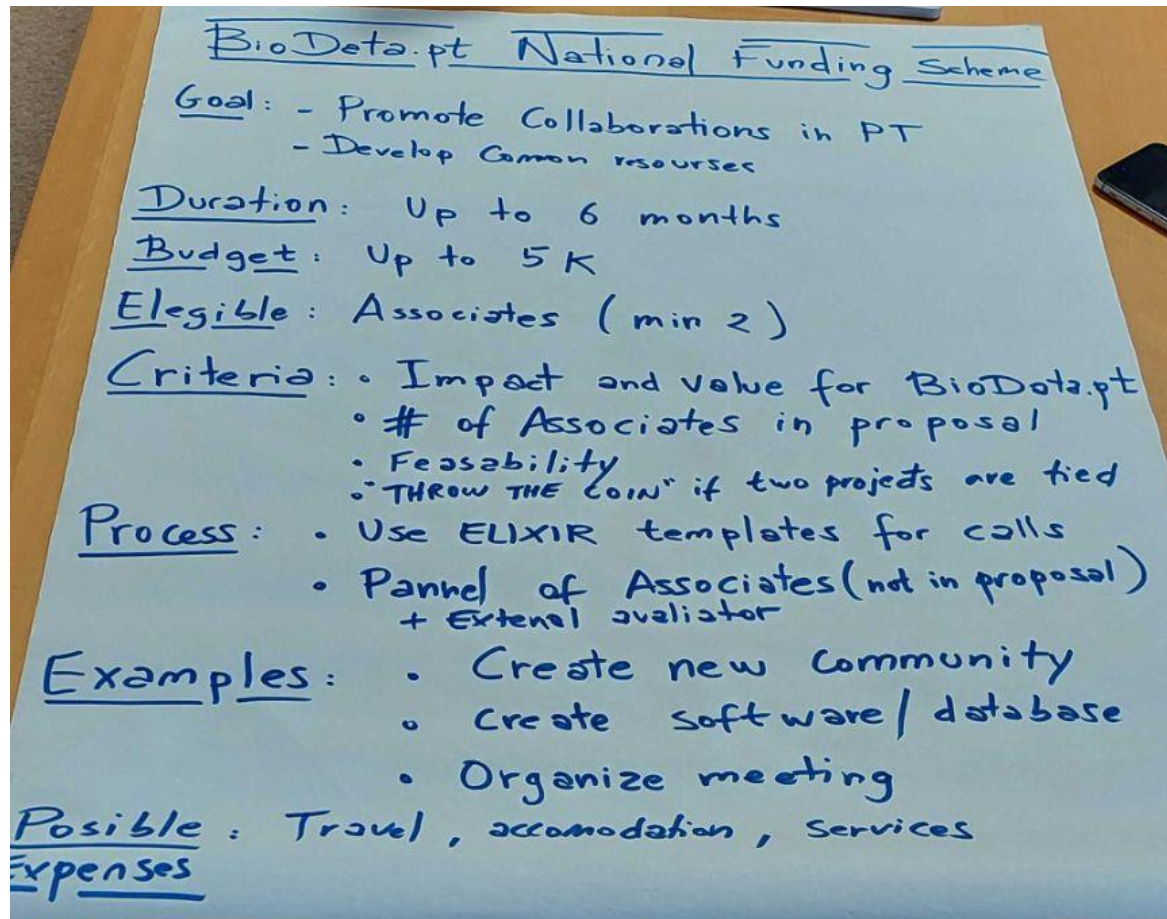
Brainstorming the future of BioData.pt at Sunset

In a creative and collaborative thinking approach, the attendees were divided in three groups to work on 3 topics that can shape BioData.pt future, which were proposed by attendees during the meeting.

Topic 1 - A low-cost project to promote collaborations in BioData.pt

This was considered a great idea that could be nurtured by the BioData.pt Board.

How much budget should we allocate to such an initiative; which balance between organisations, communities and platforms should we aim; how long should the project endure; a single pilot of 5000 €?



Topic 2 - How to sell Bioinformatics and Data Management Services to the research community?

Lobbying international funding agencies to demand DMPs.

A type of certification for recognition of DMPs (coordinate with FCCN):

- try to become recognized/certified as excellent in DM, so that when you are involved in a DMP, authorities don't even look at it, because they know that you know what you are doing.

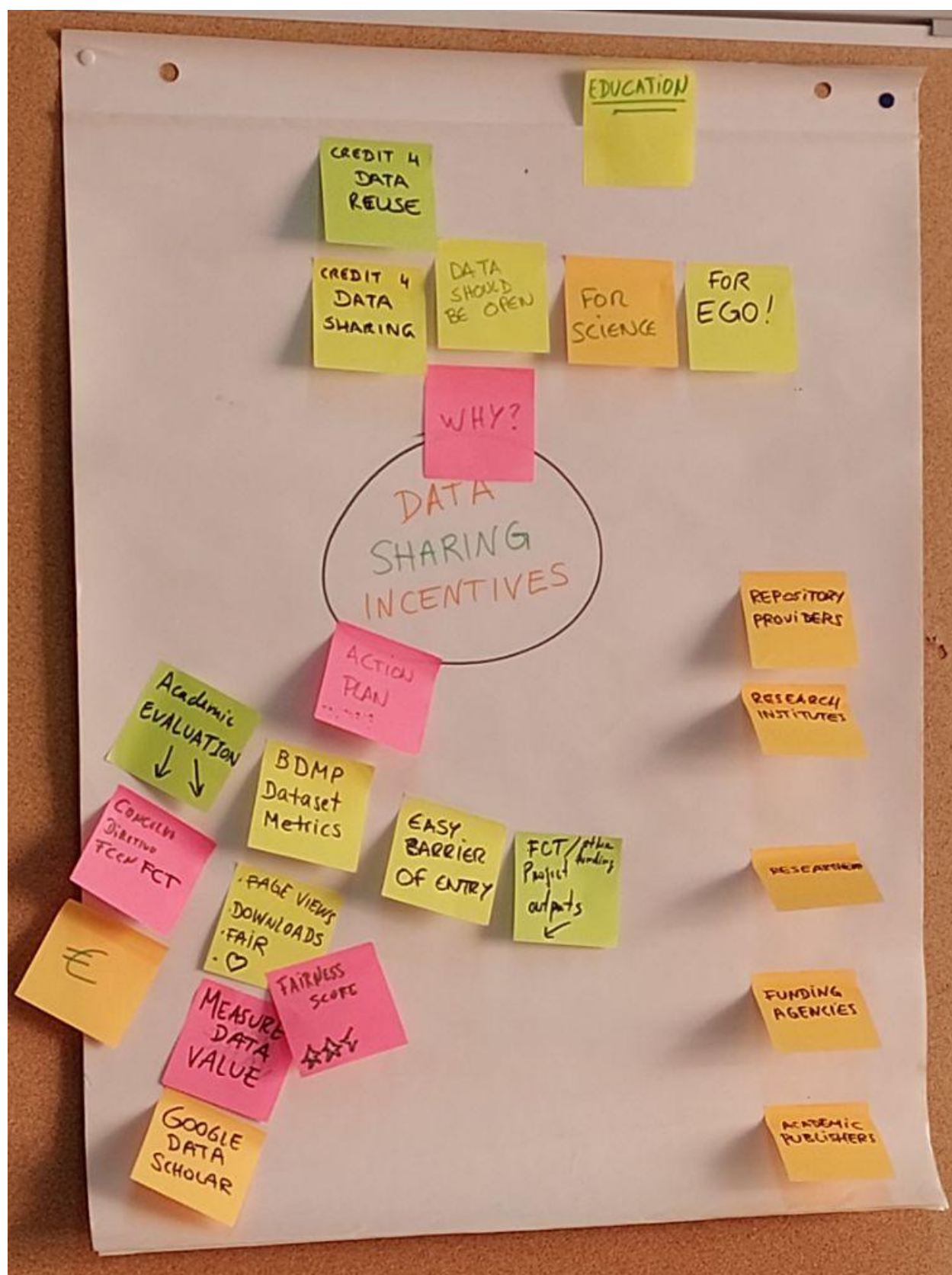
To have researchers adopting a certain behaviour, universities and R&I organisations should also require DMPs to their group leaders. This way the next generation of people will already be prepared.

PhD students should elaborate the DMP for their project

Motivate students to use these large data resources.

Provide workflows, training, galaxy, pipelines and reusable tools.

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Funding agencies should consider that including data management in the publication is good or important.

Funding agencies (e.g. FCT) should include in the application template a section for data management.

- BioData has already good leverage because it has the knowledge and also a good number of associates at a national level to bring the idea to the top level of FCT, so that they can implement this in a top-down manner

Datasets with DOI should be included in the proposals as a scientific valuable outcome

Crediting for publishing datasets: how to get recognition of my work earlier than 6 months period of evaluation by peers until publication?

Action: prepare a position document to influence FCT (Cátia, Daniel and?)

Give researchers storage only if they produce FAIR data.

What can I do to advance BioData.pt?

This meeting was closed with the identification by the participants of actions that they can do to advance BioData.pt, which are listed below.

Identify the things BioData.pt can do and those it wants to do;

Describe better what BioData.pt is and offers;

Explain BioData.pt better;

Optimise communication within the BioData.pt team and optimise BioData.pt external visibility;

Visit funders, associates and other stakeholders;

Promote inter-member knowledge and resources sharing;

Revise BioData.pt positioning;

Drive forward the “Ready for BioData management?” training program;

Motivate faculty and partner hospitals to be more involved in human data initiatives.