



## **Coordinated Research Infrastructures Building Enduring Life-science services - CORBEL -**

Deliverable D8.4

Sustainability plan for extended BMS RI Innovation Office

WP8 – Accelerating Innovation

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## Content

Executive Summary .....	3
Project objectives .....	3
Detailed report on the deliverable .....	3
Background .....	3
Description of Work .....	3
1. Introduction. Objectives and Scope of CORBEL Work Package 8, Accelerating Innovation .....	4
2. Breakdown of Requests Handled by the CORBEL Innovation Help Desk and Expected Future Requirements .....	6
3. Proposals for Sustainability of the BMS RI Innovation Office .....	7
4. Other Initiatives .....	10
5. Innovation Web Site and Email Access for Requests to the Help Desk.....	10
6. Assistance with Multilateral Collaboration Models .....	11
7. Links with Other CORBEL Work Packages .....	12
Next steps .....	12
Delivery and schedule.....	12
Adjustments made.....	12
Appendix.....	12

## Executive Summary

In this deliverable proposals are outlined to continue some of the Innovation Office activities of CORBEL beyond the formal termination of the project. Based on the breakdown of requests and other activities handled during the project and taking account of resources available options have been developed to provide Help Desk support for innovation as well as continuing the web portal and innovation email facilities and providing training and other materials. Opportunities to link into new initiatives will be pursued for mutual benefit. Relationships with other CORBEL work package products will be taken into account to simplify access to information and resources and to continue to share best practices post-CORBEL.

## Project objectives

With this deliverable, the sustainability of innovation progress achieved in the CORBEL project and the maintenance of important products and resources is fostered. Resources from EATRIS business development can be deployed to continue to provide Help Desk support at affordable cost. Downloadable guidelines and template legal documents will continue to be available via a web portal and training materials and best practice guidelines have been established with an eye to sustainability.

## Detailed report on the deliverable

### Background

In the course of WP8 various deliverables, milestones and products have materialized featuring research collaboration and exploring different models. In addition, the activities of the Innovation Help Desk, the CORBEL Open Call initiative, workshops and meetings around competitive and pre-competitive research cooperation and guideline documents posted on the CORBEL website have all contributed to a mosaic of knowledge and advice in the field and to practical examples of support for innovation, including collaboration with industry. The deliverable now outlines proposals to maintain and extend the progress made so that a lasting effect in accelerating innovation is achieved.

### Description of Work

A team comprising the EATRIS innovation Help Desk staff and experts in certain forms of research collaboration from the Medical University of Graz reviewed the services provided in the course of the CORBEL project and put together an outline plan for continuation, taking account of feasible resources and areas with the greatest potential for added value. A questionnaire was sent to the RIs to gain their input on which services they valued highest in the future. The future of a web portal and email access was discussed with work package 2, and there was also communication with work package 7 in relation to ethical, legal and societal (ELSI) advice. The deliverable set out a plan to sustain and extend the progress made in CORBEL and continue the collaboration between RIs and with industry.

## **1. Introduction. Objectives and Scope of CORBEL Work Package 8, Accelerating Innovation**

This sustainability plan aims to sketch the options available to advance the objectives of the CORBEL project, specifically relating to innovation, and to continue providing assistance as has existed during the CORBEL project period.

### Objectives

As regards the objectives, the following description is reproduced from the work description in the original grant agreement.

“A coordinated research infrastructure (RI) approach in biomedical sciences (BMS) in Europe is a new phenomenon, with the first ESFRI RIs entering operations in 2013. As part of the Horizon 2020 vision, the BMS RIs have a strong innovation mandate, a tie that binds both fundamental and applied domains to a common medium-long term objective, namely to stimulate innovation - and thus competitiveness - in Europe.

Given the high complexity of scientific research and development (R&D), commercialisation of scientific breakthroughs is associated with long lead times, high costs and a great deal of risk. As a consequence, academic parties can very rarely bring an invention to market without the involvement of the private sector. The innovation mandate, combined with the indispensability of industry in the innovation value chain, implies that the RIs must have policies, tools and resources that not only facilitate but simplify interaction and collaboration with industry. While academic institutions often have access to Technology Transfer expertise with their organisations, the BMS RIs have yet to develop these organs (in a few cases they are able to draw on expertise from host institutions), and with it the competences to support the public-private collaboration process. Competences in the fields of collaboration (such as contracting and partnering) and intellectual property are important elements thereof. This WP aims to fill that innovation-potential gap.

By creating a shared innovation resource centre among the BMS RIs, accelerated joint learning and best practice can be optimally achieved, as well as a marked reduction in operating costs for the aggregate group, by preventing creation of redundancy in the system.

The purpose of this work package is to enable each RI to maximise the socio-economic impact of the research undertaken therein, in order to ameliorate the European Research Area’s innovation potential in biomedical sciences, improve productivity of research spending, and work towards breaking the ‘innovation paradox’ (in which the high quality and quantity of fundamental science output is not matched by commensurate levels of innovation activity).

This will be achieved by providing the RIs access to tools and knowledge: by providing a platform for best practice exchange; and by facilitating the creation of public private partnerships by bringing industrial networks closer to the cluster”.

A common theme has been to enhance **innovation** by the RIs, improve effectiveness and reduce costs. The activities are intended to fill the gap between existing expertise (TTOs) at the local institute level and innovation and collaboration at the **RI level and between several RIs**. The description highlights the importance of **industry partners** to achieve success in innovation. The objective to facilitate public-private partnerships implies that the WP team has been open to requests from both the RIs and industry entities.

Concerning **criteria** for CORBEL assistance activities under WP8, early in the programme ideas were developed to provide guidance (in particular within the EATRIS CORBEL Help Desk team) as to which activities qualified as CORBEL assistance and which fell within the scope of existing infrastructure or institute instruments.

The following criteria have been adopted during the CORBEL project and it is proposed to extend these to innovation activities post-CORBEL.

#### Activities Qualifying for Help Desk Support

- **Giving assistance** and advice with
  - identifying (industry) partners
  - intellectual property matters
  - collaboration models, including for public-private partnerships
  - setting up contractual arrangements
  - Open Science, Open Innovation, Open Data
  - regulatory matters (see NOTE)
  - implementation of regulation-compliant workflows
- **Learning** from relevant experience to establish
  - best practices for common use
  - guidelines for all activities related to innovation
  - template agreements (Confidential Disclosure Agreements, CDAs, Material Transfer Agreements, MTAs, research cooperation and licensing, open innovation)
  - training curricula (face-to-face workshop, online training)
- **Providing** access to relevant products from the above for shared use by the RIs and individual institutes.

NOTE. Advice with regulatory matters was not specifically mentioned in the original work package 8 (WP8) work description but is important in certain cases to innovation and expertise could be made available to a limited extent to CORBEL WP8.

#### Activities Not Eligible for WP8 assistance

- Involvement with the conduct of the research itself
- Assisting with EU or other grant applications
- Offering advice and assistance which neither adds to available expertise (in TTOs and/or the RIs) nor generates new learnings for best practices.

## 2. Breakdown of Requests Handled by the CORBEL Innovation Help Desk and Expected Future Requirements

Requests over the duration of CORBEL in the period January 2016 to January 2020 came from several sources and fell into a number of different categories, as summarized in table 1. The total number of requests was modest. In the majority of cases the requests arose from or could be placed in the network of EATRIS business development.

CATEGORY	PARTY REQUESTING	PERCENTAGE
Partnering at BIO etc., out-licensing general profiling	RI or academic institute	36
Partnering for specific project	RI or academic institute	15
Legal assistance with contracts	RI or academic institute	13
Partnering for specific project	Industry	10
Regulatory advice	Academic or Industry	10
Partnering general	Industry	8
Other	1. CORBEL Open Call 2. EMA 3. Promotion of a service provided by an academic institute	8

*Table 1. Summary of requests for Help Desk support, January 2016 to January 2020. (Provision of training and use of the web portal are summarized separately, see below).*

This summary provides some guidance for the future emphasis of innovation assistance.

Further input has been obtained from a questionnaire circulated in November 2019 in which the 13 RIS were asked to rank on a scale of 1 (low interest) to 5 (high interest) which services they would value after termination of the formal CORBEL project. The sequence from highest interest to lowest was as follows, based on the weighted averages from 6 RI respondents.

- Assistance with partnering

- Assistance with profiling
- Downloadable templates/guidelines
- Announcements of forthcoming events
- Assistance with agreements
- Regulatory advice
- Assistance with multilateral collaborations
- Advice on IP

The highest category scored 80%, the lowest 50%, so there appears to be demand for services across a broad spectrum. That advice on IP is the lowest scored category (but still amounting to 50%) probably reflects the fact that at the **RI level** there is little involvement with IP, whereas for individual projects and institutes or companies it is more important. Similar considerations probably apply to regulatory advice, for which there is a clear demand emerging from specific CORBEL projects and other outreach to industry.

The responses emphasize the importance attached to partnering and profiling, both typical Help Desk activities resourced largely from the EATRIS business development network. Ways to make this sustainable are prioritized below.

The high scores for downloadable templates/guidelines and announcements of forthcoming events point clearly to the interest in maintaining and updating a web portal. There has been contact with WP2 to harmonize the approaches to sustainability in this area.

During the period from April 2016 to December 2019 there were in total 2,909-page visits to the Innovation web site portal and 422 downloads of documents and templates.

In the area of training, a webinar on the topic of marketing academic research to industry attracted 16 participants. A 2-day workshop in December 2018 on best practice in biomedical science public-private research collaboration was attended by 25 participants. This workshop will be repeated in February and April 2020.

Based on the above a sustainability plan for the Innovation Help Desk can be proposed.

### **3. Proposals for Sustainability of the BMS RI Innovation Office**

In resource terms the levels of the various requests to the Help Desk can continue to be met post-CORBEL by part time involvement of the EATRIS team. The CORBEL Help Desk has been staffed by part time involvement of business developers, a legal counsel, an expert providing regulatory advice and an innovation advisor offering dedicated support. This situation can to a large extent continue after CORBEL ends, provided in certain situations appropriate funding arrangements are put in place.

Requests to the Innovation Help Desk will continue to be handled by members of the EATRIS Office team, comprising:

- 2 or more business developers

- 1 legal counsel
- 1 expert in regulatory matters

The operating principles developed under the CORBEL project (and posted on the website) will continue in effect. They cover such matters as confidentiality and secure archiving of information. However, the Help Desk activities will become part of the EATRIS service offering (or those of other RIs if applicable). Expertise on innovation and related matters, available from various RIs, including advice on ethical (ELSI) matters as well as Open Innovation collaboration models, will continue to be employed to facilitate the exchange of science, resources and best practices among the entire network of biomedical science infrastructures. A new web portal for the Life Sciences RI will fulfil an important role in this (see below).

While it is the intention to continue the service offering in broad terms as it was under the CORBEL regime, for reasons of cost-effectiveness some changes of emphasis can be expected. Subject to resources being sufficient and funding being available (services being charged) the service offering should cover the following.

#### Activities expected to continue post-CORBEL

- **Matchmaking and early stage business development**

This involves finding and engaging partners of relevance to research and development and defining pathways appropriate to the application of research outcomes to benefit society. In essence the EATRIS business development activity assigned to CORBEL will continue. Funding will either take place from other EATRIS initiatives or be charged to other parties, depending on the situation.

- **Helping to set up appropriate research collaboration** between the RIs among themselves and also with industry, including advice on types of collaboration and legal agreements. This goes a step further towards facilitating and cementing longer term research relationships between the RIs and also industry.

- **Advice on regulatory matters**

The aim is to de-risk project proposals and enhance the chances of success. There may be budget available to absorb some operational costs for this service within EATRIS, but due to growing demand, additional financing will be sought to handle user growth.

- **Advice and de-risking of research project proposals in terms of feasibility, IP issues, innovation, partnering, regulatory advice.**

- **Advice on legal agreements**

For tailor-made legal advice beyond what is covered by template agreements and guideline documents the EATRIS legal counsel will continue to be available post-CORBEL to provide assistance. Funding arrangements will be similar to those for matchmaking/business development.

- **Representation on behalf of the RIs at the BIO or similar conferences or partnering meetings**

This will be available but as CORBEL will no longer sponsor this, it will be a service to RIs to represent them at conferences already to be **attended by EATRIS business developers**, and with



the emphasis on specific alliances envisaged between 1 or more RIs and identified industry partners. The emphasis on overall (introductory) profiling of RIs or institutes, as for example offered under the auspices of CORBEL at the BIO, is likely to decrease.

Where RIs combine forces to create more value, for example the alliance between BBMRI, ECRIN and EATRIS, or the access tracks resulting from WP4 open calls, there may be situations in which a plan is made for one person to attend certain events for partnering with specific selected parties on behalf of the group of RIs.

– **Education and training**

During the period of the CORBEL project several workshops and a webinar were organized around themes in innovation. Towards the end of the programme a 2-day workshop on best practice in industry collaboration was held in Ljubljana in December 2018 and will be repeated in Lisbon on 13-14 February 2020 and Riga on 21-22 April 2020.

This intensive workshop is intended for academic researchers confronted with the need to establish collaborations with industry partners and it aims to address all relevant aspects of the process from networking through to legal contracts and project implementation. It includes a unique generic case study exercise for teams to work on.

The learnings from these workshops and indeed the entire CORBEL innovation work package have been captured in deliverables and milestones and templates and guidelines available on the CORBEL innovation website.

This body of knowledge and experience should enable researchers in many situations to cater for their own needs in setting up public-private research collaborations. Advice will be available within the scope of remaining help desk activities (see above). The material for training workshops remains available, as are the staff to provide the training. As long as the demand for such workshops permits them to be resourced, and if funding is available, the workshops will be repeated (and regularly updated according to advancements in best practices) when and where required.

Other H2020-funded projects such as ENRIITC and EOSC Life (see section 4 below) feature education and training packages with cross-sectoral relevance. This will enable best practices to be shared and training programmes, webinars and workshops to be extended into new domains. As an example, one of the ENRIITC work packages features a series of webinars relating to innovation and outreach to industry. Training and workshop packages with generic cross-sectoral themes (“how to market your research”, “how to set up public-private collaboration”) can be exported into new sectors present within ENRIITC. This will work both ways and is an exciting and potentially fruitful feature of the ENRIITC project that can benefit Life Sciences RIs.

#### Extension of networks for innovation services

Initiatives are underway to engage technology transfer offices in the RI nodes to take on innovation services. A pilot in EATRIS is looking at how this might work in practice, as an investment in expanding future capacity for service provision beyond what the “hubs” can provide.

## 4. Other Initiatives

Part of the current provision of Help Desk activities will be taken up in new initiatives.

### EOSC-Life

EOSC-Life<sup>1</sup> is the project regrouping the 13 Life Sciences (LS) RIs in Europe into the European Open Science Cloud (EOSC) and joining forces to create an open collaborative digital space for life science. Under EOSC-Life the 13 LS RIs will publish their data as FAIR Data Resources, link reusable Tools and Workflows to standardised computing services in national life-science clouds, and connect with their scientific users across Europe to a single login authentication and resource authorisation system.

### ENRIITC (European Network of Research Infrastructures & Industry for Collaboration)

This H2020-funded project which will run for three years starting 1st January 2020 will engage a network of Industry Contact Officers (ICOs) and Industry Liaison Officers (ILOs) from 11 research infrastructures across a broad spectrum of science and technology including physics, chemistry, life sciences, digital language and technology resources, zoology and sea bed and water technology.

The ICOs from the RIs and the ILOs appointed by member states from their major industries will liaise and carry out programmes aimed at facilitating interaction and innovation across this broad spectrum of science and technology. Learnings from CORBEL and similar initiatives by the other RIs will be available to the ENRIITC partners, and vice versa.

EATRIS is involved in four of the five ENRIITC work packages and task leader for WP5, “communication, dissemination and exploitation”.

WORK PACKAGE	SUBJECT
WP2	Mapping of research infrastructure-industry collaboration
WP3	Strategies for innovation, training and outreach
WP4	Awareness and impact of research infrastructure-industry engagement
WP5	Communication, dissemination and exploitation

Each of these themes offers scope for cross-fertilization with the CORBEL project learnings and products, with particular emphasis on outreach to industry. The role of the EATRIS CORBEL Help Desk staff in the ENRIITC communication, dissemination and exploitation activity will provide opportunities to directly share web material between CORBEL and the other sectors.

## 5. Innovation Web Site and Email Access for Requests to the Help Desk

The CORBEL web portal features an innovation site including access to downloadable templates and guideline documents providing practical assistance on many aspects of collaboration and innovation. Maintaining elements of this site will be an important sustainability vehicle.

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<sup>1</sup> <https://www.eosc-life.eu/>

The CORBEL website will be discontinued but a new website is planned, the Life Sciences RI Website ([lifescience-ri.eu](http://lifescience-ri.eu)) which will be maintained by BBMRI. At the time of this deliverable it is proposed to migrate the web contents of the CORBEL Innovation Help Desk to the new site. The EATRIS staff of the Help Desk will thereafter continue to update the site from time to time for important new documents or presentations and updates to existing templates or guidelines. Upcoming events of relevance for innovation will also be added.

Harmonization with websites of new projects (see below) will be a key feature and will enable benefits and costs to be shared. It is intended that the EOSC Life website contents will feed into the new Life Science RI website activities and vice versa. Similarly, the ENRIITC project will feature a website and social media to share learnings and best practices across a broad spectrum of academic expertise and industry segments. As work package leader for Communication, Dissemination and Exploitation (ENRIITC WP5) EATRIS will be in a position to share content and learnings and harmonize between ENRIITC and the Life Sciences RI website.

From the outset the Help Desk has been equipped with an email address<sup>2</sup> for requests for assistance. This site, and the name, will discontinue. However, a point of access for future requests for innovation help is regarded as desirable. As the Innovation Help Desk will continue to be staffed essentially from the EATRIS business development network and legal counsel, it seems appropriate to channel future requests for assistance via an EATRIS email address to be set up<sup>3</sup>. Requests will be handled by the former CORBEL Help Desk staff and subject to similar conditions (target initial response time, operating principles, confidentiality if appropriate).

## 6. Assistance with Multilateral Collaboration Models

Throughout the CORBEL WP8 programme effort has been put into developing multilateral collaboration models, in particular for pre-competitive situations. Some publications, deliverables and workshops focused on this theme. BBMRI-Medical University of Graz contributed extensively to developing and promoting the concept of **Expert Centres**, which enable effective multilateral collaboration among public and private sector entities by establishing a centralized resource subject to shared principles and procedures. This has the advantage that complex arrangements for cross-border transfers and activities are kept to a minimum while the parties have confidence that quality and reproducibility are safeguarded.

Practical experience with Expert Centres including SMEs has been obtained by the group in Graz. It should be possible to enable others to set up this type of collaboration using the templates and blueprints available (for example on intellectual property if applicable) by providing minimal advice to fit each situation to the model. Such advice will need to be charged but will hopefully be seen as good value for money.

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<sup>2</sup> [innovation@corbel-project.eu](mailto:innovation@corbel-project.eu)

<sup>3</sup> for example [innovation@eatris.eu](mailto:innovation@eatris.eu)

Advice can also be given on setting up public-private partnerships that overcome the known obstacles in providing high-quality data to industry – conflict between patients’ samples donated for the common good vs. use for profit.

## 7. Links with Other CORBEL Work Packages

Attention will continue to be given to harmonizing the sustainability plans for the Innovation Help Desk with those of the other CORBEL work packages. The contacts with work package 2 in relation to continuation of web portal access are a clear case in point, which we have described above.

Two further areas command particular emphasis.

- a) **Continuation of open access tracks for cross-RI projects, including where possible industry partners.** It is intended that the work in this area coordinated by WP4 should continue to provide opportunities post-CORBEL. This will involve further RI-RI interactive projects, and also potentially contacts with industry partners. Although in the CORBEL Open Call only a small number of industry partners applied, the potential exists for more to apply in the future, for which we should be prepared. The role of the Help Desk staff in matchmaking and utilizing the network of industry contacts will continue.

As part of their own sustainability plan for continuing open access pipelines for across RI-projects, including industry partners, WP4 has developed a brochure that highlights successful user stories as supported through the WP4 Open Call and introduces the reader to the participating research infrastructures and their available services.

- b) **The Help Desk facility for ELSI issues**, maintained by BBMRI under WP7, is a valuable resource which is intended to be maintained. This should be incorporated in the new Life Sciences RI website in addition to the Innovation Help Desk, to create a “one stop shop” for assistance.

## Next steps

The proposals will be implemented and synergies actively sought with the new initiatives, which can both benefit from and contribute to the extended CORBEL innovation activity.

## Delivery and schedule

The deliverable was submitted as planned.

## Adjustments made

None

## Appendix

N/A