

Activity and
Financial Report

2018



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Our Mission

Establishing a
Chemical Biology
Platform for Life
Science Research

EU-OPENSOURCE will accelerate the discovery of biologically active substances in all areas of Life Sciences by providing open access to the most advanced technologies and expertise in biological screening and medicinal chemistry, and by harnessing the rich chemistry knowledge of Europe in an accessible compound collection and database.

Foreword

by Director General Dr Wolfgang Fecke

In 2008, the new research infrastructure (RI) for chemical biology EU-OPENSREEN entered the European roadmap of research infrastructures. Now, after nearly ten years of preparative work, it is my great pleasure to report that we became operational with our first assembly of members in spring 2018.

EU-OPENSREEN is a RI of open screening and medicinal chemistry platforms, which enables small molecule studies in chemical biology. The impact of chemical biology is felt all the way from the discovery of better medicines to treat humans and animals, through to the identification of safer pesticides to protect vital crops. EU-OPENSREEN is a unique infrastructure, established by seven member states, which have joined forces to create a thriving research environment for chemical screening and associated activities in the field of medicinal chemistry in Europe.

EU-OPENSREEN aims at operating and further developing its European distributed RI to provide open access to its collection of small chemical compounds as well as to its facilities, database and expertise — thereby facilitating high quality basic and applied research in the vibrant research field of chemical biology. A key long-term goal is the discovery of novel potent and selective small molecule research tools, which facilitate the understanding of proteins and biological mechanisms. These molecules might also become starting points for the development of novel therapeutics and safer pesticides.



This first year was focussed on establishing the RI and laying the foundation for the following years. We set up the basic administrative functions and recruited most of the key staff members. We evaluated three groups as potential hosts for the European Chemical Biology Database (ECBD), selected our partner site at the Institute of Molecular Genetics (IMG) in Prague for this important task and worked with them on a development and service contract for the database.

Similarly, we started working on a draft contract, which allows chemists to donate compounds to EU-OPENSREEN in exchange of having access to biological data for their molecules. In collaboration with five computational chemistry groups from Germany, Spain, Finland and the Czech Republic, progress was made in the selection of the commercial library of 100,000 compounds.

We also finalized our discussions with several vendors for compound management equipment such as storage and liquid handling instruments, and designed a plan for the facility. In parallel, a contract with the DLR project team of the German Federal Ministry of Education and Research (BMBF) was established for accessing the funds for the necessary equipment. In parallel, we signed a collaboration agreement with the Forschungsverbund Berlin e. V. (FVB) on the support of our Europe-wide public tender for instruments. Finally, we submitted several grant proposals, which were evaluated positively. Most

notably, as coordinator of the EU-OPENSREEN DRIVE project, we will collaborate with 33 partners on novel services such as fragment screening and chemoproteomics as well as on extending our European and global network.

Thanks to the efforts and the dedication of the whole team, we are now looking forward to a successful year 2019, in which we can begin offering our services to the scientific community.

Wolfgang Fecke

Executive Summary

The new European research infrastructure consortium (ERIC) for chemical biology, EU-OPENSREEN was founded in April 2018, became an ESFRI 'landmark' in June 2018 and was officially inaugurated in September 2018.

The basic administrative functions were established and most team members recruited. Other activities focused on three important areas, a) the design and purchase of instruments, which are crucial for efficient compound storage and distribution, b) the selection of 100.000 commercial compounds, and c) the drafting of legal agreements between EU-OPENSREEN and their screening and medicinal chemistry partner sites, between EU-OPENSREEN and the database host (IMG in Prague) and between EU-OPENSREEN and compound-donating academic chemists.

EU-OPENSREEN continued to support the European projects CORBEL and EMBRIC while it was successful in obtaining four additional grants, in one of which acting as coordinator (EU-OPENSREEN DRIVE).

Management and Boards

The creation of the European research infrastructure EU-OPENSREEN was announced on 21st March 2018 in the Official Journal of the European Union. It was established on 12th April in the first meeting of the Assembly of Members (AoM). Wolfgang Fecke was appointed as new Director General in that meeting, taking over from Philip Gribbon who led the consortium as coordinator until then. Founding member countries were the Czech Republic, Finland, Germany, Latvia, Norway, Poland and Spain while Denmark had observer status. The AoM elected Marit Ackermann (Germany) as Chair and Riina Vuorento (Finland) as Vice-Chair.

An inauguration ceremony was held on 25th September 2018 in Berlin-Buch in the presence of Jean-Eric Paquet, Director General of DG Research and Innovation of the European Commission, Georg Schütte, State Secretary at the Federal Ministry of Education and Research (BMBF) from the host country Germany,

Rebecca Borsch, State Secretary at the Ministry of Education and Research from Norway, Liga Lejina, State Secretary at the Ministry of Education and Science from Latvia, and Raquel Yotti, Director General at the Instituto de Salud Carlos III from Spain, representing the ERIC member countries.

The first EU-OPENSREEN Partner Site Forum (PSF) was held on 26th September 2018 in Berlin-Buch. The PSF is a permanent body and composed of one representative from each of the partner sites. It advises the Director General on the annual work plan and budget, enables the efficient interaction between the sites and advocates their needs within EU-OPENSREEN. Representatives from 19 sites elected Petr Bartunek (Institute of Molecular Genetics of the ASCR, Prague) as Chair and Krister Wennerberg (BRIC, Copenhagen) as Vice-Chair. Krister Wennerberg will take up his role in 2019 as soon as Denmark becomes a full member of the ERIC.

Partner Sites

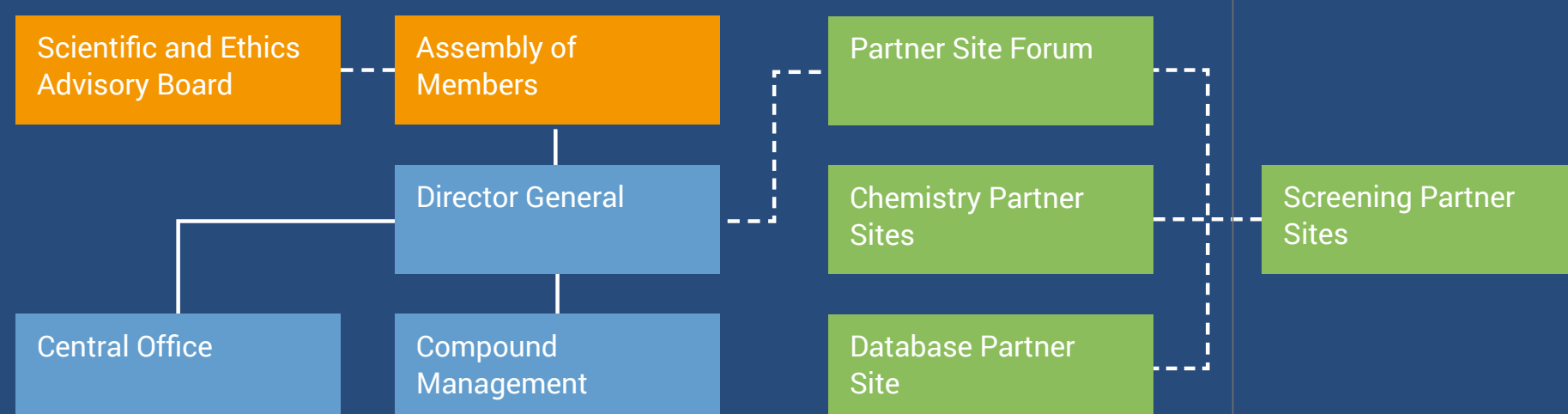
In order to fulfil its aim of developing novel chemical tool compounds, EU-OPENSREEN works together with three different categories of partner sites.

A screening partner site will start with a biological assay from a collaborating scientist, miniaturize and adapt it to their screening platform. The performance and robustness of the assay is then tested first with a small set of compounds, followed by a high-throughput screen of the entire library. Active compounds are selected based on statistical and/or pre-defined criteria, followed by concentration response and counter screening to filter out false positive hits. A final list of confirmed hit compounds will be presented to the project team. All primary screening results are then uploaded into the ECBD which is hosted by our database partner site, and combined with structural and bioprofiling data. Importantly, while the biological data can be kept private for up to three years to allow the collabo-

rating scientists to file for intellectual property and publish their data, all non-project specific data on the compounds are immediately open access (see next page "Accessing EU-OPENSREEN").

Typically, the initial compounds only have moderate affinity and restricted selectivity for their biological target. To become a useful tool compound, the chemical properties of hit compounds must be iteratively improved by suitable chemical modification to establish a structure-activity relationship. This optimization work is carried out by a chemistry partner site in collaboration with the assay provider and, if required, also the screening partner site can perform routine compound tests with the established assay(s).

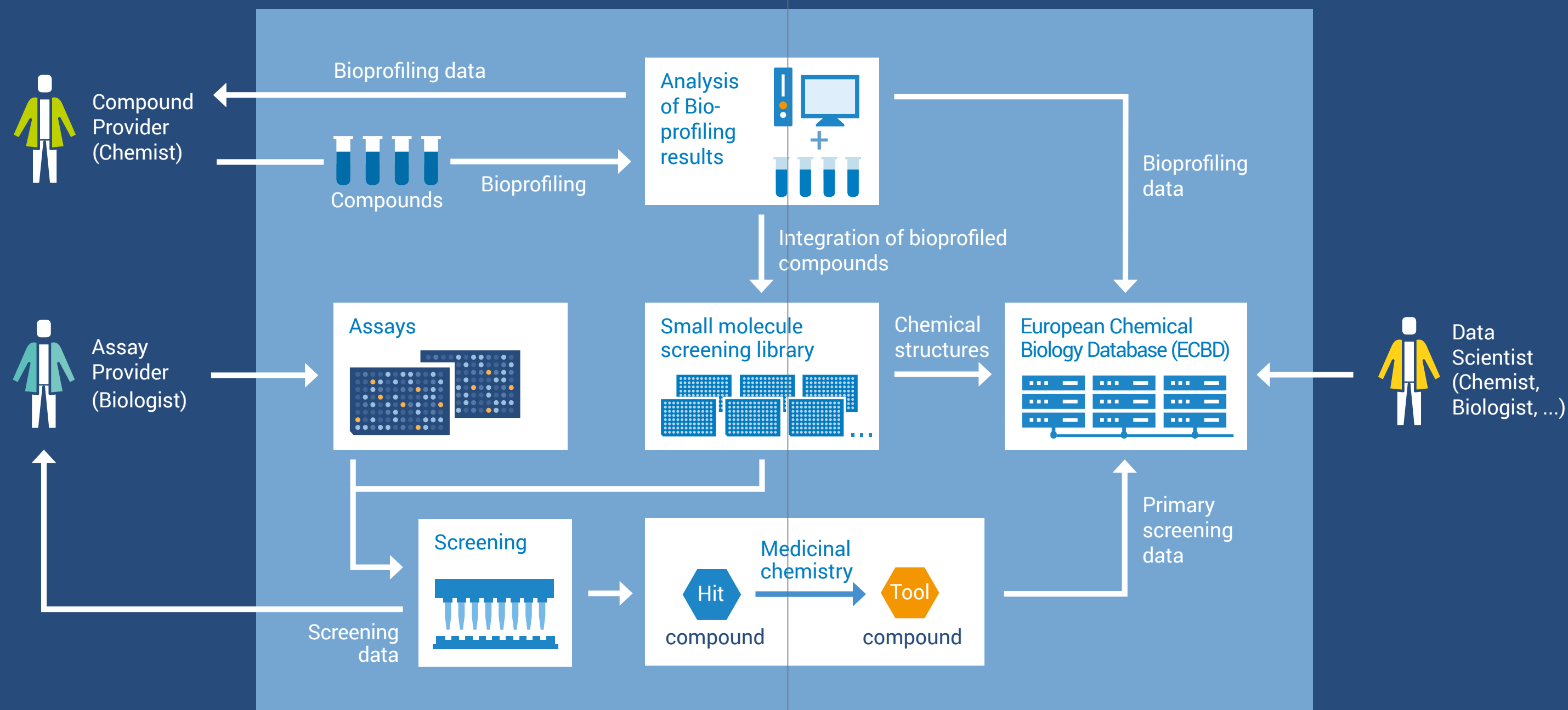
EU-OPENSREEN ERIC Organization



The Scientific and Ethical Advisory Board (SEAB) is an important consulting body. Members for the SEAB will be appointed in 2019. Dotted lines for the SEAB and the Partner Site Forum indicate an advisory function.

Accessing EU-OPENSOURCE

17 screening partner sites, 5 medicinal chemistry partner sites, 1 database host and 1 central office



Additional support:

Grant writing advice



Training



Project support



List of EU-OPENSREEN Partner Sites

Screening Site

Chemistry Site

Database Site

	Partner-Site	Department	Address
CZ	Palacký University Olomouc, Faculty of Medicine and Dentistry (IMTM)	Institute of Molecular and Translational Medicine (IMTM)	Hněvotínská 1333/5779 00 Olomouc, CZ
	Institute of Molecular Genetics AS CR, v. v. i. (IMG)	CZ-OPENSREEN	Videňská 1083142 20 Prague 4
	Institute of Molecular Genetics AS CR, v. v. i. (IMG)	CZ-OPENSREEN	Videňská 1083142 20 Prague 4
	Masaryk University (MU)	Department of Chemistry / CZ OPENSREEN	Kamenice 753/5, 625 00 Brno
DE	Leibniz-Institute for Molecular Pharmacology (FMP)	Chemical Biology / Screening Unit	Robert-RössleStr. 10 13125 Berlin
	Leibniz-Institute for Molecular Pharmacology (FMP)	Chemical Biology / Medicinal Chemistry	Robert-RössleStr. 10 13125 Berlin
	Helmholtz-Centre for Infection Research (HZI)	Department of Chemical Biology (CBIO)	Inhoffenstraße 7, 38124 Braunschweig
	Fraunhofer Institute for Molecular Biology and Applied Ecology (IME)	IME Screening Port	Schnackenburgallee 114, 22525 Hamburg
DK	Technical University of Denmark (DTU)	Chemical Biology	Ørstedes Plads, Building 345C DK-2800 Kgs. Lyngby
	University of Copenhagen, Biotech Research and Innovation Centre (BRIC)	Biotech Research and Innovation Centre	Jagtvej 124 2200 Copenhagen N
ES	Fundación MEDINA (MEDI)	Screening and target validation, Microbiology and Chemistry	Avda del Conocimiento s/n., 18016, Granada
	Prince Felipe Research Center (CIPF)	Advanced Therapies Program	Eduardo Primo Yúfera 3, 46012 Valencia

	Partner-Site	Department	Address
ES	University of Santiago de Compostela (USC)	BioFarma Research Group	Av. Barcelona, 31, 15706 Santiago de Compostela, La Coruña
FI	University of Helsinki, Faculty of Pharmacy (UH)	Division of Pharmaceutical Biosciences	Viikinkaari 5 E (P.O.Box 56) 00014 Helsinki
	Institute for Molecular Medicine Finland (FIMM)	High Throughput Biomedicine (HTB) unit	P.O. Box 20FI-00014 University of Helsinki
LV	Latvian Institute of Organic Synthesis (OSI)	Organic Synthesis Methodology Group	Aizkraukles 21, LV-1006 Riga
NO	Faculty of Medicine and Dentistry, University of Bergen (UiB)	Department of Biomedicine	Postbox 7804, N-5020 Bergen
	University of Oslo, Faculty of Medicine (UiO-NCMM)	Biotechnology Centre of Oslo (BiO) and Centre for Molecular Medicine (NCMM)	P.O.Box 1137, Blindern 0318, Oslo
	Arctic university of Norway (UiT)	Faculty of Biosciences, Economics and Fisheries	Hansine Hansens veg 17, 9019 Tromsø
	SINTEF (SIN)	Department of Biotechnology and Nanomedicine	P.O. Box 4760 Torgarden, NO-7465 Trondheim
PL	Polish Academy of Sciences, Institute of Medical Biology (IMB)	Screening laboratory for anti-viral and anti-bacterial compounds	106 Łódowa St., 93-232, Łódź
	Polish Academy of Sciences, Institute of Bioorganic Chemistry (IBCH PAS)	Department of Molecular Probes and Prodrugs	Noskowskiego 12/14, 61-704, Poznań
	Polish Academy of Sciences, Institute of Biochemistry and Biophysics (IBB)	Department of Bioinformatics	Pawinskiego 5a, 02-106 Warszawa

EU-OPENSOURCE Basic Facts

23 Partner
Sites in 21 cities

8 Full Member
Countries

Czech Republic, Finland, Germany,
Latvia, Norway, Poland, Spain,
Denmark

More countries are preparing their participation.

140.000 Com-
pounds
in our selected collection



Administration

On June 26th 2018, EU-OPENSREEN was registered as an European Research Infrastructure Consortium (ERIC) at the commercial register of Berlin-Charlottenburg (HRA 54982 B) in Germany. Soon after, a bank account was opened, which allowed EU-OPENSREEN to receive membership fees from its member and observer countries. Most of the membership contributions were collected between September and October 2018. Interim finance support was granted by the BMBF to the Leibniz research institute for Molecular Pharmacology (FMP) in the Forschungsverbund Berlin e. V. (FVB) until the end of 2018. The contribution was partly used for salary payments to the EU-OPENSREEN team members whose work contracts with the FMP-FVB ended in December 2018.

The four positions of the team members (Scientific Strategy Officer, European Relations and Grant Officer, Scientific Project Officer and Office Manager) were advertised Europe-wide on different media channels. After conducting telephone and face-to-face interviews with several candidates, the most suitable applicants were hired. In addition, a grant and project manager was hired in late 2018 while two part-time work contracts

with scientists from the FMP-FVB Screening Unit and Medicinal Chemistry group were established to accelerate the planning of the compound management facility (see below). Until the recruitment of an internal finance manager in 2019, all payroll, legal advice and accounting services were outsourced to the law and tax consultants Kanzlei Strobel in Potsdam. A management liability insurance was established via the Funk group in Berlin. Other insurance policies related to operations and laboratory equipment will follow in 2019. EU-OPENSREEN established a cooperation agreement with the FVB to support the public tenders for the compound management equipment and libraries.

The FVB is the administrative headquarter of the FMP partner site as well as one of seven other Berlin-based research institutes of the Leibniz society. As such, it is well experienced in public tenders and therefore a natural partner for the upcoming tenders. In anticipation of the restructuring of building 87 on the campus Berlin-Buch in 2018 and 2019, EU-OPENSREEN moved into temporary office and laboratory space at nearby building 79, managed by the Campus Berlin-Buch GmbH.



Compound Library & Equipment

Important timelines

The chart below outlines the most important timelines in the implementation of the ERIC facilities. In 2018, the focus was on the design of the technical platforms and vendor discussions. At the same time a collaboration contract with the FVB was negotiated. By the end of the year, the selection of the HTS compound library progressed significantly. For 2019, it is anticipated that the tender for the instruments will become public, while a tender for the compounds will be initiated soon after. Although delivery times for certain instruments are fairly long (up to nine months for the automated compound storage platform), it is foreseen that the small scale pilot compound library can be shipped to partner sites by early 2020, so that bioprofiling and screening projects can be initiated by beginning of 2020.





EU-OPENSREEN will carefully select hard- and software components to provide optimal working conditions in the planned facility.

Laboratory Equipment

In a series of meetings with partners, EU-OPENSREEN gathered key requirements for the performance of the central compound management facility. A set of specifications was established for the hard- and software elements to receive, store, solubilise, register, manipulate, quality control (QC) and transfer compounds to partner sites using best practice methods. EU-OPENSREEN met with several vendors for compound storage equipment, liquid handling robots, analytical systems and LIMS software to inquire about costs and technical feasibility of the planned facility. The ideas and requirements will form the basis for an equipment procurement process, in collaboration with the FVB, which complies with national and EU-OPENSREEN requirements. A budget of 2.3 M€ was granted by the BMBF as host country contribution for purchasing instruments.

Following the tender process and purchase decisions, procedures will include necessary factory and site testing of equipment by personnel experienced in the field. All instrumentation will be located either in temporary chemistry laboratories in building 79 on the campus in Berlin-Buch, or directly in the allocated permanent space in building 87 adjacent to the Chemical Biology facilities of the FMP-FVB, depending on instrument delivery timelines. In both locations, the laboratories are co-situated with the areas of the ERIC Central Office. EU-OPENSREEN complies with local and national requirements for laboratory operation and safety, including appointment of safety personnel. The re-structuring of building 87 and the rent for the temporary rooms in building 79 are funded by the host country Germany.

Compound Library

The commercial section of the EU-OPENSREEN compound collection will include 100.000 compounds. The compounds will be selected from the >30 million compounds which are commercially available from specialist suppliers of compounds. The criteria for compound and vendor selection as well as the team of computational chemists to provide expertise in library design were defined in August 2018. Although the principle library design strategy was kept and is summarised in a peer-reviewed publication (Horvath et al, ChemMedChem 2014, 9, 2309), some of the original partners (D. Horvath, G. Marcou, A. Varnek, M. Hilbert and D. Rognan from Strasburg University, D. Andersson, F. Almquist and M. Elofsson from Umea University, and A.-L. Gustavsson from Karolinska Institute) were replaced by new groups from the member countries who contributed with novel design ideas. The current working group consists of Ronald Kühne and Michael Lisurek (FMP-FVB, Berlin), Jordi Mestres (IMIM, Barcelona), Petr Bartunek and Ctibor Skuta (IMG, Prague), Andrea Zaliani (IME, Hamburg) and Antti Poso (Univ. Eastern Finland, Kuopio).

The focus of the selection strategy lies on ensuring chemical stability, absence of reactive compounds, screening-compliant physicochemical properties (solubility etc.), and loose compliance to drug-likeness criteria since drug discovery is an important, but not exclusive remit of EU-OPENSREEN. A total of about 5M compounds from five major compound suppliers were pre-filtered according to molecular weight, predicted solubility and compliance with 58 reactivity rules. The remaining 2.3M compounds were then analysed by the five groups according to criteria for chemical diversity and target affinity. Out of these molecules, each group selected a

subset of about 40.000 compounds, leading to a total of 196.000 compounds. In 2019, next steps will focus on further limiting the set to 80.000 compounds, applying criteria such as novelty and more complex chemistry. The remaining 20.000 compounds will then be acquired from different smaller vendors, again using criteria of complex chemistry (e.g. Fsp3-hybridized compounds, macrocycles, helical- and peptidomimetics etc).

QC of commercial compounds as they enter the collection, and during their lifetime of use, will be performed according to the best current industry-standard methods. Acquired compounds will be checked for purity and identity to confirm vendor specifications, with QC-failed compounds being excluded from the library.

Active long-term monitoring of compounds will be implemented. Degraded or impure compounds will be removed from the collection. These QC processes exceed in terms of completeness the approaches taken by custodians of the great majority of academic collections where, unfortunately, resource limitations normally dictate that compounds are purchased and then screened with the minimum of additional quality assessment. Purchase of the compounds will be based on a transparent procurement process in line with the ERIC procurement policy.

Database

All screening partner sites will provide bioactivity data on the EU-OPENSOURCE compounds for any specific project while over time bioprofiling data from a large assay panel will also be generated for these compounds. In addition, structural information and QC data of compounds as well as information on assay protocols and reagents will be kept and made available to all users. The informatics platform envisaged for data collection, storage and annotation is the open-access European Chemical Biology Database (ECBD). The ECBD is designed as a shared service component of EU-OPENSOURCE.

Three prospective database hosting partner sites were nominated by representatives of their national authorities. Finland nominated the CSC in Espoo, Spain nominated the IMIM in Barcelona, and the Czech Republic nominated the IMG in Prague. Written and face-to-face applications were reviewed by an expert panel, which

was appointed by the EU-OPENSOURCE Transition Committee, consisting of Bissan Al-Lazikani (ICR, UK), Evan Bolton (NIH, USA) and Andreas Kremer (ITTM, Luxembourg). Evaluation criteria were scientific quality, capacity and available resources, strategy for sustainability and added value.

Required features of the ECBD are a) a mechanism for efficient data transfer from partner sites to the ECBD, b) a mechanism for users to access the data including access controls, data analysis tools and export, c) curation of data with standardized ontologies, d) a help and documentation function, e) the capacity to support up to 200 users simultaneously. The group of Petr Bartunek from the IMG scored best with all three reviewers and was therefore offered the possibility of developing the ECBD. The selection was confirmed by the AoM. An agreement with the IMG on the development and support of the ECBD was reached in early 2019.

Legal Agreements and Collection of Compounds

Scientific services linked to user projects (assay adaptation, screening, chemistry services, compound profiling and local compound management) will be performed by partner sites as mandated by EU-OPENSOURCE on a project-by-project basis, and regulated by service agreements between EU-OPENSOURCE and the partner sites. All validated partner sites will have to enter into service agreements. Physical stocks of the compound collection for use in approved user projects will be provided to the partner sites by the EU-OPENSOURCE central compound management facility. Drafting of a standard service level agreement was initiated and will require feedback and further discussions with the technology transfer offices and legal departments at the partner sites.

Donators of compounds for the academic compound collection will be required to sign material transfer agreements (MTA) with EU-OPEN-

SCREEN. The terms of the MTA will align with the access, dissemination and IP policies of EU-OPENSOURCE as outlined in the Statutes, Rules of Procedure and the Scientific and Technical description. This will include data sharing and a right of first refusal for a future collaboration with the assay providing users.

The establishment of a standard MTA will take into account negotiations with the providing chemists and the legal departments of universities and research institutes. A draft of the MTA was produced and is being discussed with partner sites. Despite the lack of a signed MTA, the first package of 88 published compounds was prepared by Prof. Gruzman from Bar-Ilan University in Israel and sent to EU-OPENSOURCE. He will also send novel, unpublished compounds once the final MTA is available for signature.



All screening partner sites will provide bioactivity data on the EU-OPENSOURCE compounds for any specific project.

“ The EU-OPENSOURCE-ERIC Intellectual Property Rights Policy shall facilitate to promote knowledge creation and innovation in the European Research Area by maximizing the impact and preserving the reusability of data for the benefit of the community.

EU-OPENSOURCE ERIC Statutes,
Intellectual Property Rights Policy (2)

Communication and Dissemination

To convey a cohesive mission, visions and benefits of EU-OPENSREEN, several identifying and monitoring activities were launched, ensuring a consistent representation of the project goals. Activities included the creation of an updated website at www.eu-openscreen.eu with the option to sign up for a quarterly newsletter, letterheads, business cards as well as the implementation of social media channels such as LinkedIn and Twitter.

Furthermore, the goals of were highlighted in presentations, posters and booths at scientific conferences and workshops. In addition, EU-OPENSREEN published two review papers in the journals Health Europe and SLAS Discovery, which can be distributed at conferences and sent to interested scientists:

- Brennecke P et al., *EU-OPENSREEN: A Novel Collaborative Approach to Facilitate Chemical Biology*. SLAS DISCOVERY, 2019
- EU-OPENSREEN team, *EU-OPENSREEN: research infrastructure and medicinal chemistry*. Health Europa, 2018.

EU-OPENSREEN is working on a collaboration agreement with the EURO-BIOIMAGING, the research infrastructure for Imaging Technologies in Biological and Biomedical Sciences, to attract users to each other's services. A similar 'memorandum of understanding' was signed with the European Lead Factory (ELF)/ESCuLab project. For instance, an assay developed at an EU-OPENSREEN site may then transfer to the ELF and be screened against the ELF/ESCuLab library, or a hit series identified in an ELF program would undergo hit-to-lead optimisation at an EU-OPENSREEN medicinal chemistry site.

Communication Channels of EU-OPENSREEN ERIC

Website

Newsletter

Presentations at meetings and conferences

Review papers

Social media platforms

Advertisements

Finance

Budget Calculation

The EU-OPENSREEN budget is based on the member (CZ, DE, ES, FI, LV, NO, PL) and observer (DK) country contributions. As EU-OPENSREEN was officially founded in April 2018, all membership fees for that year were calculated for the 9-month period from April to December 2018. The membership contributions (900.000 € in total) were intended to cover the salaries and other operational costs of the central office and compound management facility. Some costs for the development and maintenance of the ECBD were originally planned to be paid in 2018, but were shifted to the following year. Equally, the costs for the compound management equipment, the commercial library of 100.000 compounds and associated basic characterization costs will be covered by host country contributions in 2019.

For administrative reasons, the EU-OPENSREEN open a bank account was only opened in July 2018, and received the first membership contributions on that account in early September 2018. Solvency of EU-OPENSREEN until then was achieved by contributions from the Transition Committee members, in a similar way as it was done in the years before. These payments by countries from April onwards until the end of 2018 will be deducted from the membership fees of 2020.

Additional third-party funding from the European projects CORBEL and EMBRIC foreseen for EU-OPENSREEN activities were administered by the FMP-FVB. Three EU-OPENSREEN employees within the FMP-FVB dedicated 50% of their work force to these two H2020 projects.

Calculation Principles

Regarding the calculation of membership fees, it is important to note that the economic development of the member and observer countries influences the contribution level of each country in relation to each other, as the regular contributions of the EU-OPENSREEN members and observers are drawn from a GDP-based calculation.

The following principles apply:

- 25% to be shared based on equal parts ("fixed contribution");
- 75% to be shared based on a special distribution key ("variable contribution"): $(\text{GDP-per-capita} - 8\,000) \times \text{population}$ where GDP-per-capita is given in EUR p.a.;
- observers pay 30% of their nominal membership fee;
- the host country pays 200% of its nominal membership fee; however, its contribution should not exceed 50% of the total regular contributions of the founding members.

EU-OPENSOURCE ERIC Core Budget 2018

Income

Fees and contributions	Proposed Q2-Q4 2018 (€)	Actual Q2-Q4 2018 (€)	Comment
Regular membership fees			
Czech Republic	50.429	50.429	
Germany	450.000	450.000	
Spain	144.392	192.522	paid 2019 for 12 months
Finland	61.901	61.901	
Latvia	38.579	38.579	
Norway	79.453	79.453	
Poland	54.102	54.102	
Observer fees			
Denmark	21.144	21.144	
Host country contribution			
Commercial compound collection	4.000.000	0	To be used in 2019
Central compd. management facility	1.433.000	0	To be used in 2019
Total contributions	6.333.000	948.130	

Expenses

Items	Proposed Q2-Q4 2018 (€)	Actual Q2-Q4 2018 (€)	Comment (FTE = Full-time equivalent)
Coordination Office (ERIC membership contributions)			
Staff	398.000	86.818	1.5 FTE costs were paid through EU grants COR- BEL and EMBRIC
Office & subcontracting	231.000	56.171	
VAT reimbursement		-1.513	
Compound collection (Host country con- tribution)			
Commercial compound collection	4.000.000	0	Planned for 2019
Equipment & Staff	1.566.000	0	Planned for 2019
Database (ERIC membership contributions)			
Staff	138.000	0	2 FTE to be hired in 2019
Training (ERIC membership contributions)			
Equipment & Staff	0	0	
Total expenses	6.333.000	141.475	

EU-OPENSOURCE ERIC External Funding *

External funding sources

Project	Total Funding (€)	2018 (€)
EMBRIC		
Personnel	147.834	31.378
Access costs	31.027	12.901
Travel	13.140	757
Other costs	7.590	0
25% indirect costs	49.898	11.259
Total	249.488	56.295
CORBEL		
Personnel	317.160	76.633
Travel	25.000	10.756
Other costs	122.000	168
25% indirect costs	116.040	21.889
Total	580.200	109.446

*) External H2020 funds (EMBRIC and CORBEL) were managed by FMP-FVB for EU-OPENSOURCE ERIC prior to the official founding of the ERIC (until the end of 2018). Three employees were financed by these external grants (i.e., 50% H2020, 50% core funding). From 2019 onward EU-OPENSOURCE ERIC is managing these funds.

Research and Health

EU-OPENSOURCE supports the development of novel tool-compounds for basic research and the development of new therapeutics.



European Projects

The CORBEL and EMBRIC projects were awarded to the FMP-FVB in 2015 because EU-OPENSOURCE was still in the preparatory phase. In 2019, these projects will be amended, and significant resources will be transferred to EU-OPENSOURCE as our personnel was heavily engaged in these projects from the start. Additionally EU-OPENSOURCE applied for four additional H2020 projects, which were all granted. These projects will start in early 2019. Their goals and contents are also described below.



EU-OPENSOURCE was work package leader for WP3 (Concepts for the discovery and exploitation of marine products and biomolecules), which i) identified gaps and bottlenecks together with the community, ii) improved the throughput and efficiency of workflows for discovery of novel marine secondary metabolites, iii) improved the throughput and efficiency of workflows for discovery of novel marine proteins and iv) improved the throughput and efficiency of workflows for discovery of novel marine carbohydrates.

EU-OPENSOURCE further contributed to WP4 (Data services and reporting standards), WP5 (Mobilizing research infrastructures to foster blue biotechnology ecosystems in maritime regions) and WP10 (TA Transnational Access to EMBRIC).

www.embric.eu



In WP2 (Documentation, communication and outreach), EU-OPENSOURCE i) developed and executed suitable communication initiatives covering the different aspects of the project and reaching all stakeholders, and ii) developed and executed targeted user engagement and user experience activities to support opening of the services developed in the project to the wider community. In WP4 (Community-driven cross-infrastructure joint research – Bioscience), EU-OPENSOURCE built a seamless workflow with the experimental and virtual services of ESFRI biomolecular science RIs that contribute to the quantitative analysis, description, comprehension and modelling of the effects of chemical substances on biological systems (pharmacology). EU-OPENSOURCE further contributed to WP1 (Management and coordination), WP5 (Enabling common solutions for user access), WP6 (Data access, management and integration), WP8 (Accelerating innovation) and WP9 (Training).

www.corbel-project.eu



The project is the first one, in which EU-OPENSOURCE will act as coordinator. It involves 34 partners, including all partner sites from EU-OPENSOURCE member countries. It is aimed at ensuring the long-term scientific and financial sustainability of the ERIC. A focus lies on the enlargement of the membership through dedicated national strategies and enhanced international cooperation. Other key elements include the provision of screening and medicinal chemistry pilot projects for access of users to the partner sites and the collection of academic compounds through dedicated ambassadors in member countries. Existing capabilities will be extended by creating and offering a fragment screening library and chemical proteomics services.

www.drive.eu-openscreen.eu



The ERIC Forum is an opportunity of the ESFRI research infrastructures to meet and discuss common issues such as governance, benchmarking or accounting, and to develop standardized approaches for communication, measuring socio-economic impacts or performance metrics. EU-OPENSOURCE is a task leader for the area 'employment and secondment'.

www.eric-forum.eu



This large project with 39 partners addresses the publications of research data under FAIR principles and develops data policies to increase trust from patients and participants. Importantly, it will utilize data from 'demonstrator' projects, which are generated, for example, at EU-OPENSOURCE partner sites. Consequently, several partners such as IMG Prague, IMIM Barcelona, CSC Espoo and Fraunhofer IME Hamburg are involved while EU-OPENSOURCE will support data generation and transfer.

www.eosc-portal.eu/eosc-life



Increasing visibility of research infrastructures is the overall aim of this project. EU-OPENSOURCE is taking part in WP3 (International outreach and partnering events) and is tasked with the organization of three events aiming at engaging with new user communities and research infrastructures in North America, Africa and Australia, possibly with the support of regional 'champions' in these countries. Also envisaged are staff exchanges and the further development of the ARIA management tool.

www.ri-vis.eu

Paving the Way for Discovery





EU-OPENSOURCE progresses the discovery of biologically active substances in all areas of the life sciences by combining the most advanced technologies, resources and expertise.

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