

A unique approach to scientific services in Europe

Scientific services are at the heart of all of EMBL's missions. EMBL provides life science researchers in Europe and beyond with access to the very latest in scientific technologies, infrastructure, and data resources. Combined with our scientific and technical expertise, these services provide researchers with the highest quality results, and enable significant fundamental research that is essential to solving global societal challenges.

EMBL's unique portfolio of integrated scientific services enables researchers from our Member States and around the world to access a broad range of world-class infrastructures and resources through a single Europe-wide partner.

EMBL's scientific services encompass over 40 bioinformatics and data resources, and more than 20 experimental services in the fields of structural biology, imaging, genomics, proteomics, metabolomics, *in vivo* gene editing, and chemical biology.

EMBL data and experimental services at a glance



28% of EMBL activities are dedicated to scientific services



24 million unique users of EMBL databases and software tools



5 400 user visits to EMBL experimental services



169 courses, seminars, and workshops given by EMBL service experts in **38** countries

2019 figures

EMBL's scientific service provision is based on three key principles:

Accessible infrastructure

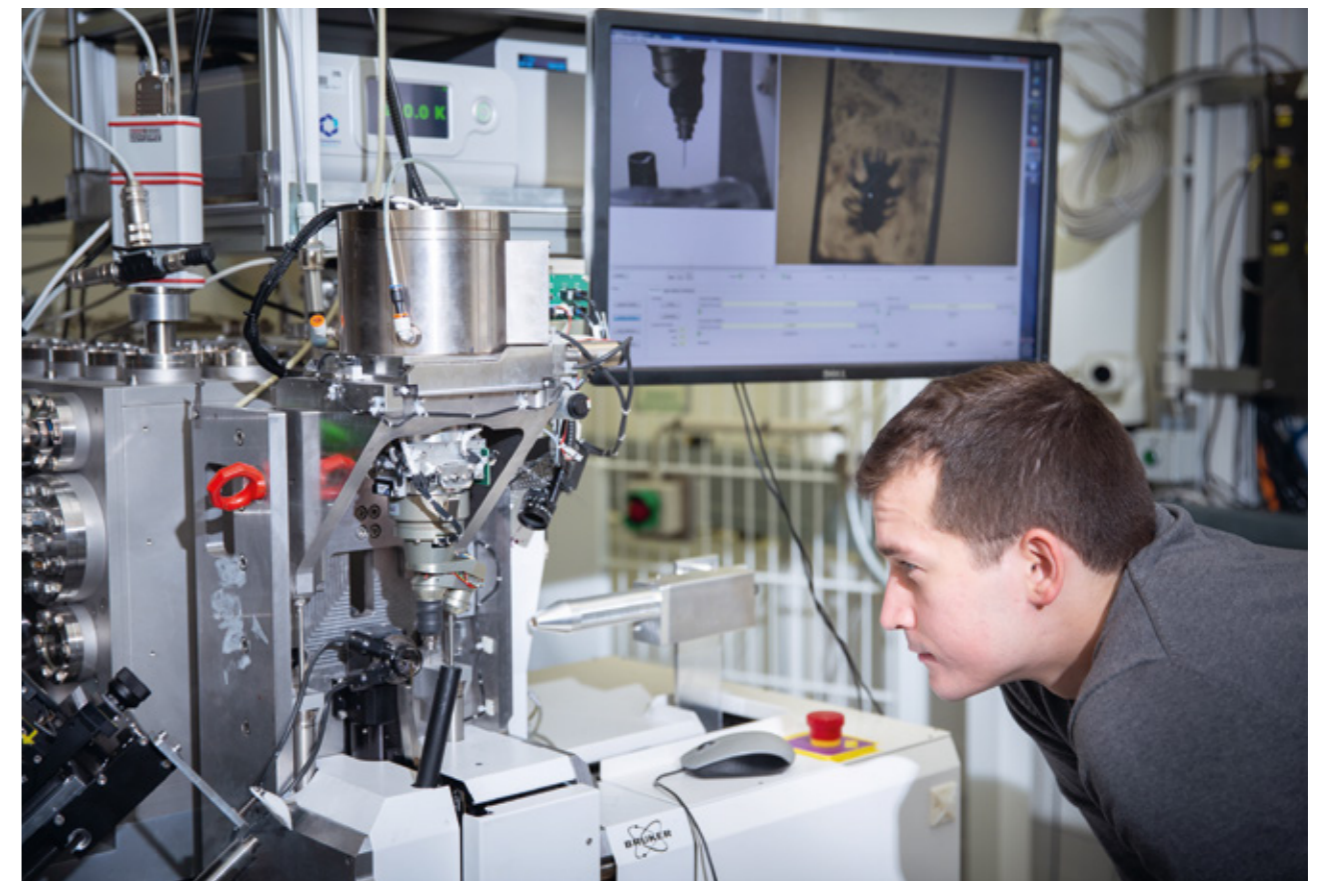
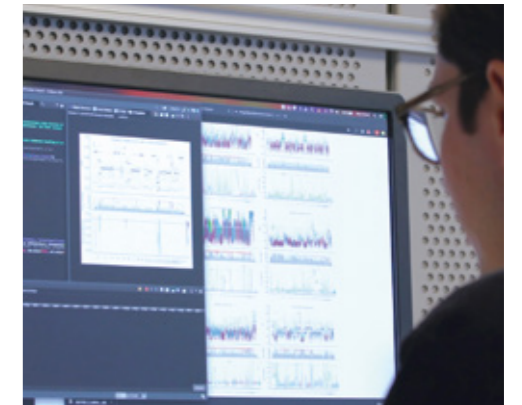
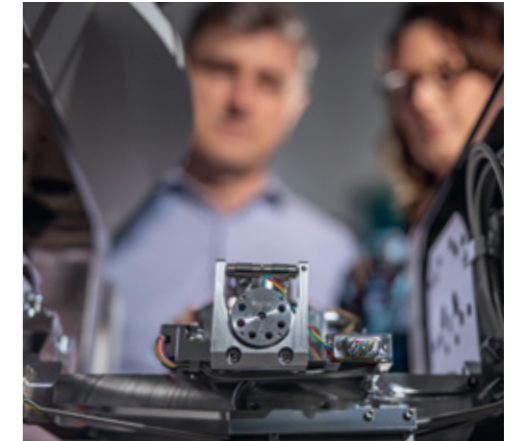
EMBL enables researchers to access state-of-the-art infrastructures and international open data resources that are beyond the means of individual research organisations.

Invaluable expertise

EMBL provides advanced expertise in service infrastructure. From support provision to collaborative engagement, EMBL's experts help to solve experimental challenges and provide advanced training in complex technologies.

Quality assurance

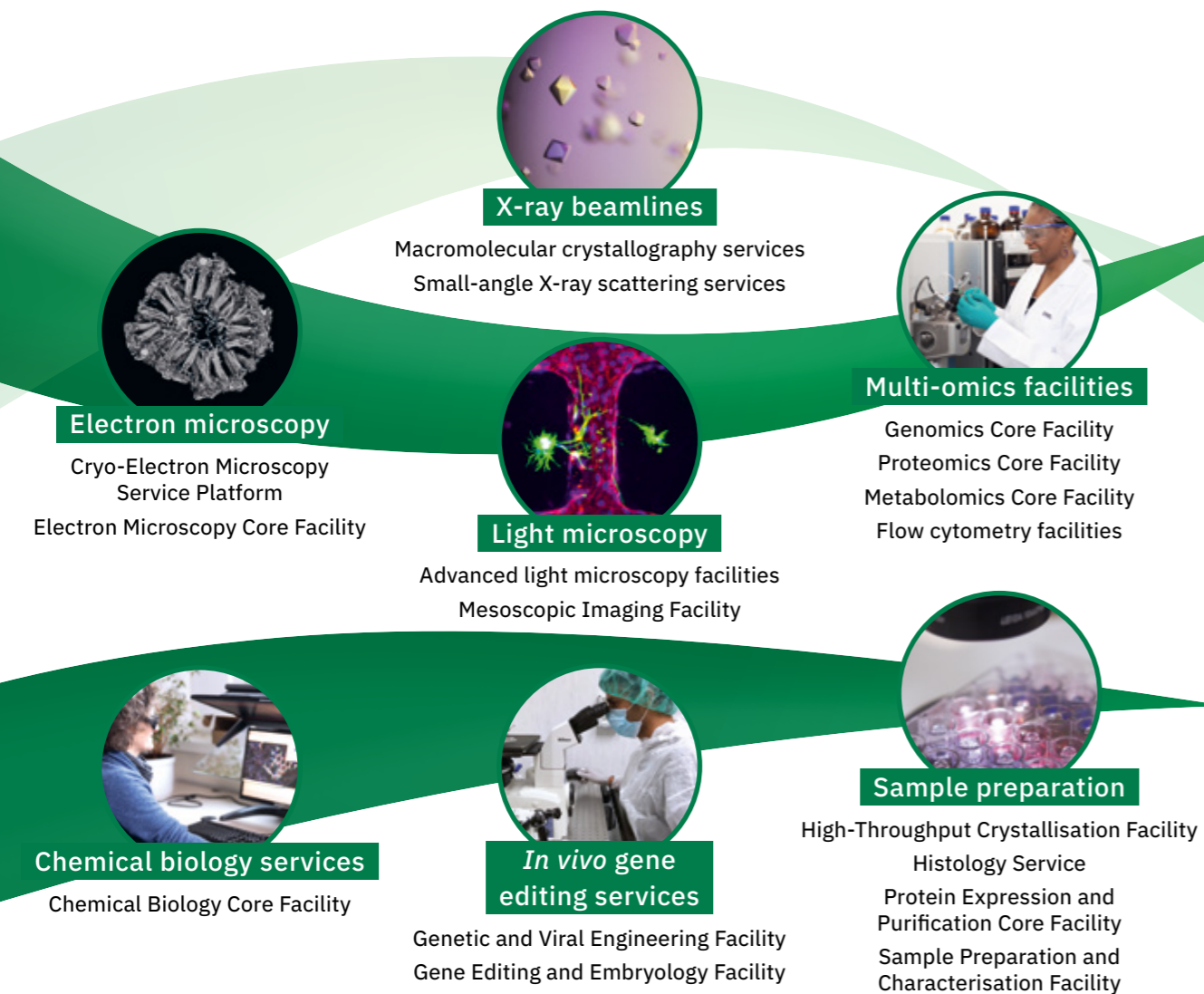
EMBL uses rigorous quality control and validation measures for optimal results. Experimental and data standards are set in collaboration with the community, enabling high-quality and consistent data generation, management, and access.



EMBL scientific services

Experimental services

EMBL experimental services span a range of infrastructures and facilities that support academic and industry users throughout Europe and globally. Structural biology and imaging services enable life to be visualised across scales: from atomic snapshots of moving proteins to detailed videos of molecules within cells, tissues, or organisms. EMBL also supports researchers in performing functional genomic analyses, precisely editing the genomes of cells or whole organisms, screening small molecules to gain insights into protein function, and many more activities.



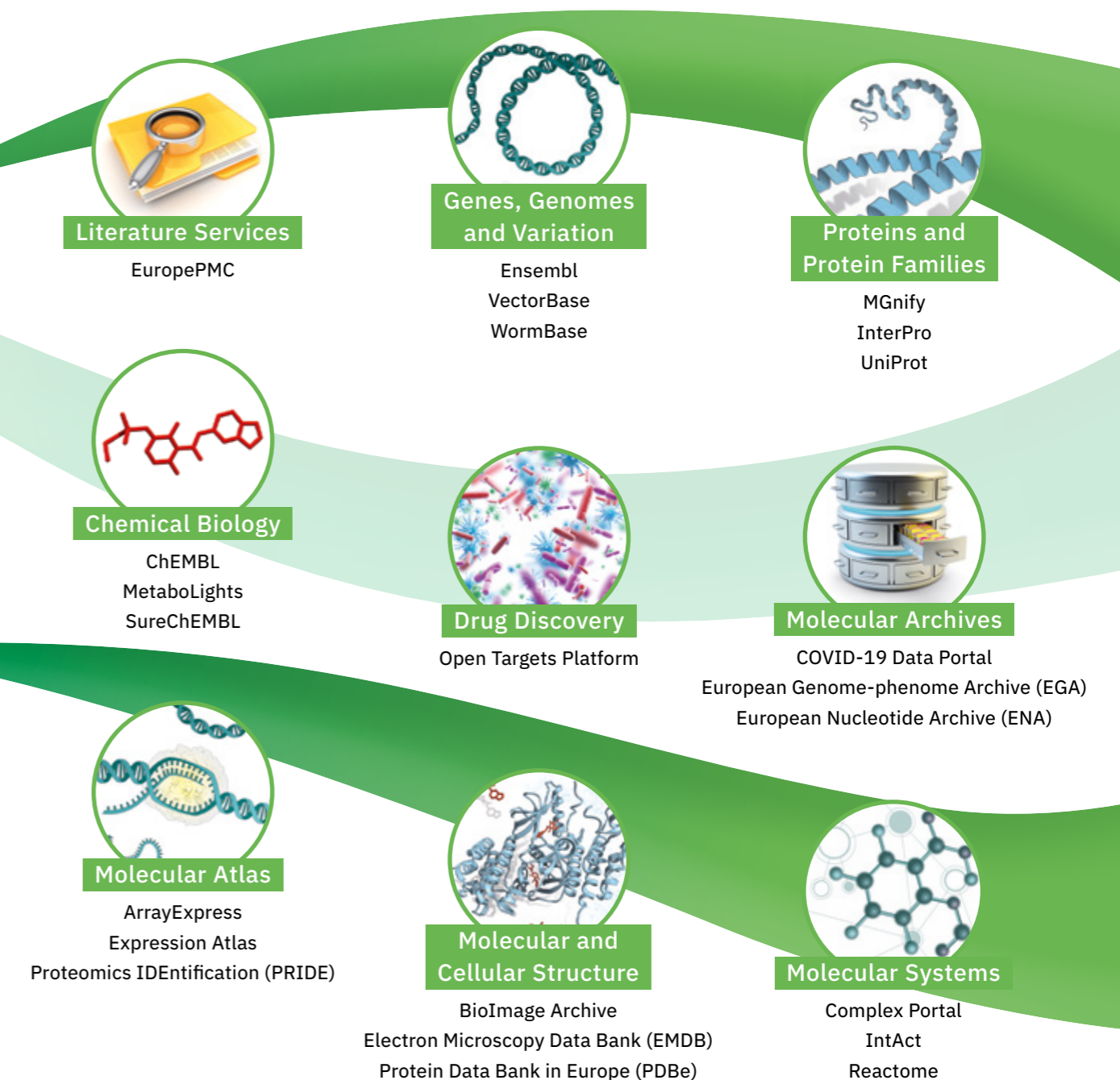

EMBL Imaging Centre: Opening in 2021

EMBL's Imaging Centre will be a major addition to the services offered to external users. Opening later this year, the centre represents a new EMBL service unit for the highest resolution electron and light microscopy technologies. It will incorporate and expand the current cryo-EM service platform.

See a full list of EMBL's scientific services: www.embl.org/services

Data resources

EMBL's European Bioinformatics Institute (EMBL-EBI) develops and maintains numerous open community databases, tools, and software that are freely available to all. These make it possible to deposit, search, visualise, and reuse diverse open data produced by researchers globally. This work supports millions of researchers working in all areas of the life sciences, impacting medicine, biology, ecology, and agriculture. Types of data resources include:



See a full list of EMBL's data resources: www.ebi.ac.uk/services

Benefits and added value

Research

- EMBL offers users 'end-to-end' services, from experimental design, sample preparation and data generation to data analysis and management. Novice users can receive comprehensive training and hands-on support, while experienced scientists can work independently.
- Remote access to EMBL's experimental facilities reduces the need to travel and has enabled research to continue safely during the COVID-19 pandemic.



Collaboration

- EMBL services save users the time, effort, and cost required to find collaborators with expertise in service infrastructure, by facilitating access to multidisciplinary experts and service infrastructure within a single partner.

Open data resources

"EMBL-EBI is providing molecular biology data to Europe and to the world, they are a trusted authoritative source on all molecular biology data."

Prof. Inge Jonnasen
University of Bergen/Elixir, Norway



Beamline services

"EMBL Grenoble beamline services offer excellent infrastructures and a fully automated process, allowing us to run the project most efficiently, saving valuable time for our work on SARS-CoV-2."

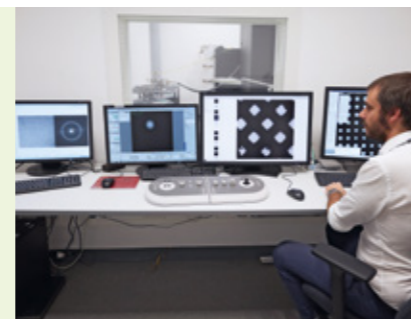
Prof. Frank Kozielski
University College London, UK



Cryo-Electron Microscopy Service Platform

"The experience at EMBL Heidelberg was as good as it can get. The setup is geared towards efficiency. The biggest impact is clearly the quality of the data."

Dr. Albert Weixlbaumer
Institute of Genetics and Molecular and Cellular Biology, Strasbourg, France



Sample Preparation and Characterisation Facility

"From sample characterisation all the way to data analysis, the personal engagement and expertise of EMBL Hamburg staff have been essential to the success of our project."

Prof. Sebastian Springer
Jacobs University Bremen, Germany



Protein Expression and Purification Core Facility, Genomics Core Facility

"With the core facilities, we developed a protocol that reduces next-generation sequencing library preparation costs by 100-fold. Sharing our results allowed the global scientific community to benefit from our expertise."

Prof. Lars Steinmetz
EMBL Heidelberg, Germany/Stanford University, USA



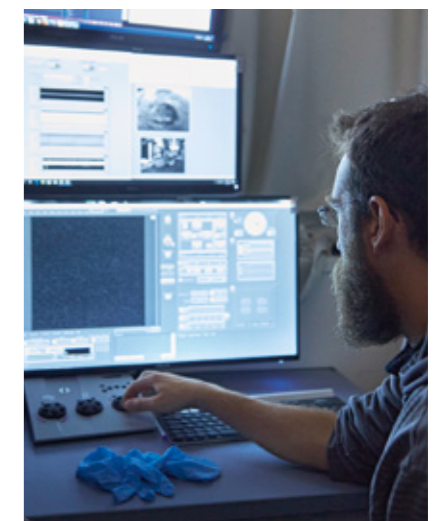
Training

- EMBL service experts collaborate extensively with users to give them technical training and provide troubleshooting support and bespoke advice.
- EMBL service experts share their knowledge with students and researchers through practical and theoretical courses held online, at host institutions, and at EMBL sites.



Technology development and innovation

- EMBL co-invents bespoke technologies with partners in technology development companies. These technologies are made available to users to drive their discoveries. EMBL's new Imaging Centre is a prime example of the cutting-edge facilities that EMBL offers users, and includes academically developed methods not yet commercially available.
- EMBL transfers its technology and expertise to national facilities and institutes. For example, 80 instruments co-developed by X-ray beamline specialists at EMBL and technology partners are currently installed at 26 sites worldwide.



Society

- EMBL benefits the global scientific community and society at large by promoting open science and continually sharing knowledge.

EMBL Barcelona

PRBB Campus
Barcelona, Spain

EMBL European Bioinformatics Institute

Wellcome Genome Campus
Hinxton, United Kingdom

EMBL Grenoble

EPN Science Campus
Grenoble, France

EMBL Hamburg

DESY Campus
Hamburg, Germany

EMBL Heidelberg

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