

# Annual Report

2021



European Molecular Biology Laboratory

**Read EMBL's complete annual report**

[www.embl.org/about/info/annual-report](http://www.embl.org/about/info/annual-report)



# Embracing the change

## 2021: a year of trailblazing in every one of EMBL's missions

We've all heard the saying that 'change is the only constant in life', and one might even add a corollary that the success of an organism – or of an organisation – can be measured in the way it responds to that change. During a worldwide pandemic that provided a multitude of changes with accompanying limitations, EMBL not only rose to challenges, but also transformed them into new opportunities.

When I reflect on the year, I am struck by the trailblazing nature of our staff who supported each other and have been part of many impressive initiatives, within EMBL and in collaboration with scientists in academia and industry in our member states. It is because of their unrivalled enthusiasm that we have continued to successfully carry out EMBL's five missions in research, service, training, innovation and translation, and integrating European life sciences.

I am also grateful to our member states who, through the EMBL Council, supported us in its historic endorsement and approval of [EMBL's new Programme 'Molecules to Ecosystems' 2022–2026](#) and associated financial plan. This Programme, starting in 2022, will launch EMBL

into a new era and set the scene for European molecular biology to reach new heights and provide greater impact in the next five years.

This new era includes a change in how the EMBL Annual Report is published, with this edition becoming our first digital report – part of our commitment to sustainable operations. As an online publication, the report includes hyperlinks to our various scientific and organisational achievements of the year.

One highlight is the launch of the AlphaFold Protein Structure Database by the artificial intelligence company DeepMind, which was made openly available by scientists at EMBL-EBI. By the end of 2021, this database contained more than 800,000 protein structure predictions, and it will continue to open up completely new avenues of scientific discovery.

Alongside this, EMBL's new, state-of-the-art [Imaging Centre](#) welcomed its first external users in 2021. The first class of fellows to EMBL's [ARISE Programme](#) also arrived, kickstarting EMBL's innovative infrastructure leadership training program.

I am also proud to report that EMBL has [committed itself to creating a more inclusive workplace founded in equality and diversity](#), as well as a strategy for [establishing environmentally responsible operational and research practices](#).

These are just a few examples of EMBL's highlights in 2021. As you browse the Annual Report, I think you will quickly see why our member states showed an impressive commitment to EMBL's future and the important role we play in advancing science. It's a reflection of the EMBL community that gives me great pride as well as immense hope for a world made better through their commitment to embrace the change and remain perpetually curious.



Edith Heard, FRS  
Director General



*“Biology is entering an exciting new era, and EMBL scientists are paving the way.”*

Pavel Tomancak, Senior Research Group Leader at Max Planck Institute of Molecular Cell Biology and Genetics, Director of the CEITEC Consortium; PhD work at EMBL, 1995–1999

## MISSION 1: RESEARCH

# To perform fundamental **research** in molecular biology

As Europe’s leading life science organisation, EMBL continued its tradition of carrying out cutting-edge molecular biology research in 2021. With a razor-sharp focus on exploring the fundamental biology of living organisms, EMBL’s research groups and units uncovered novel insights into embryonic development, infectious disease spread, protein folding mechanisms, biochemical pathways, the human microbiome, and much, much more. With **806 publications** and **449 grants** to support research, services, and training activities, EMBL researchers continue to understand life across scales.

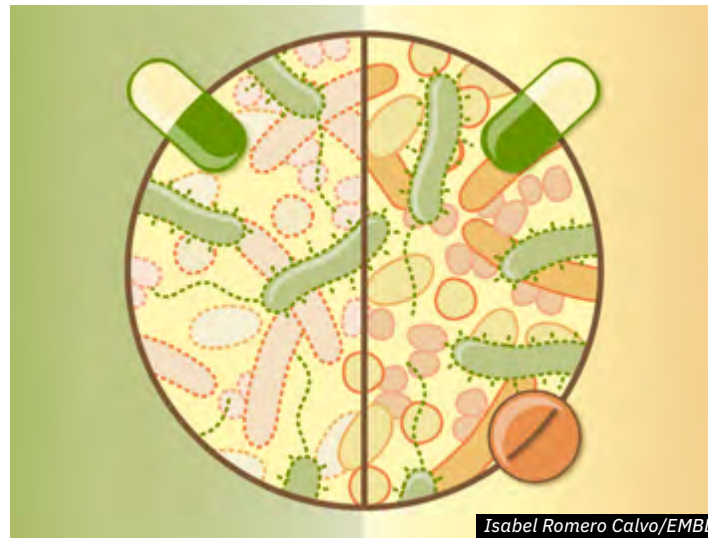
**Find out more about EMBL’s research highlights in 2021.**



## More than a 'gut feeling'

From establishing new collaborations to developing new innovative approaches, EMBL researchers made great strides in their exploration of the human gut microbiome in 2021. →

EMBL researchers significantly advanced our understanding of the human gut microbiome this year, uniting skills across disciplines and generating new tools and methods to circumvent technical challenges. Their results inform research in other microbial communities around the world and pave the way for better therapeutics and improved diagnostics.



Isabel Romero Calvo/EMBL



*“Through combining a broad range of research areas, EMBL was pivotal to advancing the molecular understanding of drug-microbiome interactions. Few research institutions offer this level of research diversity and support.”*

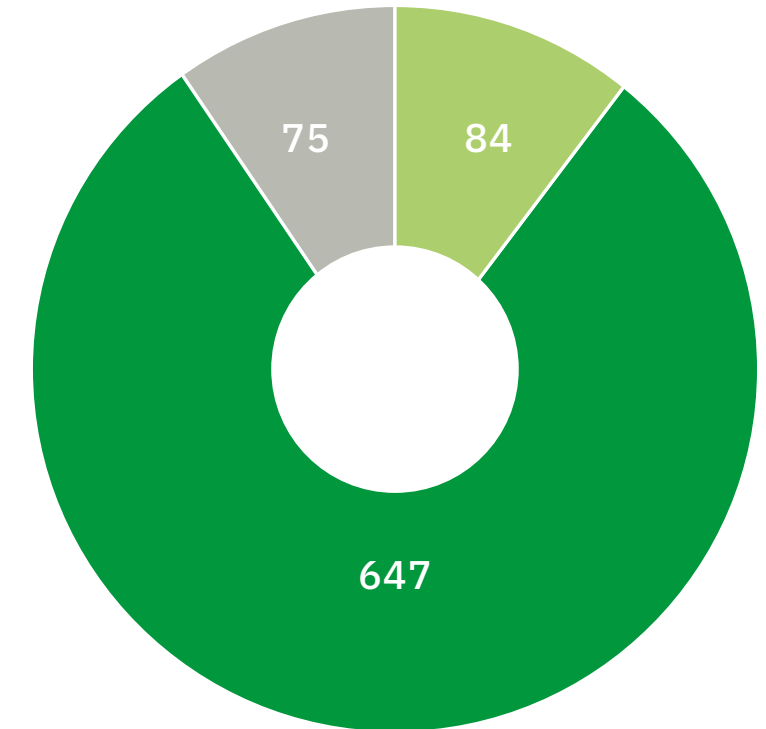
Kiran Patil, Director of Research at the MRC Toxicology Unit, University of Cambridge; Group Leader at EMBL, 2010–2019

## SCIENTIFIC PUBLICATIONS IN NUMBERS

EMBL's research groups and scientific service teams produce hundreds of scientific publications each year. In keeping with EMBL's collaborative spirit, the majority of its publications are produced in collaboration with scientists in EMBL member states or associate member states.

### Total 806

- By EMBL
- By EMBL in collaboration with organisations in member or associate member states
- By EMBL in collaboration with organisations in non-member states



### COVID-19: breaking barriers using data →

Two years into the pandemic, EMBL researchers and their collaborators continued harnessing data to gain a deeper understanding of the virus.

### Using structural biology to investigate molecular machinery →

EMBL structural biologists continue to improve our understanding of the mechanisms of life.

# Artificial intelligence revolutionises microscopy

Artificial intelligence (AI) proved to be a game-changer in the fields of microscopy and image analysis in 2021. →

In 2021, EMBL scientists developed AI algorithms to capture more accurate 3D microscopic imagery, developed an open-source program that accelerates imaging with minimal loss of resolution, and leveraged machine learning to improve upon the analysis of organoid images. In total, EMBL's AI contributions embodied open, collaborative, and interdisciplinary science designed to accelerate knowledge transfer.

*“The rapid progress in adopting deep learning/ AI in microscopy and image analysis never fails to amaze me, as such platforms enable us to glean trailblazing insights from mammoth amounts of data or imagery, quickly.”*

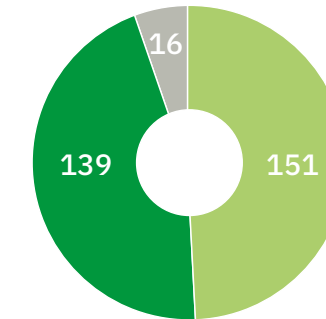
Jia Le Lim, Predoctoral Fellow,  
Trivedi Group at EMBL Barcelona

Jonas Ries/EMBL

## GRANTS IN NUMBERS

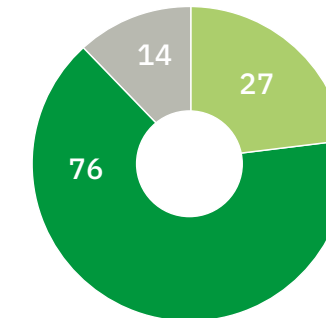
External grants support a large proportion of EMBL's research, technical and service infrastructure, and training and outreach activities. These active grants complement EMBL's member state funding, enabling it to support the activities of scientists at EMBL, in EMBL member states, and beyond.

### RESEARCH GRANTS



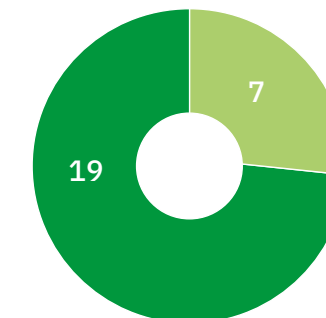
Total 306

### INFRASTRUCTURE GRANTS



Total 117

### TRAINING AND OUTREACH GRANTS



Total 26

● EMBL
 ● EMBL in collaboration with organisations in member or associate member states
 ● EMBL in collaboration with organisations in non-member states



*“EMBL’s support to life scientists is like that of a trusted old friend. Our research here counts on that quality support synonymous with EMBL services.”*

Ramesh Pillai, Professor at the University of Geneva; Group Leader at EMBL, 2006–2016

## MISSION 2: SERVICES

# To offer vital **services** to scientists in EMBL member states and beyond

In 2021, EMBL completed construction of its Imaging Centre, creating a hub for advanced technologies at the forefront of illuminating what we can understand about life’s smallest building blocks. Two independent reports validated the economic value and impact that EMBL’s experimental services and data resources provide to their users in EMBL member states and beyond. EMBL’s experimental services enabled many researchers from all over the world to carry out their scientific experiments in 2021. EMBL-EBI saw service requests on its website jump from 82 million to **107 million per day**.

**Find out more about EMBL’s services highlights in 2021.**



# Experimental services

## Sharpening the lens on biology

**EMBL's Imaging Centre comes online, complementing advances that enable scientists to see and understand the smallest aspects of molecular biology in their biological context.** →

EMBL's state-of-the-art Imaging Centre welcomed its first users in 2021. In doing so, it built upon a longstanding reputation for imaging expertise, which extends to new methods development, advanced microscopy training, and services.

*“The scientists at EMBL are among the best in the world in using these techniques.”*

Pia Lavriha, PhD student at the ETH Zurich and Paul Scherrer Institute in Switzerland and EMBL Imaging Centre's first external user



## EXPERIMENTAL SERVICES IN NUMBERS

EMBL experimental services span a range of infrastructures and facilities that support academic and industry users in Europe and beyond, in fields ranging from structural biology and imaging to genomics and proteomics. The scientific expertise and collaborative nature of the support provided, combined with state-of-the-art technical infrastructure, enables users to pose novel scientific questions and conduct more complex research that is shared with the scientific community.

3,769

users of experimental services



647

scientific publications enabled



## Making a difference →

External reviews illustrate the impact of EMBL services. In 2021, two independent reviews confirmed the significance of the beneficial impact of these services, providing case studies and data about their value for researchers in the wider scientific community.



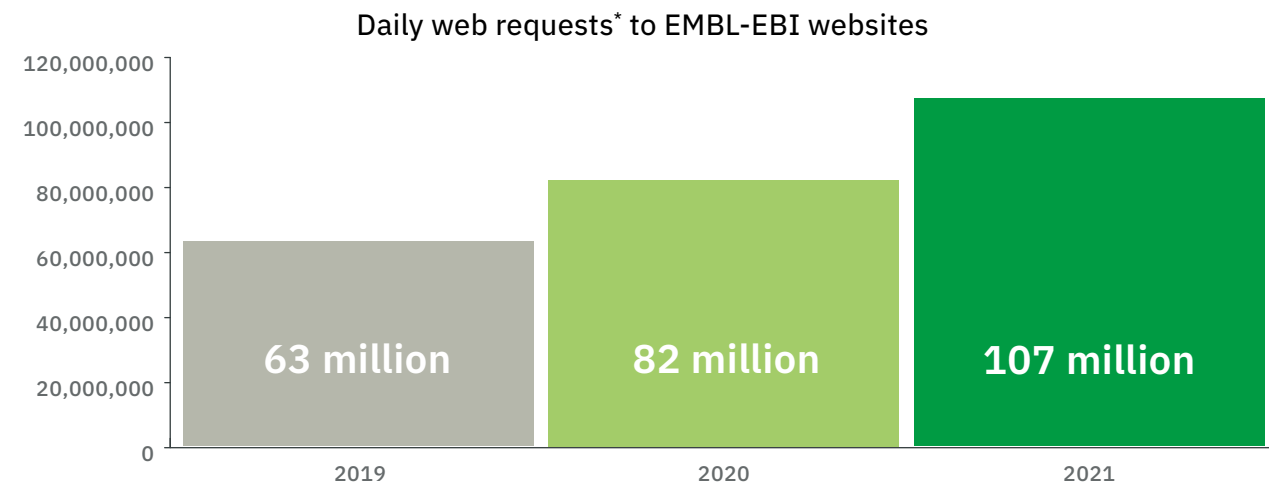
## More EMBL service highlights →

Whether it was chemical biology, multi-omics, gene editing, X-ray beamlines, or myriad microscopy services, EMBL's core facilities and services supported the advancement of molecular biology during an active 2021.

# Bioinformatics services

EMBL-EBI maintains the world's most comprehensive range of freely available and up-to-date molecular data resources. Developed in collaboration with scientists worldwide, these open databases, tools, and software can be accessed by anyone around the world.

## USAGE OF EMBL-EBI DATA RESOURCES



\* A web request is defined as any time a user or computer algorithm asks for information on EMBL's web pages using HTTP. Requests may retrieve an entire webpage or just a single piece of information from an EMBL-EBI data resource.

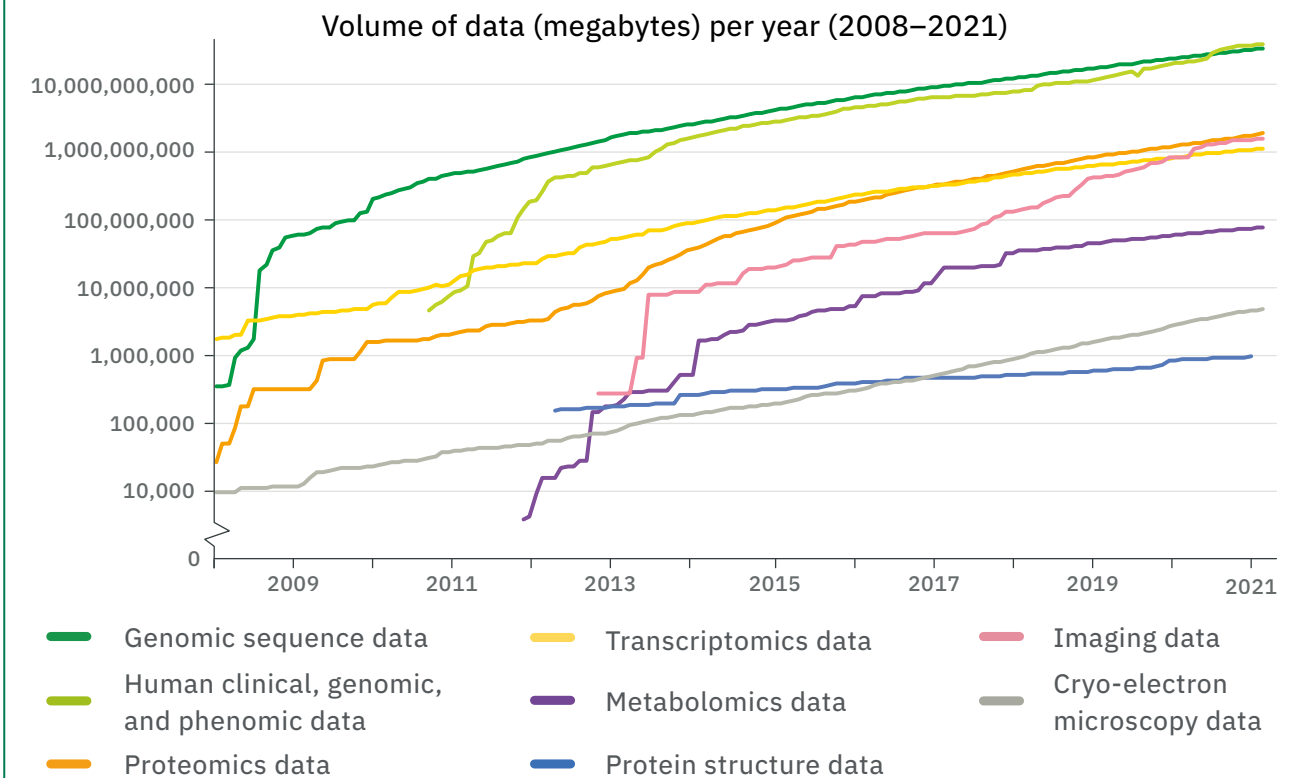
## AlphaFold: a game-changer for structural biology

**EMBL teams up with DeepMind to make breakthrough AI-powered protein structure predictions freely available to the world.** ➔

The beauty of this collaboration was that data from public resources – including the Protein Data Bank, UniProt, and Mgnify all co-hosted at EMBL-EBI – trained AlphaFold to be the powerhouse tool that it is. The collaboration already is paying dividends with its public access to predictions that allow for cross-linking to existing data resources.

## DATA GROWTH BY EMBL-EBI SERVICE

The scientific community continues to submit vast amounts of data to EMBL-EBI's databases. Over the course of the year, data deposition for human clinical, genomic, phenomic, and imaging data grew by half.



*“I love that the collaboration between DeepMind and EMBL will make all the knowledge about protein structure open to all.”*

Jacques Dubochet, Nobel Laureate for Chemistry 2017; former EMBL Group Leader, 1978–1987



*“To address global challenges, we need the combined ingenuity of scientists from different fields. EMBL’s training equips our fellows with the skills needed to lead research and innovation in multidisciplinary settings.”*

Monika Lachner, Head of Internal Scientific Training and Dean of Graduate Studies,  
EMBL International Centre for Advanced Training (EICAT)

### MISSION 3: TRAINING

## To train scientists, students, and visitors at all levels

EMBL prides itself as not only being the place where cutting-edge molecular biology research is done, but also as the nurturing site where future world leaders in molecular biology get their start. Its people-first approach manifests itself in its many training programmes that focus on scientific capacity building and growth. Despite in-person training events being down in 2021, EMBL **trained 9,726 people** via its virtual courses and conferences, hired **63 new PhD students** and **77 new postdocs**, and welcomed **579 scientific visitors**.

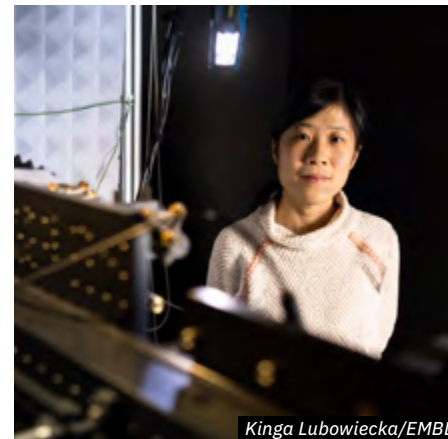
**Find out more about EMBL’s training highlights in 2021.**



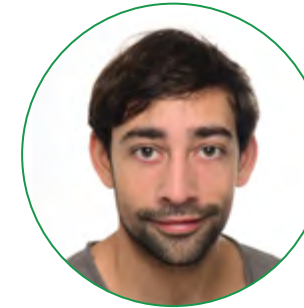
# EMBL welcomes first generation of ARISE fellows

Participating researchers will lead projects to develop novel technologies for better science. →

EMBL's Career Accelerator for Research Infrastructure Scientists Programme, known as ARISE, provides fellowships to promote technology development in the life sciences and trains technology developers and engineers to lead research infrastructures and services. The first group of ARISE fellows joined EMBL in 2021 with a variety of research backgrounds and expertise, such as Sheng Liu, who is interested in super-resolution microscopy for structural cell biology at EMBL Heidelberg.



Kinga Lubowiecka/EMBL

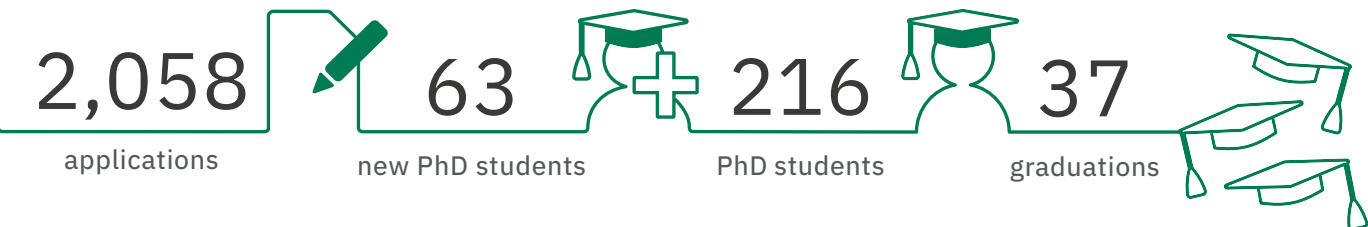


*"Before starting this fellowship, I was a user and now I am jumping to the other side. I have to develop tools that are not useful for me, but rather for other scientists with diverse backgrounds."*

Osvaldo Burastero, ARISE fellow on the Garcia Alai Team, EMBL Hamburg

## EMBL INTERNATIONAL PHD PROGRAMME

The EMBL International PhD Programme trains students from EMBL member states and beyond. The programme gives PhD students the best starting platform for a successful career in science.

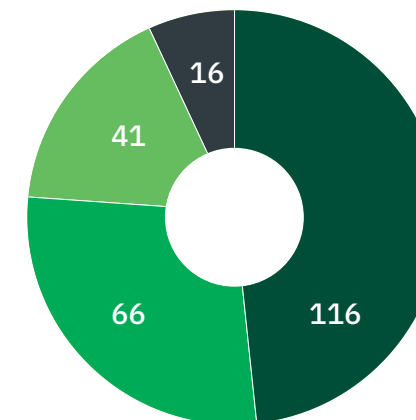


## EMBL POSTDOCTORAL PROGRAMMES

EMBL welcomes talented postdoctoral fellows via several entry streams, including the EIPOD programme, which promotes multidisciplinary and multisectoral research in collaboration with national academic institutes, industry, and hospitals.

**77**  
new postdocs  
in 2021

**239**  
postdocs  
in 2021 in total\*



- Classical stream
- EIPOD programme
- Personal merit fellowship
- Site-specific and other fellowship programmes

\* Does not include former PhD students finalising their projects via a bridging postdoc contract.

**66**  
postdocs leaving  
in 2021



## Virtual training crosses new horizons

From lab courses to teacher training and virtual conferences, **EMBL explored multiple avenues of online and hybrid training in 2021.**

In 2020, the pandemic halted in-person activities, events, and training. EMBL quickly adapted, capitalising on four decades of training excellence to launch a variety of online offerings for uninterrupted learning. In 2021, EMBL continued to expand virtual training, innovating rapidly as it embraced multiple approaches.

*“Fostering scientific exchange is important to EMBL’s training programme. With our virtual courses during the pandemic, we saw how passionate scientific discussion could continue, offering the scientific community some semblance of normality.”*



Yvonne Yeboah, Training Lab Manager, EMBL International Centre for Advanced Training (EICAT)

## EXTERNAL TRAINING IN NUMBERS

During 2021, EMBL honed its virtual course and conference programme, enabling training to be delivered to a greater number of people than in-person events in previous years. EMBL’s Scientific Visitor Programme, which includes long-term visitors, continued to train scientists at all career stages.

### COURSES AND CONFERENCES

**9,726** participants from **108** countries  
attended courses and conferences hosted by EMBL sites

**75%** of participants were from  
EMBL member or associate  
member states



### COURSES

**32** virtual courses  
**100%** of courses rated as ‘very good  
or excellent’ by the majority  
of participants



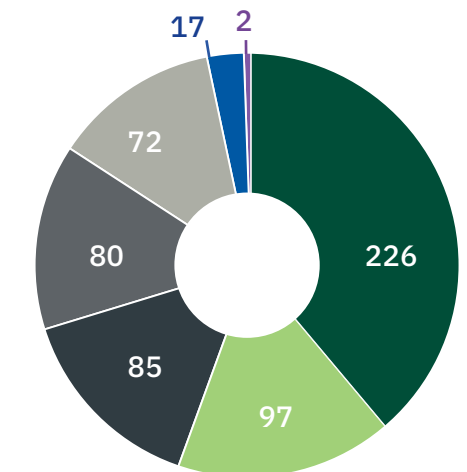
### CONFERENCES

**22** virtual conferences  
**100%** of conferences rated as ‘very  
good or excellent’ by the  
majority of participants



### SCIENTIFIC VISITORS

**579**  
visitors



- Master’s students and trainees
- Visiting researchers
- Visiting technical experts
- Visiting postdoctoral fellows
- Visiting predoctoral fellows
- Visiting group leaders
- Non-scientific visitors

**90%**  
of visitors from EMBL member states

*“...Public and private sectors need to join forces to enable the transformational potential that research has on our lives.”*

Giovanna Bergamini, Senior Director, Cellzome, GSK;  
EMBL postdoc, 1999–2002

#### MISSION 4: INNOVATION AND TRANSLATION

## To engage in **technology transfer** and **industry relations**

EMBL is well known for its research, services, and training, and those strengths are what also make it a perfect industry partner and breeding ground for research that sows the seeds for potential technology transfer. EMBLEM, EMBL's tech transfer partner, managed a portfolio that includes **473 concluded licence and collaboration agreements**. As new partnerships were formed, others continued to expand.

**Find out more about EMBL's innovation and translation highlights in 2021.**



# Start-up targets pain management

EMBL Rome alumnus gets funding to transfer innovative technology and apply gene therapy to potential therapeutics.

In 2021, Paul Heppenstall took another step forward towards bringing to market a technology he developed at EMBL that could have several potential therapeutic uses.



Paul Heppenstall/EMBL

## Strengthening links to the biobusiness sector

New event provides a forum for sharing bioinformatics developments with BioBusiness.

## Training powered by corporate support

EMBL's Corporate Partnership Programme continues its role as a nexus for research, services, training communities, and industry.



*“EMBLEM and EMBL’s Genomics Core Facility helped our company gather a first dataset in 2015 – catalytic for our seed investment. This year, we’ve launched our first product.”*

Fay Christodoulou, Co-founder and Chief Scientific Officer at Miroculus; PhD work at EMBL, 2005–2009

## Innovation rising

In 2021, EMBL scientists joined forces with industry scientists in several partnerships that furthered research and spurred innovative solutions to tackle human disease, and increase biotechnology and agricultural impacts.

## EMBLEM IN NUMBERS

EMBL’s innovation and translation activities include industry collaborations, public–private partnerships, forums for knowledge exchange, invention disclosures, and the creation of spin-off companies. EMBL’s technology transfer arm, EMBLEM, plays a key role in enabling these activities.

€14,205,000

income

473

licence and collaboration agreements concluded

25

inventions disclosed

9

priority patent applications filed

23

patents granted

*“The collaboration with EMBL confirms the importance of research networks among excellent institutions to contribute to the same quest for innovation and to share resources.”*

Giorgio Metta, Scientific Director of Italian Institute of Technology

#### MISSION 5: INTEGRATING EUROPEAN LIFE SCIENCES

## To foster collaboration between scientific communities in Europe and around the world

Internationality and collaboration are vital aspects of EMBL’s activities, and EMBL works to establish links and initiate joint projects between scientists in Europe and beyond. Collaborative research, shared infrastructures, as well as open science and knowledge sharing are important investments for the future. With a strong focus on scientific excellence, and through the trusted networks of EMBL’s member states as well as European and global partner institutes, EMBL forms the basis for successful multi-level science diplomacy.

**Find out more about EMBL’s European life sciences integration highlights in 2021.** →

# Better together

In 2021, EMBL formalised international research partnerships with institutions across its member states. →

As an intergovernmental research organisation, EMBL can combine its own strengths in research, services, and training with capabilities across its member states. This creates a whole greater than the sum of its parts to advance life science research and innovation in Europe and beyond. Memoranda of understanding (MoUs) between EMBL and institutions in member states help deepen relationships. Throughout 2021, EMBL expanded its portfolio of institutional collaborations in the lead up to the start of its new Programme, 'Molecules to Ecosystems'.



*“Cross-border collaboration provides mutual access to research infrastructure and enables rapid, wide distribution of new knowledge.”*

Marja Makarow, President of Academia Europaea, former EMBL Council delegate of Finland; EMBL postdoc, 1981–1983

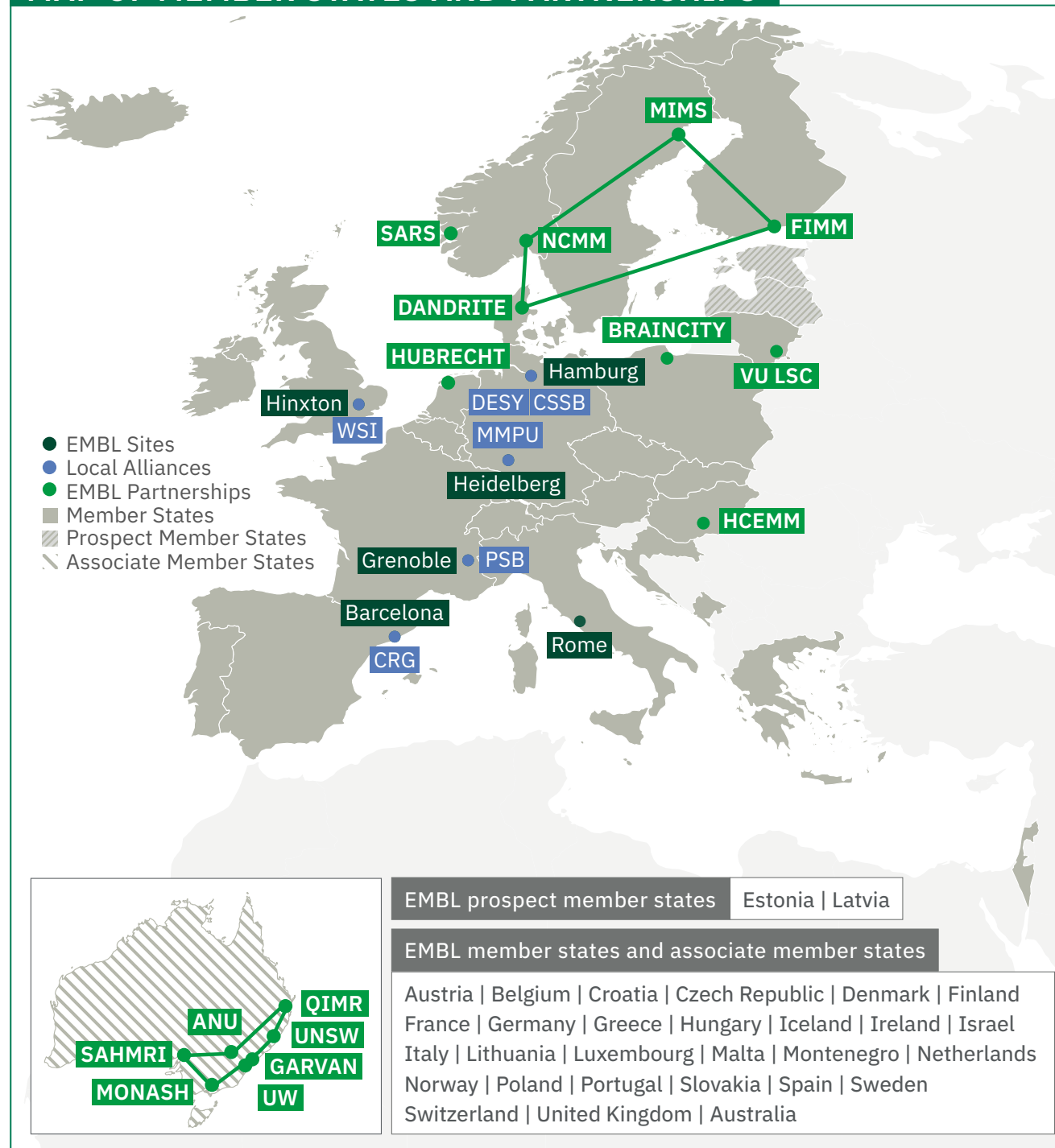
## The importance of member state engagement →

Between facing an ongoing pandemic and preparing for EMBL's next five-year strategic programme, EMBL and its member states met virtually and in-person to help position the Laboratory for the future.

## Life Sciences at COP26 →

As part of the preparation for EMBL's new Programme to study life 'in context', it published a white paper on molecular biology's role in the Green Recovery and attended COP26 as an Observer shortly afterwards.

## MAP OF MEMBER STATES AND PARTNERSHIPS



*“Modernising service delivery to the EMBL community is our aim. Moving this forward as a collective team effort with colleagues across sites means success for all of us at EMBL.”*

Lena Reunis, Head of Operations Management Team

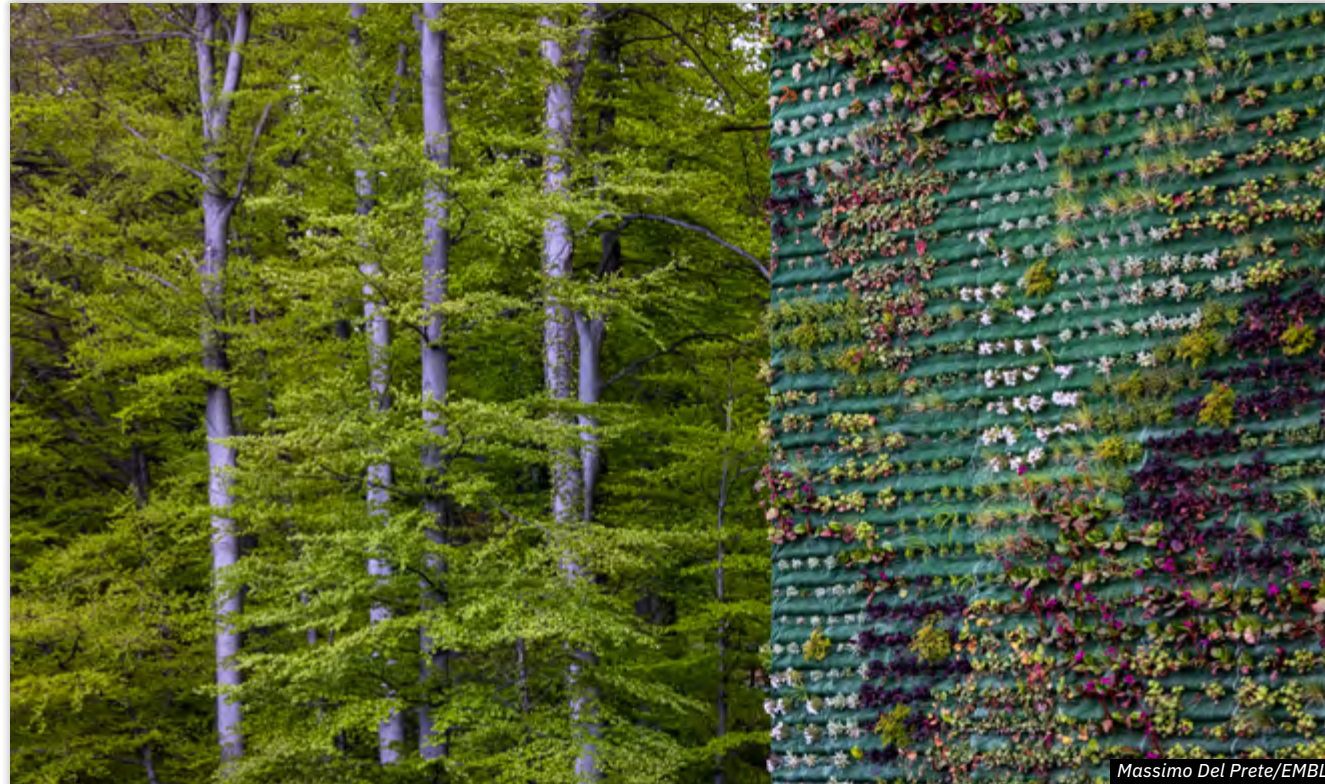
## Operations

In 2021, EMBL’s administrative and operations teams accelerated the work that keeps EMBL running at a notable pace and level of excellence. New sustainability and equality, diversity, and inclusion strategies showed the importance of supporting initiatives that improve how EMBL conducts science. And as the COVID-19 pandemic continued, so too did the hard work of EMBL staff through remote work and creative solutions to minimise disruption to EMBL missions.

**Find out more about Operations at EMBL in 2021.**



# Sustainability at EMBL



Massimo Del Prete/EMBL

## Molecular biology goes green

**EMBL steps up its response to global environmental problems with its first Sustainability Strategy.**



In 2021, not only did EMBL speak about the role molecular biology research plays in climate issues at national and international forums, it also looked inward at a more sustainable approach to scientific operations, adopting its first Sustainability Strategy. Similarly to other life sciences organisations, EMBL uses a significant amount of energy to power large-scale equipment, invests in in-person meetings, and generates waste. EMBL's sustainability strategy aims to reduce its environmental impact in these areas.

*“These days, conducting research sustainably is as important as new findings about planetary biology. In that same way, it’s been gratifying as a lab manager, for example, to share ideas on ways to reduce plastic laboratory consumables.”*

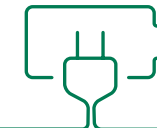
Casandra Villava, Lab Manager at Ebisuya Group at EMBL Barcelona and member of the Staff Association Green Initiatives Working Group



### SUSTAINABILITY IN NUMBERS

Metrics are compared to baseline year 2019. EMBL continues towards its sustainability goals.

10.3%



reduction in CO<sub>2</sub> from energy use

92%



reduction of CO<sub>2</sub> from flights

34%



reduction of waste

*“Creating green labs is about the whole culture of how we conduct our research – for example, by planning and organising experiments properly so that each one is well documented and worth the resources invested.”*

Marta Rodríguez-Martínez, Scientific Officer/Sustainability Officer, Steinmetz Group at EMBL Heidelberg



# EMBL alumni relations

EMBL's alumni are a network of highly trained scientists and other professionals, 82% of whom live in EMBL member states or associate member states. These alumni bring the EMBL model of research to member state institutions and help to connect local scientific communities with EMBL's research, services, and training.

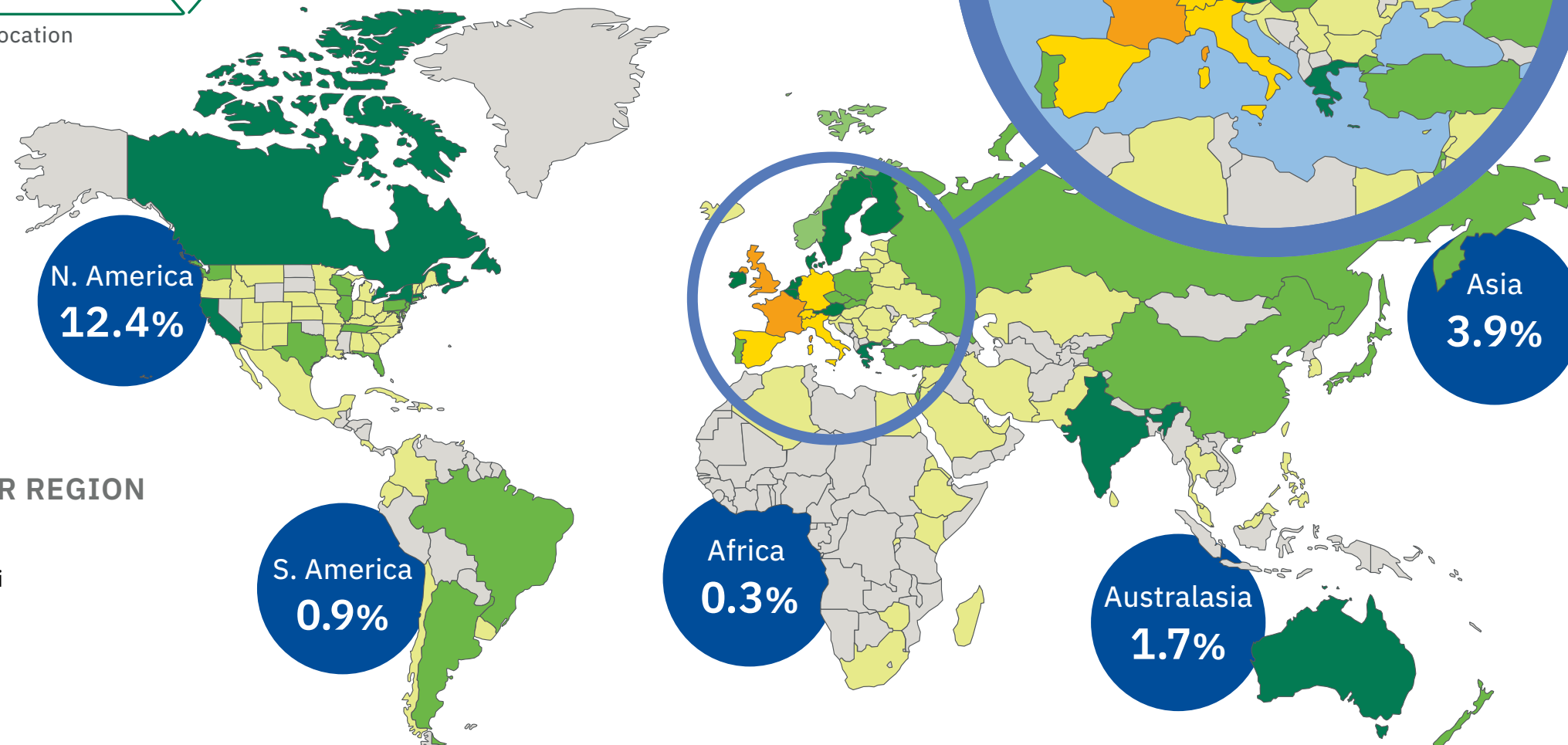
## 6,250

alumni with known location



### ALUMNI PER REGION

- 500+ alumni
- 200–499 alumni
- 50–199 alumni
- 10–49 alumni
- 1–9 alumni
- 0 alumni



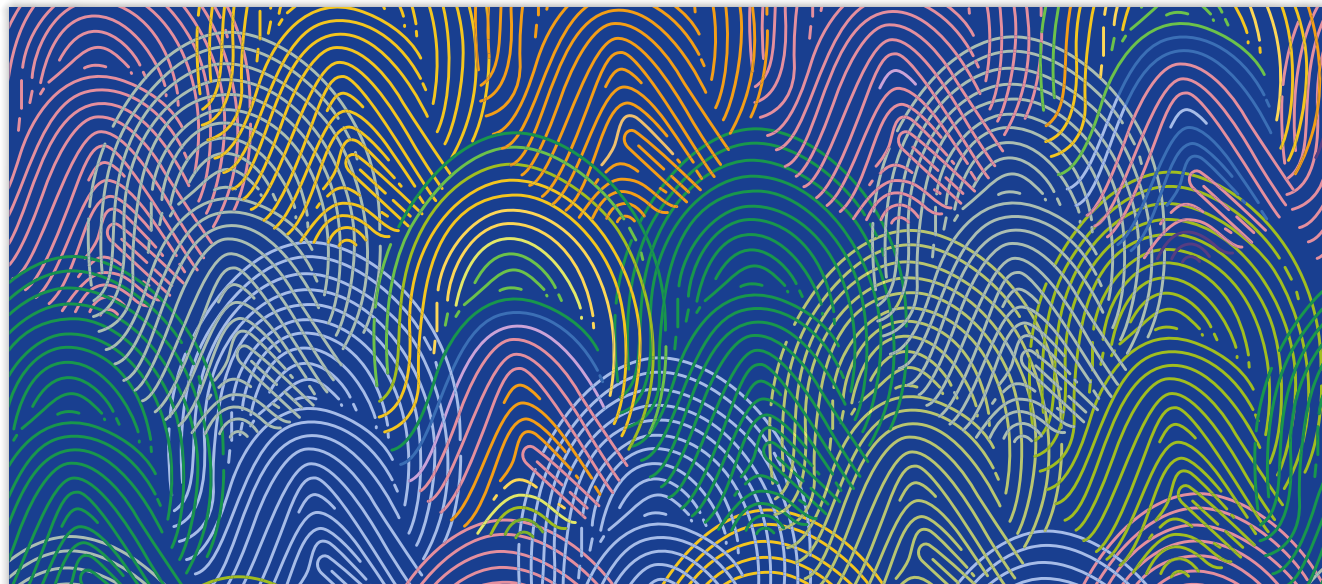
*“Alumni always bring the EMBL spirit of collaboration back to member states, inspiring new discoveries and impacting life science communities.”*

Peter Papagiannis,  
Alumni Volunteer Officer,  
EMBL Alumni Relations

See more alumni highlights



# Equality, Diversity, and Inclusion



## Fostering diversity and equality

A new strategy aims to improve work culture and encourage inclusive scientific research. →

EMBL developed its first equality, diversity, and inclusion (EDI) strategy in 2021 which aims to create a more inclusive research and work culture that leverages diversity, in its broadest sense.



*“This strategy takes a holistic approach. That means embedding EDI values and practices across all key functions of EMBL.”*

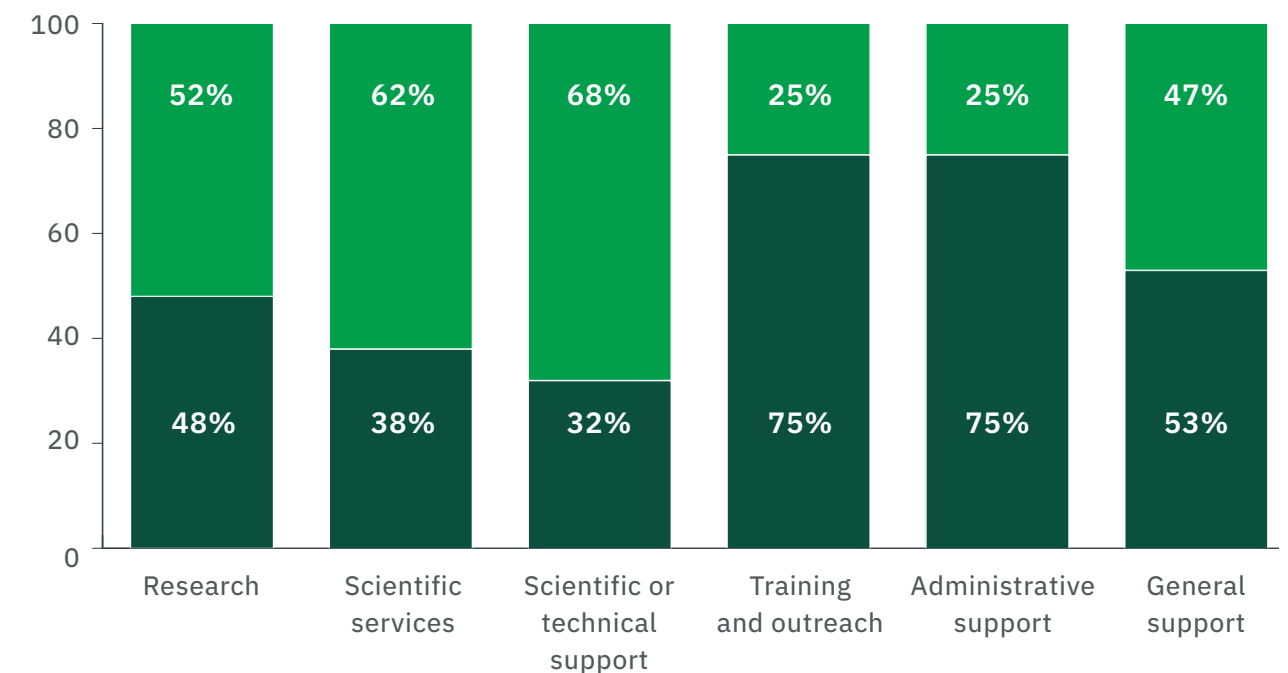
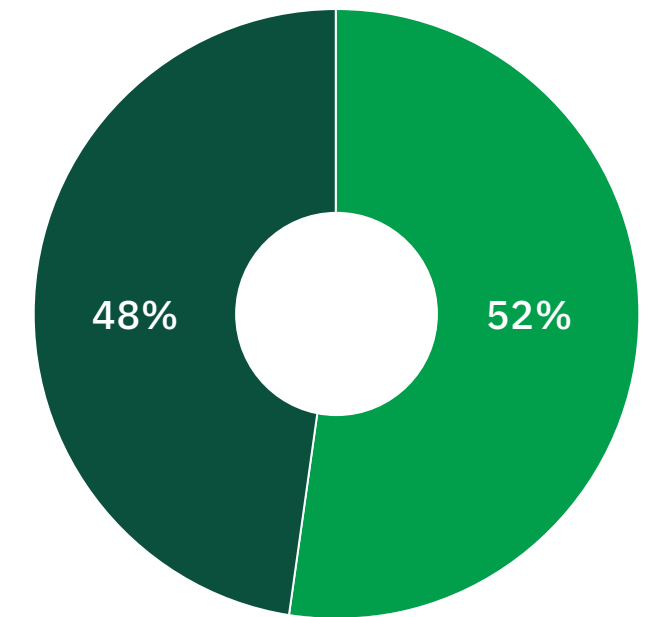
Roshni Mooneeram, Head of Equality, Diversity, and Inclusion

## GENDER DISTRIBUTION AT EMBL

One starting point for EDI reporting is to be transparent about EMBL's gender distribution. While gender distribution is balanced across the organisation as a whole, the EDI strategy aims to balance the inequalities seen in some staff categories.

- Female personnel
- Male personnel

No members of personnel identified as non-binary.

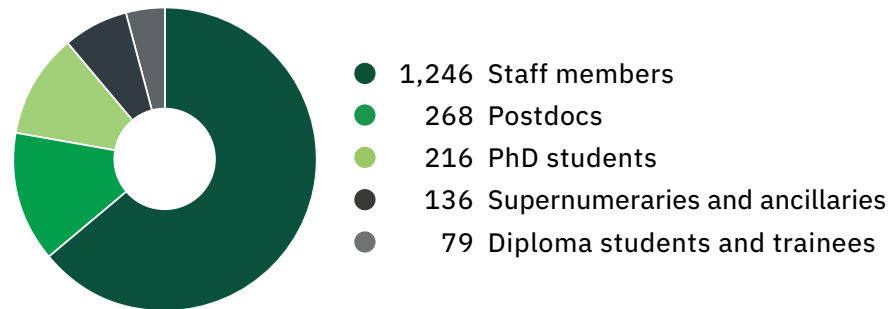


# Personnel statistics

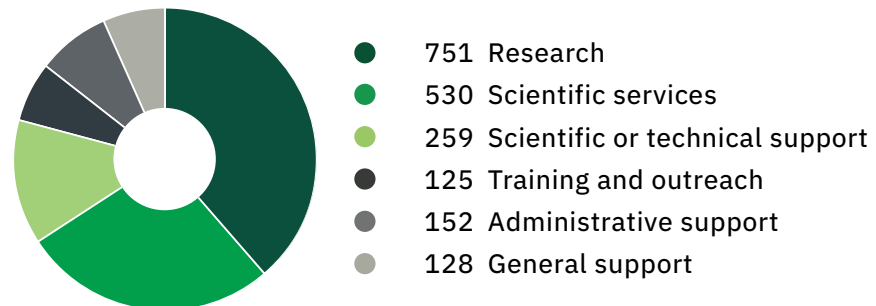
EMBL's success depends on its greatest asset: the people. EMBL personnel are a diverse mix of researchers, scientific service staff, training and engagement specialists, and staff providing scientific, technical, administrative, and operational support.

## PERSONNEL

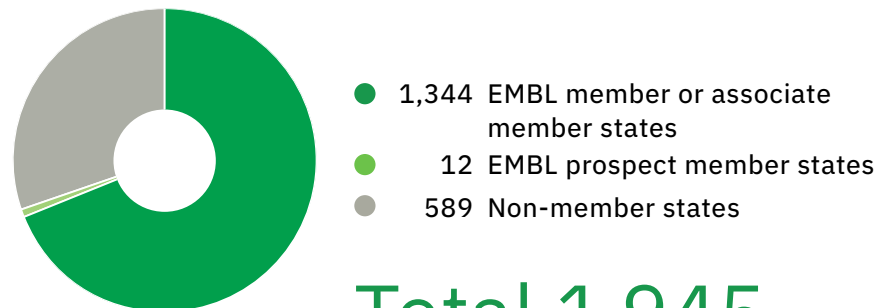
### PERSONNEL CATEGORIES



### STAFF CLASSIFICATION



### STAFF NATIONALITIES

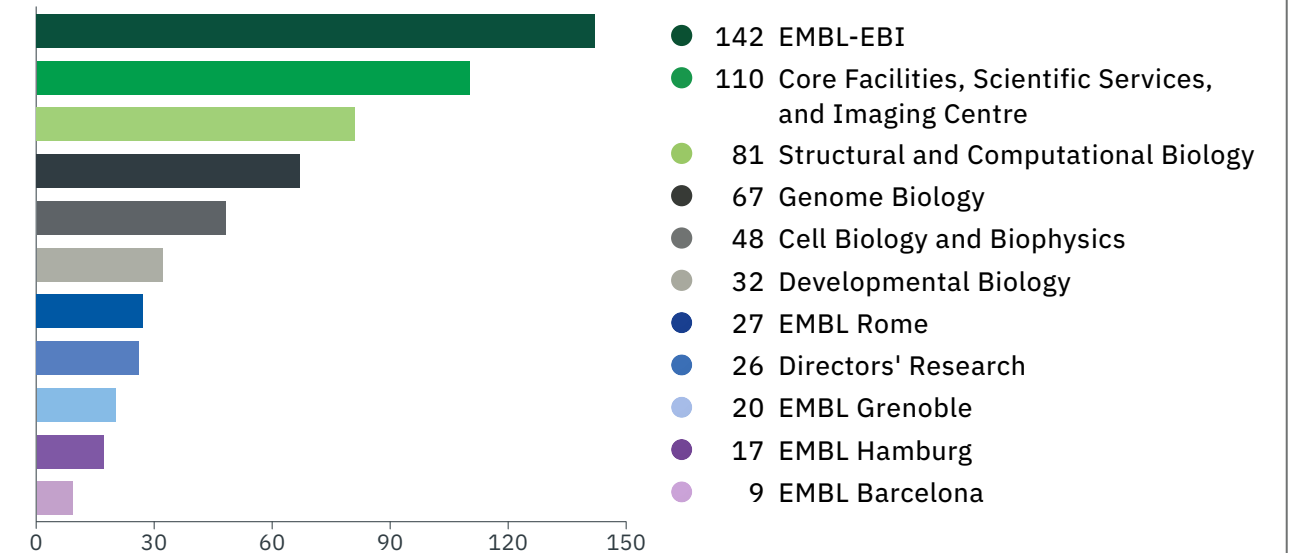


**Total 1,945**  
in full-time equivalent (FTE)

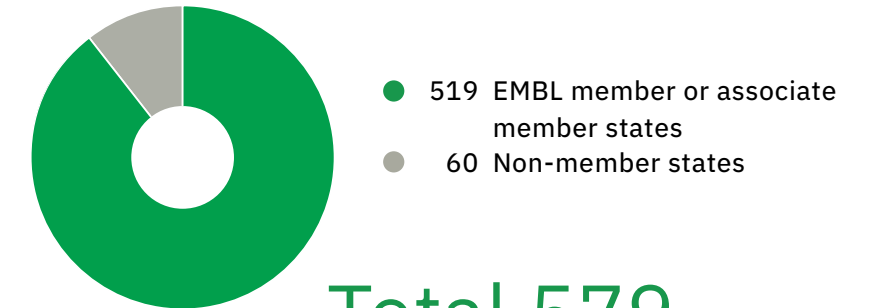


## SCIENTIFIC VISITORS

### EMBL UNITS



### VISITORS' NATIONALITIES



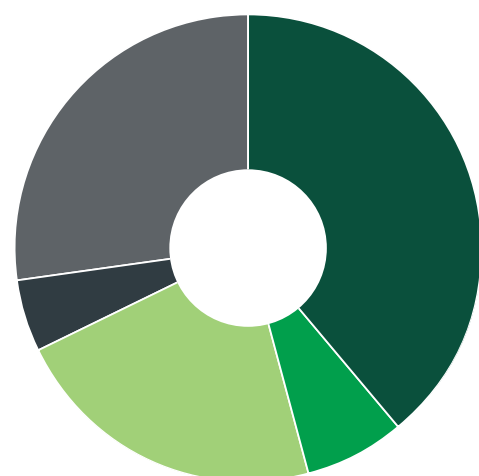
**Total 579**

# Financial report

EMBL is primarily funded by contributions from its member states although it still relies heavily on external support from a range of grant funding bodies to provide for the full extent of its missions.

## EMBL TOTAL INCOME

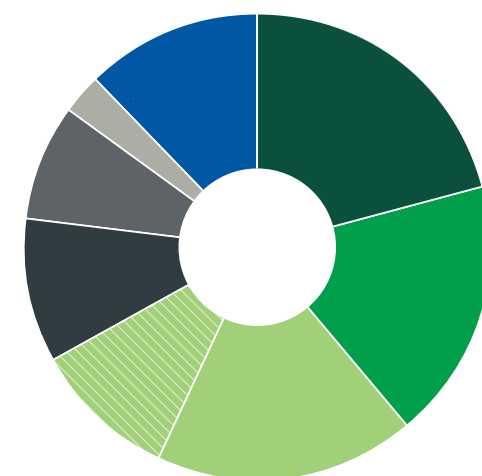
€292 million



- 39% Member state contributions
- 7% Member state special contributions<sup>1</sup>
- 22% External grant funding
- 5% Other external grant funding<sup>2</sup>
- 27% Other receipts<sup>3</sup>

## EXTERNAL GRANT FUNDING

€65.6 million



- 21% NIH
- 18% Wellcome Trust
- 18% EC
- 10% ERC
- 10% BMBF
- 8% BBSRC
- 3% DFG
- 12% Others

- Includes additional contributions from the UK government for the Technical Hub and European Data Centre on the EMBL-EBI campus, and from the German government for the EMBL Imaging Centre on the Heidelberg campus.
- Includes ELIXIR member state contributions.
- Includes items such as contributions from EMBO, course and conference fees, internal tax, and income from the Heidelberg canteen, cafeteria, and guesthouses.

## MEMBER STATE CONTRIBUTIONS

	× €1,000	%
<b>Ordinary contributions</b>		
Austria	2,424	2,2
Belgium	2,885	2,6
Croatia	332	0,3
Czech Republic	1,072	1,0
Denmark	1,952	1,8
Finland	1,426	1,3
France	15,829	14,4
Germany	22,660	20,6
Greece	1,212	1,1
Hungary	575	0,5
Iceland	129	0,1
Ireland	1,298	1,2
Israel	2,123	1,9
Italy	11,679	10,6
Lithuania	139	0,1
Luxembourg	236	0,2
Malta	54	<0,1
Montenegro	15	<0,1
Netherlands	4,976	4,5
Norway	2,488	2,3
Poland	1,539	1,4
Portugal	1,212	1,1
Slovakia	429	0,4
Spain	7,882	7,2
Sweden	3,260	3,0
Switzerland	4,526	4,1
United Kingdom	17,588	16,0
	<b>109,940</b>	<b>100</b>

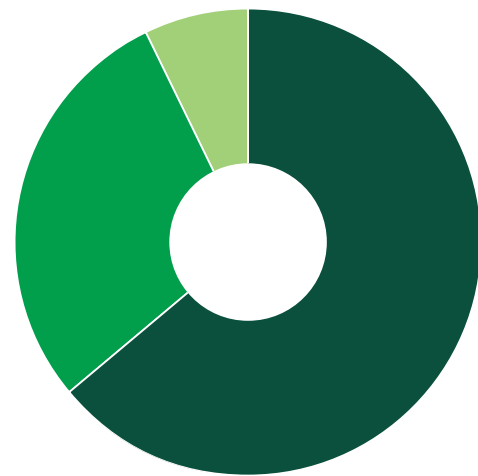
	× €1,000
<b>Currency adjustment</b>	
for sterling adjustments	(1,308)
<b>Entry fees</b>	
Hungary	124
Lithuania	66
Montenegro	4
Poland	733
Slovakia	100
	<b>1,027</b>
<b>Associate member state contributions</b>	
Argentina	0
Australia	3,015
	<b>3,015</b>
<b>Additional contributions</b>	
Germany	11,712
United Kingdom	10,004
	<b>21,716</b>

## EMBL TOTAL EXPENDITURE

EMBL's expenditure prioritises research, scientific services, and training activities, all of which are geared towards collaborating with, scientifically supporting, or training member state scientists.

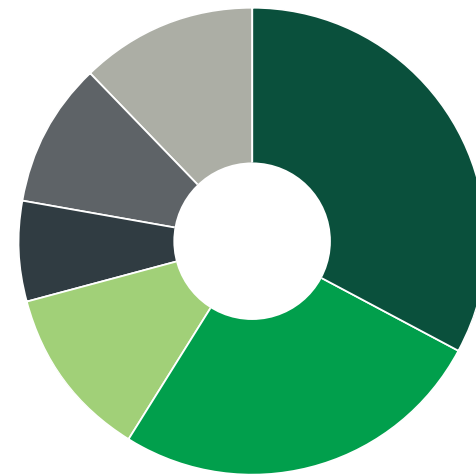
# €291 million

### EXPENDITURE



- 64% Staff costs
- 29% Operating costs
- 7% Equipment expenditure, including depreciation

### EXPENDITURE BY AREA OF ACTIVITY



- 33% Research
- 26% Scientific services
- 12% Scientific or technical support
- 7% Training and outreach
- 10% Administrative support
- 12% General support

# Reviews of EMBL units in 2021

Each year, international experts review EMBL's research and service units. Read the reviews and response from EMBL's Director General at the links below.



## EMBL-EBI Research



EMBL-EBI Research contributes to the advancement of biology through computational research related to human health, disease, and the environment.



## EMBL Grenoble



EMBL Grenoble scientists focus on fundamental research in structural molecular biology, and on developing state-of-the art instrumentation, methods, and services.



## Cell Biology and Biophysics Unit



Physicists, chemists, and biologists within the Cell Biology and Biophysics Unit work closely together to elucidate the fundamental rules that govern dynamic cell organisation and function.

## Imprint

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[www.embl.org/about/info/annual-report](http://www.embl.org/about/info/annual-report)

