

ANNUAL REPORT

FUTURE EARTH FRENCH HUB

2023



INTRODUCTION

Established in 2015 with the creation of the Future Earth programme, the French Hub is hosted by Sorbonne University in Paris, France, and receives funding from the MESR (French Ministry of Research and Education), CNRS (French National Centre for Scientific Research), IRD (French National Institute for Sustainable Development), ANR (French National Research Agency), and AllEnvi (French National Alliance for Environmental Research).

The French Hub leads Future Earth's Pathways Initiative, whose mission is to enhance researchers' capacity to engage in transformative research and to actively contribute to supporting societal actors by co-developing pathways for more sustainable futures at different scales.



Future Earth in a nutshell

Future Earth brings together researchers from all over the globe working across the natural and social sciences and the humanities. Future Earth initiates and supports international collaborations to generate and shares integrated knowledge supporting transformations towards more sustainable and equitable societies.

27 thematic Global Research Networks form the core of the Future Earth community.

The work of this community is supported by an international Secretariat composed of nine global hubs in Canada, China, France, India, Japan, Taipei, South Africa, Sweden, and the US.

The Pathways Initiative Steering Committee

- Ariane de Bremond, Global Land Programme (GLP)*, University of Maryland
- Cornelia Krug, bioDISCOVERY*, University of Zurich
- Flurina Schneider, Institute for Social-Ecological Research (ISOE), Goethe University of Frankfurt
- Odirilwe Selomane, Programme on Ecosystem Change and Society (PECS)*, University of Pretoria
- Mark Stafford-Smith, Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Davnah Urbach, Global Mountain Biodiversity Programme (GMBA)*, University of Bern

* Future Earth Global Research Networks

OUR OBJECTIVES

This report, structured around our four objectives, looks back on a particularly fruitful year for the French hub and our Pathways Initiative, with notably many networking and capacity development events, and the development of our grants in support of our community. All along 2023, we also engaged in new collaborations to advance our core objectives in 2024 and beyond (see *In the works* sections).

Create spaces for reflection and mutual learning

In a time where deep transformations are needed, spaces for critically examining our ways of producing and sharing knowledge are essential. They are key to better equip a community whose task is to contribute to address complex interdependent challenges characterised by a high level of uncertainty.

Support researchers engagement

Inter- and transdisciplinary research is complex and requires time, innovative funding schemes, and specific mixes of skills and expertise. Contributing to the necessary transformations of research and education institutions, and providing training opportunities for early career researchers is therefore fundamental.

Promote transformative inter- and transdisciplinary research

Transformative research is often rooted in new approaches and narratives, and applied to specific contexts. The resulting outcomes often suffer from a lack of visibility, in the scientific and public arenas. Promoting transformative research is critical to legitimising novel approaches and narratives.

Increase inclusivity and plurality

The capacity of sustainability science to tackle highly complex issues hinges on mobilising a plurality of perspectives, knowledge, and methodologies. Fostering a diverse community relies on embarking scholars from a wide range of disciplines, approaches, narratives, regions, and career stages.

SUSTAINABILITY SCIENCE AND (IN)ACTIONS: RETHINKING OUR PRACTICES

Second edition of our annual French Sustainability Science Conference, June 28-29, Marseille

Over two days, 130 participants explored together opportunities to shift towards more transformative research practices during sessions organised and led by our partners and their networks engaged in transformative research.

Engaging with society and supporting knowledge co-production for transformations, challenging dominant paradigms through narrative analyses, questioning the carbon footprint of research, and rethinking education to foster a new generation of actors and researchers working towards a desirable future, were some of the topics covered during the event.

Keynotes

Co-building Sustainable Cities in Africa - Two Cases of Urban Planning Projects in Togo: the "Grand Lomé" and Kpalime

Coffi Aholou, Director of CERVIDA-DOUNEDON (Regional Center of Excellence for Sustainable Cities in Africa), Lomé University

The Historian and the Planet: Integrating Tools and Concepts of Biophysical Sciences to Understand Societal Dynamics (and Vice-versa)

Christophe Bonneuil, CNRS, EHESS

The Role of Scientists and Universities in Transitions

Hendrik Davi, French Parliament representative

Living Well Within Limits: Is it Possible ? How?

Julia Steinberger, University of Lausanne



" This meeting of high scientific quality with frank and open discussions is a real treasure! Let's keep going "

Angela Barthes, Aix-Marseille University

Partners

- CNRS
- Aix-Marseille University
- IRD
- Labos 1point5
- MSER (Mouvement pour les Savoirs Engagés et Reliés)

Resources

- [Videos](#)

In the works

2024 edition

Learning How to Inhabit our Planet and its Limits

September 30 - October 2

In partnership with CNRS and IRD

PATHWAYS FORUM

An open webinar series aimed at developing critical reflections on sustainability science

The Pathways Initiative convenes an international and diverse community of researchers for discussions and mutual learning on a variety of sustainability science concepts, methods, and concrete cases.

The year showed a marked increase in engagement, indicating the establishment of the series as an increasingly well-identified space for critical reflections and learnings. This has also resulted in a wider diversity of disciplines, regions, and perspectives represented in the webinars.

Forums in 2023

Ecological Imagination: Building Transformative Pathways with Insights from the Humanities,

co-organised with the UNESCO-MOST BRIDGES Coalition

With Nathalie Blanc (CNRS), Jorge Marcone (Rutgers University), and Kenneth Nsah (University of Lille)

Different Ways to Walk a Pathway: Exploring Four Different Approaches

With Adrian Ely (University of Sussex), Nikki Frantzeskaki (Utrecht University), Sandra Lavorel (CNRS),

Bruno Locatelli (CIRAD), and Andreas Mayer (BOKU)

Communicating 'Messy Science': Capturing the Transformative Potential of Communication & Outreach in Transdisciplinary Work

With Ignacio Gianelli (University of Santiago de Compostela), Mélina Macouin (CNRS),

Juan Francisco Salazar (Western Sydney University), and Kiah Smith (University of Queensland)

Whose Sustainability? - Unpacking Decolonization in Sustainability Science

With Bagele Chilisa (University of Botswana), Lyla Mehta (Institute of Development Studies), and

Farhana Sultana (Syracuse University)

From Grassroots to Courtrooms: Litigation as a Vector for Transformations, co-organised with the UNESCO-MOST BRIDGES Coalition

With Kelly Matheson (OurChildrensTrust), Melanie Murcott (University of Cape Town), and

Joana Setzer (London School of Economics and Political Science)



998

webinar registrations

1,6K

recording views

Resources

- [Webinar recordings](#)

In the works

Topics for 2024 include:

- Social Metabolism: Concepts & concrete cases
- Integrating scientific and indigenous knowledge for charting sustainability pathways
- Ecofeminism and the politics of environmental conservation and care

2 SUSTAINABILITY SCIENCE FRAMINGS AND PRACTICES IN EUROPE: HOW DO WE LEVERAGE TRANSFORMATIVE RESEARCH?

Second edition of the Pathways Autumn School, October 15-20, Aussois, France

The 2023 edition of the Pathways Autumn School aimed to create a space for European early career researchers to learn and reflect on how to change their practices to make a greater contribution to societal transformations.

Throughout keynote presentations and workshop sessions, we discussed and learned from current and emerging practices and conceptual frameworks for transformative science. A Forum Theatre session performed by CotéAct further challenged the participants' reflection, and contributed to the diversity of approaches and perspectives shared and explored during this event.

"The School was another way of conceiving community. (...) It was so good to be in such a space to connect and respect and construct from difference"

Gonzalo Cortés Capano, Postdoctoral researcher at the University of Jyväskylä, Finland



Organising committee

- Nathalie Blanc, CNRS
- Wolfgang Cramer, CNRS
- Rebecca Fenn, CNRS, Future Earth
- Helmut Haberl, BOKU
- Pavel Kambersky, CNRS, Future Earth
- Jacqueline Loos, Leuphana University
- Victoria Reyes-García, ICTA-UAB
- Sandrine Paillard, CNRS, Future Earth
- Alban Thomas, INRAE

Partners

- BOKU (University of Natural Resources and Life Sciences, Vienna)
- ICTA-UAB (Institute of Environmental Science and Technology, Barcelona)
- Leuphana University, Lüneburg
- Swiss Future Earth National Committee
- German Future Earth National Committee
- French Future Earth National Committee (CNFCG)
- ALLEnvi (French National Alliance for Environmental Research)

Resources

- [Videos](#)
- [Insights](#)

In the works

2024 edition

November 24-29

Call for Applications opening in early spring 2024

53 participants

29 early career researchers

13 European countries

PLACE-BASED SCENARIOS AND TRANSITION PATHWAYS: EXPLORING MODES OF TRANSDISCIPLINARY RESEARCH

A workshop co-organised with FRB (French Research Foundation for Biodiversity), June 8, Paris



This full-day hybrid event took place on June 8. It aimed to foster and facilitate transdisciplinary collaborations among the French research community in response to the announcement of the FRB Scenario #2 research programme *Vivre « bien » en 2050 dans son territoire*.

In total, 50 on-site participants from different disciplines, research expertise, and institutions met and shared experiences and ideas over the course of the event. This resulted in 13 proposal submissions for the Scenario #2 programme.

Guest speakers

Sandra Lavorel (CNRS), Olivier Massicot (Territory Lab) – Transdisciplinarity
 Sandrine Petit-Michaut (INRAE) – Modelling
 Pierre Scemama (Ifremer) – Mind Mapping
 Deplhine Zigoni (freelance scientific illustrator) – Art & Storytelling

Resources

- [Scenario #2 programme](#) (in French)

SUPPORTING TRANSDISCIPLINARY NETWORKS FOR THE CO-DEVELOPMENT OF SUSTAINABILITY PATHWAYS

End-term meeting of the Belmont Forum Pathways 2020 Collaborative Research Action

Born from the collaboration of Future Earth and the Belmont Forum, [Pathways 2020](#) was designed as a 2-year networking programme on the theme of Transdisciplinary Research for Pathways to Sustainability.



The Pathways Initiative was involved in supporting the coordination of the programme, and co-facilitated the end-term event organised as part of the *2023 Sustainability Research and Innovation (SRI) congress*.

Further supporting the structuring of the networks, the call for the Pathways Postdoctoral Grant programme (see p. 7) particularly targeted researchers who had been involved in the Belmont Forum [Pathways 2020](#) and/or [Transformations 2 Sustainability 2016](#).

THREE PROJECTS ADVANCING PATHWAYS RESEARCH ON THE GROUND

Pathways Postdoctoral Grant Programme

The Pathways Postdoctoral Grants Programme aims to encourage inter- and/or transdisciplinary collaboration within and beyond the Future Earth community, further pathways research on the ground in diverse contexts, and support early career researchers interested in working on transformative change.

The call for projects was launched in June 2022 and three projects were selected by the scientific evaluation committee. The three postdoctoral candidates began working on their 24-month pathways project in December.

Pathways to Groundwater Sustainability (PilGRimS), Carolina Dominguez Guzman, IHE

Building on the Belmont Forum Transformations 2 Sustainability (T2S) funded project, PilGRimS focuses on three empirical case studies (Peru, Algeria, and India) to produce methodological tools that will enable different types of knowers, ways of knowing, and versions of groundwater to co-exist rather than conflict with or supersede one another.

Identifying Leverage Points to Foster Pathways Towards Sustainable Coasts, Willem Malherbe, IRD

Expanding on research from PACPATH, a Belmont Forum Pathways funded project, three concepts (Leverage points, Chains of Leverage, and the Future Earth Coast Framework of Circles of Coastal Sustainability) are combined to explore sustainable adaptation pathways in new and creative ways, focusing on New Caledonia and Fiji.

Co-producing a Spatial Toolkit to Navigate Pathways to Sustainable Land Systems in Mexico, Alma Mendoza, INECOL

The characterisation of socio-ecological land systems using a spatial toolkit that is co-developed by local stakeholders and experts aims to allow users to explore potential pathways shaping land system interactions and identify leverage points for system change and transformation.

SRI CONGRESS

The French Hub supported participation of three early career researchers

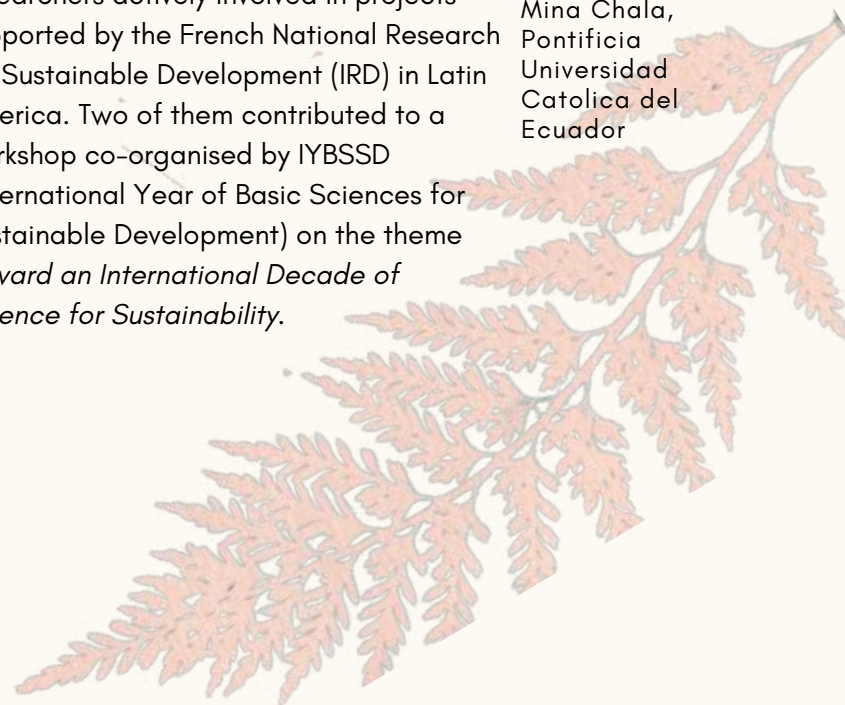
The Sustainability Research and Innovation (SRI) congress series was established as a collaboration between Future Earth and the Belmont Forum in 2020. Its third convening was held in Panama on 26-30 June 2023 and hosted by the National Secretariat of Science, Technology and Innovation of the Republic of Panama (SENACYT) and the Inter-American Institute for Global Change Research (IAI).

This year, the French Hub funded the on-site participation of three early career researchers actively involved in projects supported by the French National Research for Sustainable Development (IRD) in Latin America. Two of them contributed to a workshop co-organised by IYBSSD (International Year of Basic Sciences for Sustainable Development) on the theme *Toward an International Decade of Science for Sustainability*.

Cristina Caparros,
Andres Bello
University,
Santiago de Chile

Danilo Kluyber,
Instituto de
conservacao de
Animais Silvestres,
Panama

Diego Fernando
Mina Chala,
Pontificia
Universidad
Catolica del
Ecuador





IN THE WORKS

A Pathways Fellowship programme supporting early career researchers in French-speaking Sub-saharan African countries

Building on the materials we have developed in the course of the past years, we wish to support early career researchers in French-speaking Sub-saharan African countries to engage in inter- and transdisciplinary research for sustainability. The scoping phase consists in a series of interviews with local researchers to co-design the programme's objectives and format. The scoping and preparatory phase will continue in 2024 with the goal to launch the programme in 2025.

TRANSFORM Exploratory Priority Research Programme

The French Hub took part, as a partner, in a proposal to the exploratory Priority Research Programmes and Equipment (PEPR) call funded by the French State. Exploratory PEPRs support research on emerging transformations through funding up to 10 years programmes which will pave the way for scientific strategies in areas of national and European interests. The TRANSFORM proposal led by CNRS and IRD was awarded by an international selection panel and will be kicked-off in 2024.

TRANSFORM aims to contribute through transformative research to the reversal of current trends that are degrading the living conditions for all living beings on Earth. To do so, TRANSFORM will advance the understanding of the biophysical and social conditions of habitability, strengthen the co-construction of place-based knowledge between science and society for repair options and desirable futures.

THE LEARNING AND KNOWLEDGE NEEDED, SEEN FROM THE FUTURE

A session at the Learning Planet Festival 2023

In partnership with UNESCO–MOST BRIDGES Coalition, the Earth Politics Centre (Paris Cité University), and the European Centre of Excellence on Sustainability (Clermont Auvergne University – CNRS), we organised an online session at the Learning Planet Festival in January. This festival, organised annually by the Learning Planet Institute, gathers a diversity of participants interested and engaged in education and learning.

In our session, The Learning and Knowledge Needed, Seen from the Future, participants of all ages and diverse backgrounds, and from various continents were invited to imagine living in a desirable world in 2050 and to reflect on the knowledge and learning processes that would make the transition towards this desirable world possible.



SUPPORTING THE FUTURE EARTH COMMUNITY IN GLOBAL SCIENCE–POLICY PROCESSES

Future Earth engages with various international science–policy processes to ensure a clear dialogue from and to our community as an accredited observer with: IPCC (Intergovernmental Panel on Climate Change), UNFCCC (United Nations Framework Convention on Climate Change), UNEP (United Nations Environment Programme), IPBES (Intergovernmental Platform on Biodiversity and Ecosystem Services), CBD (Convention on Biological Diversity), and GEO (Group on Earth Observations).

The French hub leads the coordination of science–policy activities across hubs and is the focal point for IPCC, UNFCCC, CBD and IPBES, allowing us to nominate experts from various Future Earth Global Research Networks to contribute to shaping global environmental policy. In 2023, we sent delegations to UNFCCC COP28, the Bonn Climate Conference, IPBES10, and the UN Water Conference, and nominated over 30 experts to participate in key science policy opportunities including: IPBES Task Forces and scoping workshops, IPCC scoping workshops for the Special Report on Climate Change and Cities, and CBD workshops on ecosystem restoration and the sustainable ocean initiative.

Resources

- [Science–Policy webpage](#)
- [Blog post “Future Earth Bringing Science Front and Center at COP28 in Dubai”](#)
- [Blog post “Bonn Climate Conference: Reflections by Future Earth Delegates”](#)
- [Blog post “Future Earth at IPBES 10: Assessing Invasive Alien Species”](#)
- [Blog post “Indigenous Inclusion in Science–Policy: More than Just a Seat at the Table”](#)



LEVERAGING THE TRANSFORMATIVE POTENTIAL OF COMMUNICATION AND OUTREACH IN TRANSDISCIPLINARY RESEARCH

Pathways Communication Grants

First launched in 2021, the Pathways Communication Grants support, with up to €10k, the development of innovative communication formats and practices as a tool to engage different societal actors in place-based research on pathways for sustainability.

Bioleft: open-source seeds, Almendra Cremaschi, Research Center for Transformation (CENIT), National University of San Martin, Argentina

A podcast series, an online community visualisation tool, and an open-access participatory breeding handbook, share experiences, visions, knowledge, and struggles related to seed access from different perspectives and contribute to building more diverse narratives on sustainable seed systems by highlighting voices from marginalised communities.

Inspire and embark!, Claire Dutrait, Interdisciplinary Center for Literature Studies (CIELAM), Aix-Marseille University, France

A tiny pop-up museum showcased testimonies from local communities through podcasts, drawings, photographs, objects and maps to reveal the multiplicity of perspectives on the territory, using vegetation as a narrative thread.

Transformation of coffee landscapes, Martha Bonilla Moheno, Institute of Ecology (Inecol), Mexico

A participatory serious board game, digital brochure and video were used as a learning tool to encourage discussion and reflection with local stakeholders on the practices and values which could be fostered to collaboratively produce new scenarios of sustainability for the coffee sector and the region.



Resources

- [Communication Grants Project Showcase](#)

IN THE WORKS

New Projects

Six new projects were awarded in 2023 and will begin working on developing their communication products to be launched in 2024.

The next funding call will open on 1 June 2024 and the call for proposals will close on 1 September 2024

International research collaborations to address global sustainability challenges is the *raison d'être* of Future Earth. While researchers from all regions are welcome to engage in our activities, our Hub puts a particular emphasis on supporting the European, Latin American and African research communities, and researchers from French-speaking countries.

As we want to see a growing community of practitioners engaged in transformative research, most of our activities prioritise the participation of early career researchers.

Finally, through all of our activities, we seek to embark researchers from the social sciences and the humanities, whose visibility in sustainability science is currently too limited, with the intention to foster wide interdisciplinary collaborations with natural scientists.

Highlights of our actions in 2023 include:

Supporting researchers from low and middle income countries

- Travel support to scientific events
- Priority group for our grants

Encouraging early career researchers to engage in our activities

- Dedicated early career researcher sessions in our events
- Travel support to scientific events
- Priority group for our grants

Promoting perspectives from the Humanities

- Highlighting perspectives from the Humanities at our events
- Recurring collaborations with [UNESCO-MOST BRIDGES coalition](#), a network on Humanities-driven sustainability science

Exploring the intersection between the arts and sustainability

- Collaborating with performing artists in our events
- Working with artists on visuals for our events & website



MINIMISING OUR ENVIRONMENTAL IMPACT

Throughout our activities, we aim to practice what we preach and minimise our environmental impact. This principle is an integral part of how we design our activities and arbitrate between projects.

Transport

Ground transportation was prioritised and incentivised for our events (e.g. first class tickets offered for trips over 6 hours). Team members travelled exclusively by train, and a limited number of flights were taken for participants only when ground transport was not an option (7 out of 44 international journeys were by air).

Food

Our events followed a “reduce, reuse, recycle” policy. Meals were vegetarian only. Participants were encouraged to bring their own water bottles. Caterers were asked to provide reusable dishware or recyclable containers, and to reduce and/or reuse leftovers and/or distribute them through local associations.



CONNECTING AN INTERNATIONAL COMMUNITY OF SUSTAINABILITY SCIENTISTS

The French Hub regularly shares news, events and opportunities to and from the Pathways community through the Pathways Initiative’s website, newsletter, YouTube channel, and Mastodon and LinkedIn accounts. In 2023, we began developing a new website to better engage with the community, which will be launched in early 2024.

Pathways Website

<https://pathways.futureearth.org/>

Pathways YouTube Channel

www.youtube.com/@FE_Pathways

Pathways Newsletter

[Subscribe to the Pathways Newsletter](#)

The Pathways Initiative on Social media

 @Pathways_Initiative@fediscience.org

 <https://www.linkedin.com/company/the-pathways-initiative/>



FRENCH HUB TEAM



Viola Baldeschi
Intern



Natalie Chong
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Claire Fréour
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Coline Grimée
Science Officer



Pavel Kambersky
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Gilles Marciniak
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Stephanie O'Toole
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Sandrine Paillard
Hub Director

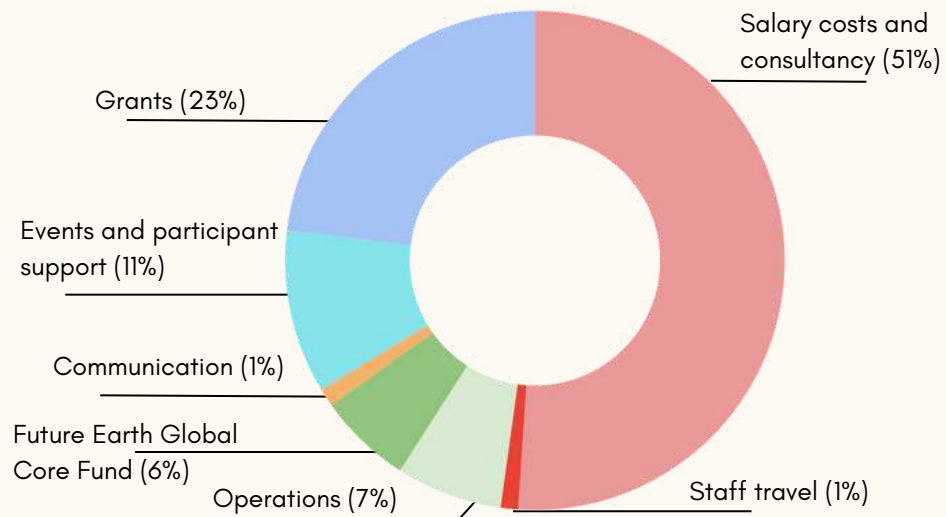
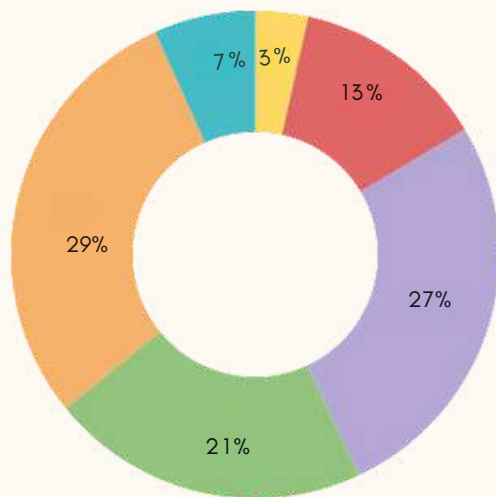


Isabella Pellegrino
Hub Coordinator



REVENUES AND EXPENSES

- French National Research Agency
- French National Research Alliance for the Environment
- French National Centre for Scientific Research
- French National Research Institute for Sustainable Development
- Ministry of Research and Higher Education
- Sorbonne University



THE FRENCH HUB IS SUPPORTED BY



A word from the artist :

Here we are, at crossroads, surrounded by different communities. Everywhere we look we find life. We climb and stumble and run into surprise. Big meets small meets fast meets slow, mushroom and snail, high and low. So many ways of making connections, of stepping beyond the known, the usual hierarchies.

Suus Agnes



Suus Agnes created the art that illustrates this report. To find out more about her work: <https://www.suusagnes.com>