

# EUROPEAN RESEARCH INFRASTRUCTURE FOR ANALYSIS AND EXPERIMENTATION ON ECOSYSTEMS



## Newsletter 3

### ISSUE THREE

Dear Reader,

AnaEE continues to move forward! On 22 May, we marked a new key milestone in meeting with ministerial and national funding officials from many key European countries in Helsinki at our Legal, Governance and Funding Advisory Group (LGF-AG) meeting, organised by our Finnish partners, the University of Helsinki.

This meeting was an opportunity to present a number of key documents that we have been working on: our draft funding plan, our initial thoughts on interim and permanent legal entities, and - perhaps most importantly - our recently launched Call for Expression of Interest.

This Call is organised by AnaEE and was launched on 30 June 2014 via

previously appointed National Focal Points (NFPs) who will serve as liaisons between AnaEE's Project Office and Coordinator on one side, national ministries, and scientific communities in their respective countries.

The Call aims to ask the entire ecosystems-related scientific community to express interest in proposing existing or future platforms that could be part of AnaEE's European infrastructure, either in their current form or following upgrade.

The Call will allow AnaEE and its NFPs to identify which potential platforms are out there, and subsequently work with funding bodies to ascertain what funding possibilities exist to ensure they can operate at the highest possible level in the long term.

This call is essential to making AnaEE a success.

AnaEE is also working on a number of other key initiatives - read our newsletter to find out more!

Kind regards,

*Abad Chabbi*

AnaEE Coordinator



AnaEE NEWSLETTER

AnaEE NL 3 | July 2014 | [www.anaee.com](http://www.anaee.com) | 1

## COMMENT FROM ANAEE

### OUR CALL FOR EXPRESSION OF INTEREST: BUILDING ANAEE

Dr. Abad Chabbi, Coordinator, and Evan O'Connell,  
Communication/Lobbying Officer



The building blocks of AnaEE already exist - we have a preparatory phase consortium bringing together partners from 10 countries (both within and outside the European Union!) and a number of key policies and documents already developed and under development.

However, as a distributed European infrastructure based on experimental platforms, we obviously still need to actually define which platforms are part of AnaEE, how they are selected, and how they will work together.

Much of this work builds on an existing project, ExpeER (Distributed Infrastructure for Experimentation in Ecosystem Research) which aimed to build ties between existing platforms and foster transnational access. Many platforms have already been identified by ExpeER and will no doubt be part of AnaEE!

However, our goal is to build a world-class research infrastructure based on state-of-the-art platforms selected through strict criteria, ensuring that a level of quality, minimum measurements and tools is respected across

Europe, while also aiming to build north-south and east-west transects to study the effects of global changes on a variety of ecosystem types in different climates and conditions.

Our Call for Expression of Interest aims to identify those platforms. Launched on 30 June 2014, it sets out a strict list of criteria for four types of platforms: *in natura*, *in vitro* (including ecotrons), *analytical* and *modelling*. Institutes, universities and other site managers/platform owners who believe that they either have existing platforms that fit the criteria, platforms that could be upgraded to comply, or projects for new platforms are welcome to respond by contacting our National Focal Points (NFPs) to begin preparing a response to the Call.

As responses begin to come in, helped by the guidance of our NFPs, we will also be in contact with all relevant national funding bodies and ministries to ensure that we understand existing and future revenue streams that could finance the upgrade, construction and operation of these platforms in a sustainable way over a long period of time.

This will lead to the drawing up of a preliminary list of platforms in a non-binding letter of intent, to be studied by AnaEE's Steering Committee.

Thereafter, we will work with all relevant countries to ensure we establish a firm and realistic list of platforms, reconciling both our desire to cover the widest range of ecosystem types possible (and be as inclusive as possible) and simultaneously achieve a high level of quality.

Our aim is to bring together the best possible facilities across Europe - east, west, north, south, natural, managed, and everything in between. To do that, we need to talk to you, our stakeholders, and make sure that we build something that works for the entire scientific community. We therefore welcome your feedback and hope to hear from you as this goes forward.

#### NEWS *Denmark*

The Danish Ministry of Science has granted 6 million Danish kroner for a Danish consortium on biodiversity and environment data.

This will be used to create a consortium that aims to optimise the use of national data in European infrastructures, such as ICOS, LifeWatch, AnaEE and GBIF.

The consortium will be led by Aarhus University. AnaEE Denmark has been contacted for input on the proposal. Negotiations will be ongoing until September 2014.

## INTERNATIONAL FOCUS

### AUSTRALIA: COMMITTED TO BUILDING QUALITY RESEARCH INFRASTRUCTURES ABLE TO COMPETE GLOBALLY

*Ditta Zizi, Branch Manager, Research and Higher Education Infrastructure, Department of Education, Australian Government*

***Australia punches far above its weight when it comes to large scale research infrastructures. What are some of your biggest success stories?***

Given that the Australian Government introduced the National Collaborative Research Infrastructure Strategy (NCRIS) only in 2004, it can give the impression that success has been achieved in a relatively short time frame. However our ability to punch above our weight would not have been possible without a strong research infrastructure base, all be it at the institutional level. We have also been fortunate to be able to draw on the experiences of international colleagues. NCRIS generated the impetus to work nationally and collaboratively to maximise scarce resources to enhance and in some cases establish significant research infrastructure with national impact.

The ability to create critical mass in national research infrastructure has resulted in a highly effective network of multi-disciplinary research infrastructures providing services to over 30,000 researchers, representing around one third of total researchers in Australia.

An excellent example of the success of NCRIS is the Integrated Marine Observing System (IMOS). This is a marine research monitoring facility that extends

from the Antarctic Ice Shelf to the tropical regions of Northern Australia. It does so by providing an extensive network of highly specialised marine monitoring equipment across the Southern, Indian and Pacific Oceans, and the Antarctic Shelf. IMOS has provided Australia with a step-change in its marine observing and data management capability over the last decade. By giving priority to integrated marine observing at the national level, IMOS have attracted significant collaboration from the world's most scientifically advanced nations, and established a leadership position in our region.

***Australia's federal system must make coordination and funding tricky. How do you overcome this - and what can Europe learn from you?***

The relationship between the Federal and State governments has been of great benefit to NCRIS.

One of the important principles of NCRIS is that major research infrastructure is not allocated to a single research institution on a competitive basis, but to a collaboration or consortium of universities and research institutions. Under this model, capabilities were located where existing expertise and facilities could be developed or created to a national scale and networked. This has successfully attracted co-funding not only from universities and research institutions but also

#### NEWS *Israel*

Israel's scientific community is working hard to build AnaEE Israel. Thanks to the efforts of Prof. Moshe Sachak (Israeli Focal Point) and Shayli Dor-Haim (AnaEE Israel coordinator), an AnaEE Israel committee has now been formed bringing together scientists from Ben Gurion University and also the Jewish National Fund.

In the next few weeks the AnaEE Israel committee will discuss how the infrastructure will be build along with the Ministry of Science and the Israeli Academy of Sciences.

Ben Gurion University is already an enthusiastic participant in ExpeER, the project that paved the way for AnaEE.

#### NEWS *Finland*

The University of Helsinki, a key AnaEE partner and leader of the Finance and Human Resources Work Package, had a fruitful meeting with AnaEE Finland scientific stakeholders and funding agencies on 9 May 2014 where the current status of the AnaEE vision, the draft of the forthcoming call and other topical issues about the research infrastructure landscape in Europe were presented and discussed.

Participants agreed to frequent (monthly) meetings for updates on progress and responding to the Call as soon as it is released.

The proposal submitted to Nordforsk for organizing networking activities among Nordic nodes of Earth sciences research infrastructures is still pending.

*(Cont'd on page 4)*

## INTERNATIONAL FOCUS

*(Cont'd from page 3)*

from State and Territory governments. The important role for the Federal Government is to provide the seed funding to attract commitment and co-investment.

The fact that the research community is keen to work together, sharing research infrastructure so that it had maximum use by those researchers doing the highest quality of work, whatever research institution they come from, is the strength of NCRIS.

### ***What is the level of cooperation between Australian infrastructures and their counterparts elsewhere?***

The NCRIS program has provided Australia with a platform to participate in international networks and collaborations. Working with our European colleagues and over the last three years had led to a series of workshops bringing together research infrastructure managers and experts. We have discovered that we have a shared approach to investing and prioritising research infrastructure through NCRIS and the EU's European Strategy Forum on Research Infrastructure.

### ***What do you believe needs to be done to build closer ties?***

From Australia's perspective taking a collaborative approach is an important aspect of international cooperation in research infrastructures. And of course there must be trust between the parties, a shared understanding of the goals and acknowledgement that there are differences in national cultures to be respected and accommodated.

All of this takes time and commitment on behalf of all

parties. One workshop or one international conference is no substitute for sustained and repeated effort required to develop international relations in research infrastructures.

### ***Regarding ecosystems in particular, Australia's TERN is a fantastic example. How can Europe learn from its success?***

Terrestrial Ecosystem Research Network (TERN) provides open access to data and tools (modelling, visualisation, integration and synthesis) to the terrestrial research community and public policy makers with a distinctly Australian perspective. In a relatively short period of time, TERN has delivered a suite of national capabilities supporting innovative approaches to environmental research and related data collection.

Through TERN, collaboration with the National Ecological Observatory Network to build a global data picture of ecosystems has been possible. Much of the strength of TERN is that it has been developed in conjunction with the community it services, it has a clear mandate and understands its stakeholder base. It consults with its users on the services provided and has a structure in place to support its objectives. It has limited resources so it must maximise its impact by ensuring it is valued by its client base and has the ability to respond to the needs of the research community. In the end it is all to do with sound, workable governance that everyone understands and accepts.

## NEWS *Norway*

One of our two Norwegian partners, BioForsk, has been very active in promoting the development of AnaEE. Bioforsk's Helen French is the Norwegian National Focal Point, while Daniel Rasse sits on the AnaEE Steering Committee.

Rasse recently gave an interview on AnaEE which you can find online, here: [http://www.bioforsk.no/ikbViewer/page/forside/nyhet?p\\_document\\_id=109840&p\\_dimension\\_id=15077](http://www.bioforsk.no/ikbViewer/page/forside/nyhet?p_document_id=109840&p_dimension_id=15077)

In it, Rasse underlined that one of the key motivations behind AnaEE is to open up for data sharing within ecosystem research across Europe. To achieve this, the researchers are now mapping out the existing capacity, looking at tools to do more with the current data, as well as mapping the potential components (field stations, laboratory facilities etc.) for optimizing scientific output at the EU level.

"We are looking at what kind of systems need to be implemented, so that we can do more with the data. These systems must be able to compute large amounts of data on a European level," said Rasse.

"But if we want to build new infrastructure, we first need to identify the holes in the current models and lab systems. Basically, we are looking at what is missing and what we need," he explained.

## NEWS *Italy*

Fondazione Edmund Mach, with the support of BBSRC and University of Antwerp, is sponsoring a Multi Criteria Decision Analysis project conducted with the supervision of the Decision Science Group at the London School of Economics. The aim is to provide AnaEE with a decision modelling framework to support the decision-making process for designating platforms within AnaEE and analysing the responses to the Call.

The project is co-supervised by Professor Larry Phillips, Emeritus Teacher within the Management Science Group and Director of the Decision Capability Group. He specialises in helping decision makers to analyse complex issues involving uncertainty, risk, and multiple, conflicting objectives. He often works with groups of key players using a problem-solving process called decision conferencing.



## BUILDING AnaEE – ONGOING PROGRESS

### 3RD AnaEE LEGAL, GOVERNANCE AND FUNDING ADVISORY (LGF-AG) GROUP MEETING: HELSINKI, 22 MAY 2014

The AnaEE consortium met with key funding bodies and other stakeholder groups in May in Helsinki to discuss a range of important issues. These included the Call for Expression of Interest (mentioned on page 2 of this newsletter) but also key issues around funding and future legal structures.

AnaEE's work packages dealing with legal, governance and funding issues are led by Britain's BBSRC and Finland's University of Helsinki.

Together, and with input from other consortium members, they produced an ambitious but reasonable draft funding plan

looking at the human and material resources AnaEE will need and how these can be funded in the construction and implementation phases.

Issues included the number and salaries of personnel, ways to calculate national contributions for central services and administration, and how much 'host countries' should contribute to the operation of AnaEE's future service centres and central hub.

These discussions were merely the beginning of a long process, but we believe that it was vital to get input from countries across Europe on how they see AnaEE evolving.

We also discussed how AnaEE should be governed in both the medium- and the long term, looking at various possibilities of legal entities and binding/non-binding agreements.

We will be continuing these conversations in the coming months with all relevant national authorities to ensure that AnaEE can operate in an effective, responsive and sustainable way not only during its preparatory phase, but also beyond this, as it becomes a fully functioning European research infrastructure.

We hope to have your input.

### AnaEE INTELLECTUAL PROPERTY AND DATA WORKSHOP: HELSINKI, 23 MAY 2014

AnaEE's LGF-AG meeting was followed by a workshop the next day on intellectual property and data issues, bringing together all relevant consortium members but also external invitees from universities, research bodies and funding agencies of several European countries.

All attendees recognised the crucial importance of 'getting data right' and ensuring the right balance was struck between open access and valuing intellectual property. There was a shared understanding that a flexible and hybrid approach would be necessary.

This workshop looked at some of the most important issues around intellectual property and data, taking a comparative approach and

studying what has been done elsewhere in Europe and around the world.

The workshop was a chance to look at the Data Management and Sharing statement of the cluster of research infrastructures in health and food, BioMedBridges, and how it could help guide AnaEE's own drafting of Intellectual Property Policies and/or Guidelines.

This statement recommends data sharing and reuse where possible, and supports open data, while recognising that sharing must be limited in some circumstances and giving greater recognition to the management of data.

Attendees also looked at the data and intellectual properties of a wide range of related

infrastructures, including SCAR, TERENO, NEON, SAON, ICOS and TERN. There was a shared understanding that while many elements could certainly be useful to AnaEE, there were also specific ecosystem-related issues that would require a customised approach to data when AnaEE is fully operational.

The work undertaken, including the discussion of a framework document drafted by our partner Rothamsted Research in the UK, will continue within AnaEE's devoted data work package and will lead to the drafting of a more finalised document on data and IP. This will be presented to internal and external stakeholders at a later stage.

## UPCOMING DEVELOPMENTS AND WHAT TO EXPECT FROM ANAEE

### ANAEE ANNUAL MEETING, ANTWERP, 13-15 OCT 2014

The 2nd AnaEE annual meeting will be held on 13-15 October 2014 at the University of Antwerp. Please save the date in your calendar. More detailed information will be sent to relevant parties later.

This will also include a **Stakeholder Meeting** on 14 October 2014. This meeting will bring together scientists and policy-makers to discuss how to build world-class research infrastructures for the 21st century. Please contact us for more information.

### INTERNATIONAL TERENO-CONFERENCE, BONN, 29 SEP-2 OCT 2014

Abad Chabbi is invited as keynote speaker at the International TERENO-Conference in Bonn, from 29 September to 2 October 2014 (see more: [http://www.tereno-conference2014.de/tereno-conference/EN/Home/home\\_node.html](http://www.tereno-conference2014.de/tereno-conference/EN/Home/home_node.html)).

Dr. Chabbi will be discussing efforts made to establish infrastructures and networks for ecosystem research, focusing on 'Complementary tools for observation and experimentation on the critical zone'.

### INTERNATIONAL CONFERENCE ON EXPERIMENTATION IN ECOSYSTEM RESEARCH, PARIS, 24-25 SEP 2014

ExpeER (Experimentation in Ecosystem Research) forms the building blocks of the AnaEE distributed infrastructure by federating and structuring key existing experimental (and observational) infrastructures in ecosystem research in Europe.

ExpeER will be organising an International Conference on Experimentation in Ecosystem Research in a Changing World, taking place at the National Museum of Natural History (at the auditorium de la Grande Galerie de l'Evolution, 36 rue Geoffroy Saint-Hilaire) in Paris on 24-25 September 2014.

This conference will focus on the following topics, with high-level keynote speakers:

- **GRAND CHALLENGES:** With the current set of Experimental Research infrastructures in ecosystem science, do we have the capacity to tackle the grand challenges of today and tomorrow?
- **IN VITRO AND IN NATURA:** How realistic are they, and how they can be better linked?
- **TECHNOLOGIES:** Which emerging technologies could enhance (or are needed for) the performance and services offered by our RIs?
- **DATA:** Towards an e-infrastructure for ecosystem research - challenges and opportunities.
- **MODELLING:** How accurate is our capacity to forecast and upscale, and what is missing? How can we communicate uncertainty? How do we strike the right balance between modelling and experiments?

Find out more on our website (<https://colloque6.inra.fr/expeer-conference>)!

## NEWS UK

**UK Capital Consultation:** On 1st May 2014 the Department for Business Innovation and Skills published a UK Capital Consultation. The consultation states that responses will inform a Science Capital Roadmap which will be published in autumn 2014 as part of a UK Science and Innovation Strategy. The response of the UK agro-environmental scientific community to the consultation is critical, and will inform the results in the autumn.

*In the past few months, BBSRC have established a number of collaborative activities in the agri-environmental field with the Natural Environment Research Council (NERC). Some recent highlights include:*

**Call on Soils and Rhizosphere Interactions for Agri-Ecosystems:** Developed through the Global Food Security Programme, this £4.5m call has been funded by BBSRC and NERC and supports a small number of multidisciplinary partnerships, involving a range of bioscience and environmental science expertise for up to five years.

**Sustainable Intensification:** BBSRC have been working jointly with NERC, Defra and other relevant UK stakeholders around Sustainable Intensification. There have been a series of SI Working Group meetings in order to bring funders, policy makers and scientists together as well as a targeted workshop to bring together major players in the UK Sustainable Agriculture research community who has substantial infrastructure and resources.

**The Sustainable Agriculture Research and Innovation Club (SARIC):** SARIC is a joint BBSRC and NERC initiative to support innovative projects that will provide solutions to key challenges affecting the efficiency, productivity and sustainability of the UK crop and livestock sectors. Approximately £10M of funding is available through the 5-year partnership between BBSRC, NERC and a consortium of leading companies to address two key challenges identified by industry.

**Integration of agri-ecosystems data:** Following on from the May 2013 workshop, advanced discussions are taking place to develop a joint pilot project in this area between Rothamsted Research and the Centre for Ecology and Hydrology (subject to joint funding from BBSRC and NERC).

## LEARN MORE ABOUT THE AnaEE CALL

We hope that our editorial (page two) was of use in explaining how our Call for Expression of Interest will work and what we aim to achieve.

However, given the scope and complexity of such an exercise, and the need to ensure that all stakeholders are consulted as early as possible, we do encourage you to contact us to learn more.

We would be happy to send you additional documentation on the Call for Expression of Interest, ranging from the criteria from individual platforms to more extensive background information on AnaEE's preparatory phase, AnaEE's vision (also available online) and the current state of play in our work on defining centralised services and how they are funded and staffed.

Our aim is to build an infrastructure that is as inclusive as it is state-of-the art. As a research infrastructure, our primary goal is of course to foster and fuel *excellent science*.

However, we also want to make sure that AnaEE can help all interested European governments meet their other strategic goals in terms of societal and environmental challenges such as sustainable agriculture, biodiversity, climate change and building a 21st-century bioeconomy.

We believe that in this, we can also interest private sector stakeholders, from multinationals to small businesses, as well as civil society groups and NGOs.

This is why we hope that you play an active part as a key stakeholder in exchanging with us on how you see AnaEE evolving in the coming years. Your input is essential in making AnaEE a success.

FOR MORE  
INFORMATION  
ON AnaEE

**PLEASE CONTACT:**

*Evan O'Connell*

AnaEE Communication/Lobbying Officer

[communication@anaee.com](mailto:communication@anaee.com)

+33 6 03 34 23 79

[www.anaee.com](http://www.anaee.com)

*This newsletter was drafted by Evan O'Connell and Abad Chabbi (INRA).*

*External content was provided by Ditta Zizi (Branch Manager, Research and Higher Education Branch, Department of Education, Australian Government)*

ESFRI



AnaEE NEWSLETTER

AnaEE NL 3 | July 2014 | [www.anaee.com](http://www.anaee.com) | 7

## TABLE OF CONTENTS

COMMENT FROM ANAEE *by Abad Chabbi and Evan O'Connell*: OUR  
CALL FOR EXPRESSION OF INTEREST: BUILDING ANAEE 2

INTERNATIONAL FOCUS *by Ditta Zizi*: AUSTRALIA: COMMITTED TO  
BUILDING QUALITY RESEARCH INFRASTRUCTURES ABLE TO COMPETE  
GLOBALLY 3

BUILDING ANAEE: ONGOING PROGRESS 5  
• 3RD AnaEE LEGAL, GOVERNANCE AND FUNDING ADVISORY (LGF-AG)  
GROUP MEETING: HELSINKI, 22 MAY 2014  
• AnaEE INTELLECTUAL PROPERTY AND DATA WORKSHOP: HELSINKI, 23  
MAY 2014

UPCOMING DEVELOPMENTS AND WHAT TO EXPECT FROM AnaEE 6

LEARN MORE ABOUT THE AnaEE CALL 7

### NATIONAL NEWS

- DENMARK 2
- ISRAEL 3
- FINLAND 3
- NORWAY 4
- ITALY 4
- UK 6