

EUROPEAN RESEARCH INFRASTRUCTURE FOR ANALYSIS AND EXPERIMENTATION ON ECOSYSTEMS



Newsletter 11

ISSUE ELEVEN

Dear Reader,

As the year ends, our work on the future structure of the AnaEE infrastructure is peaking, with several major projects going on in parallel and much eagerness from all sides.

First, we are going forward on the AnaEE platforms selection process, having entered the final analysis phase after several rounds of discussion with the AnaEE national focal points and the site owners, with an expected outcome at the beginning of 2016. Given the success of the call for expression of interest, the possibility for late-comers to submit an application to AnaEE, and the sheer diversity of the respondents, the process was quite extensive. We are confident that the AnaEE platforms will truly reflect the state of the art in Europe and provide excellent science as the basis of our infrastructure.

The future governance and funding model of AnaEE has also been much

under discussion lately. At the last general assembly for Legal, Governance and Funding aspects, which took place in London on November 10th, 2015, we had fruitful discussions on the future structures for both the pre-operational phase, starting next spring, and the operational phase, once AnaEE has been built. While a few residual issues remain, the bulk of the structure has gotten much clearer.

On the same theme, we also moved forward with the functional descriptions of the future AnaEE hub and supranational centers. And the AnaEE business plan is coming along nicely. It is an exciting time, to have our infrastructure taking shape in front of our eyes.

As always, we are not neglecting external cooperation, with more actions in the framework of the ENVRIplus cluster for environmental research infrastructures in Europe, and closer links being built with our counterparts at the global

level, in particular in the USA (NEON) and Australia (TERN). And we are in the process of building a cooperation and synergies with other initiatives such as the Critical Zone Observatories (CZO).

More information is available in the newsletter and on the website; you can also follow us on LinkedIn or Facebook.

I wish you a Merry Christmas and a Happy New Year, and I am looking forward to seeing you again in 2016, which will mark the beginning of a whole new phase for AnaEE.



Abad Chabbi

AnaEE Coordinator

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REPORT

AnaEE Platforms Selection Process

An AnaEE focal points meeting was convened in Copenhagen on 4-5 November 2015. The national focal points, which represented each AnaEE participating country, presented a summary of the last round of discussions with the site owners who answered AnaEE's call for expression of interest, at the beginning of the year. Final criteria were agreed upon, and the next steps in the process were delimited.

Presentations by focal points from each represented country

The national focal points had met up with the site representatives in the AnaEE countries to exchange information on the selection criteria, gather additional information on the sites where needed, and get a first impression of which sites would have the opportunity (and the means) to upgrade its facilities to the AnaEE level, where necessary. Presentations were given from 11 countries.

A first finding was that in many countries there will still be some modification of the suggested platforms, for a variety of reasons:

- In some countries, additional interest has been awakened through awareness raising activities on the part of the focal point, and as a result some new platforms will be candidate for AnaEE membership.

- Some platforms who had been submitted in the wrong category will be moved.

- Some platforms whose separate components had submitted separate applications will fuse together, on the basis of one submission per site.

Common discussion of In Natura and In Vitro criteria

The AnaEE platform criteria circulated in September were discussed. It was clear from the discussion that for In Natura platforms that there was a gap between national priorities in some countries and the suggested criteria for In Natura platforms circulated in September 2015. Specifically, it was discussed if climate manipulations should be mandatory for in natura level 1 platforms as the national processes in some countries seem to have made it impossible to meet such criteria.

Therefore, consensus was achieved on the following adjustments to the criteria stated in the September 2015 version:

- With the exception of the obligatory climate manipula-

tions mentioned for Level 1 in natura platforms, all the criteria mentioned for Level 1 and Level 2 in natura criteria were merged to be criteria for all in natura platforms. The level 1 and level 2 indications were thereby removed from the in natura criteria.

- Small adjustments are made to make room for special case exceptions with respect to the number of replicates and number of total plots. Deviations will have to be argued on an individual basis in terms of excellence of the experimental setups, i.e. Argumentation for state-of-the-art must be provided.

- There was still agreement about the importance of pushing for climate change manipulations in the face of anticipated future climate changes. In order to do so, there was consensus to push for climate manipulation technology at platforms by building an economic incentive into the funding structure of AnaEE in the form of a lower membership fee for climate manipulation platforms.

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REPORT

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- There was consensus that in vitro platform criteria remain unchanged.

Based on the presentations from several countries there was also a discussion on interpretation of clusters of several physical sites seen as one entity. It may be relevant within countries with clusters of several physical sites to organize administratively with AnaEE centrally within the existing cluster, but in the Pan European landscape of platforms each physical platform is still seen individually – as has been the case also during the call for expression of interest.

Next steps

- The new platforms who want to take part in the call for expression of interest need to do so rapidly.
- Meanwhile, the AnaEE WP3 will do a second analysis of submitted in natura and in vitro platforms, taking into account the additional information provided by the site owners and the national focal points.
- Potential (economic) incentives for climate manipulation on the future AnaEE platforms will be explored.
- Work also continues on the analytical and modelling platforms.

EVENT

AnaEE International Conference - 2-3 March 2016 - Paris - From Experimentation to Global Prediction

Context

Human activities are altering the Earth system with significant impacts on the environment at the local, regional and global scale. The challenge of achieving a transition to global sustainability is urgent given the potentially catastrophic and irreversible implications for societal well-being.

To this end, new integrated state-of-the art research infrastructures that support sustainable development are needed if we are to collectively tackle and forecast the impacts of climate change, land-use changes and loss of biodiversity among ecosystems and across continents.

Event

AnaEE will be organizing an international, high-level conference on 2-3 March 2016 to mark the end of its preparatory phase. It will take place in Paris, at the CNRS headquarters.

The conference will aim to address, based on large-scale experimental RIs in ecosystem science, the following emerging topics:

- Current and future global change experiments, challenges and opportunities;
- Understanding of risk, risk mitigation and management of global ecosystem changes;
- Ecological forecasting and research needs for food security and climate change: uncertainties in models and coupled approaches;
 - Data challenge in ecosystem science – moving forward;
 - Science/economy interface.

The event will bring together speakers from some of the most important players in the world of research and policy to shed light on these emerging topics and bring into focus the high stakes we are facing.

More information can be found at:
<https://colloque.inra.fr/anaee-conference>, and registration is already open.

The detailed programmed will be made available very soon.

REPORT

4th AnaEE Legal, Governance and Funding Advisory Group meeting, London, 10th November 2015

The meeting brought together representatives from the AnaEE consortium countries, to discuss pending issues on its governance structure and funding model, but also, with a view to the future, hold an exchange of opinion on the (currently in development) AnaEE business plan, as well as the process needed to select the hosts of the future AnaEE supranational entities.

The AnaEE Legal, Governance and Funding Advisory Group (LGF AG), a substructure of the AnaEE infrastructures, brings together representatives from our partners. The group is key to developing the AnaEE infrastructure, and its role is to advise and make recommendations for AnaEE on proposed legal, governance, funding and business models.

The 4th LGF AG meeting had representation from seven member states (namely Belgium, Denmark, Finland, France, Ireland, Norway, and the United Kingdom). A wide range of issues were discussed, including the AnaEE Business Plan, the status of member state participation in AnaEE and platform selection, governance for the next phase of AnaEE, funding models, and the procedure for the selection of the AnaEE Central Hub and Service Centres.

Results, which are being further discussed by the AnaEE Steering Committee, include:

- Letter of Intent (LoI) - finalisation of the wording.

The LoI is now ready for member states to sign and express willingness to continue to work towards developing AnaEE. It is being circulated among the AnaEE partners' funding entities, and it is hoped that as many as possible will be in a position to sign before the end of the AnaEE preparatory phase.

- Funding model - defining minimum calculation rates for host contributions and membership fees. A minimum of 50% host contribution has been agreed upon, and the reflexion is now on which mix of equal share between the members, number of platforms per country, and national GDP will be selected for the fees' calculation.
- Long-term governance - discussion of the legal and governance model and composition of the AnaEE legal entity, with questions on the exact contours of said entity (which, as reported before, will take the legal

form of a European Research Infrastructure Consortium, or ERIC).

- Selection process for Central Hub and Service Centres - discussion of timeline and call criteria.

NEWS *Denmark*

Following a national process to establish research priorities in Denmark for the next few years, the AnaEE Denmark consortium has now been officially accepted on the national Danish research infrastructures roadmap. It is an important step towards a continuing involvement of the country with AnaEE.

NEWS

NEWS *Finland*

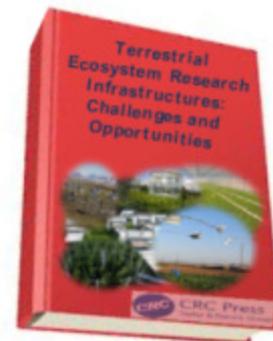
A total of 39 platforms replied to the Call for expression of expression (ca. 20% of submitted platforms). After further exchanges and joining of several platforms, the potential Finnish AnaEE infrastructure (awaiting for national prioritization and funding decisions) now consists of 11 In Natura and 7 in Vitro platforms, 4 Analytical platforms and one Modelling platform. It is likely that some of these will not be fulfilling all AnaEE criteria for a sustainable experimental platform, and that the final number may be close to 10.

AnaEE is not yet an independent unit on the Finnish national research infrastructure roadmap. Common strategy for the Finnish ecosystem and environmental research infrastructures is being developed as a bottom-up approach among platform owners and institute leaders. Meetings and workshops to work on the common strategy are regularly arranged; the last AnaEE-Finland workshop was held in Konnevesi Research Station on 19-20th November 2015. As an outcome of the collaboration a White Paper will be produced by spring 2016, to look for synergies and possibilities for cooperation and to provide future guidelines on infrastructure development. This will be used in future negotiations for funding.

NEWS *International*

Following our investments in European infrastructures programmes (ExpeER, AnaEE), AnaEE coordinator Abad Chabbi is editing a book on Terrestrial Ecosystem Research Infrastructures. After an international peer review process with the preliminary content, this book has been approved by the Publication Committee of "CRC Press | Taylor & Francis Group" (Catalog #: K27248; ISBN: 978-1-4987-5131-5).

Its goal is to bring together crucial knowledge on terrestrial ecosystem research infrastructures for testing and predicting future environmental conditions, identifying priorities for innovative research activities and /in fine/ providing solutions to close current gaps in environmental science. The book covers a comprehensive set of topics and gathers a broad representation of authors from different contexts and geographical origin. It aims to highlight what currently exists and what more is needed to build world-class research infrastructures which will be able to respond to climate change and sustainability challenges.



RECENT EVENTS AND UPCOMING DEVELOPMENTS

- JPI CLIMATE WORKSHOP ON EUROPEAN LONG TERM OBSERVATION NETWORKS, PARIS, 9-10 NOVEMBER 2015

AnaEE coordinator Abad Chabbi was invited to give a plenary lecture under the framework of the JPI Climate Workshop on European Long Term Observation Networks, on 9-10th November, 2015, in Paris. The presentation specifically featured the need for integrative collaboration to develop ecological forecasting and innovative experiments to better assess climate change risks and future frontiers in ecosystem sustainability.

JPI Climate gathers 14 European countries to collaborate in the field of climate and climate change research, aiming to act as a catalysts and an interactive platform to bring together all relevant European actors. Its module "Towards decadal prediction" organised a 2-day workshop to promote active cooperation between the data users and their providers, and strengthen the collaborative work on long-term climate observing systems.

The five sessions around marine, atmosphere, biosphere, cryosphere and satellite data, with the goal to assess the requirements from the ESM communities and operational climate services, the quality and quantify of available data and the main gaps, how to improve the efficiency of data use in applied research, and the establishment of seamless connections towards ESM and climate service providers.

- GEO-XII PLENARY SESSION AND THE GEO MINISTERIAL SUMMIT, MEXICO CITY, 11-13 November 2015

AnaEE coordinator Abad Chabbi represented the European Commission as delegate to the 12 Geo-XII Plenary Session and to participate in the Geo Ministerial Summit that took place on 11-13 November 2015 in Mexico.

- ENVRI PLUS WEEK, PRAGUE, 16-20 NOVEMBER 2015

AnaEE was present, as one of the project's partners, to the first ENVRIPlus week in November. ENVRIPlus is a European cluster of environmental infrastructures. It will provide a framework for AnaEE to interact and build synergies on the European level with other infrastructures in the same domain, thus taking advantage of complementarities and developing common projects.

The event enabled representatives from the different domains and infrastructures represented (atmosphere, biosphere, solid earth and marine) to interact with each other, to set up a work schedule and start on the project's different tasks. Harmonising, data policy, modeling, access particularities, communication activities, or technology development were but a few of the topics discussed. The event will take place biannually, and the next ENVRI Week will be in May 2016.

- AnaEE FRANCE DAY, TOULOUSE, 07-08 DECEMBER 2015

The AnaEE France Consortium organised the first AnaEE France Day in Toulouse on 7th December, 2015. Its goal is to enable interaction between the AnaEE France users, stakeholders, and services providers. The speakers presented the state of the national infrastructure, the past and ongoing developments, as well as case studies from the different platforms.

- CONFERENCE "A STRATEGIC APPROACH TO EU AGRICULTURAL RESEARCH AND INNOVATION", BRUSSELS, 27-28 JANUARY 2016

AnaEE Coordinator Abad Chabbi has been invited by the European commission "DG Agriculture and Rural Development Unit H5 – Research & Innovation" to give a plenary lecture under the framework conference "A strategic approach to EU agricultural research and innovation" to be held in Brussels the 27th and 28th of January 2016. Abad Chabbi will be highlighting how the AnaEE infrastructure could help foster synergies among Member States and with the European Framework Programmes.

- HIGH LEVEL ROUND TABLE "GLOBAL ECOSYSTEM OBSERVATORY", AUSTRALIA, 7 MARCH 2016

AnaEE Coordinator Abad Chabbi has been invited to attend a high level meeting on March 7th, 2016, to be hosted by TERN and the University of Queensland. This high level round table aims to prepare the foundations of a future "Global ecosystem observatory".

The object of the meeting will be to discuss collaboration at a global scale in the area of ecosystem observation based on the following concepts:

- Building on existing collaborative frameworks such as Fluxnet, ILTER, GEOSS etc as well as existing strong bilateral links (e.g AnaEE to Australia);
- Taking an observing system "infrastructure" view point that recognises that the impetus for a global approach to tracking ecosystem change is warranted;
- Learning from areas where such collaborations work well;
- Working with some existing science and policy drivers such as IPBES, FAO, CBD.

FOR MORE
INFORMATION
ON AnaEE

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This newsletter was drafted by Elodie Parisot and Abad Chabbi (INRA) with input from the entire AnaEE consortium..

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