The National Infrastructure for Analysis and Experimentation on Ecosystems – France: a coordinated set of ecosystem-level experimental platforms open to international research in ecotoxicology



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Key features

Funded in 2011 by the French ANR through the "Infrastructures Nationales en Biologie-Santé" call of the "Investments for the future" programme

French contribution to the EU infrastructure AnaEE-Europe

Members of the consortium: CNRS, INRA, UJF, ENS, Higher Schools and Universities...

19 services in the field of environmental and life sciences: ecology, ecotoxicology, agronomy, evolutionary biology, complex systems analysis, ...

On the French national research infrastructure roadmap since 2016 (French Ministry of Higher Education and Research)













Objectives and issues

Objectives

- To combine in a network the main French experimental, analytical and modelling devices to analyse the biological processes in continental aquatic and terrestrial ecosystems
- To offer a range of services to the scientific community and R&D partners, French and international

Issues

- Scientific:
 - -To understand and predict the dynamics of ecosystems and biodiversity in a context of global changes, including pollution
 - -To answer to societal questions concerning the sustainable management of ecosystems and ecological services
- Methodological: to focus distributed and complementary services towards a single and coordinated infrastructure
- Socio-economic: to position the services as an innnovative infrastructure to create links between academic and private partners

Organisation



Experimental platforms

AnaEE-France transverse activities

- Reference documents and practices harmonisation
- Common policy for
 platforms and data access
- Technical and semantic compatibility of databases with modelling platforms
- Incubator for projects benefiting from the complementarity between the infrastructure components
- Scientific watch

Ecotrons: strong environmental control



Metatron and aquatic platforms: partial environmental control





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In natura systems

Coordination: André Chanzy (INRA) & Jean-Marc Limousin (CNRS)

- Long-term observation and experimentation on 26 sites encompassing a range of continental ecosystems (forests, grasslands, crops, aquatic systems), from natural to highly anthropized ones, under temperate and tropical climate
- Only one, SOERE PRO, dedicated to the study of the benefits and risks associated to organic residues recycling on agricultural soils, is actually used for ecotoxicological research: fate and impact of metals, POPs, antibiotics...
- A link in construction with the RECOTOX project, which aims at offering experimental sites to study the pressure-exposure-impacts chain in the case of pesticides

Mobile shared instrumentation and analytical platforms



Modelling and Information Systems



IS and websites, databases, thesaurus, ontology, models...

Conclusions: why a partnership with AnaEE-France ?

- A coordinated set of platforms associated to research laboratories from research institutes or universities, with relevant practical and scientific skills
- A single entry point with a dedicated IS and harmonized practices (project submission, charters, metadata, ...)
- An access to sample collections (conservatories, BRCs...), data (databases) and innovative tools
- An implementation of guidelines (ISO standards for certification, quarantine materials, animal testing, quality insurance, ...)
- The development of methods (international standardisation) and devices (sensors)

For more information

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RESEARCH AND EDUCATION HIGHLIGHTS

A coordinated set of ecosystem research platforms open to international research in ecotoxicology, AnaEE-France

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Websites

AnaEE-France:AnaEE-Europe:BRC4Env:Ecotox Network:

http://www.anaee-france.fr/en/ http://www.anaee.com/ https://www.brc4env.fr/ http://www6.inra.fr/ecotox_eng/

To a partnership with other French infrastructures



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Thank you for your attention



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Have a look to the following posters

- Biochem-Env, a platform of environmental biochemistry for research in ecology and ecotoxicology : TH168
- PLATINAAE, an analytical platform for your research in environmental chemistry: TH167
- And many posters in former sessions!