

News from Countries, Sites and Platforms: October 2021



Welcome to the latest product of eLTER Communications. We've decided to present the "News from countries, sites and platforms" section of the quarterly newsletter as a separate edition, to highlight the efforts of a great many eLTER colleagues in various roles - scientists, site and platform coordinators, national coordinators and so on - who are engaged in a wide variety of fascinating eLTER activities across Europe and beyond. We are very glad to be part of such a vibrant and active community, and we invite similar examples of activities to include in future editions of "News from countries, sites and platforms". So enjoy!



LTER-NL becomes part of Netherlands' national roadmap

On 8 September 2021, NWO (Dutch Research Council) presented the new National Roadmap for Large-Scale Research Infrastructure 2021 to the minister of education, culture and science Ingrid van Engelshoven.

The eLTER Dutch team is happy and pleased to announce that eLTER-NL is on this roadmap. This does not guarantee funding, but it greatly improves the chances of obtaining financial support. To do this important task, eLTER-NL will write a joint application together with LifeWatch (LifeWatch e-infrastructure for biodiversity and ecosystem research) and NEMNET (National Environmental Monitoring Network) under the name of LTER-LIFE.

The minimum project size is 10 million euro (with 25% co-financing). In total 100 million euros will be divided among the three major domains (technical and physical sciences, life and medical sciences, social sciences) in the first round.

Photo: Scientists transporting equipment on a large sandbank called Vliehors on the island of Vlieland / LTSER Dutch Wadden Sea Area



Austria adopted eLTER in its RTI Strategy for 2030

This year, the Austrian Federal Ministry of Education, Science and Research (BMBWF) adopted eLTER in its operational plan for Research, Technology and Innovation (RTI) for the years 2021-2023.

The operational plan sets concrete targets for implementation within the framework of the RTI strategy towards the year 2030. Research Infrastructures are one pillar of the strategy.

With the adoption, eLTER is now ready for implementation towards an Austrian National Research Infrastructure compiling sites and platforms of universities, research institutes, and agencies. Besides eLTER, Austria will focus on ACTRIS, as its second environmental Research Infrastructure.

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LTER-Greece launches its new website

LTER-Greece has finished updating its website and is happy to present its brand new look to the public. The online address remains the same: https://www.lter-greece.gr/.

Apart from a fresh new visual identity, the website also delivers updated fact

sheets about all Greek LTER sites like: Koiliaris Critical Zone Observatory (established in 2004); Hydrological Observatory of Athens (established 2005); Pinios Hydrologic Observatory (established 2015); Samothraki Nature Observatory (established 2014); Navarino Environmental Observatory (established 2009); Samaria National Park (established 1962); Lesvos Biodiversity Observatory (established 2004); and Finokalia Atmospheric Observatory (established 1993).

You can find the most important information regarding success stories, selected publications, size of the sites, their location, research topics, key scientific and societal questions tackled by their teams, etc. Some general details about the vision, mission, ambitions and development of LTER-Greece is also available in a clean and understandable manner.

The point of contact for researchers and other interested parties is prof.

Nikolaos P. Nikolaidis, located in Crete (nikolaos.nikolaidis@enveng.tuc.gr)

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Trnava LTSER platform, Slovakia, becomes sixth pilot LTSER platform

Country: Slovakia

eLTER Platform: Trnava LTSER

The international team of researchers working to advance the eLTER data service portal concept and pilot socio-economic and environmental data welcomed a sixth LTSER platform to the fold.

The eLTER Slovakian partners, <u>ILE SAS</u>, responsible for the task in eLTER PLUS focused on "Harvesting of official statistics", decided to join the five funded pilot

LTSER platforms as they were effectively half-way there when completing their task.

The six platforms are tasked with determining stakeholders' needs for standard socio-economic and environmental data. efore approaching stakeholders, the team decidedthat it was necessary to determine what data it was possible to deliver. The team started in January this year and first attempted to find national sources for all forty six essential socio-ecological parameters suggested in the discussion document delivered in eLTER.

To date the team have determined that national data for the 46 standard observations are not available in any of the six countries represented, indicating that a central hub may perform a useful service to the community. During the summer the team collated all the data possible and in the autumn plan to consult with stakeholders in their respective platforms to determine what would be the most useful eLTER service for managers and planners.

Photo: Trnava LTSER platform



Insights into the French socio-ecological research network through Natural Language Processing

Scientific research on SocioEcoSystem (SESs) has grown exponentially since the seventies, but because of the heterogeneity in the actors, the disciplines and the collected data, some efforts are still necessary to build a common language and a thesaurus for indexing data.

Natural Language Processing (NLP) methods were used to analyse a French corpus derived from the 5th colloquium of the French long term socio-ecological research network RZA (<u>Réseau des Zones Atelier</u>) which marked the network's 20th anniversary.

The authors (Ingrid Falk and Isabella Charpentier) investigated the involved vocabulary to cross reference the subjects of interest and explore how well automatically extracted topics are related to the ambitions of the RZA community in terms of inter- and trans-disciplinary environmental research.

According to this topic analysis, the RZA was found to go beyond the so-called disciplinary spheres, as it carries out trans- and inter-disciplinary studies in the fields of social and natural sciences, on different socio-ecosystems, and notably hydro-systems, urban environments and rural areas (agro-ecology).

Combined with an essential and indispensable domain expertise, NLP techniques allowed a much more structured and in depth content analysis than the simple frequency analysis, offering opportunities for the completion of the EnvThes thesaurus.

Photo: Overview of 57 inter- or trans-disciplinary abstracts with at least two relevant topics.

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LTER-Czechia dares to meet in person to celebrate governmental support for eLTER RI

In June 2021, the Czech LTER network successfully held their annual meeting near Sokolov (CZ). The decision was made to meet in person because of significant recent progress in Czechia's involvement in the building of eLTER RI after the government expressed conditional political support for eLTER last autumn.

Following tradition, the second day of the annual meeting was dedicated to a field trip to one of the Czech LTER sites, this year to LTER Sokolov post-mining ecosystems, led by its site coordinator Jan Frouz. The field trip started at the FALCON catchment site, the newest component of this LTER site, which visitors were most curious about. Established in 2019, FALCON is an array of four artificial catchments which represent a globally unique experimental setup.

After Chicken Creek in Germany and Hydrohill in China, FALCON is the world's third currently monitored artificial catchment, and is the first to include treatments (reclamation with alder plantation vs. spontaneous succession), as well as replicates (two per treatment).

Individual catchments are hydrologically isolated from the adjacent environment and allow monitoring of all significant fluxes of elements and energy in the ecosystem. The field trip then continued along the successional gradient to other reclaimed or successional monitoring plots of varying age that have been studied since 1992.

Photo from the meeting of the Czech LTER network



Microclimate Ecology & Biogeography conference to be hold in March 2022

From 28-31March 2022, the first international conference on microclimate ecology and biogeography, supported by the SoilTemp network, will be held in Antwerp, Belgium.

The Microclimate Ecology & Biogeography conference aims to be the first large international conference to put microclimate and its applications in ecology and biogeography on the centre stage. We welcome microclimate enthusiasts with a broad variation of interests, including different spatiotemporal scales, ecosystems and organisms of interest.

Topics include species distributions, ecosystem functioning, biogeochemistry and applications in agriculture. The conference hopes to be predominantly an in-person event, but we will also facilitate remote participation via, among others, online presentations. The preconference excursion on Monday will visit two eLTER sites: First, we stop at FORBIO Hechtel-Eksel, an innovative, large-scale forest biodiversity experiment established in 2012.

The second stop is the Hoge Kempen National Park. The park hosts the Hasselt Ecotron, an ICOS site and several other LTERs, where research groups from universities and institutes are monitoring and measuring abiotic and biotic parameters throughout the different ecosystems.

Photo: Ecotron by Paul Hermans (CC BY 4.0)

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