

Where will
your research
take you?

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- 9 Brasschaat – De Inslag
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- 13 LTSER Northern Negev
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- 17 Postojna Planina Cave System (PPCS)
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- 18 ICTS-Doñana LTSER
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Scheme details

What research is encouraged?

Priority topics for the TA scheme will be determined according to the grand challenges for research, and to the requirements for developing appropriate LTER methods, parameters, technologies, data management and supporting services. Emphasis will be placed on supporting cross-site activities.

Who can apply?

The selection criteria will mainly consider:

- Scientific excellence of the work proposed
- Promising young scientists at the start of their career
- Feasibility of the proposed application in accordance with the site manager
- Formal eligibility, according to the H2020 rules.

A selection and review panel will carefully supervise the scheme, in order to enable transparent, fair and impartial reviews of applications. The TA call will be permanently open.

What is provided?

Successful applicants can expect to benefit from the free use of eLTER facilities, services and support. They will also receive funding to cover travel expenses, hotel or other accommodation and eligible out of pocket expenses. Upon request, support will be provided before, during, and after the time TA is provided.



Training events will also be organised centrally, aiming to show what eLTER H2020 can offer, along with practical examples of the impact (e.g. on policy and other decision-making) of using eLTER. We anticipate two main audiences for this training programme:

- Young scientists and staff of eLTER H2020 partners, to improve harmonisation of methods and protocols and to increase the infrastructure's "culture of access" to sites and to data
- New users of the infrastructure, spreading common methods and protocols, particularly for PhD students and young Post-Docs, and selected stakeholders.

Training will also involve testing new methods at eLTER sites, arising from TA visits and from the exchange of methods between sites.

When will the eLTER TA scheme start?

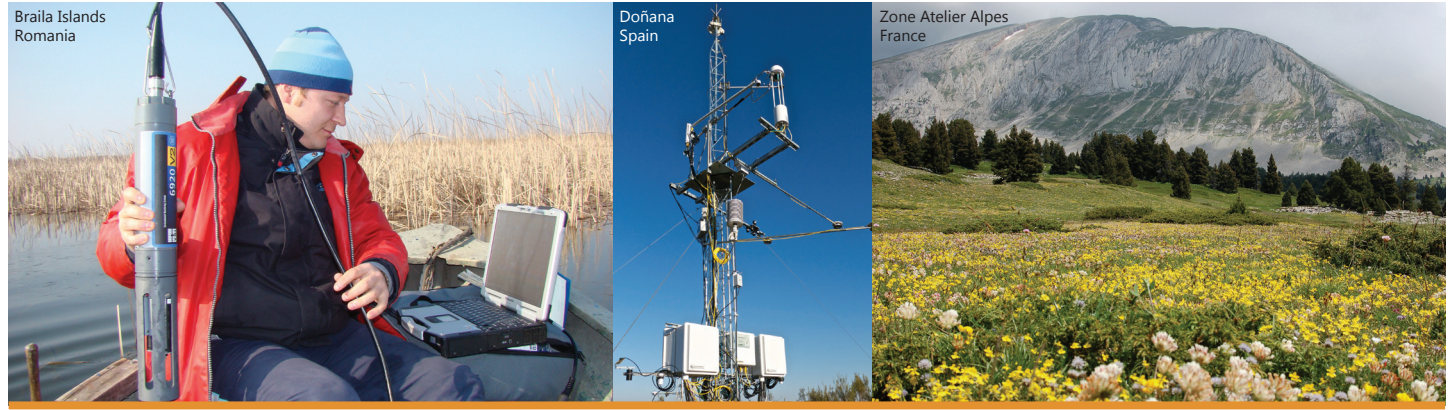
We expect to launch the TA scheme in early 2016. If you are interested, please:

- Use this brochure as a guide to TA sites
- Visit our temporary web pages at www.lter-europe.net/project/eLTER
- From there, sign up to our e-newsletter, to receive news of the project
- If you use Twitter, follow us: @eLTER_EU



eLTER H2020 Transnational Access Scheme

Funded research visits to 18 European ecosystem research sites



eLTER offers in-person (physical) Transnational Access (TA) to 18 well-equipped, long-term ecosystem research sites across major European socioeconomic and environmental gradients in 17 countries.

The 18 sites have been carefully selected so as to be most attractive to prospective users in terms of their natural setting, the available instrumentation and installations, existing long-term data, and the related IT infrastructure. The host organisations of all 18 sites are beneficiaries of the eLTER project. The eLTER TA scheme is aimed at:

- Scientific users, particularly the new generation of ecological and socio-ecological scientists
- SMEs and larger industries interested in relevant technological developments
- Other stakeholders interested in data and other services provided by eLTER H2020.

The TA scheme will include both staff and young scientists visiting laboratories and sites to learn, and experts travelling to advise on LTER-related activities at sites.

www.lter-europe.net/projects/elter

eLTER H2020
web pages



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H2020 INFRAIA call 2014-2015

1	<p>Long-Term Research and Monitoring Zöbelboden Karst forest system, Austria</p> <p> Temperate coniferous and broadleaf forests  200 km west of Vienna. All year-round access  DEIMS Site code: LTER_EU_AT_003</p> <p>A 90 ha forested catchment of a karstic mountain range (500-900 m above sea level) in the National Park Kalkalpen. It is one of the best-known karst catchments in Europe with long-term data series of major ecosystem components. It is the only Austrian Integrated Monitoring station (since 1992) under the UN Convention on Long-Range Transboundary Air Pollution. <i>Scientific focus:</i> Air pollution and climate change effects on biogeochemistry (particularly carbon and nitrogen cycling), hydrology, and biodiversity of the forested catchment. Material inputs, pollutants and nutrients via air and precipitation are measured as well as their effects on the ecosystem, the soil, runoff water and biodiversity. Data are used to reveal long-term trends of ecosystem functions and services provided by forested karst catchments.</p>	
2	<p>SOERE RZA sites Zone Atelier Plaine et Val de Sèvre (ZAPVS) & ZA Alpes (ZAA) Alps and large agricultural system, France</p> <p> Temperate coniferous, broadleaf and mixed forests; farmland landscape, including mostly annual crops, grasslands, and forest fragments; mountain forest and grasslands  ZAPVS is 50 km from Poitiers or La Rochelle. ZAA is situated in the northern French Alps about 1 hour from Lyon and Geneva. Access by regular car. Restricted access at some times of year and to some areas  DEIMS site codes: LTER_EU_FR_009 (ZAPVS); LTER_EU_FR_001 (ZAA)</p> <p>SOERE RZA is the French LTER network and the Zone Ateliers constitute long-term observatories of anthropoecosystems over various territories and all main ecosystems, which enable the study of complex relationships between human activities, biodiversity dynamics, and changes in biogeochemical cycles and ecosystem functions. <i>Scientific focus:</i> Biodiversity and functioning of ecosystems and landscapes, including the agricultural landscape, the river and its floodplain, and the coastal area; archaeological and socio-economic studies of the relationships between human societies and ecosystems; impact of global change, including greenhouse gas emissions, ecosystem pollution, natural resources decline, biodiversity loss.</p>	
3	<p>LH-Siptenfelde Agricultural landscape in the Lower Harz mountains, Germany</p> <p> Temperate grasslands, agriculture, and forest  70 km from UFZ in Halle. Regular transport all year round  DEIMS site code: LTER_EU_DE_026</p> <p>This infrastructure (16 km²) is part of the TERENO observation network. The main land uses are agriculture and forestry. Regular surveys record breeding birds, butterflies, bees and plants. Soil moisture and ground water levels are measured continuously. <i>Scientific focus:</i> Long-term effects of different land use intensities on biodiversity and ecosystem services; temporal dynamics of soil moisture using a multi-sensor approach; physically-based modelling of soil moisture dynamics at the hillslope-scale and derivation of soil parameters from hyperspectral remote sensing data.</p>	
4	<p>Koiliaris Critical Zone Observatory (CZO) Mediterranean karstic watershed, Greece</p> <p> Karstic - mixed land use  By car, 25 km east of Chania, Greece  DEIMS site code: CZO_EU_GR_01</p> <p>Koiliaris River watershed is a Critical Zone Observatory on the island of Crete that represents severely degraded soils due to heavy agricultural impact, such as grazing, over many centuries. <i>Scientific focus:</i> An exemplary site for studying Mediterranean soils under imminent threat of desertification due to climate change. The main type of soil degradation in the basin is water erosion due to the clearing of forests and natural vegetation for cropping and livestock grazing. De-vegetation and inappropriate cultivation practices induces soil organic matter losses making soils susceptible to erosion and desertification with global consequences for food security, climate change, biodiversity, water quality, and agricultural economy. Key research areas are water resources management and sustainable management of soils, hydrological modelling of complex terrains, high frequency environmental monitoring, soil degradation and soil formation, stream and ground water chemistry.</p>	
5	<p>Lake Maggiore Large subalpine lake, Italy</p> <p> Large lake  Lake Maggiore is accessible all year round by boat  DEIMS site code: LTER_EU_IT_045</p> <p>The second largest and deepest Italian subalpine lake. It has been studied since the beginning of the last century, although not systematically. Regular research began in 1938 following the foundation of the Italian Institute of Hydrobiology “Dr. Marco De Marchi” in Verbania Pallanza, and mainly followed the trophic state evolution of the lake and the effect of global warming. The lake has been regularly monitored since 1978, in the frame of an international agreement between Swiss and Italian Governments. <i>Scientific focus:</i> CNR ISE performs limnological research covering chemistry, hydrology, physics, plankton ecology, zoology, microbial ecology, palaeolimnology and other topics. Studies also address anthropogenic impacts, including climate change.</p>	
6	<p>Fruška Gora National Park Climate change and Air Pollution Impact Studies Island mountain chain, Serbia</p> <p> Temperate broadleaf and mixed forests  30 km from Novi Sad. Accessible by regular car all year  DEIMS site code: LTER_EU_RS_001</p> <p>Fruška Gora is an isolated, narrow, island mountain in the Pannonia plain. The infrastructure includes three research localities within the National Park, founded to explore climate change and air pollution impacts on forests, land use changes, the structure and function of forest ecosystems and its biodiversity and the structure and function of steppe habitats. <i>Scientific focus:</i> Mt. Fruška Gora follows the best European practices currently incorporated in the framework of the International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forest operating under the UNECE Convention on Long-range Transboundary Air Pollution. Researchers at the site conduct projects about biodiversity and ecology of forest-associated Diptera, using model groups as bio-indicators, towards the conservation of model groups, including genetic status of some genera and their conservation implications, and modelling current and future species distributions.</p>	

Where will your research take you?

7	<p>Kindla Integrated Monitoring site Protected coniferous blueberry forest, Sweden</p> <p> Boreal forest and taiga  200 km VNV Stockholm. Open all year around, although access may be difficult during snow-melt in the spring  DEIMS site code: LTER_EU_SE_001_002</p> <p>A highly instrumented, forested catchment, part of the ICP-Integrated Monitoring network. Measurements include meteorology, hydrology, soil physics, mineralogy and chemistry, pore water/groundwater composition, surface water and biology. Vegetation (all plants from trees to bryophytes) is recorded at regular intervals from a grid with permanent plots. <i>Scientific focus:</i> research focuses on ecosystem hydrological balances and chemical budgets, climate and hydrological modelling, as well as acidification, eutrophication and biodiversity. Main achievements include important contributions to acidification research.</p>	
8	<p>Burnsmuir and Cairngorms LTSER platform Lowland and upland Scottish ecosystems</p> <p> Burnsmuir: Transitional lowland raised bog. Cairngorms LTSEr: Mixed agriculture, montane, semi-natural pine forest  Burnsmuir: By car from CEH Edinburgh with CEH staff. Cairngorms LTSEr: By car or public transport (nearest town is Aviemore)  DEIMS site code: LTER_EU_UK_077</p> <p>Comprises two separate but linked sites in Scotland. Burnsmuir is close to Edinburgh, and contains two established research locations, Whim Bog and the Auchencorth Moss atmospheric observatory and carbon catchment study area. The Cairngorms National Park LTSEr Platform is further north in the Highlands of Scotland and includes the Cairngorms Environmental Change Network LTER site. The Scottish landscapes have a linked gradient from lowland to highland ecosystems. <i>Scientific focus:</i> Biosphere-atmosphere interactions, ecosystem emissions and deposition of pollutants, hydrology, climate, ecological linkages, ecosystem services, socio-ecology.</p>	
9	<p>Brasschaat – De Inslag Scots Pine forest, Belgium</p> <p> Temperate coniferous forest  20 km from Antwerp (main station). All year round access by 4WD car  DEIMS site code: LTER_EU_BE_001</p> <p>Brasschaat - De Inslag is a Scots pine forest research site, equipped with a meteorological tower and a permanent intensive forest condition monitoring plot (ICP Forests level II). <i>Scientific focus:</i> The research infrastructure in Brasschaat is currently mainly used for research on dry deposition processes, on soil respiration processes and on carbon and nutrient transfers in the soil–vegetation system.</p>	
10	<p>Hyytiälä, SMEAR II Forestry field station, Finland</p> <p> Boreal forest/taiga  25 km from Orivesi and 210 km from Helsinki. Access all year round by regular car; restrictions for some areas  DEIMS site code: LTER_EU_FI_007</p> <p>The area is a boreal mixed–coniferous forest with small lakes and wetlands, including several protected mire ecosystems. The core site consists of a 55-yr old Scots pine forest stand, two open oligotrophic fen sites and a humic lake with mostly forested catchment. <i>Scientific focus:</i> Research focuses on ecosystem properties, biogeochemical cycles, ecosystem–atmosphere interaction, and how this is linked to vegetation types and structures, either in different ecosystems or resulting from vegetation management and land use. The main aim is continuous, comprehensive measurements of fluxes, storages and concentrations (biogeochemical cycles and vegetation–soil–atmosphere interactions) in the land ecosystem–atmosphere continuum.</p>	
11	<p>Rhine-Main-Observatory (RMO) River catchment area, Germany</p> <p> Small rivers, floodplains  40 km from Frankfurt city and Frankfurt international airport. Access all year round by regular car  DEIMS site code: LTER_EU_DE_018</p> <p>Situated at the fringe of the Rhine-Main area, the second largest metropolitan area in Germany, the Kinzig river divides three lower mountain ranges (Rhön, Vogelsberg, Spessart): this makes the RMO a highly fragmented mosaic of different land cover and land use types, with intensely used areas interspersed with patches of wilderness area. <i>Scientific focus:</i> Research focuses on different habitats in streams and their floodplains, along a gradient of land use intensity, including areas with natural vegetation, agricultural and settlement areas. Long-term changes in land use, climate and other environmental variables and its impact on animal and plant communities as well as on a broad variety of abiotic parameters are investigated. The monitoring program covers these biotic and abiotic parameters in both streams and the floodplain.</p>	
12	<p>Kiskun LTER ExDRain field experiment Climate change experiment in grassland, Hungary</p> <p> Pannonian sand grassland  110 km from Budapest. The site operators, MTA OK, offer travel between the site and Budapest  DEIMS site code: LTER_EU_HU_012</p> <p>The site is a highly equipped climate change experiment for studying the separate and interactive effects of a single extreme drought and chronic (multi-year) manipulation of precipitation (drought and water addition). <i>Scientific focus:</i> We study (a) vegetation composition and net primary productivity, (b) fine-scale plant species assembly, (c) plant quantitative anatomy, (d) litter decomposition, (e) soil arthropod diversity, (f) nematode diversity, (g) fungal diversity, (h) plant root biomass and activity, (i) decomposition and net ecosystem exchange.</p>	
























Key to symbols

 Dominant ecosystems

 Site access

 DEIMS site code. DEIMS is an online database of LTER sites.

To use, simply append the code to this web address: [http://data.lter-europe.net/deims/site/\[add site code here\]](http://data.lter-europe.net/deims/site/[add site code here])

13	<p>LTSEr Northern Negev Dryland ecosystem, Israel</p> <p> Deserts and xeric shrublands  100 km from Ben Gurion Airport and Tel Aviv. Access all year round  DEIMS site code: LTER_EU_IL_005</p> <p>LTSEr Northern Negev is composed of five LTER sites (Shaked, Lehavim, Migda, Shagririm, and Yatir) and the area between them. It is a semi-arid climatic zone and it includes semi-arid scrubland, dry-land agriculture, planted forests of various densities, as well as various settled areas. <i>Scientific focus:</i> The site was established for studying the structure and function of the dryland ecosystems, including the social dimension, in order to understand the socioecological system of the Negev. Main study topics are: structure, function and management of water limited ecosystems, multispectral and hyperspectral remote sensing methods over dry-land ecosystems, geo-hydro-ecological issues in dry-lands, agro-ecosystems in dry-lands, trade-offs among water use, carbon sequestration, and radiation budgets, social-ecological interactions on the environment and promoting the integration of social science research into LTSEr.</p>	
14	<p>Engure Ornithological Research Centre (EORC) Inland and marine wetlands, Latvia</p> <p> Boreonemoral zone habitat complex (wetlands, forests, coastal dunes, agricultural lands)  100 km from Riga. Access all year round, but preferably from May to September  DEIMS site code: LTER_EU_LV_001</p> <p>Lake Engure drainage area includes the lake, which is a remnant of the Litorina Sea formed about 4000 years ago, and the Lake Engure Nature Park, the Ramsar site including unique inland and marine wetlands. Most of the drainage area is covered by pine forests, but large areas of marshlands, meadows, deciduous forests, dunes and agricultural lands are also present. The site serves as a model for investigating the functioning of the socio-ecological system of a boreonemoral zone under moderate anthropogenic pressure. <i>Scientific focus:</i> The field station supports ornithological, hydrobiological, botanical and entomological investigations and monitoring. Since 2004 the EORC serves as a support base for long-term socio-ecological research in the Engure LTSEr ecoregion. Long-term ornithological studies have been carried out since 1958. Long-term studies of vegetation and insects within 12 habitat types ranging from dry oligotrophic forests to marshlands were started in 1995.</p>	
15	<p>Montado Long-Term Socio-Ecological Research Platform Mediterranean agro-sylvo-pastoral woodland, Portugal</p> <p> Mediterranean forests, woodlands, and shrub  LTSEr Montado platform integrates five research and monitoring stations ranging from 25 to 200 km from Lisbon  DEIMS site code: LTER_EU_PT_001</p> <p>A savannah-like forested landscape dominated by cork and holm oaks, shaped by traditional land use practices to create a unique agro-silvo-pastoral ecosystem (named “Montado” or “dehesa” in Spain), that combines forest harvesting, livestock husbandry, pastures and crops, with other uses (e.g. hunting). <i>Scientific focus:</i> Research aims to understand how Montado functions and how its ability to provide ecosystem services responds to land-use changes under a desertification scenario. Research addresses ecological indicators based on biodiversity changes, functional groups as early-warning indicators of climate change and desertification, N critical levels and loads, and ecological restoration. Approaches include: multi-scale analyses, combined use of available datasets and field-collected data, use of functional groups and/or traits, testing the adequacy of the Intermediate Disturbance Hypothesis to explain the high biodiversity of traditionally managed ‘montado’, use of climate gradients to assess the co-effect of dryness on ecological services and multi-tiered models for ecosystem services analysis.</p>	
16	<p>Braila Islands LTSEr Complex interdisciplinary research facility, Romania</p> <p> Large river  Located in the city of Braila. All year round access by boat and car  DEIMS site code: LTER_EU_RO_006</p> <p>The LTSEr platform is composed of a complex research facility located in the city of Braila, a series of distributed field monitoring and research stations to cover the spatial heterogeneity of the LTSEr platform in terms of habitat types and a complete automated real time measurements hydrological station. The facility located on the Danube River also has a research vessel and a research pontoon. A complex research platform was developed in Bucharest able to support all types of research activities. <i>Scientific focus:</i> Large scale studies of ecological systems focussing on population/species, compartments (primary producers, consumers, decomposers), complex ecosystems (landscapes/waterscapes), integration of socio-economic research data and monitoring. Socio-ecological analysis started almost 15 years ago, due to the need to link the research and monitoring activities with scenarios for sustainable development.</p>	
17	<p>Postojna Planina Cave System (PPCS) Cave Systems, Slovenia</p> <p> Underground habitats, caves  1.5 km from Postojna. PPCS and related sites accessible all year round  DEIMS site code: LTER_EU_SL_002_001</p> <p>Postojnska jama (Postojna cave) is a part of the Postojna-Planina cave system (PPCS), the most biologically diverse cave in the world. Postojnska jama is a cradle of speleobiology, a locus typical of the cave beetle <i>Leptodirus hochenwarti</i>, the first recognized cave adapted animal, and many other aquatic and terrestrial species. PPCS consists of 24.1 and 6.6 km of passages, respectively, connected by flooded corridors, and has more known species of stygobionts (obligate, permanent resident of aquatic subterranean habitats) than any other subterranean site in the world. <i>Scientific focus:</i> Interdisciplinary karstological research covering chemistry, hydrology, physics, geology, cave meteorology, ecology, zoology, and geomorphology. Studies address biodiversity and ecosystem functions, anthropogenic impacts, climate change and socio-economic impacts.</p>	
18	<p>ICTS-Doñana Mediterranean coastal wetlands and dune system at the Guadalquivir estuary, Spain</p> <p> Flooded marshlands, active sand dunes, temporal ponds and Mediterranean shrublands and woodlands  Access all year round by 4WD car  DEIMS site code: LTER_EU_ES_001</p> <p>A UNESCO Biosphere Reserve, a Ramsar Site and a Natural World Heritage Site. It includes the largest wetland in Western Europe and a large dune ecosystem with its respective shoreline and representative terrestrial plant communities. The area is home to many species, including the Iberian lynx and the Imperial eagle. The marshland plays a critical role as a stopover, breeding and wintering point for thousands of European, Iberian and African birds. <i>Scientific focus:</i> Long-Term Ecological Monitoring focusses on threatened species and uses a multi-scale approach. Conservation objectives include the preservation of critically endangered species, the abundance of waterfowl, and the protection of Mediterranean wetlands and terrestrial ecosystems. Data are collected on vegetation, threatened flora, limnology, mammals, birds, amphibians and reptiles.</p>	