



EUROPEAN COMMISSION

MEMO

Brussels, 3 July 2013

The 2012 LIFE+ projects

Austria 4 projects (14.5 million)

LIFE+ Environment Policy and Governance (1 project – 3.6 million)

LIFE-URBANLAKE (Stadt Wien – Magistratsabteilung 45 – Wiener Gewässer): This project intends to define strategies to reduce the vulnerability of the “Alte Donau” from effects of climate change and other anthropogenic pressures with the goal of securing the oxbow lake’s good environmental status and bathing water quality. The project will foster an integrated approach to lake management and risk management, based on an innovative, up-to-date and holistic view of the water resources and the environmental and socio-economic factors. **Contact:** post@ma45.wien.gv.at

LIFE+ Nature (1 project – 5.7 million)

LIFE Ausseerland (Österreichische Bundesforste): The aim of the project is to improve the structural diversity of forests and the functioning of ecological corridors between the Natura 2000 network sites Styrian Dachsteinplateau and Totes Gebirge, on the one hand, and nearby mountainous areas on the other. This will be achieved through the development of ecologically diverse forest areas characterised by a significant amount of dead wood, restoration of peatland and wetland habitats and the creation of a “Grouse Habitat Network” for capercaillies and grouse in the project areas. **Contact:** naturraummanagement@bundesforste.at

LIFE+ Biodiversity (1 project – 4.4 million)

LIFE Northern Bald Ibis (Förderverein Waldrappteam): The main objective of the project is the reintroduction of the northern bald ibis (*Geronticus eremita*), a critically endangered species in Europe. To ensure this goal, actions will be taken to protect the species along its migration route. The project is based on a 10-year feasibility study that led to the establishment of a first small migratory breeding group. **Contact:** life@waldrapp.eu

LIFE+ Information and Communication (1 project – 0.8 million)

EKO-LIFE (Energieinstitut Vorarlberg): The project aims to reduce human-induced greenhouse gas emissions by encouraging citizens to change how they lead their everyday lives, particularly with regard to choices concerning mobility, food and consumption. Everyday scenarios will be developed to enable citizens to try out alternative ways of life. In order to raise awareness and encourage replication, individuals participating in the project will act as 'Change Ambassadors', sharing their experiences through their social networks. **Contact:** karin.feurstein@energieinstitut.at

Belgium 9 projects (40.8 million)
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LIFE+ Environment Policy and Governance (2 projects – 13.0 million)

LIFE Polyphos Acid (PRAYON S.A.): The project will implement a new, energy efficient process for producing polyphosphoric acid that also enables the valorisation of waste streams. The proposed methodology replaces energy-intensive thermal treatment with a modified version of the so-called "wet process", one that is more compact than the existing Best Available Technology. Expected results include a 54 % reduction in energy consumption, a 90 % reduction in carbon dioxide emissions and 57 % less waste produced. **Relevant to Climate Change. Contact:** cszocs@prayon.be

LIFE FLAT to FLAT (AGC Glass Europe S.A.): This project aims to develop and validate an innovative method for recycling and up-cycling glass and other waste materials in the production of flat glass. This will be achieved through an innovative grinding technology that allows the content of recycled materials of the final flat glass to be raised to 25 %, and the use of up to 55 % of glass cullet. This new technology will also enable the use of other waste material in flat glass manufacturing (e.g. glass fibre), including cullet that contains a thousand times more ceramics, stone, and porcelain (CSP). In increasing the percentage of secondary material used in the process, the project also expects to reduce CO₂ emissions by 12 % and produce energy savings of 5 %. **Relevant to Climate Change. Contact:** charles.wavrin@eu.agc.com

LIFE+ Nature (6 projects – 25.8 million)

Life - OZON (Agentschap voor Natuur en Bos): The project aims to connect areas of the Sonian Forest with high ecological value by constructing wildlife crossings (such as underpasses, viaducts and culverts) and erecting fences to impede the access of wild animals to roads and rail lines. It also aims to protect forest biodiversity through nature-friendly forest management (e.g. the restoration of forest edges along the Brussels ring and the creation of open areas) and by redirecting recreational activities to less sensitive areas. **Contact:** Patrick.Huvenne@lne.vlaanderen.be

LIFE Oostkustpolders (Natuurpunt Beheer vzw): The main objective of this project is the large-scale restoration of typical grassland habitats in the polders of the Belgian east coast region. As well as improving the quality and quantity of salt meadows and saline habitats, the beneficiary will also carry out measures that favour the breeding and wintering species of grassland birds. **Contact:** stefan.versweyveld@natuurpunt.be

LIFE Grote NeteWoud (Natuurpunt Beheer vzw): The 'Grote Nete' is a lowland river system that is well suited for conversion into a vast woodland that offers a suitable habitat for a number of protected species, including the otter, black stork and European beaver. The main focus of this project – encompassing a surface area of 1 700 ha - is the large-scale restoration, development and sustainable management of alluvial forest (90 %), notably by natural forestation, and of small pockets of the most valuable open habitats (10 %). **Contact:** stefan.versweyveld@natuurpunt.be

LIFE+SCALLUVIA (Agentschap voor Natuur en Bos): The main target is the integrated development and layout of a sub-area of Kruikeke-Bazel-Rupelmonde (90 ha) as a high quality nature area with habitats and species with a good conservation status, taking into account the site's function as a flood area and a recreational zone. **Contact:** laurent.vandenabeele@lne.vlaanderen.be

Life FLANDRE (Agency of Nature and Forests of the Flemish Government): The project aims at a qualitative consolidation of the Natura 2000 network in France and Belgium by restoring typical dune habitats and conserving associated species. Methods used will include land purchase, management planning, nature restoration and raising public awareness. Close cross-border cooperation between the two countries will be key to the success of the project. **Contact:** jeanlouis.herrier@lne.vlaanderen.be

Life Together (Agentschap voor Natuur en Bos): The project's main objective is the restoration of habitats and the creation of ecological infrastructure in the Valleigebied van de Kleine Nete Natura 2000 network site. Conservation measures will focus on dunes, wet heathland and grassland habitats and associated species, in particular the smooth snake. **Contact:** dries.gorissen@lne.vlaanderen.be

LIFE+ Information and Communication (1 project – 2.0 million)

LIFE EWR+ (Association of Cities and Regions for Recycling and sustainable Resource management): Building on the previous European Week for Waste Reduction (2009-2011), the project will build on the lessons learned from the first campaign and focus on expanding awareness, reinforcing and deepening understanding of waste prevention, preparing for reuse and recycling, and broadening outreach activities. To mobilise citizens and reinforce awareness and actions on key waste issues, the project will organise annual events based around specific themes (such as 'no food waste') and trial an official annual European 'Clean-Up Day'. **Contact:** pmn@acrplus.org

Bulgaria 5 projects (10.8 million)

LIFE+ Environment Policy and Governance (1 project – 4.3 million)

LIFE Eco-HeatOx (Trakya Glass Bulgaria EAD): Oxy-combustion technology could significantly reduce energy consumption and greenhouse gas emissions from the glass industry; however, it is currently only economically feasible for large-scale production. The project will adapt and implement the technology at a tableware glass industrial furnace, demonstrating the potential of oxy-combustion for small and medium-sized producers. They expect to cut energy use by 23 % and reduce the GHG emissions linked to tableware glass production (CO₂ by 23 % and NOX by 90 %). **Relevant to Climate Change.**
Contact: sukoc@sisecam.com

LIFE+ Nature (3 projects – 6.2 million)

LIFE for safe grid (EVN Bulgaria Elektrorazpredelenie AD): The objective of the project is to reduce the incidence of imperial eagle (*Aquila heliaca*) mortality caused by electrocution or collision with electric power lines in their most important Bulgarian Natura 2000 network sites. The long-term objective is to ensure an increase in Bulgaria's imperial eagle population. **Contact:** lyubka.vasileva@evn.bg

LIFE FREE FISH (WWF- Worldwide Fund for Nature Danube - Carpathian programme Bulgaria): The project aims to improve the conservation status of six small fresh water fish species and one mollusc listed in Annex II of the EU Habitats Directive in selected Natura 2000 network sites of the Bulgarian Danube river basin. **Contact:** office@wwfdcp.bg

LIFE for Eagle's Forest (Executive Forest Agency): The overall objective of this project is to contribute to long-term preservation of the globally threatened lesser spotted eagle (*Aquila pomarina*) by securing the protection and sustainable management of the forest habitats crucial for its existence in Bulgaria. **Contact:** n_vasilev@iag.bg

LIFE+ Information and Communication (1 project – 0.3 million)

SusHerb LIFE 2012 (The Information and Nature Conservation Foundation): The project addresses the commercial over-exploitation of wild populations of medicinal and aromatic plants (MAPs) in Bulgaria. The project will implement a series of integrated communication and training actions that build awareness of conservation and sustainable use of MAPs across the whole supply chain. **Contact:** consult@ecologybg.com

Cyprus 3 projects (4.1 million)

LIFE+ Environment Policy and Governance (2 projects – 3.4 million)

LIFE LIVE-WASTE (Cyprus University of Technology): This project's objectives are to develop, demonstrate and evaluate an integrated system for treatment of livestock waste that involves several advanced integrated processes. This system will recover materials and energy from livestock waste and produce reusable effluent, whilst lowering greenhouse gas emissions and odours. **Contact:** costas.costa@cut.ac.cy

LIFE+ SmartPV (University of Cyprus - Department of Electrical and Computer Engineering): The SmartPV project aims to help point the way towards a more economically and environmentally sustainable electricity grid in Cyprus and Europe whereby cost-optimum penetration of photovoltaic technology in the energy mix will contribute to the reduction of air polluting emissions. Energy efficiency savings and positive effects in green sustainable growth (e.g. employment in eco-industry) are other forecast benefits. **Relevant to Climate Change. Contact:** geg@ucy.ac.cy

LIFE+ Nature (1 project – 0.8 million)

LIFE-RIZOELIA (Department of Forests): The primary aim of this project is to promote and enable the long-term conservation in Cyprus of two protected habitats: arborescent matorral with *Zyziphus* (*5220) and gypsum steppes (*1520). It will do so by halting or significantly reducing the natural and anthropogenic pressures and threats that contribute to their long-term degradation. **Contact:** ttsintides@fd.moa.gov.cy

Czech Republic 1 project (0.6 million)

LIFE+ Nature (1 project – 0.6 million)

LIFE Beskydy (ČSOP Salamandr): Nardus grasslands cover a surface of some 648 ha in the Beskydy Natura 2000 site, thus representing the third largest area of this habitat type in the Czech Republic. This project aims to improve its conservation status, including putting in place long-term management measures. **Contact:** salamandr@salamandr.info

Denmark 3 projects (10.8 million)

LIFE+ Nature (3 projects – 10.8 million)

LIFE WETHAB (Ministry of the Environment - Nature Agency Vendsyssel): The overall objective of the project is to bring habitats in the Danish Natura 2000 network sites Jerup Hede and Råbjerg og Tolshave Mose to a “favourable” conservation status. The project will restore and enlarge areas of these habitats, which include active raised bogs. The project will deal with all identified threats and the emphasis is on the “after LIFE situation”, hence the project’s focus on the development of a sustainable management set-up. **Contact:** vsy@nst.dk / jafri@nst.dk

REDCOHA-LIFE (Danish Nature Agency): The overall objective of the project is to improve the conservation status of coastal dune habitats in 15 Danish Natura 2000 network sites, and significantly reduce the threats against plant species. Measures will include removing plantation forest from the fixed dunes and eliminating invasive alien plant species, as well as improving hydrological conditions. **Contact:** nst@nst.dk

LIFE: Eastern Bogs (Guldborgsund Kommune): The project targets the restoration and expansion of raised bogs in eastern Denmark, where this wet terrestrial habitat type is in an “unfavourable” conservation status. The project also targets management of the dragonfly *Leucorrhinia pectoralis* as well as other habitat types (notably alkaline fens and calcareous fens) connected to the core habitat type. **Contact:** aped@guldborgsund.dk

Estonia 2 projects (1.7 million)

LIFE+ Nature (2 projects – 1.7 million)

LIFE Springday (Eesti Loodushoiu Keskus MTÜ): This project aims to prevent the degradation of petrifying spring habitats in Estonia. The project actions will also improve the conservation status of many rare and endangered species and habitats dependent upon the petrifying springs. Actions will focus on 23 Natura 2000 sites in Estonia. **Contact:** jaak.tambets@gmail.com

LIFE HAPPYRIVER (Eesti Loodushoiu Keskus MTÜ): The project’s main objectives are to restore the bed of the Laeva River and its alluvial meadows in the Alam-Pedja Natura 2000 site. This will also entail managing its habitats and species, in particular endangered fish and birds. **Contact:** meelis.tambets@gmail.com

Finland 6 projects (17.8 million)

LIFE+ Environment Policy and Governance (4 projects – 12.1 million)

LIFE+ UPACMIC (Ramboll Finland Oy): The project aims to demonstrate that there is a technically and environmentally feasible alternative for remediating mine sites through the chemical and physical stabilisation of waste materials, which can be transformed into valuable sealing layer materials. This will also avoid soil and water pollution and related health problems. **Contact:** heikki.hamalainen@ramboll.fi

LIFE MONIMET (Ilmatieteen laitos): The LIFE MONIMET project aims to implement a new approach to in-situ monitoring and mapping of climate change indicators that have an influence on the mitigation potential and vulnerability estimates of boreal forests and peatlands. **Relevant to Climate Change. Contact:** ali.nadir.arслан@fmi.fi

LIFE+ 2012 N-SINK (Lammin biologinen asema): This project aims to demonstrate wastewater treatment processes for nitrogen removal in order to reduce eutrophication of the Baltic Sea. In particular, it will demonstrate an innovative sediment filtration process for the reduction of the nitrogen load when wastewater nitrogen is released in the form of nitrate. The primary goal of the project is to demonstrate this new approach to enhancing nitrogen removal from wastewater, helping the denitrification process by using the natural ecosystem service provided by the sediment. **Contact:** lauri.arvola@helsinki.fi

LIFEPeatLandUse (The Finnish Forest Research Institute - Metla): The main objective of this project is to quantify and evaluate ecosystem services to assist land use planners and policy-makers in making ecologically, economically and socio-culturally sustainable land use decisions. This will be done by developing and demonstrating a decision-support system that aggregates environmental and financial data to identify cost-efficient land use options, thereby safeguarding benefits from ecosystem services. **Contact:** anne.tolvanen@metla.fi

LIFE+ Nature (1 project – 5.3 million)

LIFE Saimaa Seal (Metsähallitus): The goal of this project is to help improve the conservation status of the Saimaa ringed seal by reducing risks, in particular, those related to fishing, human-induced disturbance and climate change. Results of the project will be used to update the seal conservation strategy and related regulations. **Contact:** mikko.tiira@metsa.fi

LIFE+ Information and Communication (1 project – 0.4 million)

LIFE+ CrayMate (University of Eastern Finland): The aim of the project is to increase awareness amongst the general public and interest groups of the importance of native crayfish stocks to biodiversity and aquatic ecosystems. A campaign will be launched to highlight the main threats to native crayfish stocks in Finland. **Contact:** japo.jussila@uef.fi

France 14 projects (37.2 million)
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LIFE+ Environment Policy and Governance (10 projects – 26.6 million)

LIFE HEART (TERREAL): The project will demonstrate the feasibility of a thermal recovery system for the clay and roof tile industry that combines a low temperature and corrosion resistant heat exchanger (for the kiln fumes) and an industrial ammonia heat pump (for the dryer fumes) in one clay factory. The recovered heat will pre-heat the air inflow into the dryer. The water condensed by the heat pump will be reused to moisturise clay for shaping the products, replacing the raw water that is normally used for this. The kiln fumes heat exchanger will remove volatile pollutants (fluorine, sulphur, chlorine) by producing acid condensates that will be neutralised. **Relevant to Climate Change.**
Contact: francois.amzulesco@terreal.com

LIFE BIBAT (Commissariat à l’Energie atomique et aux Energies Alternatives): This project aims to validate a pilot line with a new generation of ecological Li-ion batteries based on the concept of bipolar design. The target of the BiBAT project is to tackle energy needs and resource depletion issues in the framework of Li-ion battery manufacturing.
Contact: luc.federzoni@cea.fr

LIFE AUTO (RHODIA OPERATIONS S.A.S): LIFE AUTO will demonstrate the feasibility of an environmentally-friendly system that will replace the current diesel fuel filter, additive tank, dosing pump and electronic controller unit. It will improve fuel efficiency by developing new fuel additives to overcome biofuel issues such as clogging of key elements of the engine and will reduce diesel engine emissions by increasing the efficiency and durability of the most advanced exhaust after-treatment technologies (DPF).
Contact: maciej.vandersteen@kurtsalmon.com

LIFE Carbon dairy (Institut de l’Elevage): The objective of this project is to promote an approach that will lead to a 20 % reduction in greenhouse gas emissions from the dairy sector over 10 years. To achieve this goal, the project will develop tools aimed at farmers and technical advisers for assessing their carbon impact and greenhouse gas emissions. It will also highlight means of preserving carbon stored in soils, promote innovative livestock farming systems and associated practices, and develop a climate roadmap for milk production with carbon action plans adapted to each production system. **Relevant to Climate Change.** **Contact:** jean-baptiste.dolle@idele.fr

LIFE-PHYTOBARRE (Commissariat à l'Energie Atomique et aux Energies Alternatives - Cellular Biology Laboratory): This project aims to demonstrate at three sites a biological process to metabolise phytosanitary molecules, based on the use of bacteria selected in the laboratory. The goal is to prove the efficiency and ease of use of the process for different crops, geographical locations, climates and types of phytosanitary products. **Contact:** dgarcia@cea.fr

LIFE BIONOBO (L'Eau Pure SAS): This project aims to develop an enhanced bio-treatment process with best-in-class performance and lifecycle costs so as to increase and expand the use of biogas and landfill gas. The project focuses on the pre-treatment of biogas for injection in engines. The BIONOBO process will be 100 % biological (with no chemical additives), highly effective for H₂S and siloxane removal and adaptable to all types of biogas. **Contact:** marc.beerli@gmail.com

LifeCiP (Création Développement des Eco-Entreprises): The general objective of the project is to help Small and Medium-sized Enterprises in France, Belgium, Portugal and Spain to enhance resource efficiency and reduce the environmental impacts of their products and services in three sectors: building/construction, energy equipment and waste management. This will be done through the application of lifecycle approaches, including lifecycle assessment, ecodesign and environmental labelling. **Contact:** j.bricout@cd2e.com

LIFE+ Urbannecy (Cluster Logistique Rhône-Alpes): The goal of this project is to demonstrate an integrated and innovative approach to urban logistics, implying cooperation amongst the actors involved, use of new distribution schemes and implementation of a number of measures (regulatory, organisational, operational and technological). This is expected to effectively contribute to reducing the negative effects of current logistics processes on the urban environment. **Contact:** pljacquot@clusterlogistique-ra.com

Life+-PêcheAPiedeLoisir (Agence des Aires Marines Protégées): This project will build a network of diversified and complementary partners in 11 pilot areas to try out transferable methods of sustainable management in recreational fishing from the shore. **Contact:** stephanie.tachaires@aires-marines.fr

LIFE-PHOSTER (Arcelor Mittal Maizières Research S.A.): This project aims to support the further expansion of solar energy and reduce greenhouse gas emissions associated with the manufacture of solar panels whilst increasing recyclability. It will build a prototype of a new, universal eco-designed roofing envelope, including flexible thin film photovoltaic (PV) modules, using steel as a substrate and related innovative and optimised manufacturing processes (e.g. roll-to-roll manufacturing). **Relevant to Climate Change.** **Contact:** renaud.vignat@arcelormittal.com

LIFE+ Nature (2 projects – 5.8 million)

LIFE des Alpilles (Syndicat mixte de gestion du Parc naturel régional des Alpilles): This is an integrated project focusing on the preservation of the natural environment. It intends to contribute to the preservation of the natural territorial heritage by working on all factors that allow sustainable territorial development. Actions will help to maintain and restore the population of 13 bird species in the Natura 2000 site "Les Alpilles". **Contact:** natura2000@parc-alpilles.fr

LIFE+ ENVOLL (Association des Amis des Marais du Vigueirat): This project aims to improve the conservation of colonial waders and gulls in 13 Natura 2000 sites on the French Mediterranean coast. This will be achieved by managing and adapting the project sites to make them more favourable for these birds to nest (hydraulic works to manage water levels, islet and raft design, etc.) **Contact:** jl.lucchesi@wanadoo.fr

LIFE+ Biodiversity (1 project – 3.1 million)

LIFE ALISTER (Région Alsace): This project aims to test the relevance, effectiveness and pre-conditions of actions to improve the viability of hamster populations in the Alsace region. **Contact:** nathalie.arnold@region-alsace.eu

LIFE+ Information and Communication (1 project – 1.7 million)

LIFE MIL'OUV (Conservatoire d'Espaces Naturels Languedoc Roussillon): This project aims to enhance the conservation status of open pastoral habitats in Mediterranean regions, by improving the existing support tools in order to change practices and better anticipate coming changes. **Contact:** cenlr@cenlr.org

Germany 5 projects (11.2 million)
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LIFE+ Nature (5 projects – 11.2 million)

LIFE Heide-Allianz (Bayerisches Staatsministerium für Umwelt und Gesundheit): This project aims to improve the conservation status of calcareous and extensively used grassland and meadow habitats and their related species in the Nördlinger Ries and the Wörnitz river valley. In doing so, the beneficiary intends to strengthen the region's function as an internationally important habitat corridor and a hot spot of biodiversity. **Contact:** andreas.laudensack@stmug.bayern.de

LIFE+Nationalpark BayWald (Nationalparkverwaltung Bayerischer Wald): The main objective of the project is to restore rivers and streams, bogs and the rare mountain pastures (known locally as "Schachten") in the Bavarian Forest National Park. The project will improve geomorphology dynamics and remove obstacles that hinder the migration of aquatic fauna along a 5 km stretch of river. It will also improve the hydromorphology of bogs and introduce extensive grazing of 'Schachten' and their typical habitats. **Contact:** franz.leibl@npv-bw.bayern.de

LIFE Sandrasen (Stiftung Naturschutzfonds Brandenburg): The project mainly aims to support land use patterns that are compliant with the needs of Brandenburg's protected dry grassland habitats. An integrated management approach will also seek to stabilise and improve the conservation status of other habitat types within the project areas. **Contact:** presse@naturschutzfonds.de

Life Orsoyer Rheinbogen (Biologische Station im Kreis Wesel e.V.): The overall aim of the project is to improve the conservation status of species and habitats of European significance in the Lower Rhine Area Natura 2000 network site. Stopping the deterioration of flood plain habitats will involve measures to manage recreational pressures and to combine nature conservation needs with agricultural usage. It is expected to increase or maintain numbers of protected species typical of floodplain habitats. **Contact:** schnitzler@bskw.de

LIFE-Projekt Egge-Moore (Die Biologische Station Kreis Paderborn - Senne e.V.): The project aims to improve the conservation status of specific wetland habitats (mainly bogs and mires) in the Natura 2000 sites "Eselsbett und Schwarzes Bruch" and "Sauerbachtals Bühlheim" by ensuring a favourable water balance, suppressing willow scrub and thinning pine forests. **Contact:** info@bs-paderborn-senne.de

Greece 10 projects (14.9 million)
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LIFE+ Environment Policy and Governance (4 projects – 6.5 million)

LIFE READ (Suschem Engineering Ltd.): Inspired by the REACH Regulation, this project aims to demonstrate an effective means of communicating safety information concerning hazardous materials throughout the supply chain in Greece - from the manufacturer or importer of a hazardous mixture or substance, via the producers and distributors of formulated products to the professional end-user. **Contact:** info@suschem.gr

LIFE CONOPS (Benaki Phytopathological Institute): This project aims to develop integrated management plans for effectively controlling the spread in Europe of invasive mosquito species. It will develop a network of 12 prototype devices for the monitoring of the invasive mosquito species population in selected areas of Greece and Italy. **Contact:** a.michaelakis@bpi.gr

LIFE RECLAIM (ENVECO SA): The goal of this project is to build a pilot plant for a process that involves mining parts of existing landfills, separating useful materials and producing suitable products (concentrates), both ferrous and non-ferrous, which can be fed into a metallurgical process. The plant will include a pre-processing area, a production line, and a beneficiation stage for non-ferrous metals, introducing innovative elements from the mining industry. **Contact:** geotentes@enveco.gr

CROME LIFE (Aristotle University of Thessaloniki – Chemical Engineering/Environmental Eng. Lab): The aim of the project is to significantly improve exposure analysis by coupling environmental and biological monitoring and modelling in an integrated methodology that enables a quantitative assessment of the impact on human health of acute/chronic exposure to chemicals acting as neuro-developmental and neurological toxicants and/or human carcinogens. The project will make use of human bio-monitoring data in order to provide a more solid scientific basis for environmental and public health protection decision-making, leading to more cost-efficient and effective environmental and public health management. **Contact:** sarigiannis@auth.gr

LIFE+ Nature (4 projects – 6.9 million)

CYCLADES Life (WWF Hellas): The goal of this project is to establish a unique protected area in the Natura 2000 site Nisos Gyaros Kai Thalassia Zoni and its adjacent waters through the participation and active involvement of local stakeholders from the adjacent islands of Andros and Syros. The main objectives are the conservation and protection of the local population of the critically-endangered Mediterranean monk seal, and the protection and improvement of the conservation status of several other species and habitats, in particular Neptune grass (*Posidonia oceanica*) beds. **Contact:** c.liarikos@wwf.gr

LIFE ARCPIN (Municipality of Grevena): The project's objectives are to improve the conservation status of the brown bear (*Ursus arctos*) in the Northern Pindos National Park and Grevena, measured in terms of population levels and trends. It will do this through actions designed to promote the sustainable coexistence of humans and bears in the project areas, by minimising bear-human interference and subsequent conflicts that are detrimental to the species. **Contact:** th.tsialtas@gmail.com

LIFE-Stymfalia (Piraeus Bank SA): The main objective is to establish a sustainable management and financing system for an important but degraded wetland ecosystem in Limni Stymfalia, a Natura 2000 site. The project seeks to improve the conservation status of several target species and wetland habitats and to ensure a viable scheme that will, in the long term, finance all necessary management activities. **Contact:** dimopoulosd@piraeusbank.gr

LIFE JunEx (Society for the Protection of Prespa): This project aims to restore and conserve the priority habitat Grecian Juniper woods (*Juniperetum excelsae*) in the Prespa National Park. **Contact:** spp@line.gr

LIFE+ Biodiversity (1 project – 0.9 million)

LIFE WINDFARMS & WILDLIFE (Centre for Renewable Energy Sources and Saving): The overall objective is to demonstrate state-of-the-art methods and approaches that improve the compatibility of wind farm development with EU biodiversity conservation targets. The project will develop prescriptions and guidelines that will enable Greek state authorities and wind farm developers to effectively plan, implement and regularly evaluate the performance of mitigation technologies against biodiversity benchmarks. **Contact:** kros@cres.gr

LIFE+ Information and Communication (1 project – 0.6 million)

LIFE – AMMOS (Mediterranean SOS Network): The project aims to implement an integrated information campaign for the prevention and reduction of smoking-related litter in Greek coastal areas. The aim of the project is to advance a change in behaviour through the combined use of technology and awareness-raising practices in order to prevent coastal pollution from cigarette butts, thus protecting the marine and coastal environment, safeguarding public health and contributing to the implementation of relevant EU legislation. **Contact:** info@medsos.gr

Hungary 3 projects (10.5 million)
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LIFE+ Nature (3 projects – 10.5 million)

KASZO-LIFE (Ministry of Defence Kaszó Forestry Stock Company): The main objectives of the project are to manage Natura 2000 sites in the West-Inner-Somogy natural region (south-west Hungary) and rehabilitate natural habitats that have been degraded. The project seeks to improve the water supply of the forests, smaller swamps and grasslands of Szentai Forest Natura 2000 site as well as retaining precipitation in the area and thus stabilising the favourable ecological state. **Contact:** szasz.mihaly@kaszort.hu

HUGRASSLANDSLIFE (Duna-Ipoly National Park Directorate): The main aim of the project is the protection of Pannonic dry grasslands and sand steppes habitats through the removal of shrub overgrowth, elimination of invasive species, land purchase to ensure adequate nature conservation management, and mitigation of human-induced negative effects (illegal road use, fly-tipping and illegal mining) in nine Natura 2000 sites. **Contact:** dinpi@dinpi.hu

LIFE sodic wetlands (Kiskunsági National Park Directorate): The project's overall objective is the restoration of the original water dynamics and natural habitats of a sodic lake and its catchment area at Böddi-szék (one of the shallow soda ponds located in the Kiskunság National Park), which is one of the most important such habitats in the Carpathian Basin. Another aim is to improve the habitat management activities in the project site to ensure its ecological sustainability. **Contact:** siposm@knp.hu

Ireland 1 project (2.6 million)

LIFE+ Nature (1 project – 2.6 million)

LIFE Aran (Heritage and the Gaeltacht (DAHG) - Department of Arts): This project is taking place in three Natura 2000 sites (Inishmaan, Inishmor and Inisheer) which make up the Aran Islands. The project aims to improve the conservation status of three habitats: limestone pavement, orchid-rich calcareous grasslands and machair. It will demonstrate best management techniques to maintain and bring sites to a "favourable" conservation status by addressing the threats of land abandonment, undergrazing, intensification, loss of traditional management systems and associated loss of knowledge. **Contact:** aran.life@ahg.gov.ie

Italy 52 projects (106.2 million)

LIFE+ Environment Policy and Governance (38 projects – 75.7 million)

LIFE BIOCLC (Università degli Studi di Firenze - Dipartimento di Ingegneria Civile e Ambientale): The objectives of this project are to demonstrate the suitability of an innovative monitoring instrument for the control of activated sludge processes based on online measurement of the nitrification rate. The technology will be installed in a textile factory's wastewater treatment plant for demonstration purposes. The new monitoring and control strategy is expected to save energy and reduce the carbon footprint of the treatment whilst improving effluent quality through the control of the oxygen concentration and the removal of nutrients from wastewater. **Contact:** giulio@dicea.unifi.it

LIFE FIBERS (Università degli Studi di Genova - Department of Earth, Environment and Life Sciences): The aim of LIFE FIBERS is to improve knowledge about methods of treating asbestos-bearing waste by manufacturing and implementing two prototype ovens for rendering inert such waste using the Self-propagating High temperature Synthesis technique. The ovens will be up-scaled, firstly to medium- and then to pre-industrial scale. The project will also verify the extent of transformation of fibrous waste into newborn minerals and thus contribute to the reuse of treated waste for aggregates. **Contact:** gaggero@dipteris.unige.it

LIFE-HPRS (IMAL srl): The goal of this project is to reduce resin usage in the panel production industry by distribution of the resin as a function of the surface. It will demonstrate a novel blender equipped with a high pressure glue mixture injection system, which is expected to reduce energy consumption as well as emissions of CO₂ and Volatile Organic Compounds. **Contact:** lauro.zoffoli@imal.com

BioMethER LIFE+ (ASTER S.Cons.P.A.): The project aims to bridge the gap between policy, research and development and industrial-scale solutions, by implementing a novel biogas production plant. This will combine an anaerobic digestion, pre-treatment and upgrading system with a subsequent system for grid injection/filling in. In this way, the project will test the integration of established technologies with new ones. Another project goal is the production of guidelines to help the regional government design a policy for the development of biomethane and its use in the energy grid. **Relevant to Climate Change.** **Contact:** ecoinnovation@aster.it

Life After-Cu (Università di Firenze - Department of Agricultural Biotechnology): The overall goal of this project will be to demonstrate the anti-infective properties of peptide molecules against plant pathogenic bacteria, with a view to the replacement of traditional copper compounds used in conventional and organic agriculture. **Contact:** stefania.tegli@unifi.it

BioNaD (Chemical Institute of organometallic compounds of CNR): BioNaD's main objective is to demonstrate the use of a new category of dyes as colorants for the leather industry. These 'naturalised dyes' are obtained by linking dyes with lactose obtained from waste milk serum. Another goal of the project is to prove the efficacy of bacteria-based degradation of dyeing effluent wastewaters, thereby allowing the reuse of this water. **Contact:** bramanti@pi.iccom.cnr.it

Life RESAFE (Sapienza Università di Roma - Dipartimento Ingegneria Chimica Materiali Ambiente): The main objective of the project is to demonstrate the production and use of Reduced Salinity Fertiliser (RSF) as a substitute for chemical and mineral fertilisers. RSFs will be manufactured by the project from Urban Organic Waste, Farm Organic Residues and bio-char. **Contact:** silvia.serranti@uniroma1.it

LIFE Prefer (Scuola Superiore di Studi Universitari e di Perfezionamento Sant'Anna): The PREFER project aims to demonstrate the effectiveness of the European Environmental Footprint (EF) methodology in different sectors. The project will leverage a cluster approach to overcome issues of limited human and financial resources that are common to many Small and Medium Enterprises. A set of instruments, tools and resources will be shared with local SMEs at the cluster level in order to support them in the application of the EF methodology and to improve the environmental performance of their products. **Contact:** frey@sssup.it

LIFE ZEF-tile (Ceramica Alta S.r.l.): The objective of this project is to demonstrate the feasibility of applying oxy-fuel technologies to the firing stage of ceramic products, in order to implement CO₂ sequestration techniques. By using pure oxygen instead of air to burn hydrocarbons such as methane, exhaust gases will consist solely of carbon dioxide and water vapour. The project will do this by setting up a pilot roller kiln with modified burners that is capable of using pure oxygen as an oxidant for the combustible material. **Relevant to Climate Change. Contact:** amministrazione.piera@ceramicaalta.com

GREENWOOLF (Institute for Macromolecular Studies): This project aims to demonstrate the viability of converting waste wool into an effective soil conditioner fertiliser using small-scale, local hydrolysis plants. The plants will have a capacity of 1 tonne/day, thus reducing transportation costs of both fertilisers and wool waste, and eliminating the need for scouring and disposal of coarse wools. **Contact:** c.tonin@bi.ismac.cnr.it

BiMoP (Advanced Polymer Materials Srl): The BiMoP project is focused on demonstrating how to apply itaconic acid and its derivatives to a range of applications in the production of plastic materials, surfactants and chemicals for pharmaceutical compounds. Expected results include a decrease in formaldehyde and styrene emissions of around 8 %. **Contact:** info@apmlab.com

LIFE CLEANSED (Institute for Ecosystem Studies of the National Research Council): This project will demonstrate, evaluate and disseminate an innovative, integrated, multi-sector approach for the smart and sustainable management of polluted dredged river sediments. Polluted sediments will be dredged and, via a novel decontamination treatment, transformed from waste into a valuable material that will be used in plant nurseries and for road building. **Contact:** grazia.masciandaro@ise.cnr.it

LIFE+ GLEE (Solvay Specialty Polymers Italy SpA): This project aims to eliminate NMP, a toxic and carcinogenic solvent, from the manufacturing process of Li-ion batteries, which are used in electric vehicles. It will do this by demonstrating a substitute technology – water-based green solvents. As well as eliminating the toxic risks to living organisms, these new solvents are expected to reduce manufacturing costs by making sophisticated NMP solvent recovery and re-purification processes redundant. The project will thus produce an alternative battery for electric vehicles that should last longer and cost less than lithium batteries. **Contact:** francesco.triulzi@solvay.com

Wi-GIM Life (International Consortium on Advanced Design): The project has the objective of applying and demonstrating innovative and cost-effective technologies, methods and instruments for landslide and subsidence monitoring by implementing an innovative wireless sensor network for 3D surface monitoring. **Contact:** ennio.carnevale@unifi.it

LIFE+ IMAGINE (Geographical Information Systems International Group): The project's aim is to harmonise heterogeneous spatial information in implementing the INSPIRE Directive, Shared Environmental Information System and Copernicus (the European Programme for the establishment of a European capacity for Earth Observation) in coastal areas. Two scenarios representative of severe environmental problems affecting coastal areas will be modelled, such as flooding, landslides, coastal erosion and soil sealing. **Contact:** g.saio@gisig.it

PROSIL (Istituto di Ricerche Farmacologiche Mario Negri): The goal of this project is to facilitate a proactive attitude towards the REACH Regulation, aiming at helping the chemical industry improve their environmental approach and minimise health effects. The project will also extend its attention to new chemicals, enabling industry to take into consideration relevant toxicity properties in the planning phase of chemical plants. **Contact:** emilio.benfenati@marionegri.it

LIFE SMILE (Regione Liguria Environment Department - Coastal Area Ecosystem): The goal of this project is to reduce and recover marine litter in coastal areas through the development of governance processes and an integrated approach to solid waste management, in accordance with the philosophy of Integrated Coastal Zone Management and Marine Litter legislation. The project will install an innovative "catching mechanism" for marine litter in a pilot area. **Contact:** ilaria.fasce@regione.liguria.it

Life Plastic Killer (PAL srl): The main objective of this project is to set up and demonstrate the viability of an energy-efficient pilot plant able to finely separate post-consumer recycled wood from plastic impurities. The recycled wood will be used primarily to manufacture medium-density fibreboard panels and secondarily as "purified" biomass. **Contact:** up.pal@pec.it

Climate changeE-R (Regione Emilia Romagna - Direzione Generale Agricoltura, Economia Ittica, Attività Faunistico-Venatorie): The project aims to reduce greenhouse gas emissions caused by selected agricultural food chains on a regional scale in Emilia-Romagna. It will tackle emissions of Methane (CH₄) from enteric origin, Nitrous oxide (N₂O) from soil and manure, and carbon dioxide (CO₂) from energy use. The general aim is to reduce the emissions by 0.2 Mtonnes CO₂ equivalent over a three-year period in specialised crop cultivations (tomatoes, green beans, wheat, peaches and pears) and in the beef and milk production chains. **Relevant to Climate Change. Contact:** mmontanari@regione.emilia-romagna.it

EMaRES (Università degli Studi di Perugia - Dipartimento di Ingegneria Industriale): The aim of this project is to demonstrate how to increase material recycling and recovery and reduce landfill needs, by introducing innovative concepts in waste collection, mechanical sorting, biological treatment and landfill management. Project activities will involve the whole waste management system, from source segregated collection to recycling, mechanical-biological treatment and final disposal. **Contact:** fdm@unipg.it

LIFE of water is man life (La Borghigiana S.r.l.): The main objective of this project is to drastically decrease water consumption in natural stone cutting operations - in particular during the process of cutting *pietra serena* (a type of sandstone). The innovation is based on new cutting tools equipped with small micronising nozzles. As well as saving water and producing 100 % recyclable powders, the project will lead to better working conditions by reducing the amount of spray hitting the workers. **Contact:** stefano.cangioli@laborghigiana.com

LIFE GLUELESS (Fameccanica.Data SpA): The aim of the project is to demonstrate to the personal hygiene industry and policy-makers the potential for a significantly reduced environmental impact by cutting the use of glue in the manufacture of Absorbent Hygiene Products, such as nappies. The project will scale up towards novel combinations of thermo-welding and ultrasonic bonding, promising a reduction of more than 65 % in the use of primary non-renewable materials (petrochemical-based glue), and significant energy and cost reductions. **Contact:** francesco.daponte@fameccanica.com

SEKRET Life (University of Pisa - Center for logistic systems Dept. of Civil Engineering): The aim of this project is to demonstrate a technology for treating sediment dredged from ports, which is typically characterised by heavy metal and hydrocarbon concentrations over acceptable limits. The project will use electrokinetic remediation within a specifically-equipped Confined Disposal Facility in order to treat the sediment. It will also highlight the environmental and economic benefits of this solution in comparison with disposal to landfill. **Contact:** r.iannelli@ing.unipi.it

HelpSoil (Regione Lombardia - DG Agricoltura): The HelpSoil project will test and demonstrate innovative solutions and soil management practices to enhance the functions of soil and the resilience and adaptation of agricultural systems to climate change impacts. Actions will take place across the 46 000 km² Po plain and the Alpine and Apennine foothills. **Relevant to Climate Change.** **Contact:** alberto_lugoboni@regione.lombardia.it

LIFE ENRICH A POOR WASTE (Bra Servizi S.r.l.): This project's main objective is to process waste Glass Fibre Reinforced Polymers to create thin elements that are fireproof, sound absorbent, insulating, anti-shock, easy-to-clean and able to be used in eco-sustainable buildings, where they can be easily removed and reused. **Contact:** s.piumatti@braservizi.com

LIFE+ VIRGIN (FATER SpA): The general objective of the project is to foster the market readiness of an innovative solution with drastically increased cost and energy efficiency in the valorisation of cellulosic residues from a wide range of sources (35 % of total municipal solid waste). The novel solution will contribute to the overall efficiency of another recovery technique for absorbent hygiene products waste, thus helping it overcoming non-technological barriers, namely energy autonomy and low economic sustainability. **Contact:** Somma.ma@fater.it

MAPEC LIFE (University of Brescia): The overall objective is to evaluate the associations between established (e.g. PM10, NOx) and emerging (PAHs and nitroPAHs) measures of air pollution and early effect biomarkers, and to propose a model for estimating the global risk of early biological impacts in children caused by air pollutants and other factors. This model will provide information that gives valuable guidance to policy-makers planning individual and community interventions to protect children from the possible health effects of air pollutants. **Contact:** gelatti@med.unibs.it

LIFE EDESIA (Istituto Superiore di Sanità): This project aims to demonstrate a new, robust and cost-effective in silico/in vitro approach to evaluate suitable chemicals for replacing Endocrine Disruptor Compounds (EDCs) of equivalent concern. It will provide at least one suitable alternative each for bisphenol A/BPA, phthalates and parabens). Foreseen applications of the alternatives will overlap the main usages of the chemicals of interest, namely plasticiser (hard plastics) for BPA, plasticiser (PVC-based medical devices) for phthalates, and antimicrobials (personal care products and over-the-counter drugs) for parabens. Using (Q)SAR, potential alternatives will be tested upon selection for absence of mutagenicity/genotoxicity and persistence/bioaccumulation. The project's in-vitro tests for EDCs will complement the efforts of the REACH Regulation and provide a comprehensive screen for endocrine-disrupting properties. **Contact:** alberto.mantovani@iss.it

LIFE-OPTIMAL2012 (Biogas Wipptal s.r.l.): The general objective of this project is to demonstrate an innovative approach for the management of the manure produced by livestock farming, by turning it into high quality solid and liquid fertiliser using an anaerobic digestion plant. Environmental benefits will include a reduction in nitrogen/nitrates on agricultural land and decreased greenhouse gas and ammonia emissions. **Contact:** mayr.josef@rolmail.net

LIFE ReTSW-SINT (Majorca S.p.A.): The project aims to demonstrate the feasibility of valorising and recycling different types of thermal spray waste from the ceramic industry into high value products for industrial and residential use. The goal is to convert such waste streams into usable and high-value products by separating waste powder streams according to composition, particle size and morphology. The project will develop innovative frits and glazes for use in the manufacture of glazed ceramic tiles with abrasion resistance, conductivity, electro-magnetic field absorption and aesthetical properties. **Contact:** corrado.m@majorca.it

LIFE CarbOnFarm (Centro di Ricerca Interdipartimentale sulla Risonanza Magnetica Nucleare per l'Ambiente, l'Agro-Alimentare e i Nuovi Materiali): The project intends to address the basic requirements concerning the sustainable use of agricultural soils through the restoration and preservation of soil properties; valorisation of the economic and environmental role of soil as a resource in agro ecosystems; and improved agricultural biomass recycling. The main objective is to monitor and improve the quantity and quality of soil organic matter (SOM) in agricultural soils. This will be achieved by applying environmentally-sustainable SOM management methods. The project will also adopt "on-farm" composting facilities for valorising residual biomass from local farming activities. **Contact:** riccardo.spaccini@unina.it

GREEN SINKS (DELTA srl): The project aims to introduce the first 'green kitchen sinks'. To this end it will demonstrate the feasibility of 100 % substitution of primary resources by treating and recycling 80 % of the methyl methacrylate (MMA) and poly(methyl methacrylate) (PMMA) used in composite sink manufacture. The project will combine the recycled MMA and PMMA with other minerals and mould the material into new composite sinks, which will be subject to a lifecycle assessment. Some 20-30 demonstration sinks will be produced for demonstration purposes. **Contact:** savina.pianesi@telmacucina.it

LIFE MED HISS (Agenzia Regionale per la Protezione Ambientale del Piemonte): MED-HISS is a demonstration project involving partners in Spain, France, Italy and Slovenia. Its main objectives are to update and develop EU environmental policy and legislation with improved data on the adverse health effect of air pollution (PM₁₀, PM_{2.5}, NO₂ and O₃); to consolidate the knowledge base for the development, assessment, monitoring and evaluation of environmental policy and legislation, by setting up a European surveillance system of long term effects of air pollution; and to assess the feasibility of transferring the adopted approach to other European countries. **Contact:** ennio.cadum@arpa.piemonte.it

LIFE FRELP (Sasil S.p.A.): The project aims to demonstrate innovative technologies for 100 % recycling of end-of-life photovoltaic panels in an economically viable way. Two key environmental solutions are proposed: recovery of high quality extra clear glass, to be used in the hollow and flat glass industry; and recovery of (metallic) silicon, to be employed as ferrosilicon in iron silicon alloys or, if sufficient purity is obtained, transformed into amorphous silicon for use in the production of thin films. Both processes promise significant energy and CO₂ emissions savings. **Contact:** l.ramon@sasil-life.com

LIFE PRIME GLASS (STARA GLASS S.p.A.): The aim of the project is to test and demonstrate technologies that will significantly reduce the environmental impact of the glass industry. In particular, NO_x formation during the combustion process in the glass furnace will be significantly reduced at the source and the energy performance of glass furnaces will be improved. The innovative systems demonstrated in this project are designed to provide results that will feed into further BREF revisions. **Contact:** giampaolo.bruno@hydragroup.it

WEENMODELS life (Comune di Genova): The main objective of the project is to demonstrate that through the application of an efficient logistic system and the central coordination of WEEE collection services, it is possible to reach and even to exceed the targets defined by the EU WEEE Directive (2012/19/UE). It will create a new collection and logistical model designed to operate in a stable and systematic way whilst minimising service costs. **Contact:** progettieupei@comune.genova.it

LIFE SANITSER (Minerali Industriali S.p.A.): The project aims to revise the production process in the Vitreous Sanitary Ware (VSW) ceramic sector by introducing appropriate amounts of cullet from urban glass collection streams into VSW ceramic formulas. Actions will focus on process innovations designed to ensure the availability and recovery of suitable quantities of glass cullet waste (soda lime glass), improve the environmental performance of the ceramic sector by reducing CO₂ emissions, and enhance sustainability by saving energy and raw materials. **Contact:** mestriner@g-m-m.it

InBioWood (Consorzio di Bonifica Veronese): This project aims to increase and protect biodiversity in areas where it is under threat because of intensive agriculture. It will do this by introducing and promoting polycyclic permanent plantations, a new approach to plantation forestry that combines the environmental benefits of a natural forest with the productivity gains of artificial plantations. This will increase and protect biodiversity in agricultural areas, improve water management and the drainage network and balance environmental benefits with a good income for farmers. **Contact:** consorzio@bonificaveronese.it

LIFE+ Nature (10 projects – 24.7 million)

SPIN4LIFE (Regione Siciliana - Assessorato del Territorio e dell'Ambiente Dipartimento Regionale dell'Ambiente): The project aims to draft a long-term management plan for all Natura 2000 sites in Sicily with the goal of achieving a "favourable" conservation status for all protected habitats and species. The plan will take into account all potential sources of EU, national and regional funding and establish a Priority Action Framework for Sicily's Natura 2000 network, with a list of priority actions to be carried out on the sites over the next 10 years. **Contact:** matilde.fiore@regione.sicilia.it

LIFEEMYS (Costa Edutainment S.p.A.): The project aims to eradicate alien freshwater terrapin and turtle species within the two most important wetlands of Liguria: the Centa river plain and the basins of the Magra and Vara rivers. This action will be a precursor to the captive-breeding and reintroduction of the European pond turtle (*Emys orbicularis*) to the Centa plain. **Contact:** cgili@costaedutainment.it

LIFE Puffinus Tavolara (Comune di Olbia): The objective of the project is to eradicate invasive rodents (black rat and house mouse), and alien plant species from Tavolara and three smaller islets, where the world's largest Yelkouan shearwater (*Puffinus yelkouan*) population is under threat. **Contact:** vsecchi@comune.olbia.ot.it

LIFE Xero-grazing (Ente di Gestione delle Aree protette delle Alpi Cozie): The aim of the project is the conservation and restoration of dry grasslands with orchid habitats in the Natura 2000 site "Oasi xerothermiche della Valle di Susa - Orrido di Chianocco e Foresto". **Contact:** castagneri.alpicozie@ruparpiemonte.it

TARTALIFE (Consiglio Nazionale delle Ricerche - Istituto di Scienze Marine): The aim of the project is to reduce loggerhead sea turtle (*Caretta caretta*) mortality in the Mediterranean, firstly by reducing commercial fishing by-catch and secondly by training the fishing community in how to prevent deaths of turtles caught in their nets. The project will also support the work of marine turtle first aid/rescue centres. It covers all 15 Italian regions bordering the Mediterranean Sea. **Contact:** a.sala@ismar.cnr.it

LIFE+TROTA (Amministrazione Provinciale di Pesaro e Urbino): The main objective of this project is the recovery and the conservation of existing populations of *Salmo macrostigma* (a sub-species of brown trout) in four main watersheds in central Italy (Ambro-Tenna, Nera, Chienti and Metauro). **Contact:** e.cecchini@provincia.ps.it

LIFE+ Tetrax (Amministrazione provinciale di Foggia): The overall goal of this project is recovery of the little bustard populations of Apulia and Basilicata in southern Italy. Actions will focus on restoring grassland habitat that supports the species, reduction of the presence of predators (rats, stray dogs and cats) and reduction of the impact of human activities. **Contact:** info@centrostudinataura.it

LIFE VIMINE (Università degli Studi di Padova - Dipartimento di Ingegneria Industriale): This project aims to demonstrate an integrated approach to the conservation of the salt marshes of the Venice lagoon. It will identify and repair numerous small areas of salt marsh in order to stop erosion. This will be done using low-impact soil bioengineering techniques and manual labour, a cost-effective approach that will be merged with participatory processes to involve stakeholders in the conservation works, increase environmental awareness and promote sustainable local economic activities based on salt marsh services. **Contact:** lpalmeri@unipd.it

LIFE WOLFALPS (Parco Naturale delle Alpi Marittime): The ultimate goal of this project is to implement and coordinate transboundary wolf conservation actions from the western Alps (France) to the eastern part of the range (Slovenia) via Italy. These actions are designed to enhance the re-colonisation process. **Contact:** giuseppe.canavese@parcoalpimarittime.it

LIFE Caretta Calabria (Comune di Palizzi): This project focuses on conservation of the loggerhead sea turtle (*Caretta caretta*) in Calabria. The beneficiary will conserve and restore four key nesting areas in coastal dune habitats, and seek to reduce the impact of the activities of the Calabrian and Sicilian fishing fleets. **Contact:** valeriapulieri@gmail.com

LIFE+ Biodiversity (2 projects – 3.5 million)

AQUALIFE (Ente Parco Nazionale del Gran Sasso e Monti della Laga): The project aims to develop and disseminate the AQUALIFE Package, an innovative and user-friendly working package of biodiversity indicators that can be easily and widely used for assessing biodiversity status and loss in groundwater dependent ecosystems. **Contact:** monica.difrancesco@gransassolagapark.it

LIFE Alta Murgia (Consiglio Nazionale delle Ricerche): The project aims to eradicate the invasive alien plant species, *Ailanthus altissima* from the Alta Murgia National Park, a Natura 2000 site. **Contact:** maurizio.vurro@ispa.cnr.it

LIFE+ Information and Communication (2 projects – 2.4 million)

Life Go Park (Coordinamento C.R.E.I.A Regione Lazio): The objective of the this project is to raise awareness of Nature Protection Areas (NPAs) and Natura 2000 sites in the Lazio Region, as well as of citizens' impact on biodiversity. It also seeks to encourage more visitors to Lazio's NPAs and Natura 2000 sites, whilst encouraging them to respect the environment. **Contact:** mantonelli@regione.lazio.it

EcoLife (LEGAMBIENTE Onlus): The project intends to transfer the knowledge and experience gained in professional communication on risk perception and prevention to communication on climate change. It will launch a long-term, sustainable, information and communication campaign designed to improve population awareness and reduce CO₂ emissions through the adoption of a new and environmental-friendly lifestyle. **Contact:** n.corona@legambiente.it

Latvia 3 projects (4.5 million)

LIFE+ Nature (2 projects – 3.2 million)

LIFE COASTLAKE (Latvian Fund for Nature): The long-term objective of the project is to improve the conservation status of the Bittern (*Botaurus stellaris*) in Latvia and the EU by introducing measures in accordance with the framework for species conservation set by the EU Species Action plan. **Contact:** ldf@ldf.lv

LIFE Birds in Adazi (State Centre for Defence Military Objects and Procurement): This project aims to enhance conditions for the long-term sustainability of the Adazi Natura 2000 site. Specific actions will target the restoration of breeding and/or foraging habitats of threatened bird species and habitats, such as heathland and bog habitats. The project will also promote cooperation and international best-practice networking with other managers of military Natura 2000 sites. **Contact:** daina.galaktionova@vamoic.gov.lv

LIFE+ Biodiversity (1 project – 1.3 million)

LIFE GRASSSERVICE (Baltic Environmental Forum – Latvia): The project aims to ensure the maintenance of biologically-valuable grasslands by introducing a complex approach for the assessment, restoration and/or management of grassland ecosystems. This will include developing an economically-sustainable management model that involves the use of grassland biomass. **Contact:** bef@bef.lv

Lithuania 2 projects (2 million)

LIFE+ Nature (2 projects – 2.0 million)

LIFE Aukštumala (Lithuanian Fund for Nature): The project's main objective is to maintain or restore to a "favourable" conservation status, active raised bog habitats within the Aukštumalės Telmological Reserve. This will be done by damming old drainage ditches on the high moor to raise the water table within the project area and increase sphagnum moss growth. **Contact:** nerijus.z@glis.lt

Tyruliai – Life (Lithuanian Ornithological Society): The main project objective is to ensure the "favourable" conservation status of three bird species listed in annex I of the Birds Directive: the bittern (*Botaurus stellaris*), spotted crane (*Porzana porzana*) and common crane (*Grus grus*). **Contact:** lod@birdlife.lt

Luxembourg 1 project (1.2 million)

LIFE+ Environment Policy and Governance (1 project – 1.2 million)

LIFE GREEN EAF (ArcelorMittal Belval & Differdange S.A.): The main objective of the project is to implement an innovative and high-performance offgas analysis system (measuring CO, CO₂, H₂, O₂, H₂O, N₂, Ar and He levels and fume temperatures) in long carbon steel mills. The project will modify the standard electric arc furnaces, creating a “dual shell” process, reducing offgas losses, making the process more energy efficient and lowering direct and indirect greenhouse gas emissions by some 6 %. **Relevant to Climate Change. Contact:** jc.baumert@arcelormittal.com

Malta 3 projects (6.2 million)

LIFE+ Environment Policy and Governance (1 project – 0.8 million)

LifeMedGreenRoof (University of Malta): The project will construct two demonstration green roofs as case-studies over the Faculty for the Built Environment on the campus of the University of Malta, The project seeks to demonstrate that green roof technology is safe, cost efficient and provides a range of environmental benefits, including lower energy consumption, a reduced risk of flooding and enhanced biodiversity. **Contact:** alex.torpiano@um.edu.mt

LIFE+ Nature (2 projects – 5.4 million)

LIFE SAVING BUSKETT (Ministry for Resources and Rural Affairs - PARK Directorate): The project aims to improve and restore the Wied il-Luq watercourse and riverbanks that support laurel forests and riparian forest galleries. Actions will include target the repair of riverbanks, avoidance of river erosion and removal of invasive plant species. **Contact:** herman.galea@gov.mt

LIFE BaHAR for N2K (Malta Environment and Planning Authority): The aim of this project is to identify and designate new marine Natura 2000 sites and expand existing sites containing marine habitats listed in Annex I of the Habitats Directive, namely: sandbanks which are slightly covered by sea water all the time; reefs; and submerged or partially-submerged sea caves. **Contact:** bahar@mepa.org.mt

The Netherlands 8 projects (36.5 million)

LIFE+ Environment Policy and Governance (6 projects – 13.0 million)

SRNEXT_4_LIFE (Goudsmit Magnetics Groep B.V.): This project intends to demonstrate an innovative process for separating and valorising Shredder Residue – black plastic and minerals – generated during the recycling of waste electrical and electronic equipment and end-of-life vehicles. The beneficiary expects to increase the recycling efficiency of these two waste streams from 60 to 97 %. **Contact:** paul.vanbeem@pnoconsultants.com

LIFE ClosedLoopCarpet (DESSO Holding B.V.): The main objective of this project is to demonstrate the technical and economic feasibility of a separation line (based on an innovative shredding and cryogenic separation technology) capable of separating discarded carpet material into its primary resources with a purity of over 97 %. This new raw material can be used in the production of new carpets or for depolymerisation. Since closed-loop carpet recycling is not possible without this process, it can be considered a breakthrough technology. **Contact:** MvBergen@desso.com

Life+ LE2AP (Koninklijke BAM Groep NV): This project will develop a new and more environmentally-friendly asphalt mix made from over 80 % reclaimed asphalt materials. It will also demonstrate a more efficient paving method. As well as reducing the energy consumption of these two processes by 35 %, the project also expects to cut the following emissions: Hydrocarbons by 80 %; particulate matter by 10%; NOx by 50 %; CO and CO₂ by 35 %; and odours by 80 %. **Contact:** m.von.devivere@bamgroep.nl

LIFE ReWaCo (Municipality of Arnhem): The objective of LIFE ReWaCo is to test a new urban waste collection system, called reversed waste collection. By offering a series of incentives to the local population, the method encourages separation of the most valuable waste materials at household level. This new system is expected to reduce CO₂ emissions by more than 1 500 tonnes/year per 20 000 inhabitants. **Contact:** geert.boonzaaijer@arnhem.nl

ChildProtect-Life (Women in Europe for a Common Future): This demonstration project aims to speed-up the implementation of EU environmental regulations with regard to the substitution of hormone (endocrine)-disrupting chemicals (EDCs). The project aims to develop innovative and multi-sectorial modular actions to achieve this goal and protect, in particular, children and pregnant women from the harmful effects of EDCs. **Contact:** wecf@wecf.eu

Life Green plasma (Green plasma process technology for manufacturing of flexible electronics): The main objective of the project is to demonstrate a new, environmental-friendly process for manufacturing flexible electronic components. This will be a substitute for the traditional vacuum technology, Plasma Enhanced Chemical Vapour Deposition, which is used for the deposition of thin functional coatings with electrical, optical, mechanical and moisture barrier properties. The new process is expected to lead to a 90 % reduction in raw material (precursor) usage and CO₂ emissions. **Contact:** jan_bouwstra@fujifilm.eu

LIFE+ Nature (2 projects – 19.9 million)

Life: Alde Feanen N2000 (Provincie Fryslân): Alde Feanen is a Natura 2000 site and a national park with several problems deriving from the high level of phosphates and the disappearance of water level dynamics. The project aims to restore a large area of wetland habitats (mires, fens, bogs and meadows) by improving water levels, flooding polders, dredging the phosphate rich sediment and by reducing water nutrients. The project will give a major boost to the Alde Feanen's water system, and several habitat types and species will profit. At the same time, the actions proposed will increase the recreational value of the area. **Contact:** s.kroes@fryslan.nl

New LIFE for Dutch Fens (Vereniging Natuurmonumenten): The central objective of this project is to restore, improve and/or enlarge the area of fen habitats in seven different lowland fen areas in the Netherlands. Emphasis will be placed on the early successional fen stages (including water vegetation) in actions that will take place within the Natura 2000 sites Rottige Meente, De Wieden, Naardermeer, Oostelijke Vechtplassen, Botshol, Nieuwkoopse Plassen and Wormer-en-Jisperveld. **Contact:** a.stoker@natuurmonumenten.nl

Poland 12 projects (30.8 million)

LIFE+ Environment Policy and Governance (2 projects – 4.9 million)

LIFE COGENERATION PL (Investeko S.A.): The project aims to demonstrate a cogeneration technology's ability to produce, through gasification, electricity and heat from municipal waste and sewage sludge. The prototype plant to be set up by the project will be capable of processing up to 300 kg/hour of waste and expects to produce 180 kWh of electricity and 250 kWh of thermal power by cogeneration. **Contact:** w2e@taktyk.eu

LIFE APIS/PL (Institute of Geography and Regional Development - Climatology and Air Protection): The objective of this project is to minimise the negative effects of air pollution in public health by developing a new air pollution management and information system. This new tool will combine different existing meteorological models and risk assessment methods, providing useful information to better control and monitor air quality. As well as identifying new areas where air quality actions should be implemented, the project expects to effect a 3-5 % reduction in emission of air pollution and a 10 % decrease in the number of days per year on which pollution limit values are exceeded. **Contact:** anetta.drzeniecka-osiadacz@uni.wroc.pl

LIFE+ Nature (9 projects – 24.9 million)

Life Szachownica/PL (Regionalna Dyrekcja Ochrony Środowiska w Katowicach): The aim of the project is to protect populations of protected species of bats from degradation of their habitats on the Szachownica Natura 2000 site. Specific actions will seek to stop the disintegration of the roof of the Szachownica cave – through ceiling reinforcement – and provide optimal conditions for the bats that hibernate there. **Contact:** adam.skwara.katowice@rdos.gov.pl

LIFE MILITARY HABITATS PL (Rejonowy Zarząd Infrastruktury): The objective of the project is to test, implement and disseminate active conservation measures for inland non-forest natural habitats in military areas. The goal is to help the largest Polish complex of two non-forest sandy habitats located in Pustynia Błędowska Natura 2000 site (Błędowska Desert) to reach a “favourable” conservation status. **Contact:** kancelaria@rzikrakow.internetdsl.pl

Life+-Łosoś- Drwęca-PL (Association of Cities, Municipalities and Districts of the Drwęca Basin): The project aims to restore the Drwęca river and its tributary, the Wel. Actions will be taken to improve the hydrological conditions of the river, including constructing fish ladders that will enable Atlantic salmon (*Salmo salar*) to migrate, and controlling tourist access. **Contact:** [magdalena_kupiec@wp.pl](mailto:magdalenakupiec@wp.pl)

LIFE Pieniny PL (Pieniński Park Narodowy): The main objectives of the project are to improve the conservation status of endangered species and habitats in the Pieniny Natura 2000 site. This will be achieved through land purchase, active conservation of non-forest habitats and their species (through mowing and removal of trees and shrubs), steps to limit the negative impact of tourism and the removal of invasive alien species. An information and communication campaign will seek to win public support and acceptance of the protective actions. **Contact:** biuro@pieninypn.pl

LIFE + Kserotermy PL (Regionalna Dyrekcja Ochrony Środowiska w Krakowie): The aim of the project is the restitution and maintenance of biodiversity of dry grasslands habitats and their species in 12 Natura 2000 sites located in Miechowska Upland. **Contact:** sekretariat@rdos.krakow.pl

LIFE PODKOWIEC+ (Polskie Towarzystwo Przyjaciół Przyrody "Pro Natura"): The main objective of the project, which will be implemented within the 29 Natura 2000 sites of southern Poland, is the conservation of populations of the country's most threatened bat species, especially the lesser horseshoe bat, Geoffroy's bat and the greater mouse-eared bat, and the creation of opportunities to increase their numbers. **Contact:** nietoperze@eko.wroc.pl

Life/Amphibia/2012/PL (Stowarzyszenie "Człowiek i Przyroda"): The main objective of the project is to increase amphibian populations in the Natura 2000 sites of north-eastern Poland. Specific goals are to reduce amphibian mortality during seasonal migrations and increase the number of breeding places for the target species. **Contact:** stowcip@gmail.com

LIFE/BESKIDY "PL" (Województwo Śląskie – Zespół Parków Krajobrazowych Województwa Śląskiego): The aim of the project is to improve the conservation status of the Natura 2000 sites Beskid Śląski and Beskid Żywiecki, in particular of two protected habitats: Southern Carpathian grasslands and extensively used fresh mountain grasslands. This will be mainly done through the removal of self-sown trees and shrubs, mowing and biomass removal and finally, extensive grazing of the grasslands. **Contact:** zpkzywiec@zpk.com.pl

LIFE KAMPINOS WETLANDS PL (Regionalne Centrum Ekologiczne na Europę Środkową i Wschodnią - Krajowe Biuro w Polsce): The main objective of the project is to restore to their proper state (or maintain) wetland habitats of the Natura 2000 site Puszcza Kampinoska. Actions will focus on raising the water level of wetland habitats and will also benefit several endangered bird species. **Contact:** rec@rec.org.pl

LIFE+ Information and Communication (1 project – 1.0 million)

LIFE/3xEnvironment/PL (Stowarzyszenie REFA Wielkopolska - REFA Wielkopolska Association): The main objective of the project is to convince managers and employees of some 3 000 companies to reduce their consumption of resources. Six sectors are targeted, covering both the manufacturing and service sectors, namely construction, wood (carpentry), automotive mechanics, printing, food (bakers, confectioners), and beauty (hairdressers, beauticians). **Contact:** beata.nowaczyk@refa.poznan.pl

Portugal 7 projects (11.5 million)

LIFE+ Environment Policy and Governance (1 project – 0.6 million)

HyMemb (Laboratório Nacional de Engenharia Civil I.P.): The project aims to demonstrate the feasibility and sustainability of introducing advanced membrane processes in water treatment plants to provide a safer and more resilient barrier against emerging contaminants whilst lowering environmental impacts (carbon footprint, sludge production, reagent use and energy consumption). It will do this by developing an innovative hybrid process using a low-pressure ceramic membrane (microfiltration) and powdered activated carbon and by testing it for two years. Results are expected to show that the process easily could be replicated in EU drinking water plants. **Contact:** mjrosa@lnec.pt

LIFE+ Nature (5 projects – 8.7 million)

Life Fura-bardos (SPEA): The project targets the conservation of the Macaronesian sparrowhawk and its favoured habitat, Madeira Macaronesian laurel forest, with the goal of preventing biodiversity loss. **Contact:** madeira@spea.pt

Life Terras do Priolo (SPEA): The project will introduce measures for the long-term management of the Natura 2000 site Pico da Vara / Ribeira do Guilherme in the Azores. These will include actions to conserve both the Azores bullfinch and protected laurel forest habitats, including control of invasive alien species in water courses and restoration of a habitat corridor, landslide areas and native forest using captive bred native plants. **Contact:** luis.costa@spea.pt

LIFE Charcos (LPN – Liga para a Protecção da Natureza): The main aim of the project is to enhance the conservation status of Mediterranean Temporary Ponds in the Costa Sudoeste Natura 2000 site, reversing a recent trend of decline. Conservation and demonstration actions will be implemented at a minimum of 16 ponds. **Contact:** rita.alcazar@lpn.pt

LIFE RECOVER NATURA (Serviço do Parque Natural da Madeira): The objective of this project is to guarantee that the ecosystems of the Natura 2000 sites of Ponta de São Lourenço and Desertas Islands (Deserta Grande and Ilhéu Chão) reach a “favourable” conservation status. This objective will be reached by creating the conditions for the recovery of the habitats and species present in these sites, notably through the eradication and control of introduced invasive flora and fauna. **Contact:** pauloliveira.sra@gov-madeira.pt

LIFE TAXUS (Quercus – Associação Nacional de Conservação da Natureza): This project intends to restore the rare Mediterranean yew habitat, which is listed as priority for conservation in Annex I of the Habitats Directive. Actions will focus on improving and maintaining the diversity of the yew forest mosaic via management of existing species and enlargement of the habitat area in two Natura 2000 sites (Peneda-Gerês and Serra da Estrela). **Contact:** biodiversidade@quercus.pt

LIFE+ Biodiversity (1 project – 2.2 million)

LIFE CWR (Município da Praia da Vitória): The main objective of the project is to recover and restore a network of wetlands in the coastal town of Praia da Vitória, by providing more and better sheltered areas for migratory birds. Project actions will also increase the ecological services of the wetlands and their use in the local economy, thereby increasing the socio-economic sustainability of Praia da Vitória. **Contact:** geral@cmpv.pt

Slovakia 5 projects (9.8 million)

LIFE+ Environment Policy and Governance (1 project – 0.4 million)

Life for Krupina (Statny geologicky ustav Dionyza Stura - State Geological Institute of Dionyz Stur): The citizens of Krupina have the worst health in Slovakia. Research indicates that this is partly caused by the district's geology. The main objective of the project is to improve the health of Krupina's residents. To do this it will confirm the links between health issues and geological conditions. Knowledge gathered by the project will be used to inform appropriate mitigation measures. Implementation actions will focus mainly on education, training and legislative work. Special attention will be paid to identifying appropriate technological solutions. **Contact:** stanislav.rapant@geology.sk

LIFE+ Nature (3 projects – 8.1 million)

LIFE RIVERMANAGEMENT (Slovak Ornithological Society / BirdLife Slovakia): The main objective of this project is to reduce the negative impact caused by a lack of water management measures and by land use changes in three Natura 2000 sites (Parížske močiare, Žitavský luh and Dolné Pohronie). Actions also are expected to improve the status and condition of populations of several endangered bird species. **Contact:** gugh@vtaky.sk

LIFE BeeSandFish (Bratislavské regionálne ochrannárske združenie – BROZ): The main objective of this project is to improve the conservation status and population characteristics of the sand martin, kingfisher and European bee-eater in the Danube-Morava region. Habitat restoration and management actions will lead to active nature protection and the promotion of natural values in the region. **Contact:** kusik@broz.sk

LIFE - Ostrovné lúky (BROZ): The general objective of the project is to contribute to the restoration of habitats favoured by three species listed in Annex I of the Birds Directive – the lesser grey shrike (*Lanius minor*), Tawny pipit (*Anthus campestris*) and red-footed Falcon (*Falco vespertinus*) in Ostrovné lúky. It will establish a suitable model for management of agricultural land and restore the birds' feeding and nesting habitats. **Contact:** broz@broz.sk

LIFE+ Information and Communication (1 project – 1.3 million)

SMAPUDE_LIFE (BIOMASA): The project will promote the use of biomass and solar energy for heating buildings and water in Slovakia. Goals include increasing the effective use of renewable energy, and improving confidence in and awareness of these technologies amongst the Slovak population. The project will support cooperation between organisations working in the field of biomass and solar energy, leading to the creation of a functional 'Eco-cluster'. **Contact:** director@biomasa.sk

Slovenia 3 projects (4.4 million)

LIFE+ Environment Policy and Governance (3 projects – 4.4 million)

LIFE RusaLCA (Slovenian National Building and Civil Engineering Institute): This project will test an innovative nanoremediation process for treating urban wastewater and recycle sludge into different types of composites. This new process is based on nanoparticles of zerovalent iron and will be implemented directly in small-scale plants in households. In the municipality where it will be implemented, the project expects to save some 117 litres per inhabitant per year of drinking water and reduce by 100 % the solid waste from the water treatment process. **Contact:** alenka.mauko@zag.si

LIFE Stop CynoBloom (ARHEL projektiranje in inženiring d.o.o): This project aims to demonstrate a new, environmentally-friendly method for preventing cyanobacteria blooming in natural conditions. The project will also implement an innovative, simple and effective method for determining the concentration and certain physical and chemical parameters of cyanobacteria in water bodies. The project expects to achieve a 90 % reduction in cyanobacteria levels as well as the total removal of microcystins (toxic components produced by cyanobacteria). **Contact:** info@arhel.si

LIFE ReSoil (ENVIT Environmental Technologies and Engineering Ltd.): The project will carry out a large-scale demonstration of an innovative technology for soil washing that removes most toxic metals and organic pollutants. Metals are removed after complexation with the chelant ethylenediamine tetraacetate (EDTA). The method is soil friendly and will enable reuse of the remediated soil as a plant substrate. **Contact:** info@envit.si

Spain 69 projects (107.2 million)
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LIFE+ Environment Policy and Governance (58 projects – 89.2 million)

LIFE DYES4EVER (AITEX, Asociación de Investigación de la Industria Textil): LIFE DYES4EVER proposes a new method to clean wastewater from the textile industry. This project will use cyclodextrins (a polymer produced from starch) to encapsulate and reuse over 90 % of the unfixed dyes present in water, reducing the costs of dye removal by 70-80 % and allowing wastewater from the dyeing process to be recycled. The project also expects to demonstrate that the new method can reduce CO₂ emissions by reducing the amount of chemicals used and the number of journeys needed to deliver them. **Contact:** kmolla@aitex.es

LIFE-REMPHOS (Centro Tecnológico L'Urederra): Current wastewater treatment technologies are very good at reducing nitrogen components, but less effective in the case of phosphorus. LIFE-REMPHOS will develop a new methodology that uses by-products from magnesite production in the removal of phosphates in wastewater. This new technology is expected to reduce the phosphate content of wastewater by 83-91 %, create a new use for a by-product and simplify the current treatment system. **Contact:** claudio.fernandez@lurederra.es

LIFE PHORWater (DAM, Depuración de Aguas del Mediterráneo): The project will develop a new technology that reduces the phosphorus content in wastewater by turning it into struvite, a mineral that can be used as a fertiliser. This beneficiary expects to recycle up to 30 % of phosphates coming into the wastewater treatment plant, thus reducing the phosphorus content of sludge. The facility will also be able to reduce sludge production by 10 % and operational costs by 15 %. **Contact:** laura.pastor@dam-aguas.es

LIFE_OPERE (USC, University of Santiago de Compostela): The aim of LIFE_OPERE is to design and implement an energy management system to improve energy efficiency in the facilities of the University of Santiago de Compostela. With this new management system in place, the university expects to reduce its annual energy consumption by 30 % (200 000 kWh), CO₂ emissions by 35 % (150 tCO₂) and energy costs by € 15 000. The beneficiary intends to demonstrate that the energy management system is suitable for use in large buildings across Europe. **Relevant to Climate Change. Contact:** citt.europeos@usc.es

LIFE GREEN TIC (Fundación del Patrimonio Natural de Castilla y León): This project's objective is to demonstrate the potential of information and communications technology (ICT) in reducing energy consumption and greenhouse gas emissions. It will implement technological solutions in public administrations and educational institutions – e.g. for information storage, cooling systems, street lighting etc. – in order to reduce their impact on the environment. The project expects to halve energy consumption for the target activities, thereby saving over 100 tonnes/year of greenhouse gas emissions. **Relevant to Climate Change. Contact:** jesus.diez@patrimonionatural.org

LIFE RegaDIOX (Fundación FUNDAGRO): This project's main objective is to design, test, demonstrate and disseminate an improved model for sustainable management of irrigated agricultural areas. This will be done by testing different sustainable agricultural practices and quantifying their efficiency in increasing soil carbon fixation and reducing greenhouse gas emissions in irrigated land. The best practices and conclusions drawn from this initiative will be disseminated via a methodological guide. **Relevant to Climate Change. Contact:** l.campos@uagn.es

LIFE WIRE (CETaqua, Centro Tecnológico del Agua): LIFE WIRE aims to develop a flexible and efficient wastewater treatment system that enables municipal wastewater of differing qualities to be recycled and used in the chemical, liquid waste disposal and electro-coating industries. This will be achieved by combining and optimising ultrafiltration, carbon nanostructured material and filtration, and reverse osmosis technologies. Savings of up to 80 % in the chemical industry (dyes and pigments), 90 % in the liquid waste disposal sector and 100 % in metal coating processes are expected. The project will also identify and quantify other environmental benefits. **Contact:** imartin@cetaqua.com

LIFE RURAL SUPPLIES (Municipality of Abegondo): Through a series of pilot actions, such as the construction of sustainable pilot wells, rainwater reclamation facilities and water sanitation systems, the project will develop a sustainable model of groundwater supply and sanitation system for rural areas. The beneficiary intends to demonstrate the replicability of its model not only to the 24 000 other small towns and villages in Galicia, but to other places in Europe with the same characteristics. **Contact:** carlosamejenda@gmail.com

LIFE ENVIP (ROCA SANITARIO, S.A.): LIFE ENVIP aims to develop a more efficient technology (isostatic pressing) for sanitary-ware manufacturing. This technology will be implemented in a pre-industrial plant and is expected to lead to significant savings in process water use, solid waste production, energy consumption and CO₂ emissions. **Contact:** antonio.alburquerque@roca.net

LIFE HUELLAS (Fundación CARTIF): The objective of LIFE HUELLAS is to develop tools and methodologies to optimise decision-making during rail construction projects so as to reduce carbon and water footprints. To this end, the project will revise and analyse the environmental impact of every step in the construction process. Results of this audit will enable the development of a series of lifecycle indicators, to be gathered in a best practices publication. The beneficiary expects to demonstrate that it is possible to reduce the carbon footprint of rail infrastructure projects by 10 % and their water footprint by 5 %. **Relevant to Climate Change. Contact:** external@cartif.es

LIFE GAIN (COMSA, SAU): The project's objective is to reduce the amount of steel furnace slag (SFS) sent to landfill by implementing a new recycling technology that will valorise the material as an eco-friendly aggregate. This material, SFS-Rai, is designed for use as an alternative to natural aggregates on railway lines. The beneficiary plans to build a pilot plant that will use 1 078 tonnes/year of SFS, saving 197.5 MkwH/year and cutting CO₂ emissions by 2 014 tonnes/year. **Contact:** jpeset@comsaemte.com

LIFE SANePLAN (Fundación Instituto Tecnológico de Galicia): The LIFE SANePLAN project will provide a tool to improve the management of water sanitation systems by integrating them into urban planning systems. Incorporating best available monitoring and information technologies, this new system will provide local and regional decision-makers with information on the state of their sanitation systems, enable scenarios to be modelled and corrective actions to be undertaken. **Contact:** otri@itg.es

LIFE MIX_FERTILIZER (Fundación CARTIF): The project aims to develop an innovative and environmentally-friendly fertiliser made from pig manure digestate (100 % of this waste fraction). The special characteristics of this new fertiliser are expected to cut soil and water pollution from nitrate leaching by at least 20 %, reduce consumption of mineral fertilisers by 30 %, and cut nitrous oxide (N₂O) emissions by 45-50 %. **Contact:** external@cartif.es

LifeHyGENet (Fundación PRODINTEC): LifeHyGENet aims to demonstrate a new "green electricity" generation method using the kinetic and potential energy of water supply networks. The project will set up a pilot plant that is expected to generate over 700 000 KWh of electricity, reducing emissions of CO₂ by some 188 tonnes/year, SO₂ emissions by 403 kg/year and NO_x emissions by 285 kg/year. **Relevant to Climate Change. Contact:** mfh@prodintec.com

LIFE MINOx-STREET (Ingeniería y Economía del Transporte): The project's aim is to assess and optimise the efficiency of current photocatalytic technologies for reducing airborne levels of nitrogen oxides (NO_x), in particular NO₂, in cities. The project will gather all its findings in a guide for local authorities on the feasibility and protocols for use of photocatalytic materials. It will also develop and set up a prototype device able to compute the dispersion of pollutants in urban environments. Photocatalytic technologies have the potential to reduce NO_x concentration in cities by up to 40 %. **Contact:** jaime.pampillon@ineco.es

LIFE REVA-WASTE (Fundación CARTIF): The objective of this project is to develop an integrated management plant for treating three kinds of waste: industrial waste, non-recyclable material from waste treatment plants, and agrofood waste. The process proposed is expected to reduce the energy costs of organic waste by 80 % and of plastic waste by 15 %. It is estimated that 100 % of the digestate can be made into fertiliser. Other expected benefits include a reduction by more than 90 % of emissions of volatile solids and a 65-80 % reduction in the environmental impacts associated with landfill disposal of non-recycled materials. **Contact:** external@cartif.es

LIFE DIOXDETECTOR (Fundación CARTIF): The main objective of this project is to provide a better understanding of the behaviour of dioxins in the environment by demonstrating a new analytical technique for tracking and quantifying dioxin concentration levels in air, soil and biota. This pilot technology will be implemented in the surroundings of a municipal solid waste incineration facility. The proposed technology is expected to be able to track dioxin concentrations of up to 10 fg/100 ml of air and to distinguish the different dioxin types according to their physical properties. **Contact:** external@cartif.es

LIFE EQUINOX (Fundación CARTIF): The main objective of LIFE EQUINOX is to test a new method that will allow asphalt roads to “capture” atmospheric nitrogen oxide (NO_x) through a chemical reaction using solar radiation and titanium dioxide (TiO₂). If successful, this innovative technology will enable at least a 25 % reduction in airborne NO_x levels. **Contact:** external@cartif.es

LIFE Eucalyptus Energy (Ingeniería de Manutención Asturiana, S.A.): This project aims to increase the efficiency of the entire eucalyptus biomass production process. This will include optimising power generation from eucalyptus residues and the valorisation of the liquid waste resulting from the pyrolysis processes as a source of fuel and chemicals. Through these actions, the project expects to generate 176 GWh/year of electricity and avoid the annual release of 403 million tonnes of CO₂. **Contact:** xaranzana.rodriquez@grupotsk.com

LIFE VISIONTECH4LIFE (Fulcrum Planificación Análisis y Proyectos, S.A.): The aim of this project is to develop methodologies and tools for monitoring, measuring and correcting the environmental impacts of large civil construction projects. These new methodologies will be developed from current best available monitoring technologies used in other fields. The project expects to generate tools and methods that will allow a 40 % reduction in the cost of corrective measures, as well as making it easier to carry out environmental impact assessments of large-scale infrastructure works. **Contact:** jpormaechea@fulcrum.es

LIFESURE (SACYR Construcción): This project aims to minimise the consumption of natural resources in road construction by developing a prototype of an on-site asphalt plant using reclaimed asphalt pavement (RAP) as a raw material. It targets the manufacture of half-warm mix asphalt (manufacturing temperature <100°C) using either 50 % or 100 % RAP. It also aims to demonstrate that use of LIFESURE eco-asphalt can create self-sustaining urban roads. It will test a total of 18 000m² of low-speed (<50 kph) roads with 100 % RAP eco-asphalt in surface and binder layers against standard hot-mix asphalt both on a test track and in the real conditions of a Madrid street. **Contact:** aramirez@gruposyv.com

Life-QUF (Iclaves S.L.): The objective of this project is to contribute to the improvement of the quality of life and environment of highly-populous urban industrial areas in Southern Europe whose soils have been degraded by industrial activity. In these arid cities, where the effects of climate change are more aggressive, the project will plant 30 000 trees and test the benefits of combining mycorrhiza and water retainers. **Contact:** javiergelabert@iclaves.es

LIFE BOHEALTH (Fundació Hospital de Sant Pau i Santa Tecla): The main objective of this project is to reduce the environmental impact associated with hospitals and other healthcare institutions, by providing management with a decision-making tool that shows their real environmental and economic costs across the entire lifecycle, highlighting hidden or external costs. **Contact:** jcanellas@xarxatecla.cat

LIFE nanoRISK (Instituto Tecnológico del Embalaje, Transporte y Logística): The overall aim of this project is to demonstrate the effectiveness of controls to prevent or minimise workers' exposure to engineered nanomaterials during the production cycle of the polymer nanocomposite industry. It will provide valuable data for determining whether a risk management measure is suitable for a particular exposure scenario on the basis of the REACH Regulation. **Contact:** itneur@itene.com

LIFE REGEN FARMING (NEIKER - Instituto Vasco de Investigación y Desarrollo Agrario): This project's main objective is to demonstrate, under different agro-climatic and livestock system conditions, the viability and environmental effectiveness of an innovative pasture management system based on the principles of regenerative agriculture. **Contact:** yfernandez@neiker.net

LIFE ADNATUR (Asociación de Investigación de la Industria Textil): The project's main goal is the validation, assessment and industrial-scale demonstration of two new technologies for primary treatment of wastewater from the textile sector. The project will achieve this through the development and implementation of two industrial-scale prototype wastewater treatment plants. The technology is expected to lead to energy and materials savings and eliminate the discharge of effluent and hazardous chemical waste during the physical-chemical treatment of industrial or urban wastewaters. **Contact:** miriam.martinez@aitex.es

i-NANOTOOL LIFE+ (Asociación Industrial de Óptica, Color e Imagen): The objective of i-NANOTOOL is to contribute to the efficient implementation of environmental policy and legislation amongst nanomaterial manufacturers, especially small and medium-sized enterprises. Central to this will be the development of an interactive platform (e-tool) for Europe's nanoparticle manufacturers, which will enable self-diagnosis of environmental performance. **Contact:** otri@aido.es

LIFE OFREA (Acciona Agua, S.A.U.): This project aims to increase the percentage of wastewater reused in areas where the salinity of fresh water is a limiting factor, such as coastal areas, as well as promoting high-added value uses of this secondary material. To fulfil this objective, the project will demonstrate the suitability of Forward Osmosis for producing safe and high-quality water from treated wastewater for reuse, at a reasonable cost and with less energy consumption. **Contact:** jordi.bacardit.penarroja@accionacom.com

LIFE+ InSiTrate (Fundació CTM Centre Tecnològic): Nitrate is one of the main pollutants in European groundwater and is the main cause of the abandonment of drinking water wells. This project aims to prove the effectiveness at pilot scale of an innovative method - in situ bioremediation - designed to restore the quality of nitrate-polluted groundwater and recover drinking water wells. It is expected that this technology will prove particularly suitable for small communities that lack other available freshwater sources. **Contact:** international@ctm.com.es

LIFE_ECO-TEXNANO (Acondicionamiento Tarrasense Associación): This project aims to improve the competitiveness of the EU textile sector by demonstrating the suitability of nanomaterials for producing high-value, low-cost textiles. This will be achieved by improving the environmental performance of innovative textiles that incorporate nanoparticles. The project will focus on the textile finishing industry, where the environmental, health and safety impacts of using nanomaterials will be assessed. The overall aim is to help confirm and demonstrate their potential as 'green' technologies. Two pilot trials will provide evidence of best practice in the application of nano-based techniques and will compare these with conventional finishing chemicals. **Contact:** international@leitat.org

LIFE-PURIWAT (LUREDERRA - Fundación para el Desarrollo Tecnológico y Social): The main objective of this project is the design and development of a pilot plant that will remove 97-99 % of hydrocarbons, oil and fats from wastewater. The demonstration plant will include a filter made from an elastomeric material and a biodegradation system that uses micro-organisms to degrade or remove the contaminant charge of the effluent, enabling its re-use or safe disposal. **Contact:** claudio.fernandez@lurederra.es

LIFE COLRECEPS (Fundación CARTIF): The main objective of this project is the implementation of a demonstration prototype plant to recycle expanded polystyrene (EPS) waste to obtain pearls of EPS. This recycled material will be used to manufacture high-quality prototype packaging for the food industry. Through this process, the project aims to recycle more than 50 % of EPS waste generated in the Valladolid urban area and to close the lifecycle of EPS, giving a new value to what is currently a waste stream. **Contact:** external@cartif.es

DISCOVERED LIFE (Gobierno de Aragón - Departamento de Agricultura, Ganadería y Medio Ambiente): The main aim of this project is to design and implement a prototype technology for remediating aquifers contaminated by the leaching of lindane from landfill sites. The project will assess the technical and economic effectiveness of using In Situ Chemical Oxidation with alkaline activation to remediate the Bailín aquifer in Spain. **Contact:** dgcalidad@aragon.es

LIFEZEROSTORE (EROSKI S COOP): This project will create the first “zero-consumption” supermarket. Firstly, it will retrofit an existing supermarket with a range of eco-efficient technologies to reduce electricity consumption. Then it will install a tri-generation system based on biomass to meet the (reduced) total energy demands of the supermarket. **Relevant to Climate Change. Contact:** S8809@eroski.es

LIFE+ ZELDA (Fundació CTM Centre Tecnològic): The main objective of the ZELDA project is to demonstrate and disseminate the technical feasibility and economical sustainability of incorporating brine management strategies into desalination plants, based on the use of electrodialysis metathesis and valuable compound recovery processes. The ultimate goal is to reach a zero liquid discharge process. **Contact:** international@ctm.com.es

HUERTAS LIFE KM0 (Ayuntamiento de Zaragoza): The main aim of this project is to promote the cultivation of “orchards (huertas) around the city of Zaragoza. This “zero km” approach to agriculture will be taught to local farmers, who will be encouraged to cultivate autochthonous and traditional varieties for sale locally. **Contact:** unidadambiente@zaragoza.es

LIFE MEDACC (Generalitat de Catalunya - Oficina Catalana de Canvi Climàtic): The LIFE MEDACC project will trial some of the measures proposed in Catalonia’s Strategy for Climate Change Adaptation. Demonstration activities will take place in three selected watersheds where adaptation measures in water use, agriculture and forest management will be tested. **Contact:** gborras@gencat.cat

LIFE MICROTAN (Asociación de Investigación para la Industria del Calzado y Conexas - INESCOP): The main objective of this project is to demonstrate, at a semi-industrial scale, the technical, environmental and financial feasibility of the isolation of protein products with useful properties, such as collagen and gelatine, from tannery solid wastes. These substances will be reused as natural micro-encapsulating agents in the production of active materials with functional properties. **Contact:** aran@inescop.es

LIFE SEED CAPITAL (NEIKER-Instituto Vasco de Investigación y Desarrollo Agrario): This project aims to present and demonstrate ways of saving energy and reducing emissions of greenhouse gases, by making total use of seeds. Vegetable oil will be extracted, purified and blended with diesel for use as fuel in farm machinery and vehicles, and cold-pressed cakes of rapeseed will be used as animal feed to help to reduce methane emissions from livestock. **Relevant to Climate Change. Contact:** yfernandez@neiker.net

LIFE STARS (+20) (Fundación San Valero): This project aims to reduce the potential impact of climate change on tourism. It will implement an innovative approach in the Camino de Santiago that is designed to be replicable across the European rural tourism sector. **Relevant to Climate Change. Contact:** nzubalez@svalero.es

LIFE WaterReuse (Destilerías Muñoz Galvez S.A.): The objective of this project is to test and validate a sustainable system for reusing process water from industry with high organic loads. It will demonstrate the feasibility of simultaneously reducing water consumption and the carbon footprint by using combined electrochemical oxidation and membrane filtration technologies. The system will be tested by chemical and food companies with a view to becoming a Best Available Technology. **Contact:** munoz.p@dmg.es

LIFE CERAM (Asociación de Investigación de las Industrias Cerámicas): This project's main objective is to achieve zero-waste in the manufacture of ceramic tiles by developing a new type of tile for outdoor application (urban paving) with a high ceramic waste content. The project team will design a sustainable preparation process for manufacturing ceramic tiles, based on dry milling technologies, capable of recycling all types of ceramic waste. **Contact:** javier.garcia@itc.uji.es

LIFE SHOEBAT (Asociación de Investigación para la Industria del Calzado y Conexas): This project aims to increase the knowledge and use of the most environmentally-friendly techniques in the footwear and tanning industries by providing companies in these sectors with a user-friendly interactive tool that lists and explains these techniques. The project will undertake widespread dissemination of its methods and results. **Contact:** medioambiente@inescop.es

LIFE ETAD (SACYR Construcción): This project aims to remediate waters contaminated by mining activities through passive treatment that relies on natural water flow and biogeochemical reactions. The passive treatment that will be used is the dispersed alkaline substrate, which consists of an inert, coarse high-surface matrix (such as wood chips), mixed with a fine-grained alkaline material (such as limestone sand). It is expected to enable the removal of metals such as iron, zinc, nickel, cadmium, cobalt and aluminium solely by means of naturally-available energy sources (e.g. gravity, microbial metabolic energy and photosynthesis). **Contact:** aramirez@gruposyv.com

LIFE CO2SHOE (Asociación de Investigación para la Industria del Calzado y Conexas - INESCOP): The main objective of this project is to develop a carbon footprint calculation tool for the footwear sector, which allows to measure the greenhouse gas emissions produced by each pair of shoes. The ultimate aim is not to compare the carbon footprint of companies but to facilitate the tool's use within the sector to contribute to a reduction in its greenhouse gas emissions. **Relevant to Climate Change. Contact:** jferrer@inescop.es

LIFE RECOVERY (Centro Tecnológico del Agua - Fundación Privada): This project aims to demonstrate, by means of a prototype, the feasibility of an innovative wastewater treatment plant flowsheet based on an up-concentration step at the inlet of the plant and focused on the recovery of nutrients and energy. It will compare the impact of this cradle-to-cradle approach on the overall wastewater treatment process against that of a conventional flowsheet. The technology is particularly focused on wastewater treatment plant upgrades and extensions, rather than new builds. **Contact:** agali@cetaqua.com

LIFE Lo2x (Asociación de Investigación de la Industria Agroalimentaria): This project aims to design and construct a prototype that uses supercritical water oxidation technology to recover energy and phosphorous from sludge, manure and food waste. **Contact:** info@ainia.es

LIFE BIOREG (Fundación TECNALIA Research & Innovation): The main objective of this project is to improve the quality and strength of biocidal risk assessments. The project aims to deliver new methodologies that will provide precise and robust data for conducting risk assessment of biocidal products, as well as more information on the influence on risk of different parameters. It specifically aims to establish a scientifically validated methodology for the risk assessment of film preservatives (PT7) and masonry preservatives (PT10). With the information obtained from this project, regulatory authorities will be able to establish a scientifically-robust methodology and data to show that the use of the products tested and authorised does not represent severe risks to the environment. **Contact:** joana.vitorica@tecnalia.com

LIFE Zero Residues (Universidad de Zaragoza): This project will develop a “Zero Residues” production method for stone fruit, as well as improve the sustainability of the whole chain, up to the consumer. Integrated pest management will drastically reduce pesticide doses, soil degradation and groundwater pollution, whilst achieving the same or better quality as conventional fruit-growers and ensuring visual acceptance by consumers. Post-harvest shelf life will be increased through the use of micro-perforated packaging and atmospheric controls that enable long-term storage of the fruit. Any ‘imperfect’ fruit will not be wasted, but will be processed into baby food and other high-value products. **Contact:** oria@unizar.es

LIFE ECO-DHYBAT (Asociación de Investigación de la Industria Agroalimentaria): The aim of this project is to apply eco-design principles to equipment used for industrial-scale processing of food. The project will demonstrate new equipment that incorporates hygienic and environmental criteria in an integrated approach with the goal of being considered a candidate for Best Available Technique (BAT) for updating the BAT Reference Document in the food sector. The methods to be trialled by the project are designed to help reduce the environmental impact of sanitation procedures in European food industries and will be implemented on four industrial-scale dairy and fish processing pilot production lines. **Contact:** info@ainia.es

LIFE SEGURA RIVERLINK (Confederación Hidrográfica del Segura): The main objective is to validate and demonstrate three different management tools to support the implementation of a “green infrastructure” approach to the ongoing environmental recovery process of the Segura River (one of Europe’s most regulated rivers, with severe problems of connectivity caused by artificial obstacles). These tools will include the removal of a weir, the construction of fish passages to increase fish migration, and fluvial restoration practices that restore the natural hydromorphology of the river. Actions will take place along 54 km of river, including urban areas to increase stakeholder participation. **Contact:** eduardo.lafuente@chsegura.es

LIFE REUSING POSIDONIA (Institut Balear de l’Habitatge): The project will demonstrate the feasibility of building a multi-family residential building with a lower ecological footprint and 50 % lower CO₂ emissions. The building will incorporate local architectural traditions and will be made of renewable green or raw materials with a Certificate of Origin label or local recycled materials such as Neptune grass (*Posidonia oceanica*). **Relevant to Climate Change.** **Contact:** cgoliver@ibavi.caib.es

LIFE Sludge4Aggregates (Asociación para la Investigación y Desarrollo Industrial de los Recursos Naturales): The main objective of this project is to demonstrate the viability of a new technology for the valorisation of sludge from wastewater treatment plants and the aggregate extraction process. This technology will enable the production of new and inert ceramic products with low densities that have the appropriate technological and environmental properties to be used in construction and infrastructure projects, as well as gardening and horticulture. **Contact:** agripino.perez@aitemin.es

LIFE Comforest (Gobierno de Extremadura - Consejería de Agricultura, Desarrollo Rural, Medio Ambiente y Energía): This project aims to analyse and monitor the main features and environmental status of communal woodlands in Extremadura, and to establish guidelines that make exploitation of the forests by the local community compatible with the long-term conservation of natural resources. **Contact:** joaquin.polanco@juntaextremadura.net

LIFE CLAYGLASS (Asociación para la Investigación y Desarrollo Industrial de los Recursos Naturales): This project aims to reduce the environmental impact of the ceramics sector. It specifically aims to demonstrate the technical and economic feasibility of the production of ceramic tiles using any type of recycled glass as a flux material. It expects to reduce CO₂ emissions from the firing process, valorise waste glass streams that are otherwise difficult to recycle and also reduce the cost of manufacturing earthenware bricks by lowering raw material costs and energy consumption. **Relevant to Climate Change. Contact:** jorge.velasco@aitemin.es

LIFE ZARAGOZA NATURAL (Ayuntamiento de Zaragoza): The aim of this project is to protect, improve, give value to and raise awareness of the existing biodiversity in Zaragoza, including Natura 2000 network sites and other areas of natural interest within the city's boundaries. This will be done by defining and improving the ecological status, connectivity and coherence of green infrastructure in Zaragoza. The project is structured around a 'blue matrix' - rivers, riversides and wetlands - and a 'green matrix' - forest and steppe areas - and their inter-connectivity. **Contact:** unidadambiente@zaragoza.es

LIFE+Farms for the future (Departamento de Agricultura, Ramaderia, Pesca, Alimentació i Medi Natural de la Generalitat de Catalunya): The project focuses on demonstrating an innovative technology in the pig sector to minimise agricultural nutrient excess in soils. Innovative techniques for field application of manure will be evaluated and the project will seek to extract nutrient excess from contaminated soils through the use of catch crops, forest plantations and riparian buffer zones. **Contact:** jaume.boixadera@gencat.cat

LIFE ALBUFERA (Universitat Politècnica de València): The project aims to establish the most appropriate management rules for artificial wetlands, in particular concerning water quality and biodiversity. It will apply these to the management of three artificial wetlands in the Albufera coastal lagoon and estuary in eastern Spain. **Contact:** mmartin@hma.upv.es

LIFE+ Nature (9 projects – 14.4 million)

LIFE "Oeste Ibérico" (Fundación Naturaleza y Hombre): This transnational project, which will be implemented in Spain and Portugal, has the overall aim of improving the conservation status and population trends of the main habitats and species (mainly birds) of Western Iberia, carrying out actions in 10 Natura 2000 sites. **Contact:** fundacion@fnyh.org

LIFE Econnect (Consejería de Medio Ambiente, Ordenación del Territorio y Urbanismo del Gobierno de Cantabria): LIFE Econnect aims to improve the connectivity between three Natura 2000 sites in a high mountain area through management, habitat restoration and improvement of soil permeability in the Alto Campo ski resort in the Cantabrian Mountains in northern Spain. The restoration process will focus on the regeneration of vegetation through seeding, transplantation, reduction of soil compaction, and water retention. These actions will benefit the grey partridge (*Perdix perdix*) and the hen harrier (*Circus cyaneus*). **Contact:** sanchez_ra@cantabria.es

LIFE+ RABICHE (Cabildo de Gran Canaria): The main objective of this project is the reintroduction of the white-tailed laurel pigeon (*Columba junoniae*) on the island of Gran Canaria, to ensure the survival of this endemic species and restore it to its ancient ranges. **Contact:** ccanella@grancanaria.com

LIFE Potamo Fauna (Consorci de l'Estany): The objective of this project is to recover the river fauna (fish, amphibians, fresh water crayfish, terrapins and freshwater mussels and snails) of Natura 2000 network sites in the basins of the rivers Ter, Fluvià and Muga via population reinforcements with individuals bred in captivity in recovery centres, and the eradication of invasive alien species. **Contact:** consorci@consorcidelestany.org

LIFE RESECOM (Gobierno de Aragón): The goal of this project is to implement a monitoring network covering the whole Natura 2000 network in Aragon, central Spain, for the surveillance of all the region's flora species and habitats that are listed in the Habitats Directive. **Contact:** dguzman@aragon.es

LIFE BEAR DEFRAGMENTATION (Fundación Oso Pardo): The general goal of this project is to ensure the long-term viability of the Cantabrian brown bear population, by de-fragmenting the Cantabrian inter-population corridor and consolidating the genetic and demographic interchange between the western and eastern sub-populations. **Contact:** fop@fundacionosopardo.org

LIFE+ GUGUY (Gestión y Planeamiento Territorial y Medioambiental, S.A.U.): The project targets three habitats in the Canary Islands: endemic *Juniperus* spp. forests, endemic Macaronesian heaths and Canarian endemic pine forests. The project aims to restore these three habitats to their full potential range in the project area and remove the main threats to the Guiguí Special Nature Reserve. **Contact:** gmedmen@gesplan.es

Life+ Red Quebrantahuesos (Fundación para la Conservación del Quebrantahuesos): This project will be implemented mainly in two Natura 2000 network sites: Ordesa y Monte Perdido and Picos de Europa (Asturias). Bearded vultures will be bred and released into the wild, supported by the construction of feeding sites in the Picos de Europa site. The project also aims to reinforce the principle that the conservation of a species is linked to local development and the maintenance of biodiversity and ecosystem services. **Contact:** fcq@quebrantahuesos.org

LIFE BONELLI (Gestión Ambiental De Navarra S.A.): This project aims to boost the Spanish population of Bonelli's eagle (*Aquila fasciata*) through a Recovery Program that will reinforce the species in Madrid, Alava and Navarra, and reintroduce it to Mallorca. **Contact:** allamass@ganasa.es

LIFE+ Biodiversity (2 projects – 3.6 million)

LIFE IMPACTO CERO (ADMINISTRADOR DE INFRAESTRUCTURAS FERROVIARIAS): The main objective of the project is to establish a methodology for determining the best means of preventing birds colliding with new high-speed rail lines. It will also draft recommendations for the development of environmental monitoring programmes for new lines or mitigation measures for ones already in use. **Contact:** rillanes@adif.es

LIFE-ECORESTCLAY (CEMEX España S.A.): The global objective of this project is to develop a management protocol for mining areas. It will promote the reconstruction of ecosystems by constructing landforms that mimic the 'natural' topography of the surroundings, in order to increase biodiversity in the restored mining areas. **Contact:** carolina.leon@cemex.com

Sweden 8 projects (35.9 million)

LIFE+ Environment Policy and Governance (5 projects – 19.5 million)

LIFE SludgeisBiofuel (Outotec AB): Sewage sludge, manure and digestion residues are good sources of biomass energy. However, current technologies for drying the material before incineration are highly energy inefficient. LIFE SludgeisBiofuel will test a drying technology that will enable the reduction of power consumption in drying from 800 to less than 200 kWh per tonne of (evaporated) water. If successful, the project will lead to the development of a full-scale plant for energy recovery from this waste. **Contact:** robert.johansson@outotec.com

ReCOOL for LIFE+ (Recytec AB): This project aims to demonstrate an innovative recycling technology for glycols (a very toxic and harmful organic compound) resulting from anti-freeze/coolants waste. This new technology is expected to lead to the production of glycol with >95 % purity. Fully implemented, it has the potential to lower demand for virgin glycol by 50 % by enabling some 270 million litres/year of anticoolant to be recycled in Europe. **Contact:** goran.ahlquist@recytec.se

LIFE BIOGAS XPOSE (Vafab Miljö AB): The aim of this project is to improve the production of biomethane from waste in order to demonstrate its significant potential as a renewable energy source. The project will undertake measures covering the whole biogas cycle: from testing new raw materials and technologies in the production phase to improving the logistics chain of biogas. It will be implemented in the Swedish region of Öst, which expects to reduce its CO₂ emissions by 400 000 tonnes, increase biogas production by 1 000 GWh and increase the use of biomethane as vehicle fuel by to 5%. **Relevant to Climate Change. Contact:** torbjorn.anger@vafabmiljo.se

Etanolix 2.0 for LIFE+ (St1 Refinery AB): The objective of this project is to develop a pilot bioethanol plant integrated into the facilities of an existing oil refinery. This proximity will result in energy synergies between the two processes. Bioethanol production will harness heat and cooling from the refinery: heat (equivalent to 6 760 MWh/yr) from the refining processes and cooling (9 530 MWh/year) from the existing water supply and cooling systems. The project expects to process some 15 000-21 000 tonnes/year of food waste and produce 5 000 m³/year of bioethanol with an efficiency of 98-100 %. **Relevant to Climate Change. Contact:** linda.werner@st1.se

SOLMACC LIFE (International Federation of Organic Agriculture Movements):

This project aims to promote the wider adoption of sustainable agriculture practices that contribute both to a reduction in greenhouse gas emissions and the mitigation of other environmental issues caused by agriculture, such as soil erosion, biodiversity conservation and sustainable management of natural resources. The project will implement and demonstrate four climate-friendly farm practices (optimised on-farm nutrient recycling, optimised crop rotation with legume-grass leys, optimised tillage system and agroforestry) in 12 organic farms in Sweden. These practices are expected to reduce greenhouse gas emissions by 15 % as well as increasing the resilience of the agricultural sector to climate change. **Relevant to Climate Change. Contact:** josefine.johansson@ifoam-eu.org

LIFE+ Nature (3 projects – 16.4 million)

LIFE Coast Benefit (County Administrative Board of Östergötland): The aim of this project is to improve the conservation status of habitats in the Western Baltic Archipelago. It will focus on species and habitats favoured by traditional agricultural management, natural structures and disturbance regimes in forests and in shallow waters. **Contact:** claes.svedlindh@lansstyrelsen.se

LIFE+ Vänern (County Administrative of Värmland): The main objectives of the project are to restore important breeding and staging sites for birds listed in Annex I of the Birds Directive in Lake Vänern, to restore to a "favourable" conservation status several habitats listed in Annex I of the Habitats Directive, and to facilitate the recurring management of the project areas after the end of the project. **Contact:** jenny.sander@lansstyrelsen.se

LIFE- ELMIAS (Swedish Forest Agency): The project aims to eradicate Dutch elm disease from the island of Gotland. It is considered possible to eliminate the fungi that cause the disease because of the recent nature of the outbreak, the geographical isolation of Gotland and the legacy of previous eradication efforts. **Contact:** Karin.Wagstrom@skogsstyrelsen.se

United Kingdom 9 projects (22.6 million)

LIFE+ Environment Policy and Governance (6 projects – 15.6 million)

LIFE REBus (The Waste and Resources Action Programme): The project will demonstrate how businesses and their supply chains can implement Resource Efficient Business Model (REBMs). It will focus on four key markets: electrical and electronic products, clothing, furniture and construction products. These markets are worth more than € 350 billion/year across the EU. The project will deliver 10 REBM pilots with major organisations and 20 with SMEs, with the aim of achieving 15 % resource savings in the project lifetime in comparison with the business-as-usual approach. **Contact:** julia.turner@wrap.org.uk

LIFENaturEtrade (The Chancellor, Masters and Scholars of the University of Oxford): The project will demonstrate a novel approach to enable EU landowners to quickly assess the ecological potential of land in terms of the ecosystem services that it provides, and then trade these services. This will be achieved through the development of an automated web-based tool that can assess uploaded information on a land parcel to determine its ecological potential, and the establishment of a web-based trading platform NaturEtrade (an 'e-Bay for ecosystem services'). **Contact:** Kathy.willis@zoo.ox.ac.uk

LIFE CoaLESCe (Environment Agency of England & Wales): The project seeks to deliver a replicable model for the process of stakeholder engagement, knowledge transfer and exchange at national and local levels across Europe. It will demonstrate an innovative model that will stimulate local adaptive capacity within the context of a holistic national adaptation programme that targets SMEs as well as municipalities. In addition to delivering a "hub and-spoke" knowledge exchange network, the project will feature sector-specific pilots that engage local stakeholders on priority themes. **Relevant to Climate Change. Contact:** matthew.ellis@environment-agency.gov.uk

LIFE Housing Landscapes (Groundwork London): The overarching aim of this project is to contribute to the climate-proofing of vulnerable urban environments by retrofitting green and blue infrastructure in European social housing landscapes and developing the adaptive capacity and resilience of local institutional and individual stakeholders. **Relevant to Climate Change. Contact:** anita.konrad@groundwork.org.uk

LIFE+ CEMs (Ellen MacArthur Foundation): The goal of the project is to demonstrate that the concept of a 'circular economy' offers a practical alternative to the linear approach. It will do this by trialling a Company level and Product Level Circularity Metric for measuring the performance of enterprises and product in the context of the circular economy. The approach is similar to the calculation of a product's carbon footprint or energy performance. The project will also develop and test an online tool for calculating the product level circulatory metric. **Contact:** jo.bootle@ellenmacarthurfoundation.org

LIFE ObservaTREE (Forestry Commission Research Agency): The main objective of this LIFE project is to develop a 'best in Europe' demonstrator of a Tree Health Early Warning System that will implement the new EU Plant Health Regime by identifying tree health problems earlier for all UK trees. The project will also engage citizens, volunteers and civic societies in the reporting of tree health incidents, so they can play a greater role in woodland bio-security. **Contact:** Alison.melvin@forestry.gsi.gov.uk

LIFE+ Nature (2 projects - 6.6 million)

LIFE Little Terns (Royal Society for the Protection of Birds): The overall aim of the project is to lay the foundations for the long-term recovery of the little tern (*Sterna albifrons*) in the UK by securing robust breeding populations at key sites throughout the country. **Contact:** alex.hipkiss@rspb.org.uk

LIFE Connect Carpathians (Fauna & Flora International): This UK-led project will benefit large carnivore populations in Romania within a landscape corridor, the Apuseni Link. This corridor is critically important for the conservation of the brown bear and wolf in the Western and Southern Carpathians. Actions will focus on increasing functional connectivity by securing and restoring critical habitat and landscape features as corridors through connectivity 'pinch points' and on the promotion of sympathetic land management in the wider area. **Contact:** paul.hotham@fauna-flora.org

LIFE+ Biodiversity (1 project – 0.5 million)

LIFE DEEL (Scottish Power Generation Ltd): The main objective of this project is to establish a European eel population in the Dee catchment area upstream of Tongland Dam in Scotland. Actions will include the construction of eel passes and drafting of a management plan. **Contact:** Graeme.dickie@scottishpower.com

See also [IP/13/643](#)