



## Annex: LIFE programme: 2015 projects

Brussels, 3 November 2016

**The European Commission has approved an investment package of €222.7 million from the EU budget to support Europe's transition to a more sustainable and low-carbon future. Additional investments leading to a total of €398.6 million are to be invested into 144 new projects in 23 Member States.**

*Additional LIFE projects are in preparation. For more detailed information see the [LIFE website](#).*

*Budget figures are rounded to the nearest 100 000. Due to rounding, some totals may not correspond with the sum of the separate figures.*

### **AUSTRIA (AT) (4 projects – 17.3 million)**

#### ***LIFE Nature & Biodiversity (2 projects – 14.5 million)***

**LIFE Lech (Bundeswasserbauverwaltung Tirol – Baubezirksamt Reutte):** The project targets the conservation of the natural dynamics of the Lech river system and surrounding landscape and associated rare or endangered habitats and species, including the Siberian bluet (*Coenagrion hylas*), stone crayfish (*Austropotamobius torrentium*), white-clawed crayfish (*Austropotamobius pallipes*), northern crested newt (*Triturus cristatus*) and European bullhead (*Cottus gobio*). The project aims to protect and develop the river's unusual, dynamically shaped gravel bars and to stop the deepening of the river bed and thus, stabilise ground water levels.

#### **[Project summary](#)**

**LIFE Great Bustard (Österreichische Gesellschaft Großtrappenschutz):** The project aims to address one of the main causes of mortality of the great bustard (*Otis tarda*): collision with power lines. To prevent such collisions, the project will work with energy supply companies to ensure that some 41.5 km of medium voltage power lines are relocated underground. Together with other management activities this will lead to an increase in the great bustard breeding population at project sites in both countries.

#### **[Project summary](#)**

#### ***LIFE Environmental Governance & Information (1 project – 1.9 million)***

**LIFE FOR DANUBE STURGEONS (Umweltverband WWF Österreich / WWF Austria):** Four of the five sturgeon species in the Danube basin are classed as 'critically endangered'. The objective of this project is the survival and recovery of sturgeons in the entire lower Danube region and their long-term protection from illegal fishing and trade. It will focus on: increasing authorities' capacity to enforce laws banning sturgeon fishing and trade; increasing fishing communities' acceptance of these bans and helping them to find alternative sources of income; and increasing retailers' awareness of the ban and the need for its enforcement.

#### **[Project summary](#)**

#### ***LIFE Climate Governance & Information (1 project – 1.0 million)***

**LIFE ClimAct (KBT Klimabündnis Tirol):** The project aims to contribute to EU targets on climate protection by targeting low-income households. Often overlooked in climate protection actions, these households are particularly vulnerable to the consequences of climate change, since they spend a high percentage of their income on energy and mobility. The project will increase knowledge about possibilities to actively engage in climate protection and empower low-income households to take action. Since various factors influence climate-friendly behaviour, the project will target different stakeholders, such as electric utility companies and decision-makers.

#### **[Project summary](#)**

### **BELGIUM (BE) (5 projects – 16.8 million)**

### **LIFE Nature & Biodiversity (2 projects – 10.9 million)**

**LIFE Delta (Natuurpunt Beheer vzw):** The overall project objective is to establish sustainable populations of threatened target species within the Demer Valley project area, and thus to create genuine added-value to the Natura 2000 network of sites. There is considerable ecological potential for nature restoration within the sites. Specific actions will include land acquisition and large-scale improvements to and/or extension of habitats, an innovative eco-hydrological study, and genetic research of endangered species of the EU Habitats Directive. Among the species to benefit from the project are the Marsh harrier (*Circus aeruginosus*), spotted crake (*Porzana porzana*), bluethroat (*Luscinia svecica*), great crested newt (*Triturus cristatus*), weather loach (*Misgurnus fossilis*) and floating water-plantain (*Luronium natans*).

#### **[Project summary](#)**

**LIFE NARD-US (Natagora):** The abandonment of traditional agro-pastoral practices in eastern Belgium has led to the fragmentation and disappearance of some semi-natural habitats and associated species. LIFE NARD-US aims to recreate and restore four of these habitats – including the priority habitats, Nardus grasslands and bog woodland – in order to improve their connectivity and conservation status, as well as to assure their adequate management. By restoring wet meadow grasslands, the project also aims to improve the conservation status of two butterfly species listed in Annex II of the Habitats Directive, the marsh fritillary (*Euphydryas aurinia*) and violet copper (*Lycaena helle*).

#### **[Project summary](#)**

### **LIFE Environment & Resource Efficiency (2 projects – 4.4 million)**

**LIFE RECYSITE (Centre Scientifique & Technique de l'Industrie Textile Belge):** The project aims to develop thermoset eco-composites from renewable natural fibre and resin resources, such as linseed straw and linseed oil. It will optimise the treatment of these bio-materials at two pilot plants, to produce cost-efficient and 100% recyclable eco-composites. These will be validated for use in the transport and construction sectors. The project will prepare support documents for the governments of Spain, the Netherlands, France and Belgium highlighting the potential of the technology in terms of employment and economic growth in the two sectors targeted.

#### **[Project summary](#)**

**LIFE REFRESHMENT (Anheuser-Busch InBev):** LIFE REFRESHMENT will use spent grain, which is the most abundant by-product of the brewing process, as a raw material for the production of two types of non-alcoholic beverages (an organic carbonated drink and a cereal-based breakfast drink). The by-products generated during the production of those two beverages will be re-used for the production of cereal bars. The technology, which aims to streamline the boiling phase of brewing, will increase resource efficiency and reduce the waste generated during the process. More than 42 000 tonnes of spent grain will be reused on site, saving nearly 15 000 tonnes of CO<sub>2</sub> emissions linked to grain transport.

#### **[Project summary](#)**

### **LIFE Climate Change Mitigation (1 project – 1.6 million)**

**LIFE BEVERAGE (Anheuser-Busch InBev):** The project aims to demonstrate a new technological process at breweries in Belgium and the UK that is designed to save water and energy in the brewing process. It will pilot a new technological process in which an inert gas is used to simulate the effects of boiling, thereby reducing energy consumption and the amount of water lost to evaporation. If successful, the process improvement could be introduced in more than 60 breweries worldwide.

#### **[Project summary](#)**

### **BULGARIA (BG) (1 project – 0.6 million)**

#### **LIFE Environmental Governance & Information (1 project – 0.6 million)**

**NaturAll LIFE (Prosveta - Sofia JSC):** The project aims to increase awareness of the Natura 2000 network across Bulgaria and particularly among farmers, ecosystem managers, schoolchildren and teachers, in order to trigger positive behavioural changes among those key target groups of the Bulgarian population. The project wants to spread the idea that it is possible and beneficial to “Live Well, Within the Limits of Our Planet” and its ultimate goal is to ensure that the Natura 2000 network becomes part of the national school curriculum.

#### **[Project summary](#)**

## **CROATIA (HR) (1 project – 5.1 million)**

### ***LIFE Nature & Biodiversity (1 project – 5.1 million)***

**LIFE EUROTURTLES (Croatian Natural History Museum):** This project focuses on areas that are important for the conservation of two sea turtle species listed as priority species in Annex II of the EU Habitats Directive, the loggerhead turtle (*Caretta caretta*) and green turtle, (*Chelonia mydas*). Several important cross-country measures are planned in order to reduce the impact of anthropogenic threats at nesting sites and at foraging grounds, including the extension of marine Natura 2000 network sites in Croatia and Italy to include current turtle 'hot-spot' areas, and the improvement of turtle management in Croatia, Cyprus, Greece, Italy, Malta and Slovenia.

#### [Project summary](#)

## **CYPRUS (CY) (2 projects – 3.3 million)**

### ***LIFE Nature & Biodiversity (1 project – 1.4 million)***

**LIFE- KEDROS (Ministry of Agriculture, Rural Development and Environment of Cyprus - Department of Forests):** The project's main objective is to maintain the very rare, priority habitat type, Cyprus cedar (*Cedrus brevifolia*) in good conservation status in the long-term in the Koilada Kedron-Kampos Natura 2000 site. Actions will focus on reducing the risk of habitat loss through forest fire and enhancing the habitat's resilience and capacity to adapt to climate change. A number of forest management measures will be implemented for the first time in Cyprus. These include controlled grazing to reduce fire risk, silvicultural treatments in cedar stands, and the management of fauna to protect the young cedar trees.

#### [Project summary](#)

### ***LIFE Climate Change Adaptation (1 project – 1.9 million)***

**LIFE UrbanProof (Ministry of Agriculture, Rural Development & Environment):** The project aims to pioneer the development of an innovative and interactive toolkit for urban municipalities, which will provide local decision-makers with visual information and guide them through the climate change adaptation process. The toolkit will be used to help partner municipalities in Cyprus, Greece and Italy assess the likely impacts of climate change and develop their own local adaptation strategies, including the use of green infrastructure. Dissemination activities will raise public awareness and encourage participation.

#### [Project summary](#)

## **CZECH REPUBLIC (CZ) (2 projects – 3.1 million)**

### ***LIFE Nature & Biodiversity (2 projects – 3.1 million)***

**Military LIFE for Nature (Beleco z.s.):** This project will focus on the management of abandoned military training areas. The use of these areas for military purposes had an unintended consequence: it preserved landscape diversity. The main objective of the project is to maintain the optimum conditions of these exceptionally valuable natural sites by using different management approaches, including grazing by using native horse breeds. The project activities will ultimately ensure a favourable conservation status of natural habitat types and species of European importance, such as grassland, dune habitats, protected butterflies and other species.

#### [Project summary](#)

**Life for Minuartia (Institute of Botany of the Czech Academy of Sciences):** The project aims to rescue the priority endemic species, *Minuartia smejkalii* (a type of sandwort), from the threat of extinction and to enhance its population size by 40 percent. This will be achieved by addressing the main reasons for its decline at two Natura 2000 network sites. The project will - *inter alia* - support the reintroduction of species at sites of recent extinction through sowing of seeds and transfer of plants and will test for the first time in the Czech context a participatory approach that involves local communities in active species protection.

#### [Project summary](#)

## **DENMARK (DK) (1 project – 2.1 million)**

### ***LIFE Nature & Biodiversity (1 project – 2.1 million)***

**UC LIFE Denmark (Næstved Municipality):** The main project objective is to contribute to obtaining

a favourable conservation status of the thick shelled river mussel (*U. crassus*) in Denmark and the wider Continental biogeographic region. This will be achieved by increasing the available habitat areas suitable for the river mussel and its host and by reintroductions carried out in the Suså river system. Actions are expected to increase the population of this keystone species by some 10 000 individuals in the project areas.

### [Project summary](#)

## **FINLAND (FI) (1 project – 5.2 million)**

### **LIFE Nature & Biodiversity (1 project – 5.2 million)**

**WildForestReindeerLIFE (Metsähallitus, Natural Heritage Services):** The main objective of WildForestReindeerLIFE is to achieve a 'favourable' conservation status for the Finnish forest reindeer (*Rangifer tarandus fennicus*) by 2023. This will be done by extending and defragmenting its range, reducing mortality rates and improving genetic diversity in wild and captive bred populations in Finland and Sweden. If the project is a success, it is hoped it will enable relevant authorities and stakeholders to start reintroducing the sub-species in other parts of Fennoscandia.

### [Project summary](#)

## **FRANCE (FR) (6 projects – 15.2 million)**

### **LIFE Nature & Biodiversity (1 project – 3.4 million)**

**LIFE CROAA (Société Herpétologique de France):** The American bullfrog (*Lithobates catesbeianus*) and the African clawed frog (*Xenopus laevis*) are two invasive amphibian species that have been introduced to France and elsewhere in Europe. The aim of LIFE CROAA is to control or eliminate these species from key sites in the country as well as to prevent their extension into other areas. To this end it will establish a network of trappers and operate an early detection and assessment system, engaging a wide range of stakeholders.

### [Project summary](#)

### **LIFE Environment & Resource Efficiency (2 projects – 4.2 million)**

**LIFE - AGROMINE (University of Lorraine):** The project aims to demonstrate a non-destructive phytomining approach for the recovery of high-value metals, especially nickel (Ni), from soils in areas having sub-economic ores. Economic feasibility studies will be conducted with plants that hyper-accumulate valuable metals from soils, from which compounds can subsequently be extracted.

### [Project summary](#)

**LIFE FARBioTY (Teillage Vandecandelaere):** The aim of the project is to reduce the environmental footprint of the transport industry, by increasing the volume of flax fibres used for producing composite materials. A new solution will be demonstrated in the railway sector, by measuring the environmental impact and mechanical performance of an innovative flax fibre composite material that replaces fibreglass reinforcement. The railway beacon produced using the new material will be tested in real-world conditions for 12 months.

### [Project summary](#)

### **LIFE Climate Change Adaptation (1 project – 1.3 million)**

**LIFE FORECCAsT (Parc Naturel Régional du Haut Languedoc):** This project aims to provide owners and managers of forests in the Parc Naturel Régional du Haut Languedoc with the means to build a management strategy that takes climate change scenarios into consideration. The goal is to protect the forest ecosystems whilst ensuring that the dynamic forestry sector can meet current environmental, economic and social challenges. The project will create a digital application (the FORECCAsT tool) to help with decision-making, and distribute an action plan for crisis management, in order to better anticipate the risks identified in different climate change scenarios.

### [Project summary](#)

### **LIFE Climate Change Mitigation (2 projects – 6.3 million)**

**SOLID LIFE (OR Lafarge Centre de Recherche):** The project aims to demonstrate that it is feasible to produce low-emission cement and concrete products at industrial scale in existing facilities using a low-calcite and non-hydraulic binder. The new products will have equivalent cost, superior performance and a 70% reduction in CO<sub>2</sub> emissions compared to conventional Portland cement. A key part of this

project involves communicating its results to the cement production chain.

### [Project summary](#)

**BIOHEC-LIFE (GECCO):** The aim of this project is to develop a circular economy around used cooking oil (UCO), which will be processed from food and catering industry waste into biofuel. It will develop and promote new methods enabling the optimised recovery of UCO. These will inform the development of a local production chain to cost-effectively fuel transport fleets in Lille and Nord-Pas-de-Calais-Picardie with advanced biofuels derived from UCO and bioethanol. The project will also develop partnerships and franchises to replicate its model in other parts of France and elsewhere in Europe.

### [Project summary](#)

## **GERMANY (DE) (11 projects – 33.0 million)**

### ***LIFE Nature & Biodiversity (3 projects – 13.2 million)***

**LIFE-Amphibienverbund (Biologische Station StädteRegion Aachen):** This project aims to improve the conservation status of three toad species found in Natura 2000 network sites in the Aachen district: the yellow-bellied toad (*Bombina variegata*), midwife toad (*Alytes obstetricans*) and natterjack toad (*Bufo calamita*). Key measures include improving the quality of their aquatic and terrestrial habitats, including through the creation of stepping stone corridors and increasing their population sizes. Local action plans will be drafted to ensure the long-term success of the measures implemented.

### [Project summary](#)

**LIFE-Patches & Corridors (Biologische Station StädteRegion Aachen):** The project aims to improve the conservation status of the butterfly species, violet copper (*Lycaena helle*) by improving small connecting areas (patches) of its favoured habitats (all priorities for conservation under the EU Habitats Directive) – alluvial, bog and *Tilio-Acerion* forests of the Northern Eifel mountains. The objective is to establish a habitat network within and between Natura 2000 sites in order to sustain the butterfly subpopulations. Corridors and stepping stones will be established by removing obstacles and developing new habitats.

### [Project summary](#)

**LIFE Rhön grassland birds (Landkreis Fulda, Fachdienst Biosphärenreservat Rhön):** The project's objective is to implement important strategic protection priorities in line with the Prioritised Action Framework (PAF) for Natura 2000 network sites in Germany. Actions envisaged include increasing the area of two priority grassland habitats of the EU Habitats Directive (important orchid sites), and optimising the habitat of eight meadow-breeding birds of the EU Birds Directive. As a result of the project activities an area of around 1 000 hectares is expected to be restored, newly established or optimised.

### [Project summary](#)

### ***LIFE Environment & Resource Efficiency (1 project – 1.8 million)***

**ISOBEL (BEW Bayerische Elektrizitätswerke GmbH):** The project will demonstrate a new approach to re-naturalising the free-flowing parts of the river Iller in Germany. The integrated bed load management system that will be installed is designed to enable the river to reach a good ecological status, as required by the Water Framework Directive. The main added value of the system is its reduced environmental impact, with aggressive excavation being avoided so as to be much less disruptive to the river and river banks. Through varied structure and habitat creation, it will also make the ecosystem more robust and climate resilient. The project will publish guidelines to promote the implementation of its system across Europe.

### [Project summary](#)

### ***LIFE Environmental Governance & Information (2 projects – 3.9 million)***

**LIFEBioStandards (Global Nature Fund–GNF):** The LIFEBioStandards project aims to improve biodiversity performance in the food chain by integrating biodiversity criteria in food standards and labels that will be applied by pioneering companies in the food sector. To demonstrate the applicability of biodiversity criteria, the project will implement pilot projects in certified arable, vegetable, dairy and meat-producing farms. It will also encourage food processing companies and retailers to include efficient biodiversity criteria in their sourcing guidelines. Forty organisations will participate in the “Biodiversity Performance in the Food Sector” initiative.

### [Project summary](#)

**Legal Actions on Clean Air (DUH):** The project aims to empower NGOs and citizens to take part in



public participation processes concerning the development or revision of air quality plans, to improve their access to justice by supporting them to demand air quality measures and to improve the relationship between citizens and governments. It will also inform political decision-makers about relevant EU and national funding to improve air quality, green public procurement options and examples of best practice. Activities will take place in seven EU Member States with a particular focus on Germany and the Czech Republic. Results will be applicable across the EU.

### [Project summary](#)

#### ***LIFE Climate Change Adaptation (3 projects – 6.7 million)***

**LIFE AGRI ADAPT (LCF-Bodensee Stiftung):** The project will work in four rural pilot areas particularly at risk from climate change, in order to develop a knowledge base for the assessment and monitoring of climate change vulnerability at farm level. It will aim to promote sustainable adaptation measures amongst farmers and future farmers by raising awareness and disseminating training packages. Know-how and best practice will be also transferred to political, agricultural and food business stakeholders.

### [Project summary](#)

**LIFE VinEcoS (Landgesellschaft Sachsen-Anhalt mbH):** The project will carry out work in a major wine-producing region of Germany (Saale-Unstrut, Saxony-Anhalt) to enhance the resilience of vineyards by testing climate change adaptation measures in viticulture. These trials will allow the project to evaluate the climate change adaptation measures in relation to the added value of the ecosystem services provided by the vineyards.

### [Project summary](#)

**LIFE LOCAL ADAPT (Technische Universität Dresden):** The project will increase the climate change adaptation capacities of selected local administrations in four EU countries (Germany, Austria, the Czech Republic and Latvia). It aims to integrate adaptation measures into the local authorities' administrative practises, and then encourage them to implement these measures. Specific goals include: improving the data on climate change risks and related vulnerabilities; providing climate indices; enhancing municipalities' knowledge of adaptation; and implementing measures to improve resilience through appropriate urban and landscape planning.

### [Project summary](#)

#### ***LIFE Climate Change Mitigation (1 project – 6.0 million)***

**LIFE Peat Restore (Naturschutzbund Deutschland (NABU) e.V.):** The project will restore degraded peatlands in Germany, Poland, Lithuania, Latvia and Estonia. It will also produce restoration guidelines for conservationists and decision-makers that will specifically focus on the role of peatlands as a carbon sink and a source of CO<sub>2</sub> emissions. The goal is to achieve an EU-wide consensus on the best methodology for restoring degraded peatlands as a part of climate policy, including guidelines for measuring greenhouse gas fluxes.

### [Project summary](#)

#### ***LIFE Climate Governance & Information (1 project – 1.3 million)***

**LIFE Close the Gap (DUH):** This project aims to address one of Europe's major environmental challenges in road transport – the gap between the actual CO<sub>2</sub> emissions/fuel consumption by cars and those declared in official tests. It will empower political decision-makers at European and national level to improve the legislation and its implementation on CO<sub>2</sub> emissions from vehicles. It will also help consumers to make informed purchase decisions and develop solutions for a better testing framework at European level.

### [Project summary](#)

#### ***GREECE (GR) (5 projects – 9.3 million)***

##### ***LIFE Nature & Biodiversity (2 projects – 3.3 million)***

**LIFE AMYBEAR (Lever Development Consultants S.A.):** Road infrastructure, such as the recently constructed vertical segment of the Egnatia highway in Greece, has an adverse impact on brown bear populations, causing road fatalities and habitat fragmentation. LIFE AMYBEAR aims to improve the conservation status of the endangered large carnivore by increasing acceptance of the value of coexistence, including among sheep and crop farmers, hunters and beekeepers. The project will also improve the capacity of competent local authorities to manage bear-human conflicts, and expects to maintain bear mortality at a sustainable level not exceeding 6% of the minimum estimated population in the project area.

### [Project summary](#)

**LIFE Prespa Waterbirds (Society for the Protection of Prespa):** The project aims to improve the conservation status of selected bird species in the Lesser Prespa Lake area in northern Greece. Conservation actions will target several threats, including limited foraging areas for wading birds; reed beds obstructing potential foraging sites and fish spawning grounds; and the potentially devastating impact of avian flu on pelican metapopulations. These actions will help the ecosystem adapt to climate change, while providing benefits to the local community.

### [Project summary](#)

#### **LIFE Environment & Resource Efficiency (2 projects – 4.9 million)**

**LIFEPOSITIVEMgOFGD (Grecian Magnesite Mining Industrial Shipping and Commercial Company S.A.):** The production of magnesium oxide generates sulphur dioxide and other pollutants. Current techniques to prevent this either require use of large volumes of water or have other environmental disadvantages. The LIFEPOSITIVEMgOFGD project will showcase a new technique using magnesium oxide reagents for desulphurisation. Some 90% of solid waste will be recovered in a process that uses 40% less energy and 80% less water than wet flue gas desulphurisation. The by-product of the new technique will be used to produce fertilisers and construction materials.

### [Project summary](#)

**LIFE-F4F (Food for Feed) (United Association of Solid Waste Management in Crete):** The aim of the project is to evaluate, through a pilot-scale demonstration, an innovative technology and a low-emission process to safely transform food waste, mainly from hotels, into animal feed. Solar energy will be used to pasteurise and dry food waste. The F4F process addresses the need to reduce waste food going to landfill. It involves the separation of food waste at source, to create valuable raw materials for feed production, in line with the circular economy concept.

### [Project summary](#)

#### **LIFE Environmental Governance & Information (1 project – 1.1 million)**

**LIFE CHEREE (Technical University of Crete):** The project aims to help enforce EU regulations on the sustainable use of chemicals in Greece and Cyprus and to increase the added value of environmental prevention in handling hazardous chemicals. It will provide guidance, training and support for inspectors and duty-holders in Greece and Cyprus. This will help ensure that relevant authorities are more efficient and have a greater capacity to act, as well as creating a culture of compliance with the REACH and CLP regulations and the SEVESO-III Directive.

### [Project summary](#)

#### **HUNGARY (HU) (2 projects – 4.6 million)**

##### **LIFE Nature & Biodiversity (1 project – 3.6 million)**

**PannonEagle Life (MME BirdLife Hungary):** The main objective of the project is to increase the population of the eastern imperial eagle (*Aquila heliaca*) in the Pannonian biogeographical region through a significant decrease in deaths from non-natural causes, i.e. primarily by persecution incidents. The project aims to achieve at least three successful prosecutions of individuals responsible for illegally killing the species. It will also encourage raptor-friendly game management methods and increase public awareness of the conservation importance of the species. The project is expected to lead to an increase of more than 10% in the breeding population of the eastern imperial eagle and reduce the annual mortality rate to less than 12%.

### [Project summary](#)

##### **LIFE Environmental Governance & Information (1 project – 1.0 million)**

**Life FOODWASTEPREV (National Food Chain Safety Office):** The project's goal is to reduce food waste in Hungarian households by changing public attitudes and behaviour. It forms part of the Hungarian national food waste prevention plan. The project will pay special attention to schoolchildren - the consumers of the future - while developing good practices relating to waste prevention for all stakeholders in the food chain. The project expects to reach more than 9 million citizens through its communication campaign, leading to a reduction in food waste of 4 kg per person per year in Hungary.

### [Project summary](#)

#### **ITALY (IT) (37 projects – 81.6 million)**

##### **LIFE Nature & Biodiversity (4 projects – 8.2 million)**

### **FLORANET LIFE (Ente Parco Nazionale della Majella):**

The project aims to improve the conservation status of eight plant species in three of the main protected areas of the Apennines in Central Italy: the Majella National Park, the Abruzzo, Lazio and Molise National Park, and the Sirente Velino Regional Park. To this end, measures to protect the sites from grazing, mowing and tourism will be considered, along with the adoption of environmentally-friendly restoration techniques.

#### [Project summary](#)

**LIFE GRANATHA (D.R.E.AM. ITALIA Soc. Cooperativa Agricolo Forestale):** The project aims to improve the conservation status of a number of protected bird species found in the Natura 2000 network site of Pratomagno, including the Dartford warbler (*Sylvia undata*), woodlark (*Lullula arborea*), red-backed shrike (*Lanius collurio*), Montagu's harrier (*Circus pygargus*), tawny pipit (*Anthus campestris*), European nightjar (*Caprimulgus aeuropeus*), short-toed snake eagle (*Circaetus gallicus*), and the European honey buzzard (*Pernis apivorus*). The project also aims to reverse the negative trend affecting the conservation status of Pratomagno's heathland habitats (caused by the abandonment of traditional activities), and to ensure their sustainable management in the long term.

#### [Project summary](#)

### **RE.LIFE (Consorzio di gestione dell'Area Marina Protetta di Portofino):**

The ribbed Mediterranean limpet (*Patella ferruginea*) has disappeared from certain coastal areas of Liguria. This is a result of pollution and being harvested for food and bait by recreational anglers. The aim of the RE.LIFE project is to reintroduce the species to the marine protected areas in Liguria through the transfer of limpets from other locations and the creation of hatcheries to breed further juveniles for transfer to the wild. The project will define a protocol for controlled reproduction and restocking of the species.

#### [Project summary](#)

**LifeTicinoBiosource (Parco Lombardo della Valle del Ticino - Department of Vegetation and Forests):** Habitat loss and degradation is having an adverse impact on many species found in Ticino Park, Italy. This project has been set up to improve populations of 15 key species found in the park that are listed in the annexes of the Birds and Habitats directives. In particular, it will carry out conservation measures aimed at the Adriatic sturgeon (*Acipenser naccarii*) and the ferruginous duck (*Aythya nyroca*), as well as reintroducing the European sturgeon (*Huso huso*) to the Po basin. The project will also begin the process of having the lower part of the Ticino River designated as a Natura 2000 network site.

#### [Project summary](#)

### **LIFE Environment & Resource Efficiency (19 projects – 48.2 million)**

**LIFE MONZA (Istituto Superiore per la Protezione e la Ricerca Ambientale):** Working in a pilot district in the Italian city of Monza, the project will implement and evaluate a new methodology for noise management within a Low Emission Zone (LEZ). This methodology of noise pollution reduction should also contribute to the lowering of air pollutant emissions. Measures will include traffic calming, use of low-noise road surfaces and promotion of lifestyle changes, for example to encourage cycling. The project's approach will be replicable and will contribute to the implementation of the EU Environmental Noise Directive.

#### [Project summary](#)

**LIFE AGROWETLANDS II (Alma Mater Studiorum – University of Bologna):** Wetlands from which water is drawn for agricultural irrigation are vulnerable to degradation and salinisation, especially in arid and semi-arid regions. The project will test the use of sensors, sophisticated decision-making software and other management measures to reduce pressure on a pilot site in northern Italy, returning soil salinity to levels that are appropriate for wetland conservation.

#### [Project summary](#)

**LIFE-BIOREST (Consorzio Italbiotec):** The project will demonstrate use of fungal and bacterial strains, in combination with organic by-products from agriculture and biogas production, to remediate soils at sites that have been used for service stations and by the petrochemical industry. The project will demonstrate the techniques on soils from a site in Fidenza, northern Italy. The project has the potential to contribute to the implementation of the EU Soil Thematic Strategy.

#### [Project summary](#)

**LIFE BITMAPS (LFoundry S.r.l.):** High-tech manufacturing of electronics and semiconductors produces effluents that contain hazardous substances. The LIFE BITMAPS project will demonstrate new



techniques to treat such wastewater at source and dramatically reduce the presence of tetramethylammonium hydroxide and other substances in effluent from specialist processes.

#### [Project summary](#)

**LIFE BIOPOL (CODYECO):** The aim of the project is to demonstrate the technical performance and economic viability of an innovative process for producing new biopolymers for use in the tanning industry. These will be produced by recycling waste biomass from the related tanning process and agro-food industries. By doing so, the industry should decrease water consumption and the use of hazardous chemicals, such as heavy metals, formaldehyde, chromium, chlorinated paraffin, and VOCs (volatile organic compounds).

#### [Project summary](#)

**LIFE BrennerLEC (Autostrada del Brennero/Brennerautobahn AG):** This project will demonstrate a Low Emission Corridor (LEC) for the A22 motorway, which links Modena with Austria via the Brenner Pass. The project will validate a set of measures to reduce air pollution, noise pollution, and greenhouse gas emissions. Dynamic speed, road capacity management, and integrated traffic management will be used to control speed limits on the basis of forecasts of pollutant concentrations and traffic flows. Data will derive from innovative meteorological and pollutant dispersion models.

#### [Project summary](#)

**LIFE B.R.A.V.E.R. (Università Commerciale 'Luigi Bocconi'):** The main objective of the project is to support the full integration of EMAS into EU environmental legislation, by reducing and simplifying the administrative costs and burdens of EMAS-registered companies. The project will evaluate new regulatory relief proposals for organisations registered with EMAS or other voluntary certification schemes, so that feasible and cost-effective measures are available for enhancing organisations' environmental performance.

#### [Project summary](#)

**LIFE CHIMERA (TRE P ENGINEERING SRL):** The main objective of the project is to build a pilot plant to demonstrate an innovative and sustainable on-farm treatment for poultry manure (avoiding transport costs). The new technology will convert manure into valuable fertilisers, while also producing thermal and electrical energy and tackling problems related to disposal, transport and gas emissions. By closing the nitrogen cycle inside the farm, the project will help implement the EU Circular Economy package's 'waste to energy' and 'waste to fertiliser' initiatives.

#### [Project summary](#)

**LIFE MOTTLES (Consiglio Nazionale delle Ricerche):** The aim of the project is to define scientifically-based thresholds and critical levels for the protection of forests from ozone (O<sub>3</sub>) pollution injury in a changing climate scenario. To achieve this, the project is developing an integrated monitoring system for the continuous measurement of parameters affecting European forest ecosystem sustainability. This will be demonstrated in three European countries. The project will help in the development of adaptive management strategies for sustainable forest management and stimulate the development of legislative standards for protecting forests against ozone.

#### [Project summary](#)

**LIFE M3P (Centro Tessile Cotoniero e Abbigliamento):** The project aims to promote and develop industrial symbiosis by connecting SMEs in different sectors to foster alternative uses for their wastes. An online 'Material Match-Making Platform' (M3P) will promote knowledge about the industrial waste produced in an area, the life-cycles of products and the materials needed to make them. This platform will enable waste from one industry to become a secondary raw material for another industry. The project will also demonstrate the feasibility of a more efficient use of raw materials through the systematic application of eco-design techniques.

#### [Project summary](#)

**LIFE Paint-it (Università degli studi di Roma 'Tor Vergata'):** Fouling refers to the unwanted growth of biological material on the immersed surface of vessels. It can severely degrade their performance (energy, maintenance, manoeuvrability, etc). Currently, more than 5 000 tonnes/yr of copper leaches from ships' anti-fouling paints worldwide. The main aim of LIFE Paint-it is to demonstrate a novel manufacturing process for producing innovative and safe antifouling paints for naval applications. This environmentally-friendly approach will eliminate harmful biocides and replace them with a physical antifouling mode of action that uses hybrid organic/inorganic resins.

#### [Project summary](#)

**VITISOM LIFE (Università degli Studi di Milano):** The project aims to introduce an innovative organic fertilisation system to enhance vineyard soil protection. Its methodology will help reduce soil

compaction, erosion and the loss of organic matter. The project will design and implement five prototypes for sustainable soil management, each adapted to a specific context, using different organic matrices (e.g. compost, manure, digestate). The results will be used to define a complete framework for vineyard organic matter management.

#### [Project summary](#)

**LIFE DOP (Consorzio Latterie Virgilio):** The project aims to promote the transition to a circular economy along the whole value chain of the dairy sector. It will evaluate and demonstrate a new model, and apply it to the production of two cheeses with protected designation of origin (PDO status), Grana Padano and Parmigiano Reggiano. The project will integrate all phases along the production chains, to reuse all of the waste products generated. This will promote greater resource efficiency, and also reduce emissions of fine particulates, ammonia, nitrous oxide and carbon dioxide. The reuse of slurry as fertiliser will decrease ammonia emissions and increase soil organic content.

#### [Project summary](#)

**SOS4LIFE (Comune di Forlì):** Soil sealing – the covering of the ground with an impermeable material – often affects fertile agricultural land. This can put biodiversity at risk, increase the impact of flooding and the risk of water scarcity and contribute to global warming. SOS4LIFE aims to implement a viable regulatory framework and planning tool for achieving a target of 'no net land take' at the level of municipalities, in line with the EU's 2050 target set out in the Roadmap to a Resource Efficient Europe. The project aims to promote de-sealing interventions as a way of compensating for newly urbanised areas and improving urban resilience to climate change.

#### [Project summary](#)

**LIFE CRAL (FRENI BREMBO SpA):** The objective of LIFE CRAL is to design and construct a pre-industrial-scale pilot line, which is able to produce high-quality, lightweight components from recycled low-purity (<95%) aluminium and the new eco-magnesium (ECO-Mg) alloy in a safe and clean manner. The pilot line will introduce sustainable, semisolid metal casting technology for the first time to the automotive sector.

#### [Project summary](#)

**LIFE MARINAPLAN PLUS (TREVI SpA):** The project aims to tackle the problem of the build up of sediments in coastal ports by scaling up an innovative and environmentally-sustainable management technology at the Italian port of Cervia. Littoral materials that collect near the entrance of harbours hindering access can be avoided through the use of submerged ejectors to pipe such material to suitable areas where they do not represent an obstacle to navigation. The project aims to establish a demonstration plant that can be replicated at other similar-sized ports.

#### [Project summary](#)

**SOIL4WINE (Università Cattolica del Sacro Cuore):** Vineyard landscapes in the northern Apennines are being adversely affected by erosion, the decline of organic matter, local and diffuse contamination, sealing, compaction, decline in biodiversity and landslides. The SOIL4WINE project aims to prevent these threats to soil quality in four protected areas of western Emilia-Romagna. It will introduce better soil management and a decision-making tool that will help farmers assess their particular situation and how to tackle threats to soil quality.

#### [Project summary](#)

**LIFE ECLAT (Ceramica Fondovalle S.p.A.):** The project will implement a closed loop process in the manufacturing of ceramic slabs for use in tiles, kitchen tops and bathroom surfaces. This will be demonstrated at Ceramica Fondovalle in Maranello (Modena province). This circular economy concept will involve reuse of end-of-life ceramic slabs dismantled from existing installations. The manufacturer will produce slabs containing up to 40% recycled raw materials in a process improvement that lowers waste, water use, energy consumption and CO2 emissions, as well as requiring less packaging.

#### [Project summary](#)

**LIFE NEREIDE (The Department of Civil and Industrial Engineering (DICI) at the University of Pisa):** The aim of this project is to produce porous, low-noise road surfaces that substitute recycled asphalt pavements and crumb rubber from scrap tyres for virgin aggregates and some virgin bitumen. Some 5.25 km of test road surfaces will be laid in Tuscany and Belgium, using at least 4 800 end-of-life tyres. The new surfaces are expected to reduce urban noise pollution by at least 5 decibels in comparison with traditional roads and 2 decibels compared to other porous asphalt surfaces.

#### [Project summary](#)

***LIFE Environmental Governance & Information (4 projects – 7.4 million)***

**LIFE-Food.Waste.StandUp (Federalimentare Servizi Srl):** The project aims to tackle food waste by supporting existing Italian legislation on the topic and raising awareness of the need to act on surplus food management and food waste prevention among the three key actors of the food supply chain: agro-food companies, food retailers and consumers. This will be done by means of a coordinated information campaign, carried out at national and European level. The project expects to reach more than 12 000 food retailers and 20 000 agro-food companies and half a million consumers, leading to a 10% increase in recovery of food waste.

#### [Project summary](#)

**LIFE Net pro Net (LIPU):**The project's objective is to create a network of volunteers who will contribute to the active management of Natura 2000 sites while also disseminating knowledge and appreciation of the Natura 2000 network in local communities. The volunteers will be trained to monitor and reduce the threats or damage (accidental or otherwise) to protected bird species and their favoured habitats, and will be involved in upgrading the Italian Natura 2000 network database. The project expects to recruit at least 150 volunteers across 15 Natura 2000 network sites.

#### [Project summary](#)

**Clean Sea LIFE (Parco Nazionale dell'Asinara):**The project's aim is to support the application of the Marine Strategy Framework Directive (MSFD) and to increase awareness on marine litter, empowering citizens to become part of the solution. It will work towards removing existing marine litter and prevent further littering. In addition, the project will train fishing industry professionals in responsible practices and provide Italian authorities with guidelines for the management of marine litter. More than 20 000 stakeholders are expected to sign a code of conduct on prevention of marine litter.

#### [Project summary](#)

**LIFE ASAP (Istituto Superiore per la Protezione e la Ricerca Ambientale):**The project seeks to limit the spread and impact of invasive alien species (IAS) in Italy through public awareness on the topic of IAS and more participation in the management of these species. It will circulate voluntary codes of conduct and guidelines on IAS to key stakeholder groups, including florists, landscape architects, pet shops, aquarists, anglers and hunters. The project will also train knowledge multipliers, such as zoos, botanical gardens and teachers, as well as public administrations to ensure that the new EU Regulation on IAS is implemented across Italy. It will publish a national IAS black list.

#### [Project summary](#)

#### ***LIFE Climate Change Adaptation (3 projects – 5.2 million)***

**RainBo LIFE (Lepida SpA):** The project aims to develop and implement a climate change adaptation strategy and action plan for the municipality of Bologna. In particular, this will focus on coping with the increased likelihood and effects of severe rainfall as a result of climate change. Using advanced systems for environmental monitoring and forecasting models, the project will identify specific vulnerabilities and engage with stakeholders to limit the consequences of sudden rainfall events and flash floods in the urban landscape.

#### [Project summary](#)

**LIFE MASTER ADAPT (Regione Autonoma della Sardegna Assessorato della Difesa dell'Ambiente):** The project aims to identify and test innovative tools of multi-level governance, in order to help regions and local authorities define and develop climate change adaptation strategies and policies. In particular, it plans to develop a common methodology that will enable regions with similar needs and capacities to identify their main vulnerabilities and priorities for action, in line with Italy's national adaptation strategy.

#### [Project summary](#)

**LIFE AFORCLIMATE (Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria):** The project's goal is to maintain and improve the efficiency of the beech forest ecosystem in the Apennine mountains through effective forest management which takes climatic factors into account. It aims to create a detailed forecast model and develop a monitoring scheme that will assess the impact of climatic factors, in order to better promote forest regeneration and resilience, as well as seed production.

#### [Project summary](#)

#### ***LIFE Climate Change Mitigation (5 projects – 10.8 million)***

**SheepToShip LIFE (Consiglio Nazionale delle Ricerche):** The main objective of the project is to reduce the greenhouse gas emissions of the Sardinian sheep farming sector and dairy supply chain by 20% in 10 years. The project will identify optimal management and sustainability strategies for the

sector, in order to reduce the environmental impact of all stages of the supply chain whilst maintaining quality and driving eco-innovation.

#### [Project summary](#)

**LIFE ECONOMICK (SE.TE.C. s.r.l.):** The project aims to reduce greenhouse gas emissions in the ceramic industry. It will demonstrate an intermittent kiln for production of ceramic table ware and sanitary ware that reuses waste heat. The new technology is designed to significantly reduce greenhouse gas emissions and consumption of energy and raw materials without affecting product quality.

#### [Project summary](#)

**LIFE+FORAGE4CLIMATE (Centro Ricerche Produzioni Animali):** The project will develop tools and good practices to help dairy farmers monitor greenhouse gas emissions related to land use, and preserve or increase the carbon stock in soil used to produce forage for ruminants. By engaging dairy farmers in pilot areas in Sardinia and Greece, the project seeks to promote farming methods that contribute to climate change mitigation, economic development and sustainable production, through a better understanding of the link between agriculture and climate change.

#### [Project summary](#)

**OLIVE4CLIMATE LIFE (Università degli Studi di Perugia):** The project aims to use the olive tree's ability to thrive in ecologically challenging conditions as an opportunity to demonstrate the sector's contribution to carbon sequestration in soils. It will show how the olive oil industry has the potential to mitigate climate change, the effects of which are most apparent in regions where olive trees are most abundant. The project aims to monitor greenhouse gas emissions in the olive oil value chain, promote the development of secondary products and establish a labelling and quality assurance scheme.

#### [Project summary](#)

**LIFE-DIADEME (Reverberi Enetec - Gruppo MPES (Italy)):** This project will demonstrate a cost-efficient new street lighting dimming system that is designed to reduce energy consumption by 30% in comparison with state-of-the-art control systems. The technology will be installed on a pilot basis in EUR, a residential and business district of Rome. The project will carry out a life-cycle assessment, life-cycle cost analysis and preliminary market and socio-economic analyses of the new system, which is expected to reduce street lighting maintenance costs by 10% and contribute to a 30% reduction in national expenditure on public lighting.

#### [Project summary](#)

#### **LIFE Climate Governance & Information (2 projects – 1.7 million)**

**LIFE SIDE (European University Institute):** The project aims to contribute to the revision of the rules for the EU Emissions Trading System (ETS) by creating a knowledge hub and a point of reference for policy-makers involved in the design and implementation of the scheme. This will include an economic assessment of the first 10 years of the EU ETS, a forum for constructive policy dialogue, the creation of a network of some 20 experts and online resources to enhance coordination.

#### [Project summary](#)

**LIFE FRANCA (Università degli Studi di Trento):** The project aims to raise awareness on flood risks in Italy and support spatial planning capacities to help anticipate such risks, in particular in Alpine areas. It will train staff of public bodies to anticipate risks and encourage the general public to adopt practices that can minimise the risks in a given territory. The project will also produce customised maps of flood risks for different user groups, set up a digital platform to disseminate information about flood risk maps and scenarios and draft guidelines for the communication and anticipation of flood risks.

#### [Project summary](#)

#### **LATVIA (LV) (1 project – 1.0 million)**

##### **LIFE Nature & Biodiversity (1 project – 1.0 million)**

**LIFE CoHaBit (Carnikava Municipality):** The aim of the project is to conserve and restore vulnerable coastal habitats in Latvia's Piejura Nature Park. Actions will benefit 13 types of coastal habitat and two plant species listed in the EU Habitats Directive, as well as six species listed in the EU Birds Directive. The project will update the site management plan to reduce anthropogenic pressures and work closely with the local community to ensure sustainable long-term management of this Natura 2000 network site.

#### [Project summary](#)

## **LITHUANIA (LT) (1 project – 4.1 million)**

### ***LIFE Nature & Biodiversity (1 project – 4.1 million)***

**LIFEMagniDucatusAcrola (Baltic Environmental Forum Lithuania):** The aquatic warbler (*Acrocephalus paludicola*) is Europe's rarest migratory songbird and a globally threatened species. It has very specific habitat requirements, being found only on fen mires or wet meadows on peaty soil covered by sedges. Areas of aquatic warbler habitat in Lithuania and Belarus are in large part degraded and a barrier to the natural connection of the populations in the two countries. This project is aiming to boost the population in Lithuania by translocating 100 individuals from Belarus and by reducing fragmentation of its breeding habitats in both countries. The project will also encourage better habitat management by setting up a factory in Lithuania to process biomass generated by mowing of aquatic warbler habitats.

#### [Project summary](#)

## **THE NETHERLANDS (NL) (5 projects – 36.1 million)**

### ***LIFE Environment & Resource Efficiency (3 projects – 23.7 million)***

**BG4US LIFE 2015 (Millvision BV):** The objective of the project is to produce a price-competitive bio-based guardrail, and to demonstrate it in crash tests (to obtain necessary certification) and along a road in the Netherlands. Poles and rails will be made from innovative materials produced from agricultural waste. The novel guardrail will provide an environmentally-friendly alternative to zinc-coated metal roadside guardrails, leading to reductions in harmful zinc emissions into soils and water.

#### [Project summary](#)

**LIFE CLINSH (Province Zuid-Holland):** The objective of the project is to improve air quality in urban areas situated close to ports and inland waterways, by accelerating the reduction of emissions from inland waterway transport (IWT). It will demonstrate emissions reduction technologies, measuring their effectiveness and cost-benefits under real-world conditions, to help facilitate a switch to lower emission levels in inland vessels.

#### [Project summary](#)

**AGANFOILS (Attero B.V.):** Post-consumer LDPE (low-density polyethylene) plastic foils recovered from municipal solid waste are contaminated with dirt, organic material and adhesives. This makes them difficult to recycle. The AGANFOILS project aims to demonstrate industrial-scale recycling of post-consumer LDPE in existing recycling facilities in Wijster to produce a high-quality, odourless plastic re-granulate. The largely closed-loop process will make efficient use of available residual energy and water streams.

#### [Project summary](#)

### ***LIFE Climate Change Adaptation (1 project – 4.1 million)***

**LIFE AERFIT (Gemeente Putten):** The project aims to demonstrate that Fast High Volume Infiltration (FHVI) technology is an effective adaptation strategy for dealing with the increase in urban pluvial flooding caused by climate change. The FHVI technology will be installed in the town of Putten in Gelderland, with the goal of having no water on the street at the peak precipitation levels of a T10 (once in 10-years) flood event. The project will monitor and disseminate the results to help other European cities implement FHVI, prioritising the sharing of best practice for effective technology transfer.

#### [Project summary](#)

### ***LIFE Climate Change Mitigation (1 project – 8.3 million)***

**LIFE OPTIMELT (BV Koninklijke Nederlandsche Glasfabriek Leerdam):** The project will carry out the first full-scale demonstration of an innovative waste heat recovery concept for high-temperature manufacturing processes. The demonstration will take place at the Libbey Leerdam glassware factory in the Netherlands. The OPTIMELT technology serves as an add-on to existing oxy-fuel combustion furnaces. The project aims to reduce energy consumption and greenhouse gas emissions by at least 20% compared to the best available technology in the glass industry. Results will be disseminated to at least 500 European factories using high-temperature manufacturing processes.

#### [Project summary](#)

## **POLAND (PL) (4 projects – 5.1 million)**



### **LIFE Nature & Biodiversity (3 projects – 4.2 million)**

**LIFE ciconiaPL (Polskie Towarzystwo Ochrony Ptaków – PTOPL):** The white stork (*Ciconia ciconia*) is a priority species of the EU Birds Directive. There is declining public acceptance of large stork nests on chimneys and roofs, which, together with other socio-economic changes, could have a negative impact on the population of the species in the river valleys of eastern Poland (c. 1 600 breeding pairs). This LIFE project will focus on increasing public tolerance of stork nests on buildings, protecting 400 nesting sites, reducing deaths caused by power lines and improving the effectiveness of two white stork rehabilitation centres.

#### [Project summary](#)

**LIFE PandionPL (Dyrekcja Generalna Lasów Państwowych):** The main objective is to increase the population of the osprey (*Pandion haliaetus*) in Poland. The project will focus on activities carried out in forests, where the osprey most commonly nests, as well as on lakes and ponds, its main feeding areas. The project will install artificial nests, protected by site wardens, and identify fish stocks necessary to support the osprey population while avoiding conflict with the fishing community. An important result will be the production of guidelines for the protection of the species in Poland and Central Europe. These should enhance cooperation between institutions in order to detect or prevent wildlife crimes, particularly poaching and egg theft. The project expects to increase the osprey population by 20% compared with 2014 levels.

#### [Project summary](#)

**LIFE CIETRZEW KARPATY PL (Ogólnopolskie Towarzystwo Ochrony Ptaków – OTOP):** The main objective of the project is to stop the decline in numbers of one of the largest black grouse (*Tetrao tetrix*) populations in Poland, located on the peat bogs of the 'Torfowiska Orawsko-Nowotarskie' Natura 2000 network site. The project will remove shrub and tree overgrowth and restore the hydrology of more than 300 hectares of peat bogs. Actions will also be taken to ensure that black grouse lekking sites in mountain hay meadow habitats are of sufficient quality and size. These are sites where male birds gather to engage in competitive displays during the mating season. The project expects an increase in the black grouse population size from 30-40 males to 45-60 males. Active protection measures for the grouse habitats will contribute to the conservation of one of Poland's largest complexes of raised peat bogs.

#### [Project summary](#)

### **LIFE Environmental Governance & Information (1 project – 0.9 million)**

**LIFE Justice for Nature (Generalna Dyrekcja Ochrony Środowiska):** The goal of the project is to ensure the efficient implementation in Poland of national and EU legislation on nature protection (mainly the Habitats and Birds directives). It will also work towards improving coordination between different bodies dealing with law enforcement in the field of nature protection through pilot educational activities. This will result in a 10% increase in successful prosecutions of nature crime in Poland.

#### [Project summary](#)

### **PORTUGAL (PT) (3 projects – 7.3 million)**

#### **LIFE Environment & Resource Efficiency (2 projects – 3.9 million)**

**LIFE PAYT (Polytechnic Institute of Coimbra):** The project will implement an integrated, cost-efficient and highly replicable PAYT (pay-as-you-throw) system in five southern EU municipalities: Lisbon, Condeixa and Aveiro (Portugal); Vrillissia (Greece); and Larnaca (Cyprus). This will encourage households and companies to sort and recycle, with the aim of reducing waste, increasing recycling rates for packaging materials, demonstrating changes in local decision making that help implement EU waste policy, and promoting the replication of the concept in other southern European municipalities. The project will use software and hardware to show waste producers how much they discard, and design fair and equitable waste tariffs.

#### [Project summary](#)

**LIFE Index-Air (Instituto Superior Técnico):** This project will create a new air quality management tool that enables local, regional and national policy-makers to quantitatively evaluate the impact of policies on levels of human exposure to particulate matter. The tool will be implemented in EU cities, where it will be used to assess the contribution different emission sources make to exposure levels and to develop control strategies that take anticipated climate change impacts and long-term atmospheric changes into account. The tool will be developed using data from Lisbon, Porto, Athens, Venice and Kuopio.

#### [Project summary](#)

### **LIFE Climate Change Adaptation (1 project – 3.4 million)**

**LIFE-MONTADO-ADAPT (Associação de Defesa do Património de Mértola):** The project aims to introduce innovative climate change adaptation technology to the Portuguese *Montado* and Spanish *Dehesa* landscapes, where the current traditional agroforestry practices have become economically unsustainable. The project will demonstrate sustainable and profitable integrated land use (ILU) systems, which help restore the landscape's multifunctional character as well as increasing its contributions to socioeconomic development, environmental services, biodiversity conservation and carbon sequestration.

#### [Project summary](#)

### **SLOVAKIA (SK) (1 project – 3.0 million)**

#### **LIFE Nature & Biodiversity (1 project – 3.0 million)**

**LIFE IPORSEN (Slovak Ornithological Society/BirdLife Slovakia):** The main aim of LIFE IPORSEN is to reduce factors adversely affecting wetlands of international importance – located in three Natura 2000 network sites. This will be achieved by restoring their ecological functions in favour of targeted water bird species, including both the black stork (*Ciconia nigari*) and white stork (*Ciconia ciconia*). The project will restore at least 850 hectares of wetlands, repairing sluice gates and channels and reconnecting oxbow arms, as well as restoring nesting islands and create nesting platforms for storks.

#### [Project summary](#)

### **SLOVENIA (SI) (2 projects – 2.0 million)**

#### **LIFE Environmental Governance & Information(1 project – 1.1 million)**

**LIFE ARTEMIS (Slovenian Forestry Institute):** The project aims to raise public awareness of Invasive Alien Species (IAS) in forests in a bid to contribute to the reduction of the harmful impacts of IAS on biodiversity. The project will set up an early warning and rapid response system to manage the impact of IAS on forests, create an inventory of IAS and train both professionals and volunteers to deal efficiently with IAS.

#### [Project summary](#)

#### **LIFE Climate Change Adaptation (1 project – 0.9 million)**

**LIFE VIVaCCAdapt (Razvojna agencija ROD Ajdovščina):** The project will focus on adapting agriculture in the fertile upper Vipava valley in Slovenia to the effects of climate change. As part of a holistic strategy for adapting to climate change it will create a pilot decision-support system (DSS) for irrigation and a demonstration centre to plant green wind breaks, in order to show the importance of creating wind protection zones in areas with strong winds.

#### [Project summary](#)

### **SPAIN (ES) (38 projects – 69.4 million)**

#### **LIFE Nature & Biodiversity (7 projects – 18.3 million)**

**LIFE OREKA Mendian (Fundación HAZI Fundazioa):** The objective of the project is to develop a conservation strategy for the traditional management of grasslands in the Basque Country context. The project will work with landowners, graziers and land managers to reduce livestock pressures on habitats identified as having an 'unfavourable-bad' conservation status. The project aims to improve the conservation status of more than 13 400 hectares of protected mountain grassland habitats and associated species. It will also produce a best practice manual for the management of mountain grasslands, including an analysis of the situation for the Basque Country and other European regions.

#### [Project summary](#)

**LIFE BACCATA (Universidad de Santiago de Compostela):**In the Mediterranean region, the yew tree (*Taxus baccata*) is often reduced to small enclaves in remote mountain areas. LIFE Baccata aims to improve the conservation status of yew tree woods in 15 Natura 2000 network sites in the Cantabrian Mountains. It will map areas where the yew tree is found and implement restoration and management activities that increase its area of distribution by some 145 hectares, as well as improving the structure and function of some 540 hectares of yew tree woods. The project will also create two gene banks for the species and cultivate more than 132 000 specimens.

### [Project summary](#)

**LIFE ZEPAURBAN (Junta de Extremadura - Dirección General de Medio Ambiente):** In Extremadura, more than 70% of lesser kestrel (*Falco naumanni*) breeding colonies are located in urban centres, but breeding success is declining. This project aims to develop a management model for urban Natura 2000 network sites to guarantee the conservation of the lesser kestrel in the long term. This includes installing artificial nests and making property owners aware of the need to avoid nest disturbance. The project will also secure cooperation agreements with landowners and stockbreeders to ensure suitable foraging habitat is available. It expects to achieve a 39.9-53% increase in the lesser kestrel breeding population as a result of its actions.

### [Project summary](#)

**LIFE Tritó Montseny (Diputació de Barcelona):** The Montseny brook newt (*Calotriton arnoldi*), an endemic amphibian present only in the Montseny area, is classified as 'critically endangered' by the IUCN. This LIFE project aims to improve the conservation status of the species by safeguarding its genetic pool and expanding its distribution area. It will work with local residents to improve the water quality of streams where the Montseny brook newt is found, draft a conservation plan and action programme for the species, and seek to gain its legal recognition at national and European level.

### [Project summary](#)

**LIFE REMoPaF (Acciona Ingenieria):** The main objective of LIFE REMoPaF is to design, test and implement new techniques and methods for the management of the Mediterranean ribbed limpet (*Patella ferruginea*). These trials are designed to enable repopulation of suitable existing habitats and the expansion of the species into new areas, in line with the national species conservation strategy. A key result will be the transfer of 500 individuals (of high reproductive success rate) from a donor area with a large population, to a receiving area whose population is in decline. The project will also develop protocols for the management of the species and its habitat.

### [Project summary](#)

**LIFE STEPPE FARMING (Fundación Global Natura - FGN):** The project's main objective is to halt the population decline in Castilla-La Mancha of protected steppe birds, including the little bustard (*Tetrax tetrax*), great bustard (*Otis tarda*) and lesser kestrel (*Falco naumanni*). To achieve this goal, it will increase the El Hito Natura 2000 network site by 25 000 hectares. Fifty farmers will participate in a land stewardship network, demonstrating that it is possible to preserve the territory's mosaic structure and its value as habitat for steppe birds without losing productivity. The project will also develop a regional plan for the conservation of steppe birds and a proposal for new agri-environmental schemes under the EU Rural Development Programme.

### [Project summary](#)

**LIFE Ricotí (Universidad Autónoma de Madrid\*):** Some 15% of the European population of Dupont's lark (*Chersophilus duponti*) is found in Soria. The LIFE Ricotí project aims to improve the conservation status of this passerine bird species through habitat restoration measures and extensive livestock management in two Natura 2000 network sites. These actions are expected to increase the population by 15-40 reproductive pairs. The project will also work to enhance local perceptions of the species and define criteria for habitat management that will be integrated into national and regional conservation strategies for Dupont's lark, a species listed in Annex I of the EU Birds Directive.

### [Project summary](#)

#### **LIFE Environment & Resource Efficiency (20 projects – 34.1 million)**

**LIFE AMMONIA TRAPPING (Fundación General de la Universidad de Valladolid):** The project will develop an innovative and sustainable solution to reduce ammonia emissions from animal husbandry excretions. In particular, it will test an anaerobic digestion and composting process, using devices that capture ammonia, to produce nitrogen fertiliser and decrease the energy necessary to ventilate the installations. The technology, which has a high replicability potential, will be demonstrated on farms in Spain by treating pig slurry (raw and digestate) and hen excretions.

### [Project summary](#)

**LIFE ANSWER (MAHOU S.A.):** The project will demonstrate an integrated and innovative technology for treating wastewater from breweries, and other food and drink sectors. This will combine electrocoagulation and bioelectrogenesis microbial treatments for the complete removal of pollutants. It will be implemented on a pilot-scale at a wastewater treatment plant in Alovera (Castilla-La Mancha). The resulting dry residue will be reused onsite to produce energy and as a fertiliser.

### [Project summary](#)

**LIFE BAQUA (Universidad de Las Palmas de Gran Canaria):** The project will make optimum use

of a waste stream that is normally landfilled. It will use the organic waste that results from banana cultivation in two resource-efficient ways: firstly, the waste's fibres will be extracted and used as a natural additive for biobased plastic components and covers to protect banana trees against UV radiation. Secondly, the pulp that results from the fibre extraction process will be used in the manufacturing process of fish feed instead of the synthetic substances that are currently added as anti-oxidative products. The project makes a special contribution to the EU circular economy action plan, as it actively contributes to two of its five priority areas: plastics and bio-waste.

#### [Project summary](#)

**LIFE – COMBASE (INKOA):** The project will demonstrate an innovative tool for assessing and reducing the impact of biocides of ecotoxicological concern, and will promote their substitution with safer substances. The flexible, open-source, on-line decision-support tool will be based on a series of predictive computational models, and will enable simulations to be performed on the ecotoxicity potential of new candidate chemicals before their synthesis. It will be demonstrated at four trophic levels: bacteria, algae, Daphnia and fish. The project will make a special contribution to the EU Biocides Product Regulation (EU) 258/2012.

#### [Project summary](#)

**LIFE DrainRain (PROYFE):** The aim of the project is to mitigate the environmental impact of rainwater runoff in water bodies, by coupling sustainable urban drainage systems (SUDS) with an innovative modular treatment system for diffuse pollution, to enable water reuse for irrigation and other applications. The project will design and implement pilot systems in Galicia and Murcia (Spain), using photocatalytic pavements, to decrease concentrations of substances of concern entering receiving water bodies. These include heavy metals, polycyclic aromatic hydrocarbons (PAHs), pesticides and polychlorinated biphenyls (PCBs).

#### [Project summary](#)

**LIFE ECOMETHYLAL (AIMPLAS):** Recycling is not possible for all types of plastic waste, such as that containing mixed plastics, or contaminated or severely degraded plastics. LIFE ECOMMETHYLAL will use a technique called catalytic hydro-gasification with plasma (CHGP) to produce a valuable chemical agent called methylal from non-recyclable packaging waste (NRPW) generated by the automotive, electric-electronic and packaging sectors. The project will build pilot plants in Spain and Croatia to demonstrate the applicability of using CHGP to make methylal from NRPW.

#### [Project summary](#)

**LIFE ECO-SANDFILL (CASA MARISTAS AZTERLAN):** The project seeks to reduce the large volume of foundry sand sent to landfills and create a green economy for reused sand. It will demonstrate for the first time in Europe, a mechanical process for treating spent foundry sand (SFS) that allows this waste material to be reused as fine aggregate in construction. The project will build a pilot plant in the Basque Country to treat 1 500 tonnes of SFS. The aggregate produced will be used in three different construction applications.

#### [Project summary](#)

**LIFE-ECOTEX (Fundació Gaiker):** The project aims to recycle polyester textile waste generated during shoe manufacturing, enabling textile waste that contains glues and other materials to be recycled for the first time. The material produced by the recycling process – BHET - will replace non-renewable petrochemical feedstock, so closing the cycle for polyester materials in shoe manufacturing, in line with the EU Circular Economy package.

#### [Project summary](#)

**LIFE EMPORE (Laboratorios Tecnológicos de Levante S.L.):** Emerging pollutants are chemicals whose effects on the environment and human health are unknown. This project will demonstrate a cost-efficient and highly-replicable technology for removing emerging pollutants from urban wastewater. The mobile prototype, which will be installed at a wastewater treatment plant in Benidorm, will consist of four principal processing units, which remove emerging pollutants using different mechanisms: filtration/adsorption by columns, filtration by membrane technology, Electrochemical Advanced Oxidation Processes (EAOPs), and Advanced Oxidation Processes (AOPs). The pilot plant is expected to demonstrate significantly reduced levels in treated wastewater of 12 emerging pollutants.

#### [Project summary](#)

**LIFE LEACHLESS (Fundación CARTIF):** The project aims to demonstrate technology for the treatment of leachate from landfills, based on solar evaporation/condensation and forward osmosis. The project prototype, which will be tested in Botarell (Spain) and Athens (Greece), will treat leachate on-site, removing all the pollutants it contains, and avoiding costly effluent transport to wastewater

treatment plants. The final solid residue (sludge) obtained will be used in the manufacture of ceramic products.

#### [Project summary](#)

**LIFE LEMA (GIPUZKOAKO FORU ALDUNDIA):** The aim of the project is to define a management service for local authorities that addresses the problem of floating marine litter (FML). The service will be implemented in two transnational regions in south-east Bay of Biscay, and will include decision-support tools and management plans. Going beyond previous initiatives on FML, the project will propose an integrated protocol to manage marine litter.

#### [Project summary](#)

**LIFE LEMNA (AINIA):** The project will demonstrate an innovative nitrogen (N) and phosphorous (P) recovery technology, to improve nutrient management and reduce environmental impacts of animal farming. It will be demonstrated on a pig farm in Castilla-La Mancha (Spain), and will involve the treatment of anaerobically-digested manure using a duckweed production system. Duckweed biomass will be processed to obtain bio-based products, such as bio-fertilisers and animal feed, and it will also feed a biogas plant to enable the system to run on green energy.

#### [Project summary](#)

**LIFE MCUBO (School of Engineering, University of Navarra, San Sebastian):** The objective of the project is to minimise environmental impacts related to water use in three food industry sectors with high water consumption: meat, juices, and canned vegetables. In production plants representing each of these subsectors, the project will demonstrate an integral management system based on new low-cost wireless monitoring technology, and mathematical models of energy and water consumption for each company's processes.

#### [Project summary](#)

**LIFE rPack2L (Sulayr Global Services):** This project proposes a solution for recycling multilayer plastic waste and diverting it from incineration or landfill. It will develop an integrated scheme to recover valuable PVC and PE (polyethylene terephthalate) for reuse as raw materials for packaging or recycled plastic-based products. The project will establish a new network for separate collection of this waste, and design a delamination process flexible enough to process different specifications of PVC/PE-based multilayer film. The new technology will be tested at semi-industrial scale at a plant in Austria.

#### [Project summary](#)

**LIFE + POLYFARMING (Centro de Investigación Ecológica y Aplicaciones Forestales):** The project will test an innovative and cost-efficient multifunctional agro-silvo-pastoral system on a pilot farm in Spain. The aim is to halt the abandonment of multifunctional agriculture in the Mediterranean mountains, and so reverse adverse environmental and socioeconomic impacts. The new system adapts techniques for improving soil structure, fertility and water retention capacity, and incorporates integrated forest, cattle, grassland and fruit tree management, finding new ways to interrelate these so that by-products from one activity provide a resource for another.

#### [Project summary](#)

**LIFE PRIORAT + (Fundació Parc Tecnològic del Vi):** The project aims to develop and demonstrate an innovative model for sustainable wine production in the Priorat region of south-west Catalonia, which is replicable in other EU wine-producing regions, along with the application of a set of methodologies for efficient resource use. The project will determine the environmental footprint of wine production. It addresses the need for a harmonised EU methodology for green wine production.

#### [Project summary](#)

**LIFE REWATCH (Fundació CTM Centre Tecnològic):** The project will demonstrate an innovative water recycling system for the petrochemical industry. It will analyse wastewater samples from different petrochemical plants and use this knowledge to design and build a prototype plant in Tarragona. The plant, which will combine mechanical separation and biological processes, will be highly versatile and able to treat wastewaters of different qualities to standards required for various reuse applications.

#### [Project summary](#)

**LIFE-reWINE (Fundació Privada Parc de Recerca UAB):** The project will design and implement a pilot system to boost bottle reuse in Catalonia's wine industry. The project aims to prove that reuse is environmentally and economically feasible, and preferable to current management alternatives. The system will include a collection network for used bottles, new bottle cleaning and labelling processes that consume less energy, and the development of incentives (e.g. customer discounts) to foster the use and return of used bottles.



### [Project summary](#)

**LIFEVERTALIM (Consortio de Aguas Bilbao Bizkaia):** The objective of LIFEVERTALIM is to develop a decision-support tool to better manage the organic and salt loads from the fish canning industry entering wastewater treatment plants. The project aims to mitigate the environmental impacts related to the fish canning industry, and to reduce pressure on water sanitation infrastructure. It will be tested under real conditions in three food industry SMEs in Lea-Artibai (Basque Country).

### [Project summary](#)

**LIFE Zero Cabin Waste (IBERIA):** The project will create an integrated model to reduce, re-use and recycle waste collected on aircraft, which will be implemented at Barajas Airport in Madrid. The project will focus on light packaging and organic and inseparable waste fractions from EU and non-EU international flights. Implementation will involve the establishment of collection, separation and processing protocols, training for aircrew and ground staff, and some adjustments to equipment. It will be implemented at Madrid's Barajas airport and will involve crew and staff training; equipment adjustments; new collection, separation and processing protocols. Once successfully implemented, the project methodology will be replicated at Heathrow Airport as a means of demonstrating its widespread transferability.

### [Project summary](#)

#### ***LIFE Environmental Governance & Information (2 projects – 2.2 million)***

**LIFE Redcapacita2015 (Fundación interuniversitaria Fernando González Bernáldez para los espacios naturales - FUNGOBE):** This project aims to improve the management of Natura 2000 forests in the Spanish Mediterranean region, so as to incorporate objectives of biodiversity conservation and adaptation to climate change. To achieve this, the project will provide benchmarks for evaluating the conservation status of Mediterranean forest habitats – including the creation of a network of reference forests - and incorporate criteria for biodiversity conservation and adaptation to climate change in forest planning and management.

### [Project summary](#)

**LIFE SOUTHERN WOLVES (Consejería de Medio Ambiente y Ordenación del Territorio (CMAOT)):** The population of the Iberian wolf (*Canis lupus signatus*) in the Sierra Morena mountain range of Andalusia is assessed as 'unfavourable bad with negative trends': fewer than 50 wolves remain. The objective of the project is to improve the co-existence of the wolf population with people and prevent its local extinction. This will involve actions to change negative perceptions of wolves among landowners, farmers, game wardens and the wider local community. It is expected that at least 60% of game wardens and landowners in the project area will sign up to voluntary codes of conduct that support wolf conservation.

### [Project summary](#)

#### ***LIFE Climate Change Adaptation (5 projects – 9.4 million)***

**LIFE The Green Link (Centro de Investigación Ecológica y Aplicaciones Forestales):** Through six trials in three countries, the project aims to demonstrate an innovative growing method that uses 'water buckets' made from recycled carton to plant trees in desertified areas without irrigation. The project will design specific interventions to respond to the demands of climate change adaptation, such as the promotion of indigenous and resilient species able to cope with expected bio-climates in the coming decades.

### [Project summary](#)

**LIFE SUSTAINHUTS (Foundation for the Development of New Hydrogen Technologies in Aragon):** The project aims to reduce the environmental footprint and improve the energy efficiency of mountain huts and other isolated buildings in off-grid locations that often rely on diesel generators for heating and electricity. This will involve the promotion of clean, renewable energy and improved insulation in the huts, saving energy and reducing emissions of greenhouse gases.

### [Project summary](#)

**LIFE MixForChange (Centre Tecnològic Forestal de Catalunya):** The aim of this project is to safeguard Europe's sub-humid Mediterranean forests by increasing their resilience to climate change, promoting their conservation and enhancing their productive, environmental and social roles. It will test silvicultural techniques on a pilot area, and then transfer the developed tools to regional and European stakeholders, raising public awareness and improving long-term forest management.

### [Project summary](#)

**LIFE CERSUDS (Asociación de Investigación de las Industrias Cerámicas):** The aim of this

project is to improve the resilience of cities to climate change and to promote the use of green infrastructure as a way of managing surface water flooding. It will develop and implement a pilot low-carbon sustainable urban drainage system (SUDS) with very low environmental impact, for the rehabilitation of urban areas. The system will use permeable pavements to reduce flooding caused by torrential rain. This will cut runoff volumes, allowing water to be stored for use during periods of drought and protecting water quality.

#### [Project summary](#)

**LIFE CLINOMICS (Diputació de Barcelona):** The project's objective is to encourage the province of Barcelona to implement climate change adaptation measures, by presenting them as an opportunity to update the local economy, improve competitiveness and create employment. It will involve local administrations and the agriculture, silviculture, fishery and/or tourism sectors in the counties of Montseny, Alt Penedès and Terres del Ebro. Key objectives include drafting action plans and strategies for climate change adaptation, and providing local authorities with the tools to affordably launch adaptation processes.

#### [Project summary](#)

##### ***LIFE Climate Change Mitigation (2 projects – 2.4 million)***

**ECO-ELECTRICITY LIFE (Innotecno Development S.L):** The project aims to design and construct a pilot plant that will produce electricity by re-using impure alcohol fractions of low commercial value. These ethanolic purges are a waste product of bioethanol manufacturing. Their re-use will significantly reduce the CO2 emissions created by the production of electricity. The purges will be converted into reformed gas stream rich in hydrogen which will be used to generate electricity in a solid oxide fuel cell.

#### [Project summary](#)

**LIFE SARMIENTO (Microgaia Biotech, S.L ):** The project will apply a circular economy principle to vineyard pruning waste, converting it into a substrate that can be applied as enriched compost in vineyards, seedbeds and urban allotments, as opposed to burning it. This process will be developed and tested on 750 ha of vineyards in Murcia. The project expects to reduce CO2 emissions by 85% in comparison with current management practices, as well as helping to avoid soil degradation and having a positive impact on biodiversity. The project will also develop tools, training modules and guidelines to effectively transfer this solution to other wine production areas in Europe.

#### [Project summary](#)

##### ***LIFE Climate Governance & Information (2 projects – 2.9 million)***

**LIFE SHARA (Fundación Biodiversidad):** The objective of the project is to improve the governance of adaptation to climate change and to increase climate resilience in Spain and Portugal. The project will strengthen the technical capacities of the government in dealing with adaptation to climate change. It will also improve cooperation among stakeholders in Portugal and Spain, including by exchange of information on shared vulnerabilities, and will raise awareness of the issue throughout society.

#### [Project summary](#)

**U-MOB LIFE (Novotec Consultores S.A.):** This project aims to facilitate the exchange and transfer of best practices in sustainable mobility on university campuses across the EU. It will help campuses create sustainable mobility action plans leading to a 10% reduction in CO2 emissions on 30 participating campuses in 10 countries by the end of the project. A key goal will be the creation of a European University Network for Sustainable Mobility capable of multiplying, replicating and transferring best practices long after the project's end.

#### [Project summary](#)

##### **SWEDEN (SE) (6 projects – 35.2 million)**

##### ***LIFE Nature & Biodiversity (2 projects – 21.4 million)***

**LIFE BTG (County Administrative Board of Östergötland):** Covering 30 project sites in south-eastern Sweden, this project aims to build up an infrastructure of Habitats Directive (Annex I) habitats, wooded pastures and meadows and associated species. It will bridge spatial gaps between areas of the threatened or endangered habitats and species, in order to reduce the risk of local extinctions. Importantly, it plans to initiate the recovery to a 'favourable' conservation status of 1 405 ha of Fennoscandian wooded pasture habitats and associated protected beetle and pseudo-scorpion species.

#### [Project summary](#)

**ReBorN LIFE (County Administrative Board of Västerbotten):** This project targets protected

habitats of six river systems in the boreal region of Sweden whose conservation status has been assessed as 'inadequate'. It will also work to maintain or improve the conservation status of three species found in these river systems: the freshwater pearl mussel (*Margaritifera margaritifera*), Atlantic salmon (*Salmo salar*), and European otter (*Lutra lutra*). The project will restore 202 km of rivers and create some 2 300 spawning grounds for salmon and trout.

### [Project summary](#)

#### **LIFE Environment & Resource Efficiency (4 projects – 13.8 million)**

**Hg-rid-LIFE (Praktikertjänst AB):** The project aims to demonstrate new technologies and improve existing techniques for the decontamination of amalgam and mercury in the pipe systems of Swedish dental clinics, to reduce the amount of mercury entering the environment by up to 50%. The project will demonstrate its new technology for mercury decontamination in 145 dental care facilities in Sweden. In clinics where mercury levels exceed 1 000 µg/l in sewage waste from suction systems, mercury levels will be reduced by at least 50%.

### [Project summary](#)

**BIODOLOMER for LIFE (Båstad Municipality):** The objective of the project is to demonstrate an innovative 100% fossil-free biomaterial, called Biodolomer®, which can be used in place of plastic in product packaging. The new material will be tested in four commercial reference products (freezer bags, cutlery, and food and drink packaging). Biodolomer can be treated as organic waste, capable of being recycled, composted or incinerated, rather than landfilled. A life-cycle assessment of the material will be carried out. This is expected to show a 60% reduction in CO2 emissions across the complete life-cycle.

### [Project summary](#)

**LIFE HALOSEP (Stena Metall AB):** The objective of the project is to demonstrate how two flue gas waste products from incineration plants (fly ash and liquid) can be co-treated to reduce the amount of waste going to landfill. The innovative process converts the wastes into a salt brine product and a zinc product, and significantly reduces the amount of flue gas residues that need to be landfilled because they do not meet EU levels for leaching properties. The new technology closes the material loops for chloride and zinc, as the material can be recycled instead of landfilled.

### [Project summary](#)

**LIFE SURE (Kalmar Municipality):** Only 12% of dredged sediments in the EU are recycled. LIFE SURE will demonstrate a cost-effective and ecologically-sustainable process for retrieving and recycling sediments from shallow eutrophic waters. This consists of an automated surface raft pulling an underwater unit with specially-designed nozzles to pump up sediments. The system moves slowly and does not cause any re-suspension of sediments. Dredged sediments will be treated into three fractions (water, organic and mineral sediments) all of which can be reused. More than 70% of dredged sediments will be recycled, with a 50% reduction in costs for dredging, dewatering and purification compared to existing technologies.

### [Project summary](#)

#### **UNITED KINGDOM (UK) (5 projects – 38.5 million)**

##### **LIFE Nature & Biodiversity (3 projects – 32.2 million)**

**LIFE-Shad Severn (Severn Rivers Trust):** The objective of the Shad Severn project is to undertake work on the River Severn and River Teme to remove artificial barriers and significantly improve access for the population of the twaite shad (*Alosa fallax*) to quality spawning and nursery habitat. The project will also re-establish 253 km of fish's former natural range in the two rivers. This should significantly improve the conservation status of the twaite shad. The project is expected to lead to the transfer of replicable actions to instigate similar projects across the Atlantic, Mediterranean, Continental and Boreal bio-regions of the EU.

### [Project summary](#)

**LIFE blackwit UK (The Royal Society for the Protection of Birds - RSPB):** The black-tailed godwit (*Limosa limosa*) is categorised as 'near threatened' in the IUCN Red List, and is one of only five UK breeding birds that are of global conservation concern. This project focuses on an even more threatened subspecies of black-tailed godwit, *L. l. limosa* in the UK. The project plans to increase its productivity at key breeding sites to a level necessary for population stability by the end of the third year of the project, and to a level sufficient for population growth by the completion of the project (end-2021). Among other measures, it plans to enhance and maintain 1 100 ha of the target black-tailed godwit habitat.

### [Project summary](#)

**Marches Mosses BogLIFE (Natural England):** The project aims to improve the conservation status of the UK's third largest lowland raised bog. The Fenn's, Whixall, Bettisfield, Wem & Cadney Mosses SAC covers an area of 949.2 ha on the border of England and Wales. This LIFE project will restore 665 ha of habitat to achieve a more sustainable, resilient and better functioning active raised bog, in line with the UK's Prioritised Action Framework Priority Measures. Actions are expected to improve the conservation status of the site from 'unfavourable' to 'unfavourable improving'.

### [Project summary](#)

#### ***LIFE Environment & Resource Efficiency (1 project – 3.1 million)***

**LIFE Laser Fence (Liverpool John Moores University):** The project aims to develop and demonstrate an innovative and cost-effective technology (Agrilaser) to keep animals away from agricultural land. The technology uses a laser fence as an alternative to chemicals or electric fences. It addresses animal welfare concerns, and will help stop the loss of biodiversity due to the poisoning of non-target species, either directly or via food chains. The technology will be tested at locations in Scotland and Spain.

### [Project summary](#)

#### ***LIFE Environmental Governance & Information (1 project – 3.2 million)***

**TRiFOCAL London (The Waste and Resources Action Programme):** This project will pilot a communications campaign in London to encourage sustainable food systems in global megacities. It will engage with all 33 London Boroughs, 1 000 hospitality and food service outlets (including customers), 20 community groups and 24 schools. The campaign will focus on food waste, healthy and sustainable eating and the recycling of unavoidable food waste. It is expected to lead to a 20% reduction in the per capita tonnage of avoidable food waste generated by Londoners.

### [Project summary](#)

\*Name corrected on 27/01/2017 at 17:00

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