

## ΠΑΡΑΡΤΗΜΑ

### ΕΛΛΑΔΑ - 16 έργα (25,8 εκατομμύρια)

#### **LIFE+ Περιβαλλοντική Πολιτική και Διακυβέρνηση (10 έργα – 18,2 εκατομμύρια)**

- **PROTEAS** (Πολυτεχνείο Κρήτης)

Ο βασικός στόχος του έργου είναι η κατάρτιση ενός πρωτοκόλλου ορθών πρακτικών στο πλαίσιο ενός συστήματος διαχείρισης της υγείας, της ασφάλειας και του περιβάλλοντος. Ο απώτερος στόχος του έργου είναι να συνδράμει στην εφαρμογή του κανονισμού REACH και να μειώσει τον κίνδυνο από τις εκπομπές ή τις τυχαίες εκλύσεις επικίνδυνων ουσιών.

- **WASTE-C-CONTROL** (Ε.Π.Ε.Μ. – Εταιρεία Περιβαλλοντικών Μελετών – Α.Ε.)

Το έργο WASTE-C-CONTROL στοχεύει στη μείωση των εκπομπών αερίων θερμοκηπίου (GHG) με την ανάπτυξη ενός λογισμικού εργαλείου το οποίο θα αξιολογεί, θα παρακολουθεί, θα ελέγχει και θα αναφέρει τις εκπομπές που απορρέουν από τον συνολικό κύκλο ζωής των δραστηριοτήτων διαχείρισης των στερεών αποβλήτων. Θα αξιολογεί διαφορετικές επιλογές διαχείρισης αποβλήτων παρέχοντας τη δυνατότητα στο WASTE-C-CONTROL να προσδιορίζει διαδικασίες και πρακτικά εργαλεία στο πλαίσιο των τοπικών σχεδίων δράσης οι οποίες θα μειώνουν τις εκπομπές αερίων θερμοκηπίου από δραστηριότητες διαχείρισης αποβλήτων σε τοπικό επίπεδο.

- **Adapt2Change** (Τεχνολογικό Εκπαιδευτικό Ίδρυμα (ΤΕΙ) Λάρισας)

Ο γενικός στόχος του έργου είναι να δείξει την προσαρμογή της αγροτικής παραγωγής στην κλιματική αλλαγή και στην περιορισμένη παροχή νερού. Ειδικότερα, στοχεύει στη μείωση του νερού που χρησιμοποιείται στις αγροτικές εργασίες εισάγοντας μια μέθοδο ανακύκλωσης του νερού μέσα από ένα κλειστό, πλήρως αυτοματοποιημένο, υδροπονικό σύστημα θερμοκηπίου.

- **CARBONTOUR** (Περιφέρεια Βορείου Αιγαίου)

Το έργο CARBONTOUR στοχεύει στην ανάπτυξη μιας ολοκληρωμένης μεθοδολογίας για τη μέτρηση των εκπομπών ισοδυνάμων CO<sub>2</sub> από τις εγκαταστάσεις τουριστικών καταλυμάτων και τον στρατηγικό σχεδιασμό μέτρων περιορισμού των εκπομπών. Το κύριο προϊόν του έργου θα είναι ένα φιλικό προς τον χρήστη λογισμικό εργαλείο.

- **eSYMBIOSIS** (Νομαρχία Βοιωτίας)

Ο γενικός στόχος του έργου eSYMBIOSIS είναι η δημιουργία μιας διαδικτυακής πλατφόρμας για τη βιομηχανική συμβίωση, που θα επιτρέπει την επικοινωνία ανάμεσα στους δυνητικούς εταίρους και θα προσφέρει αυτοματοποιημένη αντιστοίχιση εταίρων σύμφωνα με τους οικονομικούς και περιβαλλοντικούς στόχους, διευκολύνοντας με αυτόν τον τρόπο την εφαρμογή της βιομηχανικής συμβίωσης ως μίας περιβαλλοντικής πολιτικής σε όλα τα επίπεδα.

- **SAGE10** (Μπενάκειο Φυτοπαθολογικό Ινστιτούτο)

Το έργο SAGE10 στοχεύει στην προώθηση της μακροπρόθεσμης βιωσιμότητας του αγροοικοσυστήματος και της οικονομίας. Το έργο θα αναπτύξει μια καινοτόμο διαδικασία εκτίμησης επιπτώσεων για την αντικειμενική αξιολόγηση των δυνητικών συνεπειών που μπορεί να έχουν οι προτεινόμενες αγροτικές πρακτικές στο περιβάλλον. Η διαδικασία εκτίμησης επιπτώσεων θα πρέπει να λειτουργεί ως ένα εργαλείο που θα καθορίζει την προτεραιότητα κάθε δραστηριότητας και θα εξασφαλίζει την πιστοποίηση ISO14001/EMAS στα αγροκτήματα.

- **ROADTIRE** (Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης)

Στόχος του έργου ROADTIRE είναι να αναδείξει την καινοτόμο χρήση του ανακυκλωμένου βουλκανισμένου καουτσούκ από τα ελαστικά στο τέλος του κύκλου ζωής τους στην κατασκευή δρόμων. Ο τελικός στόχος είναι να καταδειχθεί η ύπαρξη αγοράς για τα ελαστικά στο τέλος του κύκλου ζωής τους στα έργα πολιτικού μηχανικού και έτσι να μειωθεί ο αριθμός των συλλεγόμενων ελαστικών που αποθηκεύονται ή στέλνονται για χρήσεις με υψηλότερο αποτύπωμα άνθρακα.

- **ENERGY-WASTE** (ΕΠΑΝΑ Α.Ε.)

Το έργο θα αναπτύξει και θα εφαρμόσει ένα πρόγραμμα επίδειξης εφοδιαστικής διαχείρισης προκειμένου να αξιοποιηθεί το θερμικό περιεχόμενο των μη ανακυκλώσιμων αστικών αποβλήτων από το εργοστάσιο ανακύκλωσης της ΕΠΑΝΑ. Για αυτό τον λόγο θα παρουσιάσει ένα προηγμένο σχέδιο αεριοποίησης για την αξιοποίηση της ενέργειας που παράγεται από τα ρεύματα μη ανακυκλώσιμων υλικών στα σύγχρονα εργοστάσια ανακύκλωσης, δείχνοντας πώς αυτή η προσέγγιση μπορεί να μειώσει τις συνολικές εκπομπές αερίων θερμοκηπίου από τα ρεύματα των αστικών αποβλήτων.

- **ACEPT-AIR** (Ε.Κ.Ε.Φ.Ε. «Δημόκριτος»)

Στόχος του έργου είναι η καταπολέμηση των επιπτώσεων των μειζόνων και ελασσόνων πηγών αιωρούμενων σωματιδίων που έχουν ως αποτέλεσμα συγκεντρώσεις που υπερβαίνουν τα όρια που θέτει η ΕΕ. Θα δημιουργηθεί μια βάση δεδομένων που θα περιέχει πληροφορίες σχετικά με τα φυσικο-χημικά χαρακτηριστικά των αιωρούμενων σωματιδίων της ατμόσφαιρας, την ένταση της πηγής ανθρωπογενών εκπομπών και τα πρωτογενή και δευτερογενή υλικά που εκπέμπονται φυσικά και προέρχονται από τοπικές ή/και μακρινές πηγές. Θα αναπτυχθεί μια μεθοδολογία με στόχο τη δημιουργία ενός μηχανισμού λήψης μακροπρόθεσμων αποφάσεων με πολλαπλές χρήσεις για τους υπεύθυνους λήψης αποφάσεων.

- **SOL-BRINE** (Δήμος Τήνου)

Το έργο προωθεί την ιδέα της αφαλάτωσης θαλασσινού νερού με μηδενικά υγρά απόβλητα και στοχεύει στην ανάπτυξη ενός προηγμένου ηλιακού συστήματος επεξεργασίας της άλμης, προωθώντας τη χρήση ανανεώσιμων πηγών ενέργειας στα συστήματα επεξεργασίας υγρών αποβλήτων (άλμης) και εξαλείφοντας την ανάγκη διάθεσης της άλμης. Το σύστημα επεξεργασίας άλμης, που συνάδει με την αρχή των μηδενικών υγρών αποβλήτων (Zero Liquid Discharge – ZLD) και με την οδηγία-πλαίσιο για τα ύδατα, θα συμβάλει σημαντικά στην προστασία των εσωτερικών επιφανειακών υδάτων, των παράκτιων και των υπόγειων υδάτων.

**LIFE+ Φύση και Βιοποικιλότητα (4 έργα – 5,5 εκατομμύρια)**

**LIFE+ Φύση (2 έργα)**

- **ARCTOS/KASTORIA** (Νομαρχία Καστοριάς)

Στόχος του έργου είναι η βελτίωση της κατάστασης διατήρησης της καφέ αρκούδας σε ό,τι αφορά την κατάσταση του ενδιαίτηματος και τον πληθυσμό της, αντιμετωπίζοντας μεγάλες απειλές που σχετίζονται με το οδικό δίκτυο, την οδική κυκλοφορία και τη θνησιμότητα που οφείλεται στον ανθρώπινο παράγοντα.

- **ACCOLAGOONS** (Νομαρχιακή Αυτοδιοίκηση Θεσσαλονίκης)

Το έργο στοχεύει στην αποκατάσταση της υδρολογικής και οικολογικής κατάστασης της λιμνοθάλασσας της Επανωμής προκειμένου να βελτιωθεί η κατάσταση διατήρησης των ενδιαιτημάτων προτεραιότητας στις παράκτιες λιμνοθάλασσες και των θαλάσσιων λιβαδιών ποσειδωνίας καθώς και των ειδών προτεραιότητας που διαβιούν εκεί, όπως τα είδη *Numenius tenuirostris* και *Phalacrocorax pygmeus*.

**LIFE+ Βιοποικιλότητα (2 έργα)**

- **SKYROSBIODIVERSITY**

Στόχος του συγκεκριμένου έργου LIFE+ Βιοποικιλότητας είναι η καθιέρωση ολοκληρωμένων μεθόδων σχεδιασμού και διαχείρισης που θα είναι ικανές να βελτιώσουν τη βιοποικιλότητα παραμένοντας παράλληλα συμβατές με τη βιώσιμη οικονομική και κοινωνική ανάπτυξη. Οι δραστηριότητες θα βασίζονται στην ανάπτυξη ενός σχεδίου δράσης βιοποικιλότητας το οποίο θα επικεντρώνεται σε σημαντικά ενδιαιτήματα και είδη της Σκύρου.

- **VERENIKE** (Εθνικό Ίδρυμα Αγροτικής Έρευνας/ Ινστιτούτο Δασικών Ερευνών)

Στόχος του έργου είναι η βελτίωση της βιοποικιλότητας κατά τη διάρκεια της αποκατάστασης των οικοσυστημάτων που έχουν πληγεί από πυρκαγιές μέσω μιας νέας τεχνολογίας βασισμένης στην εκ των προτέρων βλάστηση σε «μικροθήκες» (mini-plugs) η οποία θα δοκιμαστεί σε μεγάλο εύρος ειδών. Τα δενδρύλλια που παράγονται με τη χρήση της νέας τεχνολογίας θα μεταφυτευτούν σε τρεις περιοχές έρευνας στην Κεντρική Μακεδονία, όπου θα παρακολουθείται και θα αξιολογείται η ανάπτυξή τους.

**LIFE+ Ενημέρωση και Επικοινωνία (2 έργα – 2 εκατομμύρια)**

- **PROM.SUS.FIS.PR.PRESPA** (Εταιρεία Προστασίας Πρεσπών)

Εκστρατεία για την ευαισθητοποίηση των κατοίκων της περιοχής και των ενδιαφερόμενων μερών, των δημόσιων αρχών και του ευρέος κοινού: γενικός στόχος του έργου είναι η προώθηση της διατήρησης των απειλούμενων ενδημικών και σπάνιων ψαριών της περιοχής και η εφαρμογή βιώσιμων αλιευτικών πρακτικών. Θα επιδιωχθεί η ενημέρωση των κατοίκων της περιοχής, των επαγγελματιών και ερασιτεχνών ψαράδων σχετικά με τη σημασία των βιώσιμων αλιευτικών πρακτικών σε όλη τη λεκάνη των Πρεσπών και των κανονισμών, προκειμένου να διατηρηθούν οι πληθυσμοί των γηγενών ψαριών των λιμνών.

- **Thalassa** (ΜΟm/Ελληνική Εταιρεία Μελέτης και Προστασίας Μεσογειακής Φώκιας)

Στόχος του έργου είναι ο μετριασμός των άμεσων κινδύνων, ανθρωπογενούς προέλευσης, για τη μακροπρόθεσμη βιωσιμότητα όλων των σπάνιων, απειλούμενων και σημαντικών θαλάσσιων θηλαστικών που ζουν στα ελληνικά ύδατα. Προκειμένου να επιτευχθεί ο ανωτέρω στόχος, το έργο στοχεύει να ευαισθητοποιήσει επιλεγμένες πληθυσμιακές ομάδες σχετικά με τα θαλάσσια θηλαστικά στην Ελλάδα, τη σημασία που έχουν τα συγκεκριμένα είδη για τα θαλάσσια οικοσυστήματα, τους άμεσους κινδύνους που αντιμετωπίζουν και τα μέτρα διατήρησης που πρέπει να ληφθούν προκειμένου να διασφαλιστεί η μακροπρόθεσμη βιωσιμότητά τους.

## **ΚΥΠΡΟΣ - 2 έργα (2,6 εκατομμύρια)**

### **LIFE+ Περιβαλλοντική Πολιτική και Διακυβέρνηση (1 έργο – 1,3 εκατομμύρια)**

- **PM3** (Τμήμα Επιθεώρησης Εργασίας - Υπουργείο Εργασίας και Κοινωνικών Ασφαλίσεων)

Το έργο έχει ως στόχο τη στήριξη των αρμόδιων κυπριακών αρχών στην προετοιμασία της αποτελεσματικής και αποδοτικής από πλευράς κόστους διαχείρισης των αιωρούμενων σωματιδίων. Για τον σκοπό αυτό, θα εφαρμοστούν προηγμένης τεχνολογίας λογισμικά πρόβλεψης και ανάλυσης σεναρίων. Το έργο θα βελτιώσει τη συλλογή δεδομένων και τις δυνατότητες επεξεργασίας τους με την ένταξη τεχνολογιών τηλεπισκόπησης στο ήδη υπάρχον δίκτυο παρακολούθησης.

### **LIFE+ Φύση (1 έργο – 1,3 εκατομμύρια)**

- **ICOSTACY** (Τμήμα Περιβάλλοντος – Υπουργείο Γεωργίας, Φυσικών Πόρων και Περιβάλλοντος Κύπρου)

Το έργο στοχεύει στη βελτίωση των ενδιαιτημάτων 20 ειδών σε 14 περιοχές Natura 2000, στην εκτίμηση της κατάστασης διατήρησης των συγκεκριμένων ειδών προκειμένου να καλυφθούν τα γνωστικά κενά, στην ευαισθητοποίηση τόσο των χρηστών γαιών όσο και του κοινού σε ό,τι αφορά τα εν λόγω είδη και στην παροχή στοιχείων με στόχο την υποβολή συγκεκριμένων προτάσεων για τη βελτίωση της οικολογικής συνοχής των περιοχών Natura 2000 στην Κύπρο.

## **AUSTRIA - 3 projects (13.3 million)**

### **LIFE+ Environment Policy and Governance (One project - 5.9 million)**

- **CEMOBIL** (Magistrat der Landeshauptstadt Klagenfurt am Wörthersee)

The aim of the project is to significantly reduce air and CO2 emissions in the city centre of Klagenfurt by increasing the share of electric vehicles to 10% of all new registrations.

### **LIFE+ Nature (2 projects - 7.4 million)**

- **Flusslandschaft Enns** (Amt der Steiermärkischen Landesregierung)

The main objective of the project is to reduce the threats to the area around the river Enns by reconnecting alluvial forests and other valuable habitats with the river dynamics and improving the condition of remaining peatland habitats and orchid meadows in the river valley.

- **LIFE+ Großtrappe** (Österreichische Gesellschaft Großtrappenschutz)

The objectives of this LIFE+ project are to reduce the threat of collision with power lines, for many years the main cause of mortality among adult and immature great bustards in Austria, and at the same time to continue Austria's intensive habitat management efforts.

## **BELGIUM - 7 projects (21.2 million)**

### **LIFE+ Environment Policy and Governance (4 projects – 8.6 million)**

- **Renew4GPP** (Firma Dam De Saedeleir NV)

The project aims to enhance green public procurement (GPP) by demonstrating to municipal authorities the ecological advantages of three high-quality, innovative gardening products based on 100% renewable resources. These products can be substituted for conventional mulch and barrier fleeces, which are made from oil-based materials.

- **VOPAK-EXPERO3** (Vopak Chemical Terminals Belgium NV)

This project's objective is to demonstrate the applicability of an in-situ chemical oxidation (ISCO) technique for the remediation of soil and groundwater contaminated with a cocktail of organic contaminants in very high concentrations at an explosion sensitive site.

- **ATMOSYS** (Vlaamse Instelling voor Technologisch Onderzoek NV)

The objective of this project is to set up, evaluate, and demonstrate an advanced air quality modelling system and associated web-based service, containing novel elements specifically designed for air pollution policy support in hot-spot regions. The system will be based on advanced technology, including prognostic 3-D atmospheric computer models.

- **DEMOCOPHESII** (Federal Public Service Health, Food Chain Safety and Environment)

The main objective of this project is to demonstrate the feasibility of a harmonised approach to Human Biological Monitoring (HBM) in the EU by implementing a pilot study in 16 Member States and sharing the expertise with five additional countries that will be adhoc members of this project.

### **LIFE + Nature (3 projects – 12.3 million)**

- **LIFE Kleine Nete** (Natuurpunt Beheer vzw)

The project aims to restore 52 ha of a complex of Annex I habitats that depend on seepage, flood and/or (in the lower stream) freshwater tide; 17 ha of Annex I habitats on a dry, poor, sandy soil as a stepping stone between the Campine plateau and the heath lands in Flanders; and 3 ha of the valuable Annex I habitat "oligotrophic to mesotrophic standing waters" and their associated species such as dragonfly and moor frog.

- **ZTAR** (Agentschap voor Natuur en Bos)

The project aims to restore the rich biodiversity of this internationally important Natura 2000 site by carrying out large-scale restoration of the ecological dynamics in the Zwin area, thus enabling appropriate implementation of the Birds and Habitats directives

- **Life Itter en Oeter** (Natuurpunt Beheer vzw)

This project is aiming to combat threats to species listed in the annexes of the Habitats and Birds directives in the lowland brook systems of Bosbeek and Itterbeek, a Natura 2000 site. At the end of the project, the site will be one of the key areas in lowland Europe for the target habitats and species.

## **BULGARIA - 2 projects (3.3 million)**

### **LIFE+ Nature (2 projects – 3.3 million)**

#### **- Black Sea Oak Habitats (Balchik State Hunting Area)**

The overall objective of the Black Sea Oak Habitats project is to ensure long-term conservation of priority oak habitats by reforestation measures and management planning. These should provide favourable conditions for sustainable development of the target habitats (Pannonic woods with *Quercus petraea* and *Carpinus betulus*; Pannonian woods with *Quercus pubescens*; Euro-Siberian steppic woods with *Quercus spp*; and Eastern white oak forests).

#### **- Safe Ground Redbreasts (Bulgarian Society for the Protection of Birds)**

The project aims to introduce land-management measures in the Dobrudzha region of northern Bulgaria to provide secure foraging grounds for the red-breasted goose. The intention is that this will stabilise the population of the most threatened goose species in the world in its wintering grounds.

## **CZECH REPUBLIC - 2 projects (8.5 million)**

### **LIFE+Nature (2 projects - 8.5 million)**

#### **- Lounské Středohoří Steppe (Agency for Nature Conservation and Landscape Protection of the Czech Republic)**

The project aims to contribute to the maintenance and the restoration to favourable conservation status of the unique thermophilous habitats and species in the Lounské Středohoří hills. The project will seek to increase the populations of target species, improve overall species diversity and raise public awareness of thermophilous habitat types and species, their protection, maintenance and sustainable use.

#### **- Butterflies CZ-SK (Agency for Nature Conservation and Landscape Protection of the Czech Republic)**

The project aims to introduce, test and promote patchwork management, which is essential for the conservation of the target butterfly species. The project will also propose and test new agri-environmental measures, which should enable the inclusion of currently excluded areas under the agricultural subsidy scheme (c. 900 ha affected).

## **DENMARK - 5 projects (11 million)**

### **LIFE+ Environment Policy and Governance (3 projects - 5.8 million)**

#### **- Climate Partnerships (Albertslund Kommune)**

The project aims to mobilise local Public Private Partnerships (PPP) for climate solutions and reduce greenhouse gas (GHG) emissions from private enterprises through PPP. It will do this by developing and demonstrating effective models for PPPs for climate planning and GHG reductions in private enterprises and by developing competences and tools in local administrations.

#### **- Composites Waste (Grymer Group ApS)**

The key objectives of the project are to develop a new waste business concept involving the sourcing and processing of composites waste into quality glass fibre materials and to demonstrate the use of processed composites waste material in two main industries: the production of asphalt for road-paving; and the production of exhaust systems and silencers.

- **NorthPestClean** (Region Midtjylland)

The main objective of the NorthPestClean project is to demonstrate, using large-scale pilot studies, that a novel remediation method based on in situ alkaline hydrolysis is an effective technology for cleaning pesticide contaminated soil and groundwater.

**LIFE+ Nature (2 projects – 5.2 million)**

- **RAHID** (Danish Forest and Nature Agency)

The main objective of the project is to restore some of Denmark's large areas of heath land. And improve the conservation status and, if possible, increase the surface area of dry sand heaths and inland dunes and *Juniperus communis* formations on heaths.

- **CONNECT HABITATS** (Faaborg-Midtfyn Kommune)

The Connect Habitats project aims to restore semi-natural dry grassland habitats in the Bøjden Nor nature reserve to a favourable conservation status. It also aims to improve the conservation status of coastal lagoons and Atlantic salt meadows, and enable their development inland in order to combat the impacts of climate change and coastal erosion.

**ESTONIA - 1 project (2.6 million)**

**LIFE+ Environment Policy and Governance (1 project - 2.6 million)**

- **OSAMAT** (Eesti Energia AS)

Every year some eleven million tonnes of oil shale is burned, producing more than six million tonnes of oil shale ash (OSA) This by-product is disposed of by spreading on land, causing pollution of rainwater. The objective of the project is to demonstrate the technical, environmental and economic feasibility of converting aggregates and additives (OSA) into a material that can be used in the construction sector.

**FINLAND - 9 projects (16.6 million)**

**LIFE+ Environment Policy and Governance (8 projects - 14.6 million)**

- **VOCless waste water** (Uudenkaupungin Rautavalimo Oy (Meehanite Technology Oy))

The project aims to reduce emissions of volatile organic compounds (VOCs) from mechanical and semi-chemical pulping processes and will specifically target VOCs in wastewater from the pulping process. It will demonstrate the viability of a VOC and odour abatement system in conditions characterised by fumes with high humidity, varying VOC concentrations, low oxygen content, the possible presence of sulphur compounds and large air-flows.

- **GISBLOOM** (Suomen ympäristökeskus)

The project aims to build capacity to integrate climate change effectively into river basin management plans in Finland. It will demonstrate an integrated model to quantify the effects of different climate-change scenarios to help tackle threats of eutrophication and algal blooms.

- **LCA IN LANDSCAPING** (MTT Agrifood Research Finland)

The project will demonstrate the many possibilities to use waste-derived materials in green cover (particularly in amenity lawn areas) construction and management. To this end it will conduct a lifecycle assessment (LCA) of the 20 demonstration sites. The LCA results are expected to show that the increased use of recycled materials in landscaping will reduce negative environmental impacts.

- **Climforisk (Metsäntutkimuslaitos** (Finnish Forest Research Institute))

This project is concerned by how changes in the water cycle will affect forests. Many of the climate change effects on forests are dependent on how soils are able to provide water to plants. As a consequence, the project aims to improve knowledge of how forest growth could change in future by compiling existing data and models. Information compiled by the project will establish a better basis for regional forest management planning in the context of climate change.

- **MACEB** (Ilmatieteen laitos)

The project aims to demonstrate, using the best available tools, an innovative approach to mitigating warming of the Arctic climate by reducing black carbon (BC) emissions at mid latitudes. It will also identify knowledge gaps and uncertainties in how BC emissions can be linked to radiative forcing in Arctic areas using existing modelling and measurement tools.

- **INSULATE** (Terveyden ja hyvinvoinnin laitos (National institute for health and welfare))

The project will focus on the assessment of national programmes to improve the energy performance of the existing housing stock, such as government-supported improvements in thermal insulation. It will develop a common protocol for assessing the impacts of a building's energy performance on indoor environmental quality and health and establish an integrated approach for the assessment of environmental and health information.

- **ABSOILS** (Ramboll Finland Oy)

The project aims to demonstrate that it is possible to convert discarded soil into valuable secondary materials with civil-engineering applications. It will determine the best possible solutions for the stabilisation of discarded soils, using regionally sourced commercial and by-product additives (such as fly ash), with the ultimate goal of establishing the optimum mixing of soil and stabilisation materials for different applications.

- **REDUST** (City of Helsinki)

The project aims to find best winter practices in the fields of traction control, dust suppression and street cleaning, and accelerate their implementation in order to reduce levels of respirable street dust (PM10) in urban areas. The project will demonstrate the emissions reduction potential and air quality benefits of these best practices.

**LIFE+ Nature (1 project – 2 million)**

- **Return of rural wetlands** (Metsähallitus)

The main objective is to create a new framework and give a good start to a future nationwide programme for wildlife habitat conservation, restoration and recreation that will operate on a local level. The project has two distinct parts, demonstrative and innovative, which both have the objective of halting the loss of biodiversity in the Finnish wetlands outside the Natura 2000 network and other protection programmes.

**FRANCE - 12 projects (28.9 million)**

**LIFE+ Environment Policy and Governance (9 projects - 22.2 million)**

- **ECOTRANSFLUX** (Five Celes)

The Ecotransflux project aims to demonstrate that the high power Transverse Flux Induction Heating (TFIH) technology can be implemented on new processing lines of steel cold-rolling plants to reduce greenhouse gas (GHG) emissions and acid waste, whilst meeting quality, economic and capacity criteria.



- **WaterRtoM** (Office International de l'Eau)

The general objective of the project is to speed-up the transfer of research outputs to practitioners in the water management sector. A methodology will be developed for assessing the potential benefits of emerging tools / methods with regard to the distance from research to market (the Research to Market Assessment Strategy - ReMAS). Furthermore, for the research outputs ranked "close-to-implementation", an individualised strategy for business implementation will be developed thanks to a Precursors Marketing Strategy (PMS).

- **IRIS** (RHODIA Operations)

The IRIS project aims to demonstrate the industrial-scale feasibility of an innovative catalytic chemical process to convert co-products of the polyamide-66 nylon chain into the new eco-friendly and safe solvent Rhodiasolv IRIS, which is readily biodegradable, non-VOC, non-toxic, non-carcinogenic and non-irritant.

- **AETHER** (LAFARGE LCR)

The AETHER project intends to show the feasibility of producing a new type of cement at industrial scale within existing industrial installations with significantly lower CO<sub>2</sub> emissions than conventional Portland cement. This will be done by demonstrating the performance of an innovative type of clinker with a new and proven chemical composition.

- **CLIMATE** (Conseil général de l'Essonne)

The CLIMATE project aims to develop and adopt a territorial climate action plan for the department of Essonne. The objective is that there will be signs of reduced GHG emissions in Essonne by 2013, aiming at a 25% reduction - compared with 1990 levels - by 2020.

- **GREEN TESTING** (Innovations Extrêmes, Technologies & Recherche)

The project will focus on demonstrating new environmental-friendly practices and technologies for surface non-destructive testing (NDT) - a part of the manufacturing process for high quality products in automotive, nuclear and aeronautic sectors. It will do this by optimising protocols and working methods to reduce consumption of energy and emissions to air, water and soil, as well as the quantity of waste being produced.

- **C.C.H.P ENVIR CHALLENGES** (Communauté de Haute Provence)

This LIFE project's objective is to demonstrate the effectiveness of new territorial planning approaches aimed at improving the management of kitchen waste, waste recycling, energy efficiency and protection of soil and water resources. It will create a demonstration building containing environmentally-friendly features such as geothermal air circulation, heating produced by recycled wood logs from a waste reception centre, and photovoltaic panels for generating electrical energy and heating water.

- **GREENCITY** (VIZELIA)

The objective of the Green City LIFE project is to implement software controlling electricity, water and gas consumption in public buildings. Using 3D models and intelligent meters, the project will monitor consumption in order to manage and audit energy in real time. A web platform will centralise and control all data for the municipal buildings involved in the project, making it the most comprehensive such project carried out in this field.

- **Green Waste Plast** (Union des syndicats des PME du Caoutchouc et de la plasturgie)

The aim of this LIFE project is to demonstrate that waste of various types of 'blister' or light packaging, can be re-usable, and that innovative and effective recycling processes exist as an alternative to incineration or landfill. A pilot installation will be set up using innovative technologies such as granulators and micronisators to process, mill and grind waste products in a cryogenic low temperature atmosphere.

### **LIFE+ Nature & Biodiversity (3 projects - 6.7 million)**

#### **LIFE+ Nature (1 project)**

- **MULETTE** (Bretagne Vivante – SEPNB)

The project aims to restore the freshwater pearl mussel populations of "Massif armoricain" (French Brittany). It includes six sites that are classified as Sites of Community Importance (pSCI) and are known as main refuges for freshwater pearl mussel populations in western France.

#### **LIFE+Biodiversity (2 projects)**

- **CAPE DOM** (LPO)

This project's objective is to contribute to stopping the biodiversity loss in three French overseas departments (Reunion Island, Martinique and French Guiana), by testing demonstrative and innovative conservation management tools for the protection of threatened bird species and their habitats, and by disseminating the results to the other EU outermost regions.

- **BioDiVine** (Institut Français de la Vigne et du Vin)

The aim of this project is to demonstrate the benefits from strengthening landscape structures as a means to restore and conserve biodiversity in cultivated vineyards. This will be achieved by assessing biodiversity-friendly actions in different European biotopes. Complementary semi-natural spaces will be created in vineyards from seven test sites in three countries (Portugal, Spain, France) covering Atlantic, Mediterranean and Continental regions.

## **GERMANY - 9 projects (30 million)**

### **LIFE+ Environment Policy and Governance (1 project - 4.4 million)**

- **MY FAVOURITE RIVER** (Bundesrepublik Deutschland, vertreten durch Wasser- und Schifffahrtsdirektion Südwest, vertreten durch Wasser- und Schifffahrtsamt Stuttgart)

The project plans to co-ordinate concurrent investment plans at municipal, regional and national level in order to achieve unified, environmentally sustainable and durable river management. It thus aims to ensure appropriate and sustainable maintenance and development of the river Neckar as an important waterway.

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

- **Pro-Klima Autoklimaanlage** (Deutsche Umwelthilfe e.V.)

The project will campaign to reduce environmental pollution caused by vehicle air conditioning systems. Firstly, it will focus on raising awareness about enhancing current vehicle air conditioning systems, so that energy consumption and resulting emissions will be significantly reduced. At the same time, it will campaign for the introduction of natural refrigerants to be brought forward.

## **LIFE+ Nature (7 projects – 24.7 million)**

### **- Rheinauen bei Rastatt** (Regierungspräsidium Karlsruhe)

The project is targeting a substantial improvement of wetland ecosystems along a section of the river Rhine (west of Rastatt). As one of the most important ecological corridors in Central Europe, the area plays an important role in goals of a coherent Natura 2000 network: the project should substantially aid the restoration of many typical wetland habitats and also help to improve the conservation status of several plant and animal species listed in the Habitats Directive.

### **- Steigerwaldrand Iphofen** (Bayerisches Staatsministerium für Umwelt und Gesundheit)

The project's main aim is to conserve the Steigerwald hills Natura 2000 site near Iphofen. In addition, the project area will be developed as a demonstration area for traditionally-managed landscapes and for coppiced woodland in Germany and Central Europe.

### **- Wald – Wasser – Wildnis** (Landesbetrieb Wald und Holz NRW)

The project's overall goals are to develop and target the conservation of the four endangered forest habitat types in six Natura 2000 sites in the Eifel National Park, which encompasses the counties of Aachen, Düren and Euskirchen in North Rhine-Westphalia.

### **- Bergmähwiesen Winterberg** (Naturschutzzentrum –Biologische Station – Hochsauerlandkreis e.V.)

The project aims to restore, ecologically improve and sustainably protect nationally significant clusters of mountain hay meadow as high-risk plant communities and as a refuge for endangered montane species and habitats. The planned project area comprises the Natura 2000 sites of "Bergwiesen bei Winterberg" and "Oberes Orketal" with the most important remnants of montane grasslands on a total of 538 ha.

### **- Alosa alosa** (Landesanstalt für Umwelt und Verbraucherschutz in Nordrhein-Westfalen)

The key objective of the project is the re-introduction of Allis shad to the Rhine watershed. In a unique European approach, the project is combining the conservation of the largest remaining Allis shad population in Europe in the Gironde watershed in France with the re-introduction of Allis shad to the Rhine watershed in Germany.

### **- Hang- und Hoochmoore** (Stiftung Natur und Umwelt Rheinland-Pfalz)

The project aims to restore and protect important bog habitats in the Hunsrück and Eifel area. The main objective of this project is to stop the decline of plant communities and species associated with bogs. In addition, the project will help stop emissions and reactivate the bonding of carbon dioxide from bog habitats.

### **- LIFE-Aurinia** (Stiftung Naturschutz Schleswig-Holstein)

The overall objective of the LIFE-Aurinia project is to reactivate habitats of the marsh fritillary butterfly in the last two known sites of the species (Nordoe and Jardelunder moor). At similar good sites (e.g. the military training field Lütjenholm and Geltinger Birk) the project will try to improve the necessary habitats of the target species: mat grasslands, wet grasslands, heathlands and dry grasslands.

## **HUNGARY - 1 project (4 million)**

### **LIFE+ Nature**

#### **- Falco cherrug B-H-R-S (Bükk National Park Directorate)**

This LIFE Nature project aims to stabilise and further strengthen the European core populations of saker falcon (*Falco cherrug*) by implementing best practice *F. cherrug* conservation actions in Bulgaria and Romania.

## **IRELAND - 2 projects (4.1 million)**

### **LIFE+ Nature (2 projects – 4.1 million)**

#### **- BLACKWATER SAMOK (Integrated Resource Development)**

The main purpose of the project is to bring about a sustained enhancement of the Upper Blackwater SAC by targeting the species of Freshwater pearl mussel, Atlantic salmon, European otter and kingfisher. More specifically this will be achieved by carrying out actions aimed at restoring the quality of the river bed and riparian zone.

#### **- DBPRBRI (Coillte Teoranta - The Irish Forestry Board)**

The primary objective of this LIFE Nature project is to help restore wetland, peat-forming conditions on Ireland's raised bogs by continuing the process of removing plantation forests. This project builds upon the work carried out under Coillte's previous LIFE-funded project "Restoring Raised Bog in Ireland", which was completed in December 2008.

## **ITALY - 56 projects (94.2 million)**

### **LIFE+ Environment Policy and Governance (40 projects – 64.4 million)**

#### **- WIZ (ACQUE S.P.A)**

The overall goal of the WaterIze 'WIZ' spatial planning project is to integrate the protection and sustainable management of water in urban planning processes and local policy areas. The project aims to incorporate long term analysis of drinking water management in urban spatial planning by creating a platform for local authorities to be involved in decision-making processes.

#### **- P.R.I.M.E. (Municipality of Mola di Bari)**

The project aims to develop the potential reuse of Neptune grass (*Posidonia oceanica*) residues by developing an Integrated Management System capable of combining environmental protection with waste biomass management and the reuse of material for agriculture.

#### **- I.MO.S.M.I.D. (Provincia di Reggio Emilia)**

The project aims to identify and define an innovative integrated governance model inspired by criteria for sustainable mobility. The idea is to try to satisfy the growing demand of supplementary Local Public Transport (LPT) services and to reduce the use of private vehicles. The project will be to bring together transport and energy matters with a system capable of exploiting energy produced from renewable sources within a trial industrial district.

- **SUMFLOWER** (Università degli studi di Genova - Giardini Botanici Hanbury)

The project's aim is to create a sustainable management system for floriculture and ornamental horticulture. It will reduce the main environmental impacts of floricultural activities by improving efficiency, while also respecting economic viability. SMEs operating in the floriculture and ornamental horticulture sectors will be assisted in the application of best available techniques, innovative technologies and practices.

- **WASTE-LESS in CHIANTI** (Provincia di Firenze)

The project aims to contribute to European and national policies on waste prevention and sustainable consumption through the implementation and monitoring of an integrated waste prevention and reduction programme for Chianti in Florence. By selecting an internationally known district, the aim is to provide Member States with a model for the establishment of their own waste prevention programmes by December 2013 (as required by the EU Waste Framework Directive).

- **N.O.W.A.S.T.E.** (I.R.S.S.A.T. (Istituto di Ricerca, Sviluppo e Sperimentazione sull'Ambiente ed il Territorio))

The overall objectives of the project are to develop and test, in small urban areas, an innovative system for the treatment and composting of domestic organic waste. Using environmentally-friendly materials, the system will target the elimination of toxic emissions and also promote energy savings.

- **GAIA** (Comune di Bologna)

The project aims to tackle two environmental problems through an integrated policy: climate change (both mitigation and adaptation effects of urban forestation) and air quality (the depuration potential of plants). The project foresees the dissemination of public-private partnership tools, developed within the framework of corporate social responsibility (CSR) experiences, and the networking of this know how through the diffusion of specific guidelines.

- **AQUA** (ARPA EMILIA ROMAGNA)

This project seeks to demonstrate that the negative impact of industrial production, specifically of agro-industry, on water quality and availability can be significantly reduced through voluntary business actions. The idea is to introduce a 'cradle-to-cradle' (or regenerative) approach to industrial water management and to adopt private-public partnerships as the means to achieve this.

- **ManFor C.BD.** (Consiglio Nazionale delle Ricerche)

The project aims to test and verify in the field the effectiveness of different forest management options in meeting multiple objectives (including production, protection and biodiversity). It will address these issues in different test areas, from production to protected forests, including Natura 2000 sites and priority habitats and species.

- **EXPAH** (Azienda Sanitaria Locale Roma E)

The EXPAH project will address the environmental and health problems caused by the emission, dispersion and transformation of polycyclic aromatic hydrocarbon (PAH) compounds. Its overall goal is to identify and to quantify exposure among children and elderly people to PAH content in particulate matter in a highly urbanised area (i.e. the city of Rome) and to assess the impact on human health, in order to support environmental policy and regulation in this field.

- **P.Pro.SPO.T.** (Comunità Montana Colline Metallifere)

This project aims to introduce in Italy, particularly in Tuscany, the 'single tree silviculture' technique applied to the management and conservation of sporadic tree species. Through the valorisation of these species, the beneficiary hopes to increase the biodiversity, the ecological stability and the whole value of the forest.

- **OPERA** (Agenzia Prevenzione Ambiente Emilia-Romagna)

The main goal of the 'OPERA' project is to develop a methodology and guidelines to support local authority planning for regional policies supporting national and European actions for compliance with air quality standards. The actions are also designed to take into account possible synergies with measures to reduce greenhouse gas (GHG) emissions.

- **Bio.Lea.R.** (Gestione Ambientale Integrata dell'Astigiano SpA)

The aim of this project is to demonstrate the performance of a landfill for lesser reactive, biologically treated waste (pre-treated organic wastes) in comparison with a conventional landfill. It aims to control moisture levels of pre-treated organic wastes using innovative and monitored liquid injection, in order to shorten and temporarily concentrate biogas production.

- **NADIA** (Provincia di Genova)

The project's main aim is to demonstrate the technical and economical feasibility and effectiveness of best practices for reducing road traffic noise levels (and in some cases, also reducing CO<sub>2</sub> emissions and energy use). This would be achieved by the integration of noise mapping and planning activities, the use of innovative techniques (such as noise barriers, windows and asphaltting of road surfaces), traffic management and education.

- **ETA-BETA** (Agenzia per la Promozione e lo Sviluppo Sostenibile dell'Area Metropolitana di Milano S.p.A.)

The project's main aim is to quantify the environmental impact of small and medium-sized enterprises (SMEs). It will do this by carrying out initiatives that will improve the capacity of SMEs to develop and use environmental technologies whilst strengthening and promoting the creation and development of 'ecologically equipped productive areas' (EEPAs).

- **EFRUD** (Consorzio per la ricerca e lo sviluppo di tecnologie per il trasporto innovativo)

The main goal of the project is to reduce environmental damage caused by the transportation of refrigerated, perishable goods within urban areas. The project will reduce emissions and noise, and will improve the energy efficiency of the logistical chain, whilst maintaining the standard of perishable goods.

- **EnerGeo** (Ceramiche Gardenia Orchidea S.p.A) prima di ELBA

The project's main objective is to drastically reduce CO<sub>2</sub> emissions and energy use in the manufacture of ceramic tiles, by using two new geopolymers: Geopolfloor-base and Geopolfloor-foam. The project will demonstrate the feasibility, at industrial scale, of the use of these materials for the production of floor tiles.

- **ELBA** (Autorità Portuale di Piombino)

The project will focus on the planning, implementation and demonstration of an advanced eco-sustainable integrated mobility scheme for people and goods on the island of Elba, which lies just off the Italian mainland close to Piombino.

- **SUN EAGLE** (Seconda Università Degli Studi di Napoli)

The project aims to promote a localised, participatory approach to policy assessment and implementation in relation to the reduction of emissions and the increasing of carbon dioxide absorption capacity. This will be done through experimentation with local governance models, with particular reference to the management of forests and mountains.

- **GREEN INNOVATION** (Politecnico di Milano)

The goal of this project is to demonstrate that it is possible to manufacture magnesium-based larger scale, complex-shape structural elements that can be used in place of classic automotive parts. Use of such components will result in a substantial weight reduction by directly substituting heavier steel or cast iron components, which make up on average some 64% of the weight of a car.

- **ET IDEA** (NIER Ingegneria SpA)

The ET IDEA project aims to develop and test the typical reference years (TRYs) concept as an innovative tool for the reconstruction, standardisation and analysis of meteorological data for the whole of Italy. It will produce a software package containing TRYs for 1 500-2 000 locations across Italy. The software will facilitate meteorological-data standardisation and analysis for the whole territory.

- **E.N.A.** (Provincia di Pesaro e Urbino)

The main objective of the project is to improve the environmental performance of SMEs in the naval sector of the Marche Region. To this end, and in line with Directive 2005/32/EC on eco-design requirements for energy-using products, practices in carbon footprint and environmental management systems in the nautical industry will be enforced by informing more than 300 companies.

- **PALM** (Studio Galli Ingegneria (SGI) SpA)

The objective of the PALM project is to develop a decision support system to allow water companies to identify the optimum balance between reducing water leaks and being economically sustainable. Ultimately, the aim is to enable water companies to reduce water loss by 50% and the related environmental impacts by up to 60%.

- **T.A.SM.A.C** (Regione Marche Public Transport Department)

The project will reduce the environmental impact (acoustic and air pollution) of car traffic resulting from the flow of tourists into urban centres; increase the availability, 'liveability' and accessibility of the urban centre for tourists and residents; and define an urban mobility governance model (T.A.SM.A.C. model) linked to tourist flows.

- **SEDI.PORT.SIL** (MED INGEGNERIA S.r.l.)

The SEDI.PORT.SIL project aims to demonstrate an integrated approach to the sustainable management of sediment dredged from ports. The project intends to demonstrate the efficiency of consolidated treatment technologies coupled with innovative techniques for recycling and exploiting port dredged sediment as a resource rather than just a dangerous waste.

- **Ultra Crash Treatment** (Metallurgica Abruzzese S.p.a.)

The main objective of the project is to minimise all environmental problems related to hot galvanising processes of steel wire rods. This will be achieved by demonstrating the suitability of replacing a hot galvanising process with a new technology based on cold spray galvanising of dusts.

- **MDPATC** (Trafiliera e Zincheria Cavatorta S.p.A.)

This project intends to demonstrate technological approaches that reduce the environmental footprint of wire rod products. Physical treatments will replace chemical processes and raw material recycling opportunities will be improved during the manufacture of high performance metal wire products, such as nails, screws and arc-welded nets.

- **Sludge's Wealth** (COOMI SOC.COOP.)

The objective of this project is to demonstrate the cost effectiveness of a new waste treatment plant for offshore units. This is based on a hybrid microwave and hot air heating technology capable of converting biological sludge into combustible pellets. Microwaves are expected to help sanitise the end product, which can then be used as incinerator fuel.

- **ECO-CLUSTER** (Parco Nazionale Appennino Tosco-Emiliano)

The main objective of the ECO-CLUSTER project is to improve the environmental footprint of SMEs operating in the national park area. A parallel purpose aims to help improve the competitiveness of local businesses. Such dual goals will be achieved by preparing and implementing an 'Action Plan for the Environmental Compliance Assistance Programme for SMEs'.

- **LAIKA** (Comune di Milano)

The project aims to demonstrate that local authorities are able to adopt effective harmonised accounting, planning and reporting methods for projects dedicated to reducing greenhouse gas (GHG) emissions. Specific goals are to determine a GHG baseline inventory and define a GHG emission target at municipal level in the project area and define actions and measures for target achievements at local level.

- **AQUA** (Centro Ricerche Produzioni Animali CRPA)

This project will reduce water pollution from nutrients at river basin scale by optimising the use of nitrogen (N) and phosphorus (P) from livestock farms, thus reducing nutrient losses to water. This will be achieved by reducing nitrogen in manure by lowering N inputs in feedstuffs and by improving the efficiency of fertilisation to maximise the effectiveness of nutrients.

- **GAS-OFF** (Azienda Sperimentale Vittorio Tadini)

The project aims to develop an integrated strategic approach for mitigating greenhouse gas (GHG) emissions from dairy farms. This will be achieved by monitoring 50 dairy farms in the province of Lodi. Information gathered during the project will assist researchers, farm planners, and policymakers to develop and maintain sustainable farming systems.

- **H2POWER** (Municipality of Perugia)

This project proposes a new approach to the use of energies for mobility. By introducing elements to reduce the pollutant impacts of traditional fuels, the general objective is to reduce CO<sub>2</sub> emissions from traditional internal combustion engines. The methodology will involve turning a methane-fuelled city bus into one fuelled by hydrogen/methane.

**LIFE Nature and Biodiversity (15 projects – 28.8 million)**

**LIFE+ Nature (13 projects)**

- **ECO-RICE** (Provincia di Vercelli - Settore Tutela Ambientale)

The main objectives of this project involve: safeguarding and improving key forest sites and riverine ecological corridors in the target area; identifying new fields for the development of an ecological network; implementing forest management models aimed at improving nesting conditions for herons; and piloting an integrated territorial land management approach (at province scale) that brings together all relevant public and private sector stakeholders.



- **SICALECONS** (Regione Siciliana - Assessorato Agricoltura e Foreste)

The main aim of this project is to improve the conservation status of the endemic Sicilian subspecies of the rock partridge. Actions will target Nature 2000 areas identified as Special Protection Areas (SPA) and involve risk reduction works to tackle each of the identified threats.

- **ARCTOS** (Ente Autonomo Parco Nazionale Abruzzo, Lazio e Molise)

The project seeks to make livestock husbandry practices and regulations more compatible with the needs of bears. The goal is to increase the number of farms in the bear's range adopting effective prevention measures and compatible husbandry techniques by at least 30%.

- **POSEIDONE** (Regione Lazio – Direzione Ambiente e Cooperazione tra I Popoli)

The principal objective of this project is to safeguard and to restore some marine Natura 2000 sites of particular importance to the conservation of the priority habitat 'Posidonia beds in the Tyrrhenian Sea'.

- **COORNATA** (Ente Parco Nazionale della Majella)

The overall aim of the project is the long-term conservation of the Apennine chamois along the Central Apennines. The project aims to establish five geographically isolated colonies of Apennine chamois in five parks, namely the Abruzzo, Lazio e Molise National Park, the Majella National Park, the Gran Sasso and Monti della Laga National Park, the Monti Sibillini National Park and the Sirente Velino Regional Park.

- **ARION** (Università degli Studi di Genova)

The main objective of the project is the improvement of the conservation status of the bottlenose dolphin in the MPA of Portofino. To this aim the decline in individuals will be prevented by an acoustic monitoring system detecting and tracking the bottlenose dolphins. A network of hydrophones, communicating with an on-shore computer centre, will be installed on the buoys of the Portofino MPA to identify and follow dolphins in real time.

- **LIFE+ FAGGETE DEL TABURNO** (Provincia di Benevento)

The general objective of this project is to improve the conservation status of species and habitats in the Natura 2000 sites of the Taburno Massif, in particular the beech habitats with *Fagus sylvatica*, *Ilex aquifolium* and *Taxus baccata* with natural regeneration.

- **SORBA** (Provincia di Vicenza)

The main aim of this LIFE Nature project is to restore freshwater habitats in the former fish-farming areas of the Bosco Dueville Natura 2000 sites. Structural works will be undertaken to facilitate more natural habitat conditions and planting of local vegetation will promote the re-colonisation of amphibians (*Rana latastei*) and bird species (*Alcedo atthis*, *Nycticorax nycticorax*, *Egretta garzetta* and *Circus aeruginosus*).

- **Re.S.C.We.** (Municipality of San Benedetto del Tronto ("Sentina" Regional Natural Reserve))

The overall objective of this project is to restore coastal lagoons to their original condition and to widen the waste dune formations along the coastal area of the Sentina nature reserve.

- **Natura 2000 sites in the River Po delta** (Consorzio del Parco Regionale del Delta del Po dell'Emilia-Romagna)

This project is targeting the conservation of habitats and species in the Natura 2000 sites of the River Po delta. It aims to develop joint conservation actions between multiple public and private owners to achieve this result.

- **RICOPRI** (Province of Rome)

The main objective of this project is the long term conservation of two priority grasslands habitats that depend on good agro-pastoral management practices. An additional objective is the conservation of the butterfly species associated with these habitats, in particular, *Eriogaster catax* and *Melanargia arge*.

- **LIFE+ BOSCO INCORONATA** (Comune di Foggia)

The general project objectives are to conserve the rare or endangered habitats of the Bosco dell'Incoronata regional natural park and to increase the biodiversity of the Valle del Cervaro - Bosco Incoronata site of Community importance (SCI) within the Natura 2000 network.

- **ZONE UMIDE SIPONTINE** (Regione Puglia - Assessorato all'Ecologia)

The Zone Umide Sipontine project aims to restore the Wetlands of Capitanata Natura 2000 site. Specifically, it aims to improve the conservation status of priority wetland, coastal-dune, coastal-lagoon and Mediterranean salt-steppe habitats contained within the site, and provide associated benefits for bird species.

#### **LIFE+Biodiversity (2 projects)**

- **EC-SQUARE** (Regione Lombardia)

The main objective of this project is to control and eradicate threats caused by grey squirrels in different socio-ecological contexts. The project actions will be located in three different regions (Lombardy, Piedmont and Liguria) in northern Italy.

- **PP-ICON (ALMA MATER STUDIORUM Università)**

The main objectives of this LIFE Biodiversity project are to ensure the survival of an isolated population of the rare plant species burning-bush (*Dictamnus albus*) and to restore the community of *Dictamnus albus* natural pollinators in a Bologna province regional park.

#### **LIFE+ Information and Communication (1 project - 1 million)**

- **FISH SCALE** (Costa Edutainment S.P.A. (Acquario di Genova))

The tendency of commercial fishermen to discard up to 60% of their catch as 'by-catch', because market demand is concentrated on a relatively small number of fish species, is both a serious threat to biodiversity and a cause of fish-stock depletion. This project intends to increase consumer knowledge and appreciation of neglected edible species (mainly local). This will activate a virtuous cycle by increasing demand for the species and their commercial value, thereby helping to reduce fish discards and preserve marine biodiversity.

### **LATVIA - 4 projects (8.3 million)**

#### **LIFE+ Nature (4 projects – 8.3 million)**

- **DVIETE** (Latvian Fund for Nature)

The main aim of the project is to improve the conservation status of the corncrake (*Crex crex*) in Latvia and to restore breeding habitats for the species in a degraded and abandoned section of the Dviete river floodplain.

- **MARMONI** (Baltic Environmental Forum – Latvia)

The project aims to develop concepts for assessing the conservation status of marine biodiversity (including species and habitats) – examining the impacts of various human activities, as well as the impacts of nature conservation policy from a socio-economic perspective. Focusing on the Baltic Sea territorial waters and the EEZ (Exclusive Economic Zone) of Estonia, Latvia, Finland and Sweden, the aim is to apply a regional approach for future marine biodiversity monitoring and international co-operation when assessing marine biodiversity in the Baltic Sea.

- **Life-HerpetoLatvia** (Municipality of the Daugavpils City)

The project's main aim is to facilitate the enlargement of populations of *Emys orbicularis*, *Coronella austriaca* and *Bombina bombina*, and to ensure their long-term survival in Latvia, by implementing a combination of 'in-situ' and 'ex-situ' actions and by improving their legal protection.

- **EREMITA MEADOWS** (Daugavpils University)

The project's goals are to develop a comprehensive ecological management system for Fennoscandian wooded meadows and rare species dependent on old-grown trees and undisturbed forest habitats; and to ensure the conservation of two EU priority beetle species: *Osmoderma eremita* and *Phryganophilus ruficollis*.

## **LITHUANIA - 4 projects (5.6 million)**

### **LIFE+ Nature (4 projects – 5.6 million)**

- **Baltic Aquatic Warbler** (Viešoji istaiga Baltijos aplinkos forumas)

The main project objective is to ensure the favourable conservation status of the aquatic warbler (*Acrocephalus paludicola*), which breeds in wet meadows and open fens dominated by sedge grasses.

- **DENOFLIT** (Klaipeda University)

The project aims to conduct inventories of marine species and habitats in the offshore waters of the Lithuanian Exclusive Economic Zone (EEZ) and designate Natura 2000 areas selected during site evaluation.

- **Eagles in the forest** (Viešoji istaiga Gamtosaugos projektu vystymo fondas)

The main goal of the project is to protect the nesting sites of at least 10% of the national lesser spotted eagle's population – that is around 2.5% of EU population (more than 200 pairs) – from direct destruction and indirect damage caused by timber harvesting.

- **ECONAF** (Lithuanian Fund for Nature)

The overall aim of the project is to create an ecological network in the south of Lithuania by ensuring the favourable conservation status of threatened populations of selected Habitats Directive species and simultaneously enhancing the ecological value of the target area.

## **LUXEMBOURG - 1 project (5.3 million)**

### **LIFE+ Environment Policy and Governance (1 project - 5.3 million)**

#### **- ECO2 Tyre Tech (Goodyear S.A)**

The project will develop concepts for environmentally sustainable tyres based on novel green material solutions. The beneficiary aims to reduce the weight, increase the mileage and reduce the noise of premium brand tyres, whilst increasing the amount of recycled and renewable material in the tyres. The ecological and economical benefits will be validated through the latest software for carbon footprint and lifecycle impact calculation.

## **THE NETHERLANDS - 6 projects (37.2 million)**

### **LIFE+ Environment Policy and Governance (4 projects – 29 million)**

#### **- QSIDE (Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek TNO)**

The QSIDE project aims to demonstrate a new methodology for assessing traffic noise in cities. The project will use a new engineering method to measure noise levels at quiet facades and in quiet areas and to produce detailed traffic-noise mapping of cities.

#### **- ADIOS (Twee "R" Recyclinggroep B.V.)**

The Adios project will construct a pilot plant with a tunnel oven to demonstrate a prototype thermal treatment process for denaturing asbestos on a large scale. The goal is to show that there is a better environmental and economic alternative to incinerating AFC waste or depositing it in landfill sites.

#### **- BLUETEC (Bluewater Energy Services B.V.)**

The BLUETEC project aims to demonstrate the technical feasibility and cost effectiveness of a full-scale 1 MW tidal-energy installation. It thus hopes to demonstrate the technology's potential to significantly reduce CO<sub>2</sub> emissions and improve Europe's competitiveness in exporting innovative and renewable technologies.

#### **- SEWEEEX (Municipality of Arnhem)**

The main objective of the project is to demonstrate a new SEWage Energy EXchange system (SEWEEEX) to transfer heat from the sewage system to urban buildings. It expects to reduce CO<sub>2</sub> emissions, as well as emissions of fine dust or nitrogen oxides (NO<sub>x</sub>), by 78% in comparison with the use of fossil fuels and to show financial benefits in comparison with other energy sources.

### **LIFE+ Nature (2 projects – 8.2 million)**

#### **- Revitalising Noordduinen (Stichting Landschap Noord-Holland)**

The project will take place in the Natura 2000 site, Duinen Den Helder Callantsoog. This is one of the few Natura 2000 sites in the Netherlands where fixed coastal dunes (grey dunes) are still present. The aim of the project is to revitalise this part of the Noordduinen by demolishing and removing the hardened surfaces and buildings left behind by the military, in order to recreate the grey dunes habitat.

- **Dutch dune revival** (Vereniging Natuurmonumenten)

The main aim of this project is to enlarge and restore habitats and increase the presence of rare and characteristic species. This will be achieved by i) recovering and enlarging the area of grey dunes, white dunes and humid dune slacks at Voornes Duin; ii) recovering and enlarging the area of grey dunes and white dunes at Duinen Goeree and Kwade Hoek; and iii) recovering and enlarging the area of grey dunes, white dunes, dune forest and dunes with *Hippophaë rhamnoides* and humid dune slacks at Kennemerland-Zuid.

## **POLAND - 10 projects (25.3 million)**

### **LIFE+ Information and Communication (2 projects – 3.3 million)**

- **FORESTFIRE II** (Dyrekcja Generalna Lasów Państwowych)

This project aims to reduce risk of forest fires caused by people. Its general goal is to raise awareness of steps to prevent/avoid forest fires among rural residents and people using forests for recreational purposes. This is the second phase of a three-part campaign which aims to cover the entire country.

- **DOKLIP** (Fundacja Instytut na rzecz Ekorozwoju)

The main goal of the project is to raise awareness of climate change among leaders at county level and to stimulate initiatives in support of practical local measures to protect the climate and adapt to any changes.

### **LIFE+ Nature (8 projects – 22 million)**

- **Wislawarszawska.pl** (Miasto Stołeczne Warszawa)

The general project objective is to restore the breeding colonies of waders, gulls and terns in the Middle Vistula Valley Natura 2000 network site (SPA), especially those within the Warsaw borders.

- **Ochrona bociana białego** (Regionalna Dyrekcja Ochrony Środowiska w Olsztynie)

The main objective of this project is to reduce stork mortality risks associated with power-line collisions. Other stork support actions will include renovating nest sites and improving habitat conditions for the species' main amphibian food sources. The latter will be achieved by increasing the water retention capacity of habitat areas and by raising groundwater levels.

- **Bagna są Dobre!** (Towarzystwo Ochrony Przyrody Ptaki Polskie)

This LIFE Nature project's main aim is to restore degraded habitats located within the borders of the Warta Mouth National Park. Interventions will target breeding, feeding and resting grounds for birds in order to improve conditions for species that rely on open meadows and wetland habitats during migration and wintering.

- **Renaturyzacja** (Biebrzański Park Narodowy)

The main goal of this project is to improve the conservation status of habitats and species at the Ostoja Biebrzańska and Dolina Biebrzy Natura 2000 network sites. Works extending over 9 000 ha will target hydrogenic habitats and restore appropriate water flow conditions in the vicinity of key areas, such as around the Rudzki canal, the Ełk river, the Jęgrznia river, and the Woźnawiejski canal.

- **Pustynia Błędowska** (Gmina Klucze)

The main objective of this project is to secure a favourable conservation status for the largest Polish complex of xeric sand calcareous grasslands and inland dunes. Habitat restoration work will focus on the Pustynia Błędowska Natura 2000 site with the aim of restoring habitats here to the conditions they would have been in half a century ago.

- **Biomass use for Aquatic W** (Ogólnopolskie Towarzystwo Ochrony Ptaków)

The aim of this project is to link the production of biomass as a renewable energy source, with the large-scale mechanised management of aquatic warbler habitats. The project seeks to demonstrate that conservation management of this habitat can also be economically viable.

- **Polskie Ostoje Ptaków** (Zakład Badania Ssaków Polskiej Akademii Nauk)

The overall project aim is to implement and improve protection measures for a number of important European wetland bird species that breed in SPAs within the five Polish national parks. This will be achieved by improving habitat conditions in order to increase the breeding success of the targeted wetland bird species and, at the same time, curbing pressures from invasive alien predatory species, particularly the American mink (*Mustela vison*) and the common raccoon (*Procyon lotor*).

- **Restytucja i utrzymanie siedlisk legowych ptaków wodnych i błotnych** (Park Narodowy "Ujście Warty")

The general objective of this LIFE Nature project is to restore and maintain habitats for breeding waterfowl birds that nest in meadow areas of the Warta Mouth National Park. Target species include the corncrake, gulls, terns, plovers and some ducks. Habitat work will safeguard appropriate plant succession processes and focus on permanently removing willow bushes. A two year programme of intensive grazing will be introduced in order to inhibit willow regeneration. This will be followed by the reintroduction of pasture on the meadows.

## **PORTUGAL - 8 projects (7.6 million)**

### **LIFE+ Environment Policy and Governance (1 project - 1 million)**

- **Building-SPP** (Laboratório Nacional de Energia e Geologia, I.P.)

The goal of the Building-SPP project is to mainstream sustainable public procurement (SPP) in Portugal and Greece by assisting public authorities in implementing a procurement strategy in line with their economic, social and environmental policies. It will also encourage co-operation among public procurers and promote greater market engagement among public procurers and suppliers.

### **LIFE+ Nature (4 projects – 5 million)**

- **MarPro** (Universidade de Aveiro)

The MarPro project aims to successfully implement the NATURA 2000 network for the target cetacean and seabird species and their habitats throughout the exclusive economic zone (EEZ) of mainland Portugal. It will reduce conflicts between fisheries and the target species in order to ensure compliance with the Habitats and Birds directives.

- **Habitats Conservation (QUERCUS – ANCN)**

This LIFE project's objective is to demonstrate a methodology for the conservation of priority calcareous habitats in the Natura 2000 site, Serra de Aire e Candeeiros. The project aims to restore 1 000 ha of calcareous habitats and, indirectly, ensure the protection of non-priority habitats for the conservation of threatened flora and fauna.

- **Life Ilhéus do Porto Sant** (Serviço do Parque Natural da Madeira)

The principal objective of the Life Ilhéus do Porto Sant project is to remove threats to the natural ecosystems of the Natura 2000 site of the Porto Santo islets and to improve the conservation status of species endemic to this region. The project will research the distribution, density and conservation status of endangered species of seabirds, terrestrial molluscs, plants and arthropods in the project area.

- **HIGRO (QUERCUS – ANCN)**

The Higro project aims to define a methodology for the restoration and active conservation of the temperate Atlantic wet heaths and nardus grasslands on silicious substrates in mountainous areas. It aims to achieve an ecologically interesting balance of the two habitats in the mosaic, whilst maintaining or increasing their total occupation area.

**LIFE+ Information and Communication (2 projects – 1.6 million)**

- **ECO-COMPATÍVEL** (Serviço do Parque Natural da Madeira)

The overall long-term project objective is to reinforce, through educational and awareness activities, the compatibility of regional and territorial development in the Madeira Archipelago (i.e. socio-economic activities such as tourism, fisheries and agriculture) with EU biodiversity conservation policy (namely the management of nature reserves, sites, habitats and species listed in the Habitats and Birds directives).

- **BIO+SINTRA** (Parques de Sintra - Monte da Lua, S.A.)

The overall project objective is to develop a pilot experience for the Cultural Landscape of Sintra (transferable to other locations) aimed at changing people's attitudes – targeting a decrease in carbon emissions to mitigate climate change, safeguarding local habitats and species and reducing biodiversity loss.

**ROMANIA - 2 projects (1 million)**

**LIFE+ Environment Policy and Governance (1 project - 0.7 million)**

- **CLEANWATER** (National Administration "Apele Romane" - National Institute of Hydrology and Water Management)

The Cleanwater project aims to develop, at the river-basin scale, an integrated water management system to identify waters under threat and designate vulnerable zones. This aims to provide the authorities with a means of developing effective river-basin management policies for the Barlad river and to assess their impact.

**LIFE+ Nature (1 project – 0.3 million)**

- **STIPA** (Fundatia ADEPT Transilvania)

The STIPA project aims to improve the conservation status of two priority dry grassland habitats in the Sighisoara -Tarnava Mare Nature 2000 site. The beneficiaries will carry out field assessments of the conservation status of 10 000 ha of priority grassland habitats. With this information - and in consultation with farmers and other stakeholders - they will develop conservation action plans for the targeted habitats.

**SLOVAKIA - 2 projects (2.9 million)**

**LIFE+ Nature (2 projects – 2.9 million)**

- **AYBOTCON** (Slovak Ornithological Society / BirdLife Slovakia (Slovenská ornitologická spoločnosť / BirdLife Slovensko)

The core objective of this LIFE Nature project focuses on halting and reversing unfavourable populations trends for the bittern and ferruginous duck in eastern Slovakia, especially within the Medzibodrožie SPA which remains an important migration route and breeding area for these and other birds.

- **APOMARINA\_SK** (Raptor Protection of Slovakia)

The main objective of this LIFE Nature project is to enhance the conservation status of the imperial eagle (*Aquila pomarina*) in Slovakia. This will be achieved by establishing favourable conditions in the short term for stabilising the Slovak breeding population of the species in the Carpathian eco-region.

## **SLOVENIA - 3 projects (9.8 million)**

### **LIFE Nature and biodiversity (3 projects – 9.8 million)**

#### **LIFE+ Nature (2 projects)**

- **WETMAN**

The overall goal of the project is to re-establish the favourable conservation status of eight targeted freshwater habitats and six wetland habitat SCIs. The project sites - Pohorje, Zelenci, Vrhe, Planik, Gornji kal and Mura-Petišovci (which are covered by six SCIs and two SPAs) - contain different types of wetlands, all of which have suffered from a lack of appropriate management.

- **MANSALT** (SOLINE Pridelava soli d.o.o.)

The overall objective of the project is to improve the conservation status of target bird, reptile and fish species and target habitat types in the Natura 2000 site, Sečovlje salina.

#### **LIFE+ Biodiversity (1 project)**

- **Life at Night** (Euromis d.o.o.)

The overall objective of the project is to improve the conservation status and biodiversity of nocturnal animals at selected areas by reducing the negative effects of artificial lighting used for the illumination of cultural heritage sites.

## **SPAIN - 36 projects (94.8 million)**

### **LIFE+ Environment Policy and Governance (27 projects – 60.7 million)**

- **CREAMAgua** (Comarca de los Monegros)

This project aims to introduce 'natural' ecosystem structures of wetlands and riverbank forests to reduce inorganic nutrients - nitrates and phosphates - and salts from agricultural runoff in the entire Monegros area.

- **CITROFUEL** (CITROTECNO)

This project seeks to develop a new process to improve and optimise the management and sustainable use of natural resources and waste from citrus fruit production. The project intends to construct and run an industrial prototype for producing bio-ethanol from the biomass generated through citrus industrialisation by means of a new fermentation process.

- **LASERFIRING** (Agencia Estatal Consejo Superior de Investigaciones Cientificas)

The project intends to develop a new method for manufacturing structural ceramics using laser technology in the firing phase, which should allow firing at lower temperatures. In the particular case of refractory bricks, the new process will reduce the firing temperature from 1 300°C to about 900°C, without compromising aesthetic or structural properties.



- **Soria CO2Cero** (Ayuntamiento de Soria)

The Soria CO2Cero project intends to improve the environment of Soria and to fight against climate change with a series of strategic and legislative measures. Central to the project will be the creation of a corridor crossing the city and connecting different elements of its environmental and cultural heritage. The CO2Cero corridor will become a reference of municipal good practice on environmental sustainability and ecological culture.

- **MIPOLARE** (Dirección General de Industria, Energía y Minas. Consejería de Universidades, Empresa e Investigación de la Región de Murcia)

The main objective of the MIPOLARE project is to evaluate, demonstrate and disseminate an alternative sustainable solution for the reclamation of mining sites based on soil amendment using two waste products - pig slurry and marble mud - and phytostabilisation.

- **ACCIÓN AGROCLIMÁTICA** (Fundación Global Nature)

The Accion Agroclimatica project aims to develop a tool for carrying out energy and greenhouse gas (GHG) audits on farms, and for identifying the most suitable crops and best practices for mitigation and adaptation to climate change. It seeks to provide a methodology that will be widely accepted by the EU-27 farming sector and applicable to most of the different agricultural systems.

- **The Green Deserts** (Transfer Latin Business Consultancy S.L.)

The project's main objective is to demonstrate the feasibility and effectiveness of new tree planting techniques in desertified, poor and/or rocky areas. Innovative 'waterbox' technology will be applied to restore the sponge function of degraded soils and reinforce soils' existing capacities for supporting plant life.

- **BIOENERGY & FIRE PREV.** (Ayuntamiento de Enguera)

The main objective of this project is to improve Enguera's capacity to protect its forest resource from fire and demonstrate new win-win rural employment opportunities that provide environmental benefits. New forest management tools and approaches will be developed to minimise fire risks. The potential of biomass as a source of renewable energy and rural employment will also be tested and evaluated.

- **VALUVOIL** (CARTIF Foundation)

The VALUVOIL project aims to demonstrate an environmentally and economically feasible method to improve the anaerobic digestion of residues and by-products generated from the processing of used vegetable oil.

- **MANEV** (Sociedad de Desarrollo Medioambiental de Aragón (S.A.U.))

This project seeks to demonstrate that the application of treatment technology and an adequate management scheme to pig manure can both contribute to reduced greenhouse gas emissions and improve the sustainability of pig farming.

- **WOODRUB** (Asociación de Investigación y Desarrollo en la Industria del Mueble y Afines)

The main aim of the WOODRUB project is to develop, test and demonstrate innovative environmentally friendly products made from recycled wood and rubber from used tyres. The project will provide managers of wood and rubber waste with a new end-of-life route for their products, and offer public and private construction firms a more environmentally friendly product option.

- **AG\_UAS** (Asociación de la Industria Navarra)

The project's overall aim is to develop a cost-effective, spatial tool for more efficient, sustainable, water monitoring and management, in line with WFD requirements. It will produce a UAV (unmanned aerial vehicles) technology able to monitor extensive water areas and to provide data that could also be extrapolated to air and soil.

- **GREENING BOOKS** (Acondicionamiento Tarrasense)

The objective of the project GREENING BOOKS is to improve the environmental performance of the publishing sector. This project aims to develop an innovative instrument aimed at all stakeholders across the entire lifecycle of the publishing process, by integrating existing tools, such as Ecolabel, EMAS, Eco-design and LCA, as well as the latest technologies.

- **ECOREGA** (Unións Agrarias – UPA)

The aim of this project is to demonstrate good practices in the management of agricultural organic waste that can help to reduce the environmental impact of cattle farms and reduce their greenhouse gas emissions. Project actions will focus on using agricultural waste for composting and methane production. An innovative system is proposed that mixes liquid manure from cattle farms with other types of organic waste (swine, bird).

- **ELVISUSTECH** (Asociación de Investigación de las Industrias del Curtido y Anexas)

This project will develop and demonstrate an innovative sorting unit to solve the problems caused by dark plastics, rubber and other difficult materials during recycling. This equipment is designed to enable the achievement of the goals established in future legislation concerning the management of solid wastes from automotive, electric-electronic and other sectors at their end of life – contributing to a closer application of policies and legislation in terms of the ELV and WEEE directives.

- **NOISEFREETEX** (Asociación de Investigación de la Industria Textil)

The NOISEFREETEX project aims to validate demonstrative solutions to reduce noise pollution in industrial estates close to urban areas through the use of textile finishing technologies. The idea is to define specific textile materials that have interesting properties for sound absorption and use them as constructive elements in industrial facilities. The project will also test different kinds of finishing processes and improve material properties.

- **EDEA-RENOV** (Junta de Extremadura)

The purpose of the project is to test and propose concrete solutions for reducing the environmental impact of the housing construction sector. The project will focus on three main areas: renovation, innovation in new constructions, and the use of information and communication technology.

- **UFTEC** (Centro Tecnológico del Agua - Fundación Privada)

The LIFE+ UFTEC project aims to demonstrate the feasibility and economic viability in drinking water treatment plants of direct ultrafiltration (UF) pre-treatment for reverse osmosis as an alternative to conventional pre-treatment: coagulation-flocculation, sedimentation and sand filtration. The proposed alternative technology should reduce economic costs and the environmental impact related to chemical consumption as well as the water losses in conventional pre-treatment.

- **ATLANTIC VINEYARDS** (Diputación Provincial de Pontevedra)

The project aims to demonstrate the need and viability of sustainable management of wine production in the vineyards of the Rías Baixas within an integrated system. It will create an 'Integrated Control System to Minimise the Environmental Risks' based on a net of meteorological sensors located in vineyards, in order to minimise the use of chemical products to those strictly necessary.

- **LOS TOLLOS** (Consejería de Medio Ambiente - Junta de Andalucía)

The project's objective is to restore the soil in the endorheic basin of la laguna de Los Tollos in order to restore the topography and recover the degraded soil in the old lake basin and surrounding areas. Other objectives are to eliminate the connection between the surface aquifer (saline) and the freshwater aquifer and re-establish surface hydrology processes.

- **CLEANFEED** (Dirección Industrias Alimentarias - Consejería de Medio Ambiente, Planificación territorial, Agricultura y Pesca)

The project proposes the development of a prototype to automatically separate food waste from its packaging, thus increasing the amount of vegetable waste that may be commercially reused. Another key objective of the project is to design, prove and validate an action plan to make use of the vegetal food surplus generated in food retailing by transforming it into animal feed. The proposed approach involves demonstrating an innovative methodology to recover vegetal food wastes in a hygienic way.

- **DEMONSTRATION OF KDV TECH** (Sanea Tratamiento de Residuos, S.L.U.)

The project aims to develop the first full-scale demonstration of catalytic depolymerisation technology for the processing of municipal solid waste (MSW) produced in Catalonia. The demonstration plant will be capable of treating up to 30 000 tonnes/yr of mixed MSW and the catalytic depolymerisation technology aims to convert mixed biodegradable MSW into a synthetic diesel, which can replace conventional diesel.

- **DOMOTIC** (Fundación San Valero)

The main objective of the DOMOTIC project is to demonstrate and quantify the CO<sub>2</sub> emissions reduction potential of using intelligent technologies and models of construction in buildings. The project will introduce three models of the latest generation of house automation into three demonstration buildings of different types.

- **SustainGraph** (Asociación Industrial de Óptica, Color)

The SustainGraph project aims to develop an eTool for assessing the environmental impact of graphics products throughout their life-cycle. It will identify and promote good practice in the development of new, sustainable graphics products and services in order to guide European SMEs.

- **RECYCLED-PVB** (Fundación Lurederra)

The Recycled-PVB project aims to develop a pilot plant to demonstrate the purification of polyvinyl butyral (PVB) from laminated glass. The overall objective is to help find a practical and sustainable use for waste glass from vehicles. It will develop knowledge about the specific equipment and technical characteristics required for washing, grinding and processing PVB.

- **Radio-electric Governance** (Centre de Telecomunicacions I Tecnologies de la Informació)

The main objective of the project is to increase information and understanding of electromagnetic fields (EMF) generated by radio communication stations. The project will draw up an inventory of radio communication infrastructure across Catalonia and will monitor and evaluate the EMF generated by this infrastructure, thus providing information for both local authorities and the general public about their strength and impact on health.

- **CONNECT** (Colegio Oficial de Ingenieros Técnicos de La Rioja)

The main goal of this project is to promote the progressive deployment of electric vehicles as an alternative means of urban mobility. The Connect project will establish a pilot network of five 'zero-emission' electric recharging points for electric vehicles. These points will be fully fuelled by renewable energy and should provide a 75% more favourable 'global ecological balance' than recharging from the mains supply.

### **LIFE+ Nature and Biodiversity (8 projects – 31.8 million)**

#### **LIFE+Nature (6 projects)**

- **UROGALLO CANTABRICO** (Fundación Biodiversidad)

This LIFE Nature project's objective is to improve the conservation status of the Cantabrian capercaillie (*Tetrao urogallus cantabricus*). Conservation works will target the Natura 2000 network sites that are being designated in the Cantabrian Mountains and so also benefit the birds' habitat, as well as other allied species. Project outcomes are anticipated to improve the connectivity and functionality of the capercaillie's habitat.

- **MARGAL ULLA** (Xunta de Galicia - Consellería do Medio Rural)

The overall objective of this LIFE Nature project is to help improve the conservation status of *Margaritifera margaritifera* and *Galemys pyrenaicus* in the Ulla river basin, and establish suitable conditions for recovery of the original populations.

- **Δ-LAGOON** (Institut de Recerca i Tecnologia Agroalimentàries)

The main goal of the project is to improve the ecological status of the Alfacada and Tancada lagoons through habitat restoration and management measures, such as improvement of hydrological function, elimination of infrastructure that interferes with connectivity, and creation of new lagoon habitats in existing rice fields and abandoned aquaculture facilities.

- **Life Posidonia Andalusia** (Consejería de Medio Ambiente - Junta de Andalucía)

This LIFE Nature project's main objective is to improve the conservation status of Neptune grass (*Posidonia oceanica*) meadows. This will be achieved by undertaking studies and applying protection measures. Threats to the ecosystems (including pollution, boat anchoring, uncontrolled trawling and traditional local fishing and the expansion of exotic invasive species) will be investigated and mechanisms assessed for mitigating negative impacts on the meadows. Further studies will clarify the broader benefits linked to the meadows, plus the costs of their loss, such as impacts on fish populations, beach regeneration and deterioration of tourist attractions.

- **OXYURA LEUCOCEPHALA-MURCI** (Consejería de Agricultura y Agua)

This project is dedicated to the conservation of the white-headed duck (*Oxyura leucocephala*) in the wetlands of Murcia. It aims to improve understanding of the breeding habitat of the species, extend and conserve its habitat and reduce the impact of humans and other species.

- **TERRITORIO VISIÓN** (Gestión Ambiental, Viveros y Repoblaciones de Navarra, S.A.)

This project aims to significantly enhance the biodiversity of the lower reaches of the Aragon and Argu Rivers – an area of high population density of European mink (*Mustela lutreola*) in western Europe – by improving the conservation status of the species and restoring the fluvial ecosystems on which it depends.

#### **LIFE+ Biodiversity (2 projects)**

- **LIFE TRACHEMYS** (Conselleria de medio Ambiente, Agua, Urbanismo y Vivienda – Generalitat Valenciana)

The main aim of this LIFE Biodiversity project is to address the negative environmental impacts on wetland environments from alien exotic turtle species, particularly the red-eared slider (*Trachemys scripta*). A strategy will be developed to preserve aquatic endangered species of endemic fish and autochthonous freshwater turtles in Valencia and Portugal by eradicating wild populations of exotic invasive freshwater turtles.

- **Innovation against poison** (Fundación Gypaetus)

This project seeks to implement, monitor, assess and spread innovative and demonstrative actions that significantly improve current strategies for combating illegal poisoning in the EU. The overall goal is to significantly improve the conservation status of endangered species affected by the illegal use of poison at EU level, especially of those whose primary non-natural cause of death is illegal poisoning.

#### **LIFE+ Information and Communication (1 project – 2.2 million)**

- **BIOCxLIFE** (Fundación Félix Rodríguez de la Fuente)

The overall objective of the BIOCxLIFE project is to promote the production and consumption of products that allow citizens to contribute to stopping the loss of biodiversity.

### **SWEDEN - 9 projects (34.7 million)**

#### **LIFE+ Environment Policy and Governance (7 projects - 20.9 million)**

- **GREECIT** (City of Umeå)

The main objective of this project is to set up a number of actions that will demonstrate methods and techniques that inspire and motivate people to change their behaviour and become part of a process to develop more sustainable city management policies and governance.

- **CLIRE** (Region Skåne)

The CLIRE project aims demonstrate ways of dramatically reducing the carbon footprint of the health sector in Skåne, in line with EU objectives in relation to climate change. The project seeks to: improve the procurement system so that products with a low carbon footprint will have a better chance of winning public tenders; establish a demonstration facility ('the sustainable treatment room') and a working methodology that can be employed by health clinics; and increase the use of renewable energy sources in hospitals, clinics and other health facilities.

- **BIOGASSYS** (Kommunförbundet Skåne)

The overall aim of the project is to demonstrate the potential of biogas to become a major contributor to energy production in Europe and an important tool in mitigating greenhouse gas (GHG) emissions. BIOGASSYS will demonstrate a sustainable system for biogas production and provide solutions and best practices that can be used to combat critical stages of the biogas life cycle.

- **LICC** (Malmö Stad)

The Climate Living in Cities Concept (CLICC) project will show how citizens may reduce their carbon footprint in the areas of housing, transport, and food and consumer goods. It seeks to reduce the carbon footprint of the city's inhabitants by 50% and thus contribute to the wider EU objective of combating climate change.

- **Mare Purum** (Ekomarine AB)

The main objective of this LIFE project is to demonstrate the long term reduction of marine fouling using an environmentally-friendly hull paint, based on Ekomarine's patented technique. The project will be performed in waters with varying salinity, temperature, depth, and other conditions.

- **Pure Energy Separator** (Alfa Laval Tumba AB)

The project will demonstrate and evaluate an innovative continuous ejection technology, based on a new method of expelling sludge from a separator. The system does not require any process water and therefore the sludge will be concentrated and dry. The result will be that more than 90% of the waste oil can be reused. The volume of oil going for incineration will then be reduced, which is in line with the objectives of the Directive for the Disposal of Waste Oils (75/439/EEC).

- **DYEMOND SOLAR** (NLAB Solar AB)

This project seeks to demonstrate a cost-effective means of producing transparent Dye-Sensitized Solar Cells (DSCs), based on a patented technology that uses one-dimensional photonic crystals (1DPCs) to improve the efficiency and colour of solar cells. The demonstrated prototype production system will be a pre-industrial-scale system.

**LIFE+ Nature and Biodiversity (2 projects – 13.8 million)**

**LIFE+ Nature (1 project)**

- **GRACE** (County Administrative Board of Västra Götaland (Länsstyrelsen i Västra Götalands län))

The main aim of this project is to restore specific habitat types to favourable conservation status within 23 Natura 2000 sites associated with the Swedish archipelago in the Counties of Västra Götaland, Halland, Blekinge and Stockholm. A partnership approach between the four counties is expected to provide operational efficiencies and increase understanding about nature conservation activity in coastal habitats.

**LIFE+ Biodiversity (1 project)**

- **MIRDINEC** (Swedish Association for Hunting and Wildlife Management)

The objectives of this project focus on halting the loss of EU biodiversity, particularly in wetland areas, caused by the raccoon dog (*Nyctereutes procyonoides*). An early warning system will be established to track immigration of raccoon dogs and innovative culling/management methods will be applied to control the species.

**UNITED KINGDOM - 6 projects (16.4 million)**

**LIFE+ Environment Policy and Governance (4 projects – 12.4 million)**

- **SSCM4ECAP** (Buckinghamshire County Council)

The project will develop an innovative 'bottom-up' approach to Green Public Procurement. It will demonstrate the use of supply-chain strategies to improve the environmental performance of local small and medium-sized enterprises (SMEs) and achieve local authority sustainability targets.

- **EDOC** (The Environment Agency of England and Wales)

The Electronic Duty of Care (EDOC) project intends to develop a national, Internet-based interface to record the collection, transportation, treatment and disposal of waste materials. This aims to enable the monitoring and mapping of waste management without creating a mountainous paper trail.

- **iGREEN** (The Environment Agency of England and Wales)

The iGreen project will demonstrate how environmental guidance for SMEs can be taken to the next level by developing joined-up service provision through the NetRegs website. It will deliver innovative solutions around intelligence gathering, product creation, and dissemination of environmental information and messages through multimedia and multiple channels. Tools will include a legislation generator for Environmental Management Systems (EMS) and environmental e-Learning tools for six different industries.

- **Hydro4LIFE** (International Hydropower Association)

The main aim of this project is to demonstrate the effectiveness of the new Hydropower Sustainability Assessment Protocol (HSAP) and consolidate knowledge on hydropower sustainability performance in the EU. The project also aims to raise awareness and build capacity - primarily via an electronic outreach campaign - about the HSAP and hydropower sustainability performance among all relevant stakeholders, including Member State/EU regulators and policymakers.

#### **LIFE+ Nature (1 project - 2.2 million)**

- **Reintroducing *Otis tarda*** (Reintroducing the great bustard *Otis tarda* to southern England)

This project aims to increase the population of great bustards on Salisbury Plain by extending the reintroduction programme to support the establishment of a self-sustaining population over the longer term.

#### **LIFE+ Information and communication (1 project - 1.8 million)**

- **RESTORE** (Environment Agency for England & Wales)

The project will develop a network linking policymakers, river basin planners, practitioners and experts across Europe to share information and good practice on river restoration activities. A database of river restoration projects will be created, providing understanding of policy opportunities and constraints, the effectiveness of restoration methods, design issues and project costs/benefits.