IMPRIN+

PILOT PROGRAMME

SUMMARY REPORT

PILOT PROGRAMME—SUMMARISED REPORT

Report authors

André Couto
Rafael Marques
Milene Matos
Manuel Nunes
Municipality of Lousada, Portugal

Pictures: © IMPRINT+ Team or Public Domain

Contact
imprintplus@ua.pt

At the outset of the IMPRINT+ project, a small-scale trial run on the ecological evaluation and offset methodologies was implemented in the Municipality of Lousada, Portugal.

The pilot program allowed for determining Lousada's ecological situation and mapping priority sites of intervention. General community, companies, organisations, and others groups were inspired and engaged by the school communities directly participating in the project.

This document summarises the main findings and conclusions for this pilot project, and demonstrates that while acting locally may result in great positive impacts regionally, the greatest impact is on the individual and can lead to further positive actions.

Co-funded by the
Erasmus+ Programme
of the European Union

CONTENTS

1 WHERE?

Lousada is a small municipality in northern Portugal. With an area of 96 km^2 and about 50.000 inhabitants, Lousada has a high population density (around 490 inhabitants/km^2). As a result, the landscape is heavily shaped by human activities. Most of the land is used for agriculture, mainly vineyards and corn fields, urban development, and forestry based on eucalyptus, a non-native tree. The expansion and intensification of these activities have led to the loss of many natural areas and biodiversity as well, since it is also affected by other related problems such as aquatic pollution and frequent summer fires.

Nevertheless, the territory of Lousada still boosts a considerable potential for biodiversity, due to its many, although small and scattered, remnants of ecologically important habitats, such as native deciduous forest, riparian galleries and dry scrublands.
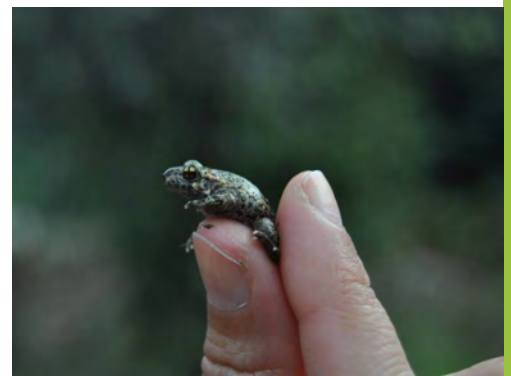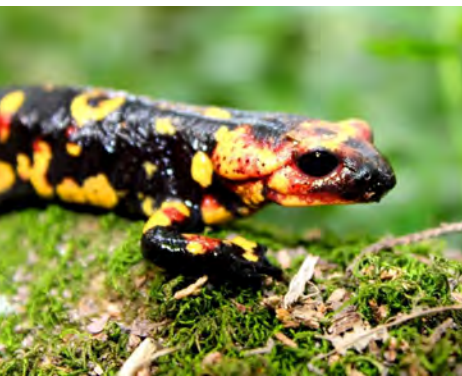
IMPRINT+

2 WHAT DID WE DO?

2.1 Biodiversity surveys

We conducted fauna and flora surveys for a year at twenty field sites, covering most of the municipality's landscape.
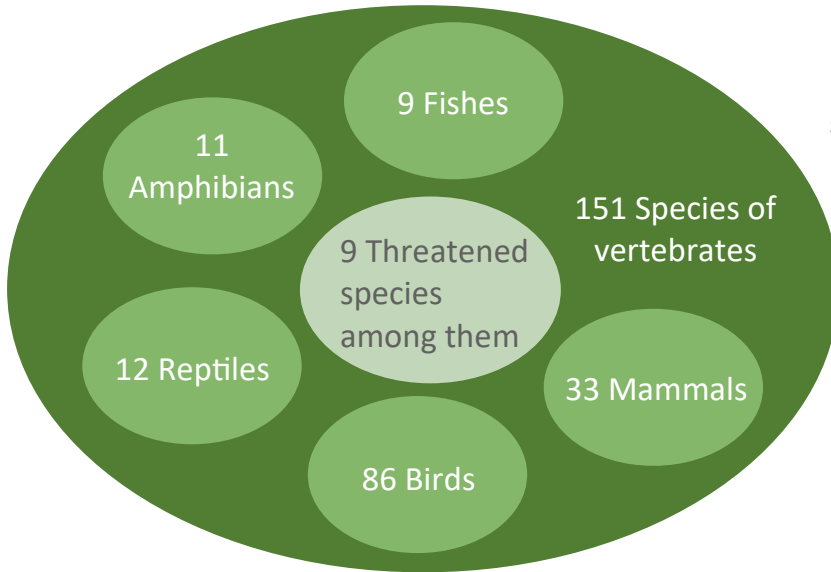
Several scientific methodologies were applied, with the support of a team of biologists from the University of Aveiro.

Fig. 1 – Field sites sampled during the IMPRINT+ pilot project in the Municipality of Lousada, Portugal.
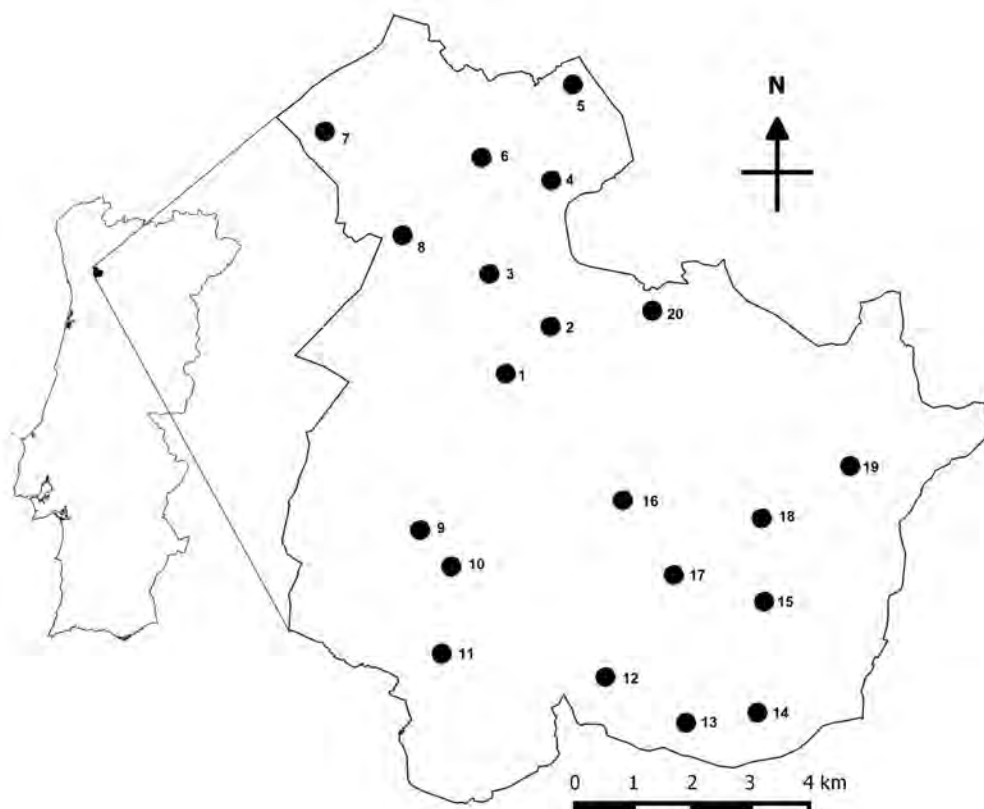
2.1.1 Results—fauna

Fig. 3 – A small sample of the vertebrate diversity found in Lousada. From top left, clockwise: northern barbel (*Luciobarbus bocagei*), gold-striped salamander (*Chioglossa lusitanica*), horseshoe whip snake (*Hemorrhois hippocrepis*), hedgehog (*Erinaceus europaeus*) and hopoe (*Upupa epops*).
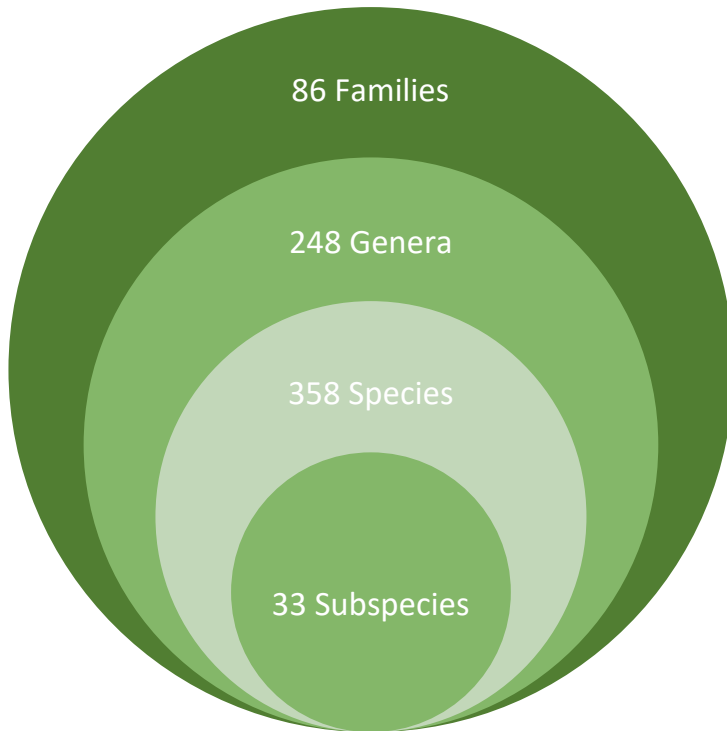
2.1.2 Results—flora

86 Families

248 Genera

358 Species

33 Subspecies
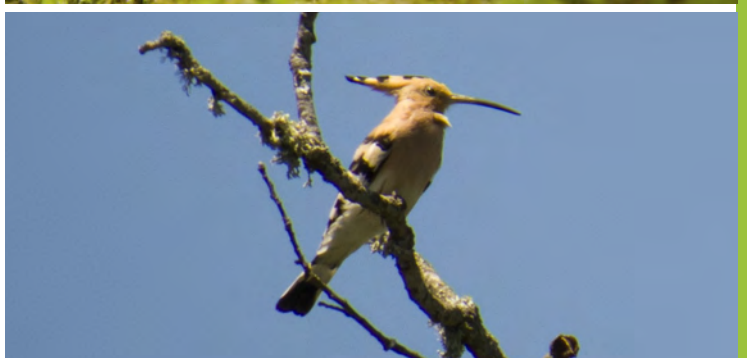
Fig. 4 – Results of the flora survey in the study area.

Fig. 5 – Species of the deciduous forests. A – *Quercus robur L.*; B – *Quercus suber* L.; C – Details of the leave of *Quercus pyrenaica* Willd.; D – *Frangula alnus* Mill.; E – *Crataegus monogyna* Jacq.; F – *Rubus ulmifolius* Schott; G – *Phyllitis scolopendrium* (L.) Newman subsp. *scolopendrium*.

Fig. 6 – Species of the riparian galleries. A – *Alnus glutinosa* (L.) Gaertn.; B – *Salix atrocinerea* Brot.; C – *Laurus nobilis* L.; D – *Hypericum androsaemum* L.; E – *Hypericum perforatum* L.; F – *Sambucus nigra* L.; G – *Viola riviniana* Rchb.; H – *Ranunculus repens* L.; I – *Osmunda regalis* L.
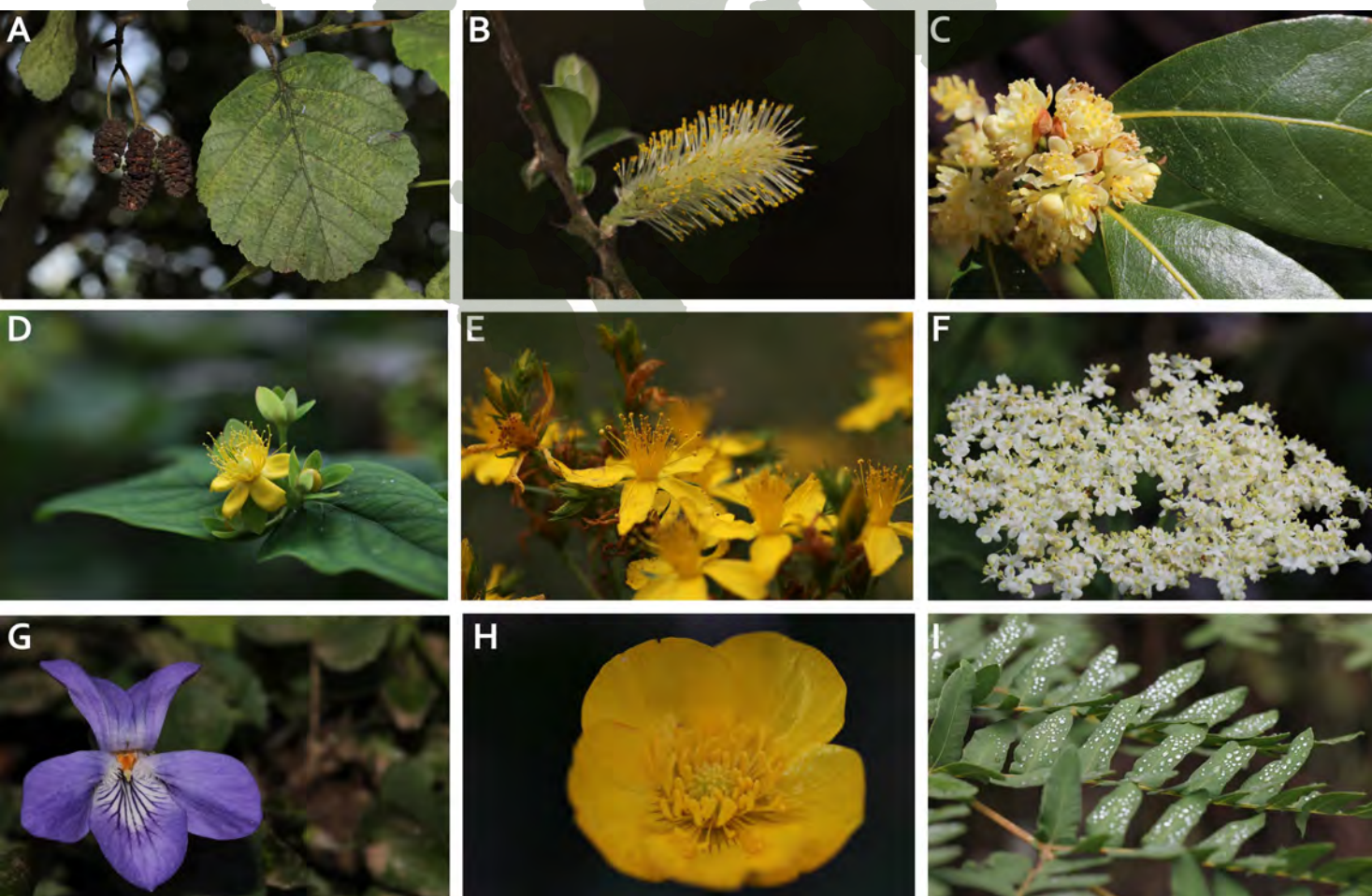
2.2 Ecological assessment

The data gathered allowed the project team to identify areas of ecological importance that were a priority for conservation. Several environmental impacts and degraded areas in urgent need of restoration were also documented.

Fig. 7 – Examples of high biodiversity natural areas within the municipality of Lousada.

Top left: preserved riparian gallery; top right: mountain top with native trees; bottom: mixed deciduous forest. These areas were used as models for the ecological restoration and environmental education actions.
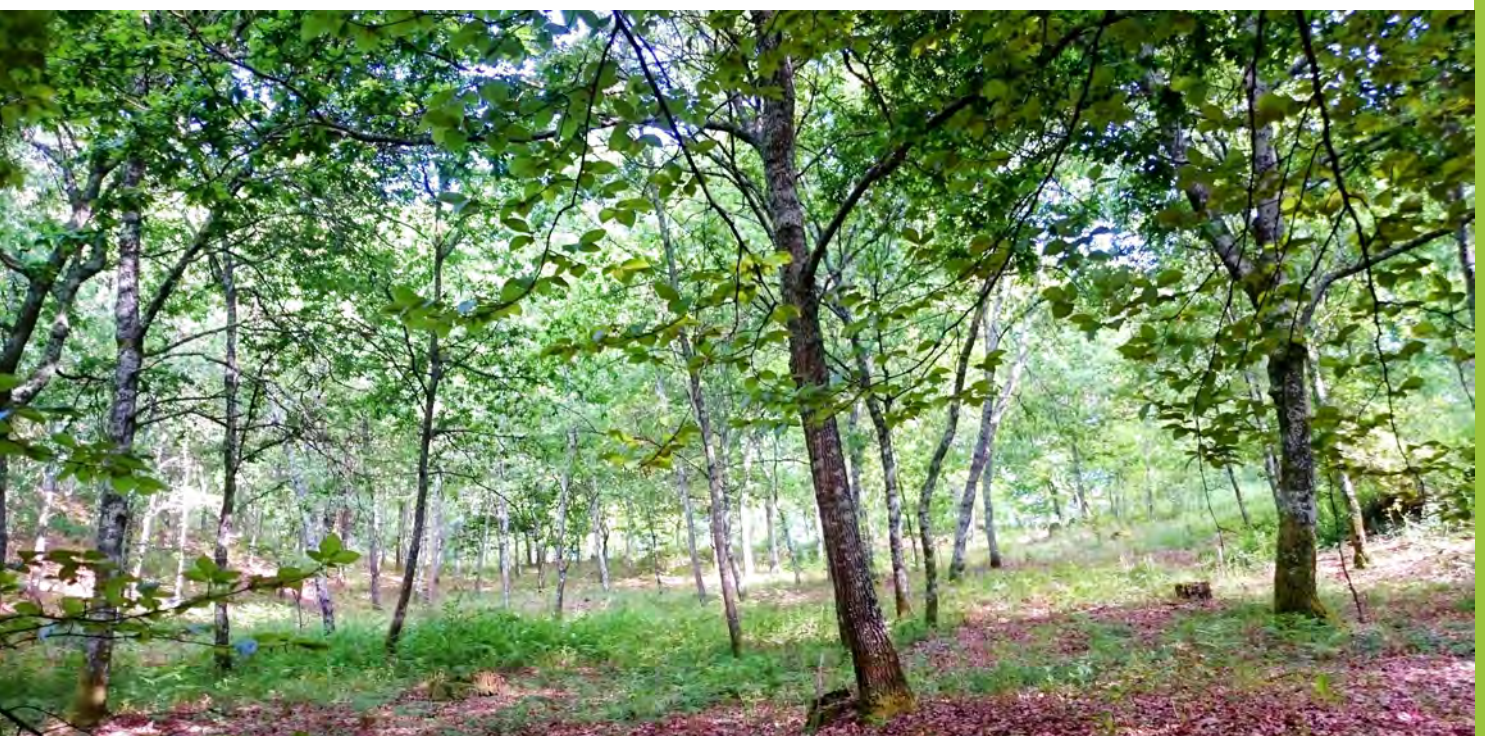
Fig. 8 – Examples of areas requiring IMPRINT+ ecological intervention, within the municipality of Lousada.

Top: River banks where the riparian forest was cut down; bottom: forest overtaken by invasive exotic vegetation.

2.3 IMPRINT+ in practice

We developed a strategy to introduce the project locally, creating opportunities for the community to learn about the natural values of their own territory and take positive action by helping in its restoration. As well as presenting the project in several institutions and events, we used its guidelines and resources to create a series of environmental initiatives aimed at further engaging the general public, organisations and stakeholders.

2.3.1 Our actions

Imprint+ dissemination

Imprint+ has been presented to hundreds of students and teachers in schools of Lousada, and also to several organisations and audiences at local public events. Additionally, the municipality has promoted presentations at national and international education and science events. These presentations often served as a prelude to the practical offset actions and environmental educations sessions which are described below.

PlantarLousada - Reforestation campaign

PlantarLousada (*Planting Lousada*) is an initiative aimed at improving ecologically degraded areas implemented with the invaluable driving force of environmental volunteerism. In this campaign we mainly controlled alien invasive species and planted species that contribute to increasing biodiversity in Lousada. During the pilot project, 15 reforestation actions were carried out, during which over 10 hectares of land were ecologically improved and 4500 trees of 22 different species were planted. More than 700 volunteers and 25 institutions participated, contributing about 3000 hours of work to this environmental cause. After the pilot project, the City Hall continued the initiative with thousands of trees being planted by the community.

LousadaCharcos – Aquatic habitats conservation

LousadaCharcos aims to map, create and protect freshwater habitats within the municipality. So far, more than 200 water bodies have been mapped, and 6 new ponds have been built with the help of a dozen of institutions and around 200 volunteers.

BioLousada – Public environmental education

BioLousada is an environmental education programme consisting of free monthly nature activities ranging from fieldtrips for observing fauna and flora to workshops on how to build nest boxes or herbariums. Over 20 different activities have happened with around 500 participants.

BioEscola – Environmental education at school

BioEscola (*BioSchool*) shares much of the same philosophy and themes as BioLousada, but is directed at schools, providing teachers in the municipality and their students the opportunity to have environmental classes related to the subjects they are studying. In the first three months alone, the initiative engaged over 1000 students, in more than 40 educational sessions requested by teachers and educators.

BioFest – Nature & Environment Festival

In BioFest – *the cultural festival that celebrates life* - the motto is the valorization of natural resources and the landscape, in a demonstration that nature is integrative and touches our daily life in every aspect: from what we eat and wear, and the garbage we produce, to less obvious things like the music we listen to and the books we read. BioFest brought life to the municipality of Lousada, with cultural and educational events taking place simultaneously in many spots across the municipality. Music concerts, theatre plays, nature quizzes, workshops, conferences and green markets are only a few examples of the activities available in the municipality during a whole weekend.

EcoVilar – International Volunteering Camp

EcoVilar camp aimed at the promotion of sustainability and environmental awareness at an international level. The camp involved 15 young people from 9 different countries who came to Lousada to help improve the ecological quality of *Mata de Vilar*, a Forest of High Conservation Value in Lousada. Local environmental groups were involved organising this event.

Sustainable Waste

Lixo Sustentável (*Sustainable Waste*) is a municipal programme aiming at raising awareness and the level of domestic waste recycling. By delivering correctly separated paper and cardboard, glass, and plastics, Lousada inhabitants received a discount on their municipal taxes for waste treatment. In the first six months of implementation, over 40 tonnes of waste were collected for recycling, allowing for the valorization and saving of resources, and preventing its deposit in landfills.

3 DOs AND DON'Ts

Know the territory

The first step towards offsetting your impact on the environment is to know the landscape around you and understand the threats it faces. This information will help direct your efforts to where they really matter and make your work more effective.

Engage entities directly

Personally inviting the organisations (schools, NGOs, companies, etc.) you want to work with is much more effective than advertising your projects and activities through the press or social media.

Change takes time

The benefits of many environmental actions, such as reforestation and pond building will not be perceived overnight. Continuously monitor the areas you intervened in and study how they are evolving. This will allow you to evaluate the success of your efforts and correct what went wrong. It is also a great opportunity to deliver environmental education and further engage with your community.

Don't work alone

Chances are that much of the area you want to improve or protect is not controlled by you. Engage your community, local government and stakeholders and have them join forces with you. This will likely increase the long term success of your efforts.

Go beyond schools

While IMPRINT+ is focused on school communities, you can further the project's impact by providing opportunities for anyone to join in. One way to do this is to promote environmental actions on weekends and holidays.

PROJECT CONSORTIUM

PORTUGAL—Coordinator
Universidade de Aveiro
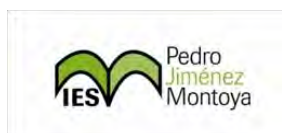**Departamento de Biologia**
Milene Matos
milenamatos@ua.pt

PORTUGAL
Município de Lousada
Manuel Nunes
manuel.nunes@cm-lousada.pt

IRELAND
Leave No Trace Ireland
Maura Lyons
info@leavenotraceireland.org

ITALY
I.I.S.S. "Cipolla-Pantaleo-Gentile"
Anna Neri
neri.anna@email.it

SPAIN
IES Pedro Jiménez Montoya
Manuel Navarro Reyes
manuel.navarro@iespedrojimenezmontoya.es

AUSTRIA
E.N.T.E.R.—European Network
For Transfer and Exploitation of EU Project Results
Dominika Stiger
dominika.stiger@enter-network.eu

Co-funded by the
Erasmus+ Programme
of the European Union