

KA2 Strategic Partnership in Higher Education project Tackling skills gap in the wildlife conservation sector: WildSkills EU

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External Evaluation Report

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1. Executive Summary

The WildSkills EU project was conceived and developed by an experienced Erasmus+ Partnership that had worked together over a ten year period on several other EU funded projects. This project aimed to address the skills gap identified by employers responsible for biodiversity monitoring and climate change mitigation. Specifically, the project focused on the mismatch between employer needs for early career staff to possess both 'practical wildlife survey and identification' and 'communication and stakeholder engagement' skills and the absence of this training from Higher Education (HE) pathways.

The project was a collaboration linking practitioners from Non-Governmental Organisations (NGOs), teachers from HE Institutions (HEI) and students seeking employment in the nature conservation sector. These three groups aimed to co-create and test innovative and accessible distance learning packages to address these skills gaps, using a Virtual Learning Environment (VLE) which combined the use of physical equipment with online webinars and livestream technologies, to deliver quality assured and employer recognised courses. Central to the project was training staff and student teachers/trainers in how to deliver this unique model, test it on virtual mobilities and disseminate the best practice established as a result.

The project was awarded 295,790 Euros and was scheduled to run for 30 months from 1st October 2020 until 31st March 2023. As will have been the case with many other Erasmus+ projects, the onset of the worldwide Covid-19 pandemic however required the partnership to reschedule some project mobilities because of international travel restrictions and concerns for the welfare of participants.

In addition to this and in order to reduce to the project's carbon footprint, Partnership Management Meetings (PMMs) had been originally intended to be held in France, hosted by a project associate partner. Due to an oversight at application stage it was subsequently made clear that this was not permitted under Erasmus+ rules. The budget for these meeting was therefore removed from the final grant agreement and the solution was that PMMs became online Zoom meetings which coincidentally played to the prevailing concerns around face-to-face meeting in the context of the Covid-19 pandemic.

Despite these challenges the project met all of its objectives and exceeded several key targets. As the UK has now left the EU and Erasmus+, this final project from the UK lead Ambios Ltd is a testament to the quality of the Erasmus+ programme and the way in which its grant funding has allowed organisations to achieve so many positive benefits.

As this report will go on to highlight this project was successful in:

Outputs:

- Delivering one, five day Joint Staff Training (JST) programme for 9 staff - 1 from the Host (Ambios UK), 2 from Barn Owl Foundation (BOF) Hungary (HU), 2 from the World Wide Fund for Nature (WWF) HU, 1 from Ambios Portugal (PT), 2 from the University of Evora, PT and 1 from the University of Padova, Italy (IT)
- Delivering two Intensive Study Programmes (ISPs) with each involving 18 students
- Producing 6 e-badged distance learning courses – now held on the Ambios UK VLE Open Educational Resource and University of Evora (Moodle platforms)
- Testing of all the courses on a combined total of 67 virtual mobility HEI student participants
- Awarding 112 e-badges to project participants

- Delivering 20 Multiplier Events (greatly exceeding the original target of 7) to a total audience of 315 students & world-of-work staff (exceeding the original target of 234).

Outcomes:

- The University of Evora exploring options for incorporating the WildSkills EU project into its mainstream academic courses to directly address skills gaps identified by employers in the conservation sector
- Benefiting 20 students from a 'Widening Participation' (WP) background thus exceeding by a significant margin, the original target of 12
- Improving student confidence in language skills - language training comprised familiarisation of the technical vocabulary of the learning materials and other relevant technical phrases and language practise was made up of informal, interactive scenarios which fostered a team based approach amongst the students
- Increasing the confidence for all staff involved in the project by helping them to better understand how skills gaps can be addressed through collaboration between academia and the world of work. This contributed to their Continuing Professional Development (CPD).
- Expanding the networks, resilience and future sustainability of NGO partners
- It is estimated that the overland travel for all mobilities saved the project the equivalent of 41.2 flights to/from the same destinations, or 19.25 tonnes of CO2(e).
- Reaching more than 5,000 followers and supporters through various social media activities across the project partnership.

Given the above impacts, the project can be said to have contributed to achieving the Erasmus+ sector priority for Higher Education – *'Tackling skills gaps and mismatches – Natural sciences, Pedagogy and didactics, New innovative curricula/educational methods/development of training courses'*.

In addition, the above impacts indicate that the project also contributed to the Horizontal priorities related to *'Supporting individuals in acquiring and developing basic skills and key competencies, fostering employability and personal development and encouraging critical thinking, cooperation in science, climate action and learning-to-learn'* and *'Innovative practices in a digital era, open pedagogies in education and training and assessment and engagement with underrepresented groups through Open Educational Resources (OER) and innovative methods for teaching and assessment'*.

2. WildSkills EU Rationale and Background

The WildSkills EU project concept originated from informal discussions held during some of the Partnership Management Meetings of the partnership's earlier Erasmus+ Higher Education strategic partnership project; SHOUTOUT4SDGs. Discussions focused on global climate change and the need to measure its impacts and highlighted:

- the increasing importance of wildlife survey skills in measuring climate change impacts
- the skills needed to communicate complex messages which result from such work
- the urgent need to engage different stakeholder groups in positive actions that will mitigate the worst effects of warming the planet
- how crucial it is that the next generation of wildlife professionals possess these skills

The partners were aware from previous partnership projects that the skills required to identify species in the field, interpret 'field signs' in context, communicate this information and engage key players were not being consistently (across EU countries) passed on to the next generation of wildlife professionals. It was clear that entrants to the nature conservation sector understood the theory (from studies in Higher Education) but lacked the practical skills to actually implement them in a real work environment.

In the UK, for instance, a 2014 needs analysis undertaken by the partnership for its KA2 'Careers in Conservation' (an employer survey which received 243 respondents) highlighted these skills gaps. Similarly, when advertising practical training courses addressing this need to UK students in 2015, over 350 applications were received for 18 places, highlighting the massive demand for training from recent graduates to assist their progression into roles in the sector.

To update their assessment of the situation and inform the Erasmus+ application, in early 2020 another needs analysis was undertaken by the project partners. This used social media outreach to over 6,000 stakeholders (students, academics and world of work professionals) involved in this sector. Over 60% of the respondents agreed with the following statement: *"The skills mismatch is, in part, due to the focus on the challenges of providing large student groups with meaningful engagement in practical field skills and valid world-of-work communication activities. The result is students who have 'attended' field experiences and communications and stakeholder engagement activities but not 'participated' in a way that would be regarded as meaningful to a potential employer."* Many survey respondents reported gaps in specific skills and especially stakeholder engagement, reinforcing findings of the earlier survey and partner experiences at a local level.

Given all of this, the partners expressed a strong desire to continue to work together once again to address these issues. This led, in 2019/20, to the formulation of the WildSkills EU project proposal.

3. The WildSkills EU partnership and concept

Given that the needs analysis had highlighted that *"The skills mismatch is, in part, due to the focus on the challenges of providing large student groups with meaningful engagement in practical field skills and valid world-of-work communication activities"*, the project concept was based on the development of a flexible, distance learning approach to overcome these challenges and address the employer identified skills gaps.

This model assumed greater significance for the partnership during the final drafting stage for the Erasmus+ application in early 2020, as it coincided with the onset of the Covid-19 pandemic. The interruption of classroom based learning due to the pandemic highlighted that distance learning could be a valuable alternative learning pathway.

This development was factored into the final design for WildSkills EU and the project's objectives were to:

1. Co-create, develop and test 6 distance learning modules addressing employer skills gaps in ecology with key elements translated into native languages;
2. Test and re-test a new digital pedagogy of distance learning skills delivery and assessment leading to employer and HE recognition on 60 virtual mobilities;
3. Train 8 staff & 36 student trainers in new digital learning and assessment pedagogy;
4. Establish a platform for sharing pedagogy best practice with practitioners.

4. External Evaluation Approach and Methodology

The original WildSkills EU application explained how quantitative and qualitative data would be collected to inform project evaluation. Ambios Portugal (Ms Shirley Horst) had responsibility for project evaluation monitoring and data collection. The University of Evora (Dr Ines Rogue) assisted Ambios Portugal in ensuring project partners provided the necessary inputs to specific monitoring activities at specific time points.

For both quantitative and qualitative assessment of the project, all participants (partners, students, staff, employers) were asked to provide feedback and evaluation having undertaken the training itself. This evaluative feedback was collected via the completion of online questionnaires and in group discussions and these completed questionnaires are available on the Erasmus+ results platform.

This evaluation builds on the evaluation activity undertaken by Ambios Portugal and The University of Evora. It has used the Erasmus+ United Kingdom Programme Logic Model as a guide and involved:

- Reviewing all of the questionnaires completed by participants
- Extracting relevant information from each
- Following up via email to all participants to identify the project's impacts at a systemic level and for the partner organisations, their staff and the learners.

In using this model, an impact is defined as any effects arising from an intervention be they immediate short-term outcomes as well as broader and longer-term effects. The separate, final project report prepared by Ambios UK Ltd as lead partner provides greater detail on how the project has met its original objectives, including details of the Intellectual Outputs and their effectiveness, and as such should be considered complementary to this impact focused evaluation.

Before considering the project's impacts it is worth noting and as identified earlier, that some of the main partners have previously collaborated on successful EU projects over many years. This has included Leonardo Transfer of Innovation (BOF, Ambios Ltd, Universidade de Évora), Leonardo Partnership projects (Ambios Ltd and BOF) and Leonardo Mobility (BOF, Ambios Ltd, Universidade de Évora).

The 4 long standing partners and continuity of staff involved in organising and managing EU projects means that the impacts on more experienced staff within the partner organisations are, perhaps, less significant than would have been the case in the initial years of delivering EU funded projects. Nonetheless, both the project teams' response to the challenges of Covid-19 and their active engagement with the continuing professional development of new staff and volunteers has produced a range of significant positive impacts.

5. Project Impacts

The WildSkills EU project was developed by reference to the need to embed practical skills training and associated accreditation within Higher Education's established academic environment. This would thereby directly address skills gaps identified by nature conservation sector employers. In the following sections consideration is given to how this has been achieved at a systemic level as well as for the partner organisations, their staff and the learners.

The project was innovative because no such content of this type existed for learners in this sector, it used e-content incorporating multi-lingual, interactive live and recorded videos complementing physical learning materials sent on loan to learners and due to the nature of the skills being learnt, distance learning was guided by tutors who interacted 'live' with the students.

This project was innovative because it used enriched learning content including interactive videos (that allow live input to the video image to check learner progress) and e-badging to recognise and acknowledge learner achievements. Development of skills is achieved through learner-practice and application of training similar to learning a language or musical instrument. The system encourages a growth mindset approach where additional practice leads to mastery at a chosen level (e.g. apprentice (can work with supervisor), practitioner (autonomous working), expert (brings new insight/skills). Skills acquisition can fast-track learners into membership of professional bodies.

The project was innovative in the way it co-created both the learning content and the learning delivery with students alongside representatives from employer NGOs and Universities. Student distance learner virtual mobilities played a key role by acting as learners and co-creators of content. Physical mobility student teacher/trainers then helped modify this content through their feedback. The project was also innovative as it enabled cross-sectoral cooperation by bringing together different sectoral organisations (NGO's & Universities) to work towards common aims.

The interests of both the employers and potential employees were represented and hence the learning package output has relevant connection to the needs of the labour market. Innovation also came from the fact that the project is led by a non-governmental organisation (NGO) from the world of work which, in partnership with other NGOs has good, robust connection to partner HEIs. This facilitated engagement with HEI staff and students, inputting new 'outside' influences, views and experience to HEIs that undoubtedly benefited from outside perspectives.

5.1 Systemic Impacts

The project partners wanted the major impact resulting from the project to be the embedding of practical skills training and accreditation within Higher Education's established academic environment thereby directly addressing the needs of employers. It was strongly felt that this has the potential to result in a structural change in Higher Education through the advocacy of this project and its innovative form of distance learning delivery. It was additionally felt that achieving this direct impact would initially be within the partner countries but with this foundation laid it could be a catalyst for change across the EU and internationally.

Professor João E. Rabaça has reported that the distance learning module produced by the University of Evora under the WildSkills EU project is currently being considered for micro-credential awards from the University. He has also said that *"We are also exploring options for incorporation into our mainstream academic courses to produce students with the skills needed for future employment. We believe that, in this way, our University can directly address skills gaps identified by employers in the conservation biology sector."*

This is a major development and has the potential to become a key structural change. The partners will promote this across their networks as they attempt to secure wider take up to meet the employer identified skills gaps.

In terms of other structural changes, Ambios UK have highlighted that UK government policy on the replacement scheme for support for landowners previously encapsulated within the EU Common Agricultural Policy (specially payment to land owners under the Basic Farm Payments and Countryside Stewardship schemes) has emerged as the Environmental Land Management Scheme (ELMS). This will incentivise farms and land owners to prioritise actions that enable nature to thrive in recognition of the positive influence of wildlife on the human population, not least its mental health (and with reference to the concept of public money for public good).

This in turn is leading to the creation of new employment opportunities across the wildlife/nature conservation sector and these new employees need the skills associated with provided by the WildSkills EU project. The project is therefore helping to address the structural changes needed in UK employment opportunities in this sector. In addition to this, UK government policy has recently moved to support graduate apprenticeships which bring together the delivery of knowledge and understanding with practical skills. These elements are strongly represented within the WildSkills EU project and it is possible to see that the outputs from this project may yet place a supporting role in the graduate apprenticeship system.

Other key impacts include the project's contribution to improving professional practice and methods of learning. Here for instance the WildSkills EU practiced a model of delivery that was built around a combination of loaned equipment relevant to the learning topic, online content and live tutor learning and feedback sessions. The process of producing the learning content and then delivering the courses and their live sessions focused and improved professional practice. Experiences were then shared at Multiplier Events and via professional media (LinkedIn and EPALE*) with the idea that this would reinforce and encourage professional practice across the adult teaching and learning environment.

*It is noted that the project experienced some challenges engaging with the EPALE online platform and as a result used other professional media such as LinkedIn.

5.2 Organisational Impacts

As noted earlier, the project start coincided with the onset of the Covid 19 pandemic which led to a near worldwide shift to online learning to ensure education provision could be maintained during the pandemic. E-learning has therefore grown in demand and popularity as a result of the pandemic and benefits around flexibility and costs reduction have been massively highlighted. This combined with 'the learning environment continuously evolving towards a more effective and yet, humanistic and safe international learning space' as the Barn Owl Foundation in Hungary have noted below requires HE and other learning providers to better understand this method of education delivery.

So, in terms of organisational impacts, as a result of the project, all partners have said that they are now more experienced and better able to deliver this method of learning and meet the increased demand for it. This is perhaps the key organisational impact but the other main impacts reported by the partners include:

- Extended networks through which to discuss how best to tackle skills gap in the wildlife conservation sector in the EU
- Reinforced working relationships between NGOs and University partners, particularly for WWF Hungary as a first time project partner
- Greater synergy and collaboration with and support for local partners including public and private sector bodies and peer NGOs
- New and improved learning materials for future use and staff more experienced and better equipped to deliver them
- Potential routes towards greater financial sustainability for NGOs including Ambios UK, Ambios Portugal and WWF Hungary

The project's specific organisational impact for each partner are highlighted in more detail in the sections below.

5.2.1. Universidade de Évora

Dr Ines Roque of the University of Évora reports that the WildSkills EU Project coincided with the signing of a collaboration protocol between the university and Évora Municipality. This included training teachers working in environmental education at a visitor centre owned by the Municipality. The training was about including birds in their educational activities, as the Municipality was part of an international partnership on ornithological tourism.

This resulted in the creation of synergy between the two projects: in the face-to-face training the University of Évora offered to teachers, which preceded the production of the project's Intellectual Outputs, and the university was able to test some of the content it was already researching for the WildSkills EU online course Birds in Education. So, on the one hand, Evora Municipality benefited from the pre-production of contents for the Erasmus+ project and on the other hand this initial test allowed the University of Évora to include some improvements arising from the feedback of these teachers on the content of the Birds in Education course.

During the project, University of Évora staff were invited by the Municipality to conduct several activities with birds for schools and the general public in Évora, and two of these can be seen as examples of indoor and outdoor activities in the Birds in Education course (Week 3, Topic 5). One of the teachers attending the face-to-face training wanted to participate in the online course, signed up for Moodle but, for professional reasons, was unable to complete the course. However, because of this contact, at least two teachers started to use a book written by some of the University of Évora staff (directly or indirectly) involved in this project – Pedro Pereira, Carlos Godinho, Inês Roque and João Rabaça – on their educational activities with birds.

This means the project directly contributed to knowledge transfer from University of Évora to the wider community, since schoolchildren in Evora are starting to have access to content about sustainable management of local agro-silvo-pastoral systems, i.e., the combination of economic sustainability of forest production with the maintenance, recovery or increase of bird populations.

The project also helped to improve the articulation between the research team/teachers and the mobility office, and new procedures for accreditation of short-term mobility of students were created and improved. At the end of the project, a new Erasmus+ internship programme for students from the University of Évora was proposed by the project leader, creating a bridge between HE students from the European Union and the United Kingdom.

Professor João E. Rabaça has also reported another key impact for the university; *“The University of Evora was a partner in the previous Ambios Erasmus+ Higher Education Partnership which involved mapping the UN SDGs to University courses. Now we are a partner in this Ambios WildSkills EU Erasmus+ Higher Education Partnership that has produced some outstanding learning modules supporting ecological and science communication skills for students, making them more employable.*

This experience has had a direct impact on the University of Evora’s engagement with the new European University alliance for sustainability: responsible GRowth, inclusive Education and ENvironment (EU GREEN). The EU GREEN Alliance, integrated by the University of Évora and its four-year work plan, has been approved by the European Commission, with a total funding of 14.4 million Euros, for the sustainable development of teaching and research in the areas of economic, social, cultural and environmental growth. EU GREEN is one of four new transnational alliances of European Universities that now join the sixteen alliances that have renewed the support of the

European Commission. This recent success is built, to a significant degree, on the University's involvement in previous projects, namely the Erasmus+ that were coordinated by Ambios UK Ltd."

5.2.2. The Università degli Studi di Padova

Key organisational impacts for the Università degli Studi di Padova as a result of being a partner in the project include increased experience of creating e-learning content on Moodle platforms and increased experience in making digital contents for training purposes (i.e. video making). This has resulted in an improvement of the training material already used by the University on the topics of interest for its courses (Tree ID and Forest Survey) as well as an increased knowledge of online assessment and increased experience of organising an intensive, international training programme in Padova.

The University also improved its professional practice and methods of learning through the implementation of live sessions to check the level of knowledge acquired through the course by the students as well as one-to-one communication with the students if needed to make sure they achieved the final course goals.

As with other partners, career starters in the biodiversity management sector were able to improve their skills and competences in order to get a better position in the job market, university students improved their practical skills and all course students improved their personal networks, particularly with new, international connections.

5.2.3. Ambios Portugal

Ambios Portugal was founded in 2018 by a team from universities, non-governmental organisations, private companies and the public sector and is based at the Cork and Cork Oak Observatory in Coruche, Portugal. It links the environment sector and aims to contribute to the professional experience and skills of each member to achieve a common goal. While sharing their name with Ambios UK, the two organisations are entirely separate legal entities.

As a result of the work developed throughout this project, the most quantifiable change for Ambios Portugal is the value now attributed to online communication methods. The project has been key to building knowledge with regards to how to adapt international projects in times of adverse conditions, such as the ones seen throughout the Covid 19 pandemic. The project has also built on the greater demand for online learning as a direct consequence of the pandemic.

Virtual learning through platforms such as Moodle and Zoom were used during the project, and feedback was requested from all participants on both these elements, allowing the organisation to better understand which aspects functioned well and which needed further improvement. This will aid the practice in our organisations in the short-term, and in the sector in a more long-term situation, through shared knowledge and informed collaboration.

Shirley Horst from Ambios Portugal has also said that, *"I would say our association's external communications plan (interaction with the general public and other audiences external to our organisation) was positively affected by the project, in that it allowed us to better understand communication tactics and perceive the importance of virtual learning environments."*

5.2.4. Ambios Ltd UK

As a long standing member of the delivery partnership and as lead partner for the WildSkills EU project, Ambios UK reports that the project impacts for it as an organisation has been the consolidation and deepening of its existing relationships with partners and in particular making

connections with several different key personnel within The Università degli Studi di Padova. Alongside this a new partnership was developed with WWF Hungary.

Ambios UK produced its WildSkills EU Effective Camera Trapping module for an audience of European learners which meant thinking about the different wildlife that might be photographed in different geographic areas and the role of remote wildlife cameras within organisations in different European countries.

As a result of the project Ambios UK also evolved its policy and procedures around loaning equipment relevant to the module. Normally, Ambios would purchase equipment from local suppliers to send to student participants but this policy changed because physically sending wildlife cameras to learners in other European countries proved a substantial challenge. After attempting to send the cameras direct from the UK to a number of EU countries, Ambios UK discovered that new post-Brexit customs regulations meant that equipment of this type can be held for long periods of time (indefinitely) at border control. The solution was to change policy and identify and use in-country suppliers.

Finally, Simon Roper, Ambios UK Director has reported that *“The project also enhanced the visibility of our organisation across sector and professional network platforms, drawing comment and support. We see this as a significant benefit as it increases our voice across those networks and may ultimately encourage our primary target audience (post-graduation students) to engage with our in-person teaching and learning environment. In terms of its future sustainability as an organisation Ambios UK has been seeking to broaden the learner market for its various training offers. The aim has been to attract non-natural science and geography graduates, its normal core market, as well as expand its geographic reach. We feel that the enhanced visibility will help us achieve this.”*

5.2.5. The Barn Owl Foundation (BOF), Hungary

Dr Ákos Klein of the Barn Owl Foundation (BOF) Hungary reports that the organisation gained a deeper understanding and knowledge of safe and progressive, solution focus learning and encouraging training environment which it has now adopted itself. He continues that it's learning policy has largely been inspired by project partners, especially the lead Ambios Ltd. UK, who first introduced these new training models.

The virtual learning platform and ZOOM sessions taught BOF a lot about sufficient preparations before any ZOOM learning sessions. Staff also gained confidence in creating e-learning content on the Moodle platform and further experience was gained during the project in creating education videos and working alongside a professional film-crew (subcontractor). With the learning environment continuously evolving towards a more effective and yet, humanistic and safe international learning space, BOF is now better positioned to deliver such training in the future.

The project also allowed BOF to carry on the professional support of other Hungarian NGO's in developing new soft skills. The Effective Environmental Influencing (EEI) training course as an Intellectual Output will be used to provide services to Hungarian NGO's in communication, especially in using DOODLY software. Delivery of the project also helped career starters in the biodiversity management sector who were able to improve their skills and competences in order to get a better position in the job market.

5.2.6. WWF Hungary

As a new member of an established Erasmus+ partnership, WWF HU reports that the project enabled its staff to become familiar with the Moodle platform and develop an 'Effective Stakeholder Management' training course which can now be used for future online education.

This has enabled the organisation to adopt new teaching and engaging approaches from the toolkit created by the partnership. Building on this it inspired the organisation to start its own e-learning website and consider a new business model with a greater focus on education and they are in a development phase of an e-learning platform for future corporate partners which as well as educating them about sustainability might also serve as a fundraising source for WWF HU.

Involvement in the project also helped WWF HU greatly expand its partner network and provided opportunities for its volunteers' to broaden their own young professional network. The project provided a solution-focused approach for working with and empowering young professionals and encouraging them at this early stage of their career with many of them inspired through interaction with their peers from different countries.

5.3 Learner Impacts

Learner participation in the WildSkills EU project was through two Intensive Study Programmes (ISPs) with each involving 18 students and through the testing of 6 e-badged distance learning courses on a combined total of 67 virtual mobility HEI student participants.

Anonymised feedback from the student participants highlights how the project was beneficial to them. Many of the student participants were non-native English speakers and their feedback has been presented here exactly as they provided it with no editing so that none of its authenticity has been lost.

To begin with, as well as promoting a greater awareness of biodiversity monitoring skills the project impacted by boosting the skills, employability and personal confidence of the student participants and relevant feedback from them from, from each distance learning course (noted at the end of each quote) is as follows:

- *The course complemented my learning about ornithology and bird watching activities. And this will be important to transfer my knowledge in order to educate young people and raise awareness of adults for the protection of biodiversity and its habitats. BIE**

**Abbreviations refer to either a distance learning course or an ISP mobility.*

- *I got to know about BOF and the about the platforms where I can upload my bird watching experiences and share data. It was also a good tasks to figure out a whole program for a group and I think I might have to do something similar in the future. BIE*
- *I am now aware of a lot of aspects that I should keep in mind when making a public speech, as well as some technics that allow me to engage and empathize better with the audience. One of my major struggles was speaking in public and all the technics I learned has so far help me with how I can manage anxiety and also engage a much more interesting conduction of speech in front of a big audience. This course allowed me to expand and also prove myself many things I before never believed I was capable of doing. ISP HU*

- *This course made me change a little, both in the way of participating and of interacting with others. I have always been a shy person, but with the pleasant environment we experience, I was able to express myself and develop my communicative ability a little. In addition, the bonds I created with people from other countries were very important to me. I was fascinated by the way of being of both countries. We are all in touch now, and I hope one day we can all get together to socialize, laugh and share more stories. ISP IT*
- *If I will work in the nature conservation field (which I am planning to), I am sure that I will use camera traps as well, so my experience of how to use them will be a great advantage. ECT*
- *This course helped me by letting me know how to work with this cameras and having the experience to work with them in a future job. ECT*
- *Definitely yes! I'd like to start my own page to communicate environmental topics and this course gave me some very useful tips! EEI*
- *Using new techniques and programs, I can more easily draw people's attention to the environment or even make a promotional video for my workplace. I feel I still need to improve in finding confidence (e.g. guiding visitors). I know it's all just a matter of practice. EEI*
- *This course has been so helpful and the video editing has already been useful at my current job including my final project and creating content from footage at our badger sett. EEI*
- *This course provided me with a set of skills that I can hopefully use throughout my career in nature conservation, and new friends that I hope I can keep in touch with for years to come. ISP HU*
- *The soft skills I learned there and the connection I made will help me develop professionally ISP HU*
- *I understand more how important it is to not only teach but to involve the students in every possible way we can. ISP HU*
- *I definitely had a personal development. I could come over some of my fears, I became more confident and open. And also the world opened for me much more. ISP IT*
- *For me, it was my first experience with Erasmus+, it was very exciting. It helped me a lot, because of the challenges were in a safe place, the success came easily but in a good way. I am a very stressful person, I don't like to present, but these programs helped me to let go of my fears. ISP IT*
- *This course was essential to my growth as a person. I made friends probably for life, I gain confidence in myself, the fact that I dared to go and experience it. I would tell others about the all experience, about the places the food, the people, the learning, all of it. ISP IT*

- *It opened up an insight into training people and I felt a bit insecure about how comfortable I would feel with that in beforehand. This course showed me, that I could consider a career in outdoor education too, as I enjoyed it very much! ISP IT*
- *Personally, I feel I've gained some ease in speaking in front of everyone, and the way I organize my speech has improved as well. I learned new teaching methods, some didactic games, which I intend to use in the future. I have the goal of teaching in college, and above all to be able to express myself in front of the public. This project, with all the aspects presented, and the interaction we all had, increased both my level of confidence and knowledge to pursue what I want so much. ISP IT*
- *It became clearer for me what path I would like to step on. And I've met with some people at the mobility who can help me start that journey. ISP IT*
- *I have always had teaching as a career opportunity in my mind since my childhood; I had times when it was stronger and times when it faded away but it has always been in my mind one way or another. In this course I had the chance to explore my options more and learnt some techniques and skills which I can use in this career pathway. For example, I have never thought about the option of outdoor teaching before, but I have now started to consider after this course and after meeting someone in the course whose job actually is outdoor teaching. ISP IT*
- *This course is helping me already, it gave me the tools to build a good presentation and not fear it, as well as to gain confidence in myself without losing the team spirit and effort. These skills are going to be very important in my current and future path. ISP IT*
- *During the course, I learned a lot of new techniques that I will hopefully be able to apply during field observations (e.g., a quick sketch of a species unknown to me may be a more thorough elaboration). The course taught me to pay attention to the small details, my creativity also developed and I let nature inspire me. I was completely immersed in the work, the little drawing / painting everyday was very relaxing in this rushed world. WJM*
- *Now I have a better method to record environmental topics. It should be useful to communicate environmental topics with my own observations and I can teach other people to do the same. WJM*

Another positive impact was that non-native English speaking participants had the opportunity to experience collaboration in a European environment where English was the working language. This experience increased their use of, and confidence with, technical and conversational English language. The project also allowed for greater cultural understanding and this is also reflected in the feedback from student participant as follows:

- *This course has forever impacted me in a lot of ways. One of them, was in fact the expansion of my comfort zone in social interaction environments, as well as the experience of being able interact and communicate in a completely different language with people from different countries. I also never expected to meet such incredible and interesting people in this experience, or even being able to call them friends. This course made me expand and grow a lot parts of me, and also gave me the chance to know some of best human beings I've ever met. ISP HU*

- *During the zoom meetings (first two) it was good to be able to talk to the other participants, I think this is also a good language practice opportunity and would improve my confidence. I think more of these similar tasks could be included in the course to make it even more interactive EEI*
- *I still have contact with some of the people that I met. I keep following them through media, and we sometimes exchanged words to appreciate each other's work. It was an amazing experience for me, and help me to improve my English and to lose my fear to speak in public in a different language. ISP HU*
- *Actually it was great to find out that even people from other countries and with different cultures had so many things in common. Getting in touch with all of them and feel in a safe space was great. ISP HU*
- *It improve my confidence on speaking English out loud. ISP HU*
- *I have already met some of the people from the course again, it was a brilliant opportunity for me in terms of networking, making friends, culturally experiencing new places and gaining ideas for my career! Definitely an invaluable experience. ISP HU*

At the end of the ISPs participants were asked to describe their experiences by providing three words – the data were used to form the following ‘word cloud’.



It is of note that the most common word offered by the students was ‘conservation’ followed by ‘international’ and ‘opportunity’. These and other words visible within the word cloud speak to the success of the ISP and the value of the Erasmus+ programme being consistently and successfully promoted by the WildSkills EU project partners.

The 6 distance learning courses were co-created by project partner staff and students and tested on student virtual mobilities. Feedback from students during the test phase reveal that; 100% of students agreed or strongly agreed that they enjoyed the course, between 100% and 88% (depending on the course) agreed or strongly agreed that they had learnt something from the course, 100% agreed or strongly agreed that the live tutor sessions helped them to gain more from the course and between 80% and 60% thought the course could not have been done entirely on-line with no live sessions.

Significantly in relation to this project and its innovative support for distance learning participants, over 80% (on average, depending on the course) agreed or strongly agreed that without Erasmus+ to fund loan of equipment or software licenses they would not have been able to take part in the course. Similarly, over 80% (on average) of participants said that e-badge recognition was an important outcome from their course.

The above results speak to the quality of the learning materials, the loan of equipment, the live tutor support and the recognition of learning that this project has achieved.

5.4. Staff Impacts

In terms of the project's impact on staff, this effectively began with the Joint Staff Training (JST) day held in the UK in April 2022. Participant selection was primarily the result of partner organisations seeking the most appropriate people in terms of an assessment of the relevance of this project to their current job roles and the potential for individuals to benefit from Continuing Professional Development (CPD). The JST day delivered physical mobilities and created an environment in which the international group could learn and explore potential learning environments and materials which could be subsequently used as part of the OER. This training event also explored ECVET principles and the how they might be integrated into the innovative e-badging system proposed for the OER.

As previously mentioned, the project partners' long standing involvement in delivering EU projects has meant that the project's impact on the more experienced staff has not been significant. There have however been positive impacts for some of the newer staff members involved with the project. As with the learners, project staff were asked if the project had benefited their Continuing Professional Development in any way and their personal testimonies are detailed below:

Inês Roque, Universidade de Évora, Portugal: *“One thing that impacted me deeply in the project was the staff training in the UK. Besides the visit to Sharpham farm and the inspiring work of Ambios Ltd with their trainees and stakeholders, we had the opportunity to have a group discussion about teaching in the online environment and a training on effective communication and video production. These moments of learning and sharing were very important for me, they made me rethink the way I teach and prepare presentations and contributed a lot to the creation of the Intellectual Outputs – in my case, the Birds in Education course. Part of what I learned in the staff training, was applied, and taught in the course, as the course was about training trainers and that information seemed very relevant in this context. In the feedback questionnaire, one of the participants in the Birds in Education course mentioned precisely that content as relevant for their training, which made me quite satisfied that I decided to make that bridge.*

In this project I had the opportunity to apply what I learned in a previous training on content creation in Moodle, which most likely would not have happened if I was not involved in the WildSkills EU project. The theme of my final project for the Moodle course had been precisely about birds in education. I had long aspired to create an online course on this topic, and thanks to the WildSkills EU Project I was able to achieve this personal goal. During the project I also enrolled on two courses to deepen and develop my communication skills: Clear Science (mostly focused on clear writing), and Clear Presentation (mostly focused on public speaking). This has grown on me so much, that in 2023 I decided to enrol in a postgraduate degree in Strategic Communication, which I believe will be key for my professional development.”

Alessia Portaccio, Università degli Studi di Padova, Italy: *“I gained experience in managing several activities of the project, such as creating digital contents for online courses and also organising and delivering intensive training programmes at our locations. Other university trainers deepened their skills and knowledge in IT communication techniques.”*

Shirley van der Horst, Ambios Portugal: *“Working on this project has allowed me to develop my skills in delivery of online education, both through the creation of online learning contents, as well as delivery of live lessons through software such as Zoom. It has also helped me understand better how to empower students to become educators themselves. More specifically, it allowed me to understand the creation and editing of Moodle platforms, including built-in education tools and multimedia usage; practice video creation skills, such as filming, editing and publication parameters that are most suited for an accessible result; learn how to better lead online education sessions, including the usage of specific Zoom settings such as the use of a second camera to hold live drawing demonstrations; practice interpersonal and communication skills.*

The aforementioned skills are exceedingly important in the wildlife conservation field, seeing as beyond the biological component, communication between peers, stakeholders and the general public is one of the most powerful tools in our arsenal. As such, the skills developed and obtained throughout the lifetime of this project will continue to be invaluable throughout my career.”

Ákos Klein, Barn Owl Foundation (BOF), Hungary: *“I learned about working with trail cameras, Moodle platform and e-learning content creation as well as well as deepening my skills and knowledge in IT communication techniques and passing on the knowledge to new trainees. A new BOF colleague, Zoltan Schneider, also gained invaluable experience in managing an Erasmus+ project for the first time.”*

David SÜTŐ WWF Hungary: *“I developed skills in Moodle platform and e-learning content creation, working in an international environment as a trainer and more about birds and education methods for use in our everyday educational practice. My colleague Dora, as the education officer in WWF HU, was also able to familiarise herself in e-learning content creation and use of the Moodle platform. In addition to this she was able to develop her skills as a trainer in an international environment. Another colleague Dr Laszlo Patko, Project Director for WWF HU had the opportunity to explain stakeholder management to a different set of audiences than he usually does and the project also helped him to learn about e-learning content creation.”*

Simon Roper, Ambios UK: *“Our staff developed new software skills ranging from creating and editing within a virtual learning environment to producing learning content animations and short videos. Staff also built on their live tutor support skills and moved forward with our ‘growth mindset’ approach to learning. This focuses on providing positive feedback to learners, acknowledging effort and challenging with small new learning steps.”*

The project supported Ambios staff in their continuing professional development in a number of areas including skills using different software (as above) and around best practice with leading, participation in and note taking from, online meetings.

The impact on individual staff from the Joint Staff Training is revealed in the following examples of anonymised feedback from the on-line post mobility questionnaire:

- *The areas covered during the training will have an impact on my institution, mainly in terms of transfer of good practice. As I answer this questionnaire I have already passed on some of the information to work colleagues, who found it very relevant for their professional life, namely Training in the Online Classroom: Best practice examples (Doug Lemov). The book we explored in our staff training has already been disseminated in my institution, and some colleagues from the new generation of higher education teachers are interested in exploring and transferring some of this knowledge to their classrooms. JST*
- *"[The]'Training in the Online Classroom: Best practice examples' will certainly help me to improve my communication with higher education students, "WildSkills EU pedagogy - capturing good practice from the VLE project" will help me to produce higher quality content for online learning environments and "In front of the video camera" gave me numerous tools that I intend to explore to improve my skills in producing materials for online learning, which can also be applied in other teaching and communication contexts. This training has been extraordinarily relevant to me." JST*
- *The impact on myself personally was very good, since I learned new teaching methods and consolidated others which will definitely be an advantage in my future work(s). JST*

6. Dissemination and use of project results

Dissemination of project outputs and results was undertaken using professional and social media platforms and on-line and in-person events. Notable highlights include:

A recruitment and dissemination event (14 July 2021) held mid-project which resulted in substantial recruitment to the virtual mobilities for each online course module to be tested. 20 separate Multiplier Events were delivered across the project with multiple events in each partner country reaching 315 students, staff, academic, volunteers and representatives from organisations outside the partnership. While 7 large events were originally scheduled, the logistics of organising such gatherings in a post-Covid19 environment led to these multiple smaller events.

Within the partnership the project results were disseminated to co-workers through both informal and formal meetings and discussions. At formal departmental meetings at the University of Evora and University of Padova and at staff meetings within the partnership NGOs, the success of the project was reported as part of ongoing recognition of the activities of the individuals responsible for delivering the project outputs and outcomes.

Professional media (LinkedIn, EPAL) and social media (Facebook, Twitter) were used to disseminate the outputs of the project around pedagogy and learning delivery. The target audience here were those involved in education and particularly those involved in distance learning.

All partners used their Facebook, Instagram, LinkedIn and Twitter feeds to promote the #WildSkillsEU project at various stages including recruitment to ISPs, distance learning course testing and dissemination of final results. There are over 10,000 'followers' across all partners and all platforms. The feedback from across the platforms was varied with the most interactions occurring either on Facebook (specific posting within subject groups) and on LinkedIn (both a general indication of interest declared through 'likes' and specific feedback 'comment' responses such as 'Loving all of these [the 6 distance learning courses] and such cool logos too. Looking forward to hopefully taking part in the training'. And 'Love this one [Wildlife Journal Making] which really appeals to me.' And 'Can other nationalities join, I would love to join the training.'

Overall, the LinkedIn posts that disseminated the existence of the 6 distance learning courses produced over 3,000 'Impressions'.

The top post (the generic #WildSkillsEU #Erasmusplus call to action to register interests in the outputs of the project) received over 1,300 impressions where (according to LinkedIn data) the top reactions were from Lecturers, Program or Project Manager and Ecologists from a range of 'Industries' including environmental services, higher education, government administration and research services. These dissemination data illustrate the diversity of interest in the courses across a range of practitioners and a range of industries, indicating that the project outcomes reached a wider range of interested parties.

The project also produced two conference papers / posters. The XIII Congresso SISEF poster presented by the University of Padova and co-authored by all key members of staff from the project partnership, was titled "Technical-practical skills and innovative learning methods for nature conservation: the Erasmus+ WildSkills EU project". The poster described the objectives and planned outputs of the project and stated that "In conclusion, the network created by the partners of this project proved to be an ideal environment to consult, share and promote new systems of learning skills in the context of different cultures and realities, confirming that a transnational and interdisciplinary approach is one of the requirements to guarantee a sustainable management of natural resources on a European scale." The conference hosted over 300 students, academics, researchers, politician and technicians from the forest science sector from across Italy and the poster was available to be viewed on all 4 days of the conference attracting (at a conservative estimate) around 150 visitors. Verbal feedback to University of Padova staff at the event was mainly from academics with questions around seeking more detail on the delivery mechanisms for the course. The fact that tree measurement equipment was being sent to learners was of great interest and acknowledged as innovative.

The poster presented at the 22nd Conference of the European Bird Census Council, 4-9 April 2022, Lucerne, Switzerland by the University of Evora and co-authored by all key members of staff from the project partnership, was titled "Birds in education: innovative learning methods for capacity building in nature conservation". The poster described the objectives and planned outputs of the project and stated that "The Birds in Education course is part of the learning materials of the WildSkills EU project. This course will explore ... the basics of bird identification.. how to use birds as environmental education tools, and ... digital tools for bird identification and citizen science.

The course will be tested by higher education students from different backgrounds, aimed at developing skills for the nature conservation sector, and by professionals of the education sector. In the end, this course will contribute to capacity building and to citizen science and has the potential of increasing the public engagement in bird counts, which represents a growing need of many bird conservation organizations." The conference hosted around 250 students, academics and researchers from across Europe. It was estimated at least 200 engaged with this poster with at least 12 direct interactions with the staff team. Verbal feedback given to staff presenting the poster included comments around "this kind of distance learning courses could be important to engage and train new volunteer birdwatchers for monitoring schemes" with a visitor also mentioning that "this approach could be especially important in African countries, where information is scarce and resources for training are limited."

7. Project resources

The project has a dedicated [page](#) on the Ambios Ltd website. Ambios have guaranteed that it will be accessible for at least 2 years post-project and it continues (at the time of writing) to receive expressions of interest in the 6 distance learning courses (a total of 58 new enquires received as of

May 2023). Similarly, the Ambios and University of Evora Virtual Learning Environments, on which the 6 courses sit, are guaranteed to continue to exist for at least 2 years post-project. The Erasmus+ Result Platform has details about how to access both sites in a document WildSkills EU VLE login.

The project helped to purchase equipment and software licenses for learners which now form the an ongoing resource the organisations will use in future delivery of their respective distance learning modules.

8. Carbon Impact and Increased Costs of Travel

It is appropriate to acknowledge the considerable reduction in the carbon impact of this project as a direct results of the Erasmus+ funding of exceptional travel costs. Not only did this funding enable the project to cope with the sudden increase in travel costs from rises in fuel prices associated with the post-Covid19 pandemic and the Ukrainian conflict, it enabled a reduction in overall environmental impact through the provision of overland travel for many of the participants.

As the original application testified; "A lower carbon emission means of transport addresses the concern of the students who increasingly question the need for air travel in the context of its impact of global climate change... It is refreshing that Erasmus+ itself acknowledges this issue through the provision of this budget and the reference to 'low carbon emission means of transport' in the descriptor."

The original project budget made the assumption that overland travel on ISP and JST mobilities would be possible for all partners. In reality, the Portuguese partners were unable to travel overland due to the considerable distances and time costs which would have been involved. Nonetheless, proportionally over three quarters of mobilities were accomplished overland.

The project used the online carbon footprint calculator at carbonfootprint.com to explore the carbon savings from overland travel. The data show the overland travel mobilities saved 19.25 tonnes of CO₂(e), equivalent to 41.2 flights. The Joint Staff Training contributed 7.17 tonnes of CO₂(e) to this total, the remainder (12.08 tonnes of CO₂(e)) being attributable to the Intensive Study Programmes (ISPs) for students. This is a significant project outcome which, it is hoped, will add data to future discussions on the need to support the timelines and costs associated with overland travel as Erasmus+ programmes move forward.

9. Project Legacy

The project leaves a number of significant legacies:

- A well-established network of co-operative partner organisations from both Higher Education and Non-Governmental Organisations (world-of-work) capable of working together to achieve significant outcomes and outputs
- A network of over 100 students who share a common participation in the project
- A range of Continuing Professional Development outcomes for project partner staff
- A set of 6 distance learning courses and their associated resources, fit for purpose and ready for continued roll-out
- A bespoke assessment and e-badge recognition system used by both Higher Education and the world-of-work
- The seed of future course recognition through micro-credits from Higher Education
- Two conference posters and papers that are now embedded within the scientific literature

- A model of delivering Erasmus+ projects and their mobilities with a much reduced carbon-footprint