



Learning Package

**Making European Policy Popular through
Challenge, Learning, Innovation and Cooperation:
An experiment on the European Landscape Convention**



www.e-clicproject.eu



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Introduction

This document is produced thanks to the European Funding Program of the Education and Culture DG Lifelong Learning Programme. Under the acronym E-CLIC, this project aims to change people's perception of EU policies, familiarize people with them and their impact. It seeks to help all European citizens to better understand and assess the policies related to the landscape policies upon their life and everyday activities, with the European Landscape Convention (ELC, 2000) as an example. Partnership is formed by public institutions on the field of education and research, private companies and NGO's, from Estonia, Greece, Spain, Slovenia, Germany and the United Kingdom.

ELC: European relevance and acceptance

It is often argued that the European public is not well informed about the policies introduced by the EU and in this sense, it is not possible to estimate the effect of policies on their lives and the advantages or disadvantages of being a citizen in a member state. A basic right of all citizens is to have a fair knowledge of policies and their implementation, so that they can exercise their prerogative to take advantage of, or express their objections, to policies through legitimate means.

One of these policies is the European Landscape Convention which affects people's environment. Convention has yet to fully translate its principles into strategic pathways and operational actions for effective understanding and implementation by the general public. Despite being published this Convention by the Council of Europe in 2000, it's not until eight years later that the guidelines for the ELC implementation are launched by the Committee of Ministers of the member states, in 2008.

When analysing stage implementation across Europe, evidence reveals that 81% of European countries have signed the convention and some EU Member States have still to ratify it. Among reasons underlying may be the open, flexible and consensus-oriented nature of the ELC (Dejeant-Pons, 2006); having sustainability as a key principle, already wide accepted across Europe (Dejeant-Pons, 2006; Jones et al., 2007) or diverse perception and interpretation of landscapes across European nations and regions (Pedroli et al., 2006).

The aim and goals of the Learning Package

Principles underlying ELC implementation guidelines are very much governance-oriented, underpinning a new governance model which may allow to identify innovative ways to engage social learning, political cooperation and the implementation of the landscape policy.

This Learning Package (LP) is intended to make ELC understandable, by analysing specific examples which may allow to show how policy affects citizens' day-to-day life depending on the action realized. More specifically, the LP aims to:

- Make user's easier to understand how policies affect people's life;
- promote public awareness of ELC and attract the active participation of people on its assessment;
- familiarize the learner with ICT methods and tools to be used when learning about ELC;
- learner becomes active by creating its own learning material.

Users of this LP are encouraged to expand source engines creating their own learning materials by using either examples from a library of ICT resources, best practice examples as well as winning proposals of innovative ICT tools landscape oriented. Through cooperation and using innovative skills, languages and tools can provide advantages and disadvantages of any action made, in order to choose a better solution for maximum number of people.

Learning products can be directly used to raise awareness or to be taken as a basis for new learning material focused on specific landscape challenge, policy or region. These are addressed to three different target groups:

- Schools
- Higher education centres
- Other institutions (i.e. adult education centres, NGOs)

Products contained are thought to be used on an active learning environment. To construct the content meaning through discussions, making questions and answering, listening, immersing on a communication process. This is, using learning by dialogue techniques on a class context or within an informal education scenario. Game-based learning is also presented as an effective mechanism to promote active participation, increase learners interaction and development of their own learning material, with special focus on the use of ICT tools which contribute to a more stimulating and productive learning, not only in informal but also formal learning scenarios.

Using the Learning Package

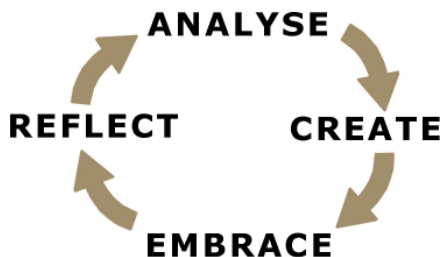
This learning package is divided in two parts. First one is oriented to learning facilitators and teachers. Within a pedagogical approach, intended learning methodologies to be used are presented, followed by learning objectives and outcomes defined for each target group.

Second part is built up of three learning modules, which can be used self-independent or on a broader sense, connecting learning approaches addressed on each one.

MODULE'S STRUCTURE

Going through all these learning modules, learner would be able to:

- Reflect: about the importance ELC
- Analyse: the impact of European policies, with special focus on ELC, on every-day life
- Create: knowledge related. Each user will be able to create their own knowledge, according to their needs.
- Embrace: integrated knowledge acquired on everyday activities and way of life. Becoming more sensible with landscape.



Learning modules are presented containing the following structure:

Outcomes: where the learner may find what will be able to do at the completion of that module.

Purpose: containing the learning objective of the module.

Aims: describes what the module is intended for.

Learning contents: in this section appears the core of the module. Going through it the learner may acquire the main learning inputs related to the purpose and aims of the module.

Final remarks: try to synthesise main ideas and key aspects of the module and are presented as kind of conclusions.

Tasks: propose some activities ideas related to the learning contents. They are intended to be further developed and worked out either by the facilitator and/or the learner himself.

Outcomes

Learning contents

Final remarks

Tasks

<p>Outcomes</p> <p>At the completion of this module, you will be able to:</p> <ul style="list-style-type: none"> • Assess needs and measure them in the implementation of European policies regarding landscapes • Assess how different policies affect landscapes • Assess the advantages of the appearance of EEC <p>Purpose</p> <p>The learning objective of this module is to show how the implementation of the EEC in the European landscape creates the effect of the meeting time and regulation in terms of landscape. It needs to demonstrate how the entry into force of EEC has helped to improve landscape regulations by modifying the existing time or creating new ones based on the change.</p> <p>Aims</p> <ul style="list-style-type: none"> • To facilitate people with the concept of landscape and the basic principles of the EEC governance, management and planning. • To present different implementations of the EEC across different landscape conditions. • To show how policies in each country can affect different landscapes (regional or local) depending on the particular administrative structure of each country. • To represent the concept "Planning and policy" landscape and studies through different case studies. • To enhance people's capacity for being engaged in policy development and implementation decisions. • To research quality and sustainability of the ideas of the "EEC: from theory to practice" during the meeting time. 	<p>LEARNING CONTENTS</p> <p>The European Landscape Convention (ELC) is a document agreed in Florence October 2000 which is considered as the first time in Europe regarding the landscape.</p> <p>"Landscape protection" refers to ensuring that measures that regulate or characterize the form of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity.</p> <p>"Landscape management" refers to the management of landscape development to ensure the regular nature of a landscape, as it is to public and landscape changes, which are brought about by economic, social and environmental processes.</p> <p>"Landscape planning" refers to the management of landscape changes, which are brought about by economic, social and environmental processes.</p> <p>The European Countries signing the European Landscape Convention (ELC) agreed to harmonize the implementation of EEC with their own policies. This "harmonization" should be done in the different administrative levels according to the administrative structure and division of powers in each country. Because of the flexibility and responsibility given by the Council of Europe to the EEC parties, there are differences in the way the Convention is implemented across Europe. Studies can also show when some of the general guiding principles of EEC don't apply because of individual national or regional policy framework differences.</p> <p>Some countries (Scotland in the United Kingdom, Estonia, Slovenia, Hungary, Greece, Spain and Germany) have been selected in order to obtain an overview of how these principles and recent regulations have been effectively implemented across national and regional policy frameworks and regions.</p>	<p>FINAL REMARKS</p> <p>According to the objectives of the landscape policy, several experiences that have been carried out in the EEC project, there are different ways of implementation of the EEC depending on each country or even the regions of a same country.</p> <p>Reasons for EEC adoption differences across countries</p> <ul style="list-style-type: none"> • Lack of common agreement on a common EEC framework, due to its optional nature. • Available development in law or region, which is already widely accepted within the public and European territory. • Difficulty of finding a common agreement on an environment-related policy considering cultural, historical, and economic differences of European countries. • Landscape implementation varies across European regions and regions. <p>Source: Dupont-Ferns, 2006; Jones et al., 2007; Jermolaitis et al., 2012; Pothier et al., 2008.</p> <p>Some landscape-related documents, policies or guidelines, have been approved after countries had signed the EEC.</p> <p>Landscape hasn't been the most subject of currently active policies, planning instruments and regulations across Europe, although the system is showing after the ratification of the EEC by the different countries.</p> <p>When plans after the EEC was launched, it still remains a need for political authorities to address key issues for the implementation of objectives, including the role of the public, action policy instruments, institutional levels and spatial scales.</p> <p>Most of the policy and planning instruments operate at the national level, although some countries, such as Spain, define and approve most of their landscape-related policies at regional or local levels.</p>	<p>At present, there is a geographic gradient, northwards to southwards across Europe with a planning role for the public in order and planning through indicators such as awareness raising, public participation and the role of mobility.</p> <p>Task</p> <p>1. The public participation has a long history in the EEC. The role of the public and policies mean that in the recent 10 years it has been a subject of research and public participation processes and plans.</p> <p>1.1. Assess the role of the government and public sector. Do you think there is an agreement in the results of the landscape policy and the public participation? Which are the reasons?</p> <p>1.2. Discuss an example. Whether the basic principles of the EEC are applied what are the reasons given by the government and public sector?</p> <p>1.3. After meeting time, how can people contribute to the EEC? How can you create and use the EEC in your own country?</p> <p>2. Look at the previous presentation to the meeting and fill in the questions with a number of your country. The main question is: How can the EEC be related to the public and the government?</p> <p>3. Look at the meeting time and discuss the different approaches to the public of the EEC. Public participation. What has happened and why? What are the reasons and the differences?</p>
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Purpose

Aims

Teaching Module

**1. CONCEPTUAL AND PEDAGOGICAL APPROACH TO LEARNING MATERIALS:
LEARNING BY DIALOGUE, LEARNING BY PLAYING AND LEARNING AND ICT
TOOLS**

2. LEARNING OBJECTIVES FOR THE DIFFERENT TARGET LEARNERS

1. CONCEPTUAL AND PEDAGOGICAL APPROACH TO LEARNING MATERIALS: LEARNING BY DIALOGUE, LEARNING BY PLAYING AND LEARNING AND ICT TOOLS

Learning is primarily a process that helps to the modification of the behavior or understanding, instead of a quantitative increase in knowledge or storing of information to be reproduced. In this section we address three different learning methodologies of active learning from a pedagogical approach: learning by dialogue, learning by playing and learning and ICT tools. As evidence suggest, active learning help students to feel more engaged within the learning environment, increases learners participation and discussions which build up knowledge. We analyse below each approach with their main advantages.

Learning by dialogue

Dialogue can be thought as a vehicle for a process of joint inquiry through which learners construct meaning. Far from traditional speaking-listening practices, where teachers control discussion, guiding dialogue by asking relevant questions, repeating answers given and offering praise, progression has been done on linking topics to be taught and four strands: speaking, listening, group discussion and drama. These bring in a new teaching concept, which reveals a relationship between speaking, listening and learning.

speaking listening group discussion drama

Dialogue is a communication process where ideas are bounced back and forth, participants are all equal, in the same position, on their attempt to construct knowledge through this process of “thinking exchange”. Next to the traditional speaking-listening practices mentioned, with teachers’ questions eliciting brief responses from students, literature suggests that dialogue talk has revealed a type of interaction, which makes substantial and significant contributions, both to teachers and students. Dialogic teaching characterizes by comparatively lengthy interactions between a teacher and a students’ group of collaboration and mutual support. These interactions can occur in a class context, on a group or one to one learning activities which are to build understanding, explore ideas and practise thinking through and expressing concepts.

This new approach demands some changes in the traditional ways of interaction between teachers and learners, and between learners themselves. Oral exploration of ideas bring on board collaborative nature of meaning making. Existing range of spoken language makes important the repertoire to be used effectively depending on the context. Role-play and drama techniques with spoken language help to learn which repertoire is most effective on which context.

Martin Buber (1878 – 1965).

Philosopher. His thinking is based upon me-you relationship. On this relation between two agents, language becomes central. With his philosophy of dialogue he becomes one of the former contributors to the development of the learning by dialogue. He focused his reflections on human relations, setting the ground for future applications on learning methods.

Source: www.buber.de

Donald A. Schon (1930 – 1997)

Philosopher and Doctor. After a remarkable professional career on Philosophy teaching, it's perceived an increasing interest of Dr. Schon towards topics related to professional learning or learning process in organizations, from early 80s onwards.

He explored the nature of learning systems and the significance of learning in changing societies (together with R. M. Hutchins; A. Etzioni; T. Husen). It's on his theorizing on the leaning society and the learning Organization that he describe learning systems.

Dialogue as a tool for a better engagement with the *learning society* and *learning Organization*, as part of the reflection-in-action on language of education today.

Source: www.infed.org

Under this reasoning, questions raised by teachers may be used to drive learner's attention to a specific aspect, enabling them to reflect, develop and extend their learning. Therefore, questioning can be used to lead learners through a line of reasoning by responding to their answers. It may happen to be a more time consuming technique but allows addressing individual learning needs depending on the answer given.

When exploratory talk occurs, we may find situations where speakers listen to each other thinking aloud: hypothesising and speculating. People use tentative speaking with words such as 'perhaps', 'if', 'probably', and give reasons to support their ideas, even seeking support from the rest of the group. On these situations we might be working in small groups, with participants sharing a problem and constructing the meaning together; exchanging ideas and opinions, considering and evaluating each other's ideas, building up shared knowledge and understanding the problem by collaboration between equals. For explanatory talk to be effective, speakers have to talk one by one, understand and share the aims of the talk. Very often, ground rules for discussion might be set, for the discussion to achieve success and develop new ways of thinking. These rules are to do with active listening, thoughtful speaking and respectful collaboration.

BOX 1: Talk in small groups: a classification game

This is a game example to be done for players to learn on a problem-solving situation through collaborative talk:

- Give each group plenty of small pieces of paper and a topic each – animals, plants, food, TV programmes. Each group should not know the topic titles you have given to the other groups.
- Each group writes down examples of the category on the separate pieces of paper. For example, the animals group would write down the name of an animal on each piece of paper.
- The group sorts and then classifies the names. *You would need to ask the group why they have organised their examples in this way.*
- Exchange papers with another group. *Will this group classify differently? Can they guess the title you gave the other group?*

Learning by playing

Game-based learning importance, either in formal and informal scenarios, has been increasing related to the widespread use of commercial games in the past few years. Literature and different empirical studies favour game-based learning when compared to traditional learning methods in terms of learning efficacy, addressing user expectations of high fidelity games and ‘immersive experiences’.

Increasing motivation of learners and their ability to provide personalised approaches are some of the main strengths of game-based learning. Yet, some empirical research reveal the importance of games as tools for supporting socially based learning, or social interactive learning.

Game-based learning used effectively has considerable benefits, but as studies have shown, its use with learners who generally enjoy learning through games is most effective. With this, its most effective uses may need to be differentiated according to learners’ specific needs and requirements (e.g. according to learning level, competencies and skills) in addition to the use of game-based learning in a blended learning environment. Motivation is a key aspect of effective learning, but for effective learning to take place, such motivation needs to be sustained with assistive methods such as feedback, reflection and active involvement. Game-based learning offers a particular strength with respect to motivating users. In addition, this type of learning offers the potential to integrate different cognitive tools, such as discussion forums, bulletin boards and concept mapping software. Furthermore, it promotes collaborative learning.

Modern approaches of game-based learning are very often built on applications that have defined learning outcomes and are designed to promote active participation and interaction, balancing the subject matter with the game play, so as to enhance the ability of the learner to retain and apply the knowledge gained to the real world.

This type of learning we are referring to allows learners to indirectly experience the real world, either creating simulated environments and developing their awareness of consequentiality through doing and experiencing.

Role-play is considered a wide-accepted learning technique for engaging individuals in a problem-solving space, which immerse participants into the simulated virtual environment, through a series of structural tasks. Among others, role-play has been used for predicting outcomes, war-gaming, team building or training.

BOX 2: Learning through role-playing

British government has set up a virtual game on climate change. It engages population in a role-playing on their functions as policy makers on climate change challenge. This virtual game is free, accessible at BBC website and easy to use for general public.

Link: http://www.bbc.co.uk/sn/hottopics/climatechange/climate_challenge/

Openwonderland is a tool to build a virtual world. It allows creating environments, collaborative business applications, or interactive, multi-user simulations. It's designed to be used by people familiar with Java programming language but its interface makes virtual environment design friendly.

Link: <http://openwonderland.org/>

Within formal education, game-based learning is considered an “effective way of reaching students who haven’t responded to conventional teaching methods”, and a way to “get gifted students to apply critical-thinking, problem-solving, and other higher-level skills to subjects they already know”. Moreover, for an effective learning it becomes determinant that learning is congruent to the lifestyle of the learner. It’s in this sense that games usually meet this prerequisite since most of young people spend at least some of their time playing games.

“Game-based learning encourages players to first learn about the environment of the game and then learn about the subject matter taught through gameplay. From a pedagogic perspective, well-designed games

have different learning theories integrated in the design and take advantage of their characteristics. These pedagogic approaches include Problem-Based Learning (PBL), as well as contextual and experiential learning models”.

Learning and ICT tools

ICT are often used to improve learning at schools. When talking about formal education, evidence suggests good ICT sources, well used, enhance performance at schools and high schools. Learning is a complex process and the benefits obtained from the use of ICT through the learning process can be understood following four instructional principles, which promote it (Barak, 2006):

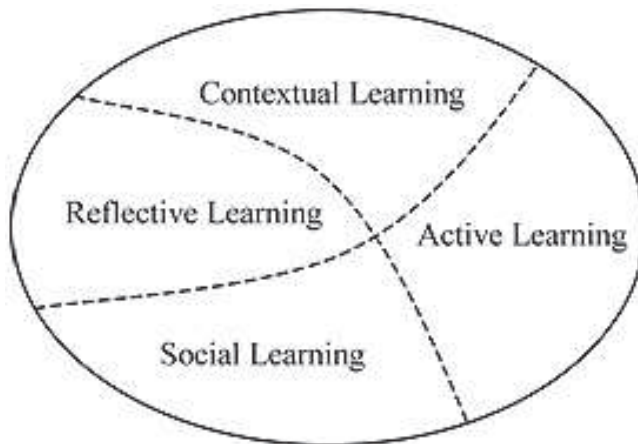
1. Learning is **contextual**. Knowledge is acquired within a specific context and activity from which cannot be separated. The use of technologies help to simulate real-life learning scenarios, such as classrooms or business. The use of forums or even e-mail exchange can be good examples of these on-line learning, suitable for university students.

2. Learning is an **active process**. People learn better through their own experience rather than accepting information provided by others. Computer technologies contribute to build up an active learning online environment with activities demanding creativity, decision-making and problem solving from the user. In the case for schoolchildren, learning units on virtual platforms within a specific subject benefit both pupils and teachers from class discussions. At university level, scientific articles, reports, models or even technological aircrafts may apply.

3. Learning is a **social process**. Learning is closely related to the exchange and interaction process with others (teachers, peers, family): discourse, question-answer; and ICT offer a big opportunity for thinking exchange and knowledge construction through the net. Win-win situations coming up from helping one another, cooperating, collaborating, and technology provides new communication channels between people not face-to-face.

4. **Reflective practice** plays a central role in learning. For students to learn from experience, reflect on their own experience becomes crucial. The thinking process follows these steps: understanding the problem, observe the conditions, formation and rational elaboration of a suggested conclusion, and active experimental testing. Studies show that combining online learning and traditional classes, face-to-face, facilitate reflection situations where learning occurs.

The following figure illustrates it:



Source: Barak, 2006

For a great success of learning through ICT, not only suitable electronic devices, software, maintenance support services or suitable network connections are needed. Head teacher should lead this process by creating a suitable and challenging environment for its implementation and teachers have to be properly trained, professionally developed and motivated for this commitment.

British institutions with competences related to education (Telford and Wrekin Education Authority; British Educational Communications and Technology Agency), outlined the necessary conditions for the successful implementation of ICT. All are critically dependent upon teachers' commitment they need to be emotionally involved:

- level and type of pupil and teacher ICT training and skills
- pedagogical awareness among staff
- staff attitude towards ICT
- the integration into classroom practice and existing teacher interventions
- pre-use and planning
- school ethos
- technical support, resources management and infrastructure
- establishing clear learning and curriculum objectives

Bring in ICT on the educational process makes children and youth learning process more stimulating and productive, gives them skills which may increase their life chances in the future. More specifically, ICT can enhance pupils' learning in the following ways:

Positive impact of ICT:

Motivation and enthusiasms, makes them wanting to learn and be exciting; learning independence, learn ICT skills not specific to the learning focus; independent exploration which allow children to develop different skills according to the program used; interactive: brings learning to life, allows virtual movement where mistakes can easily be undone; can accommodate a whole range of teaching styles; rapid feedback; better preparation of lessons (i.e. in subject knowledge); autonomy; coordination skills; confidence; increase in interactive responses: encourages students to listen and learn from each other; strong visual and aural elements, helps maintain children's attention; provides what the teacher cannot (i.e. animation); overcomes writing dislike to those reluctant to do so on paper; cross-curricular connections; spell checks can improve work and highlight errors; ICT as research tool: can read a wide range of challenging texts, engage students to reflect on their scientific ideas, to be critic with the existing scientific information available; scaffold students to explain their ideas (Goodison, 2002).

Among the negativ-e impacts of ICT to be highlighted:

Negative impact of ICT:

Needs focus and targets; ICT may become the focus (graphics, animations) at the expense of intended outcome (area being studied); children become reliant on it and motivated by it against the use of other methods; technical difficulties (i.e. software above their ability, login process) which can be time-wasting and frustrating for students; it negatively impacts on handwriting learning; lots to choose from may slow them down; technology must be adequate; loss time when not working properly (Goodison, 2002).

These evidence the need to subordinate the medium, the tool, to the educational objective to be pursued.

For teachers working creatively, incorporating the use of ICT can enhance students learning when integrated on their pedagogical practice.

Way students use ICT inside class is influenced by learning experiences they've acquired inside and outside the class. Considering that students actively construct knowledge drawing on what they already know and believe, teacher has to play an important role on to draw their attention to features and previously they did not, new and relevant for the specific concept. Students, when working with computers, either know what to do, or are motivated to find out, depending on subject areas.

ICT are being increasingly used as mechanisms for students to share their knowledge. These offer opportunities to share their work, in process and as final performances, to the whole class, at the end of the project. These practices allow for ideas and knowledge exchange between them, increasing debates and provide feedback to the teacher on students' ideas and expertise. In this sense, the teacher abandons its role of knowledge provider and leads the knowledge process and creates the suitable learning environment instead, where creativity and experience play a major role.

Wide debate exists whether ICT capability (knowledge, skills and processes), particularly at the age interval 11-14, should be developed through teaching ICT as a separate subject or through using ICT in an integrated way across the curriculum.

Different research studies reveal that, when teachers are able to properly embed ICT within the subject, they can use ICT tools to transform their own knowledge on this area and develop, expand and adjust their teaching procedure. With these initiatives, teacher engage with new techniques, students are much more motivated and new learning possibilities open up for them. Using these tools have been found to be helpful on drawing student attention to the learning content of the lesson rather than the communicator. They provide rapid feedback, which support construction of knowledge. In this context, it seems important to highlight knowledge is not embedded into the software but is the knowledge environment, discussions emerging, interaction between agents, generated by the teacher that eases the way for learning. Depending on the way the tool is used, a different learning result will be obtained.

Following the rationale above, ICT tools may best contribute to learning in formal education in secondary school students and when considering informal education, it may be suitable for general public, considering the stimulating features of these tools on creating a challenging and dynamic learning environment, with the different possibilities for creating new environments, new experiences and new learning ways ICT offers. In this context of informal learning, ICT needs to be adapted, configured and used to promote the playful aspects of learning. ICT should be attractive to players involved by offering possibilities of creating new environments, experiences and ways to enjoy the different scenarios created.

BOX 3: Learning environment and science with ICT

CosmoCaixa Barcelona is a science museum design for enjoying through learning the environment and science. Ten years after opening doors, the museum is going to install interactive models, sculptures, machines and experimental structures, for discovering and understanding the elements of nature scientifically. ICT inclusion in the museum has turned a reference interactive museum in Europe. On its attempt to stimulate citizens to learn about science innovative and participative initiatives are carried out with a wide digital and technological offer, encouraging creative technologies and exploring new learning models.

http://obrasocial.lacaixa.es/nuestroscentros/cosmoaixabarcelona/cosmoaixabarcelona_ca.html

Space Signpost. This interactive device allows navigating the cosmos on the terms the learner decides. It's a physical signpost the learner can turn and point to any selected object in the spaces in its real-time location. The digital touch-screen provides information about the selected object, and offers the user a range of different options for interacting with three-dimensional representations of objects within the solar system. Because of its designed installation, it can be located in an outdoor public space to be used by a full range of public.

<http://www.spacesignpost.com/>

2. LEARNING OBJECTIVES FOR THE DIFFERENT TARGET LEARNERS

In this section are described the learning objectives to be acquired by the three target groups this learning package is intended for. This learning objectives may guide the facilitator when preparing the learning activities for the different audience so as to know which the goals to be achieved are.

Table 1 - LEARNING OBJECTIVES/OUTCOMES			
	Secondary school students (EGF Levels 2, 3, 4 & 5)	University students and Lecturers (EGF Levels 6, 7 & 8)	Life Long Learning (transversal to EQF levels)
Knowledge	<ul style="list-style-type: none"> • Initial awareness of the importance and significance of daily landscapes and their influence on the quality of life of citizens. • Capacity for the initial discernment of the causal relations between landscape form and processes. • Understanding of the inscription of landscape among other branches of knowledge. • Basic knowledge of the legal and planning framework for landscape intervention. 	<ul style="list-style-type: none"> • Increased awareness of the significance of landscapes and related concepts (quality, complexity, coherence...) • Understanding of the complex socio-ecological processes and dynamics of landscape change. • Understanding of the complex inter- and trans-disciplinary nature of landscape processes and concepts, and of its implications for managing and planning landscape change and de-gradation. • Knowledge of the legal and planning framework for landscape intervention. 	<ul style="list-style-type: none"> • Understanding of detailed aspects of local and expert components of landscapes to help increase awareness of the importance of daily and local landscapes. • Empirical and experiential knowledge of the diverse stakeholders, pressures and responses influencing local landscape change and values, including subjective components. • Knowledge of the local and relevant legal, planning and governance issues for landscape change and protection, both explicit and implicit.

Skills	<ul style="list-style-type: none"> • Use of ICT tools to perform and facilitate direct observation of landscapes (being able to read and describe a landscape). • Use of ICT tools for the basic representation of landscape components, processes and dynamics. • Use of ICT Tools to help develop a proactive attitude (coming up with proposals and solutions) towards the intervention on landscapes. 	<ul style="list-style-type: none"> • Use of ICT tools to perform integrated Landscape surveys and assessments. • Use of ICT tools for the visual modelling and representation of changes and impacts of interventions in landscapes (including the generation of scenarios of landscape change). • Use of ICT Tools to help develop a proactive attitude (coming up with proposals and solutions) towards the intervention on landscapes. 	<ul style="list-style-type: none"> • Use of ICT tools to represent the key components and pressures that take place over daily landscapes. • Use of ICT tools to help incorporate expert and lay knowledge into the landscape planning, management and protection policy process. • Use of ICT Tools to help develop a proactive attitude (coming up with proposals and solutions) towards the intervention on landscapes.
Understanding/Competences	<ul style="list-style-type: none"> • Propose technically advanced (ICT- based) solutions to improve understanding of structure, dynamics and effects of interventions on landscapes, working individually or in teams, and under supervision of teachers. 	<ul style="list-style-type: none"> • Propose technically advanced (ICT- based) solutions to improve understanding of structure, dynamics and effects of interventions on landscapes, working individually or in teams within an independent research and learning environment. 	<ul style="list-style-type: none"> • Propose technical solutions (ICT-based) of relevance for the intervention on and understanding of local landscape dynamics through tools related to management, planning and conservation, working in teams or individually.
Source: E-CLIC partnership elaboration.			

FINAL REMARKS

Learning by dialogue is a process where learners construct meaning through discussions, making questions and answering, listening, immersing on a communication process.

Within a class context, learning by dialogue constitutes a new approach which demands some changes in the traditional teacher-learner interaction.

Learning by playing has demonstrated to have high efficacy, either in formal and informal scenarios, especially with young people who, most of them, devote some of their time playing.

Game-based learning promotes active participation, interaction and development of players' awareness of consequentiality through doing and experiencing.

Use of ICT tools has improved learning at schools and high-schools, making educational process more stimulating and productive, but for a great success of learning with ICT tools on formal learning scenarios, teachers' commitment with the ICT implementation becomes central.

Learning Module 1

THE ELC AND ITS IMPLEMENTATION IN COUNTRIES AND REGIONS OF THE EU

Outcomes

At the completion of this module, you will be able to:

- Be more aware and more active in the implementation of European policies regarding landscape.
- Detect how different policies affect landscape.
- Transmit the advantages of the appearance of ELC.

Purpose

The learning objective of this module is to show how the implementation of the ELC in the different European countries has affected the existing laws and regulations in terms of landscape. It wants to demonstrate how the entry into force of ELC has helped to improve landscape regulations by modifying the existing laws or creating new ones focused on landscape.

Aims

- To familiarise people with the concept of landscape and the three basic principles of the ELC (protection, management and planning).
- To present different implementations of the ELC around different European Countries.
- To show how policies in each country can affect to different scales (national, regional or local) depending on its particular administrative structure of competences
- To represent the diverse “planning and policy” cultures and models through different case studies.
- To enhance people’s capacity for being engaged in policy development and implementation decisions.
- To transmit quickly and attractively the main ideas of the “ELC Issues Review Report” done during the running E-Clic Project.

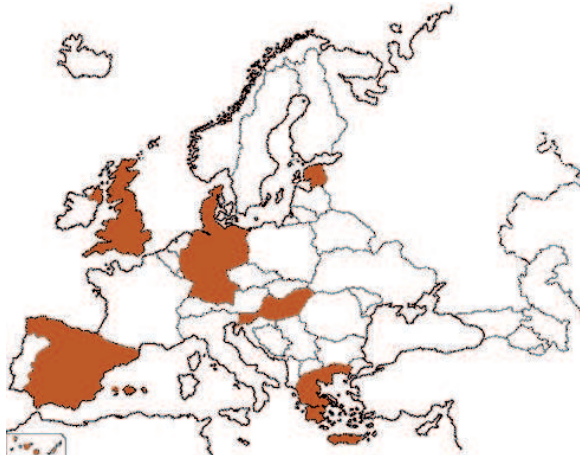
LEARNING CONTENTS

The European Landscape Convention (ELC) is a document agreed in Florence October 2000 which is focused on the next three principles regarding the landscape:

- *“Landscape protection”*: actions to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity.
- *“Landscape management”*: action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to guide and harmonize changes which are brought about by social, economic and environmental processes.
- *“Landscape planning”*: strong forward-looking action to enhance, restore or create landscapes.

The European Countries signing the European Landscape Convention (ELC) agreed to harmonize the implementation of ELC with their own policies. This “harmonization” should be done at the different administrative levels according to the administrative structure and division of powers in each country. Because of this flexibility and responsibility given by the Council of Europe to the ELC parties, there are differences in the way the Convention is implemented across Europe. Tensions can also exist when some of the generic guiding principles of ELC clash with features of individual, national or regional, policy framework and regimes.

Some countries (Scotland in the United Kingdom, Estonia, Slovenia, Hungary, Greece, Spain and Germany)¹ have been selected in order to obtain an overview of how these principles and recommendations have been differently implemented across national and regional policy frameworks and regimes.



¹. Countries from the E-CLIC Project partners.



CASE STUDY 1: SCOTLAND (UNITED KINGDOM)

Ratification of ELC: 21/11/2006

Scotland is a region with an autonomous planning policy framework, which needed more than five years to adapt its national political and planning framework to the ELC (Planning Act Scotland 2006, Scotland's Land Use Strategy, 2011, National Planning Framework 2, 2009 and Scotland Planning Policy, 2010).

The consideration in these documents of landscape actions that combine functions of protection, management and planning has added value to pre-existing landscape policies, that was mainly directed towards valuable and outstanding landscapes.

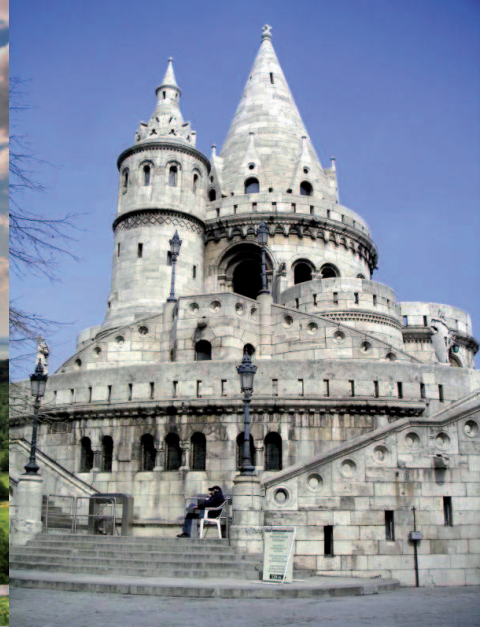
LAW: "Land Use Strategy (LUS) for Scotland (laid before the Scottish Parliament by the Scottish members on 17th March 2011 in pursuance of Section 57 of the Climate Change (Scotland) Act 2009".

Level: Regional (Scotland).

Type of policy: Cross-sectorial policy with references to landscape under several topics.

Types of landscape affected: All types, from artificial areas to semi-natural vegetation.

Description: The LUS sets out an agenda for public, private and third sector alike, guiding a Scottish approach to land use. It seeks to ensure that Scottish people can support and participate on achieving sustainable land use across Scotland; optimizing the way land is used and ensuring it continues to provide the benefits Scotland needs, now and in the future. The LUS has produced a series of documents aimed at monitoring and guiding its effective implementation: a guide and action plan (Scottish Government, 2011b), an information note for community planning partnerships focused on applying an ecosystems approach to land use (Scottish Government, 2012a), and annual progress statements (Scottish Government, 2012b). Its strategy sets out a long-term vision towards 2050 with clear objectives relating to economic prosperity, environmental quality and communities.



CASE STUDY 2: HUNGARY

Ratification of ELC: 25/10/2007

The implementation in this country it's most frequently incorporated by policies such as those relating to forestry, nature conservation or mining. Other implementation mechanisms are the bi-annual landscape award competition which values the actions done by a municipality, an association of administrations or civil society organisations for the protection and good management of a landscape. The most important policy in relation to the Hungarian landscape was previous to the ELC and was the partial inclusion of landscape protection in the nature conservation law from 1996 (LII. law).

LAW: "Regional Development" law (RDL) XXI/1996".

Level: National.

Type of policy: Cross-sectorial policy, which sets the framework of territorial development with direct implications to landscape development and planning.

Types of landscape affected: All types of landscapes in Hungary as it provides the framework for the regional development across the whole country

Description: The main purpose of the RDL is to set key tasks, and establish rules for regional development and spatial planning, including the definition of the institutional system linked to the implementation. This Act covers regional development matters on national and regional levels. The RDL is relevant to legal entities and individuals, but also to others that lack legal status.



CASE STUDY 3: SLOVENIA

Ratification of ELC: 25/09/2003.

There is no specific landscape policy document in Slovenia. Landscape is not mentioned in the National Constitution and therefore it is not a subject of the basic civil law framework. Thus, the term landscape is mainly dispersed across other policy areas, including spatial planning, nature conservation, cultural heritage conservation and rural development.

Additionally, “Although there are no regional authorities in Slovenia, there are 12 statistical (functional) regions, which represent the basis for the implementation of national balanced regional development policy”. These regions prepare regional development programs, which have to be confirmed by the governmental office responsible for regional development. (Council of Europe, 2008).

LAW: “The Spatial Development Strategy of Slovenia (2004)”.

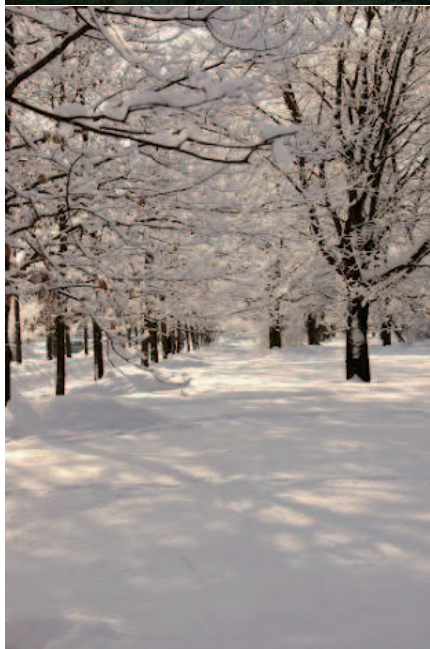
Level: National.

Type of policy: Cross-sectorial policy with a landscape focus

Types of landscape affected: All types of landscapes (based on State of the Environment Report No 1/2010, from the European Environment Agency)

Description: It is the main strategic spatial development document, setting basic objectives, priorities and guidelines for development and protection of land. In addition to settlements and infrastructure, landscape development is one of the three integrated systems of spatial development policy. One of the main objectives set by the spatial development policy is to preserve and develop the recognizable features of an area. In addition to the preservation of the cultural heritage and identity of Slovenian settlements, the strategy defines and determines “recognizable landscape areas at the national level” (71 areas), which provide a basis for further spatial planning at the local level, for tourist programs and the development of protective measures (MOP, 2010).

At local level, municipalities have responsibilities for spatial planning and management on their territory. Spatial development is regulated through spatial planning documents, which include landscape, following the guidelines from policy documents and of national institutions which collaborate in the process of preparation of municipal spatial planning documents as stakeholders.



CASE STUDY 4: ESTONIA

Ratification of ELC: It hasn't been ratified.

Estonia is part of a Northeastern natural/cultural context within Europe, which underwent several changes on its landscape during the last century due to the formation of contradicting political interests.

However, there are some policies affecting landscape focused on the three terms of ELC: Protection, Management and Planning.

LAW: "Estonian Rural Development Plan 2007-2013".

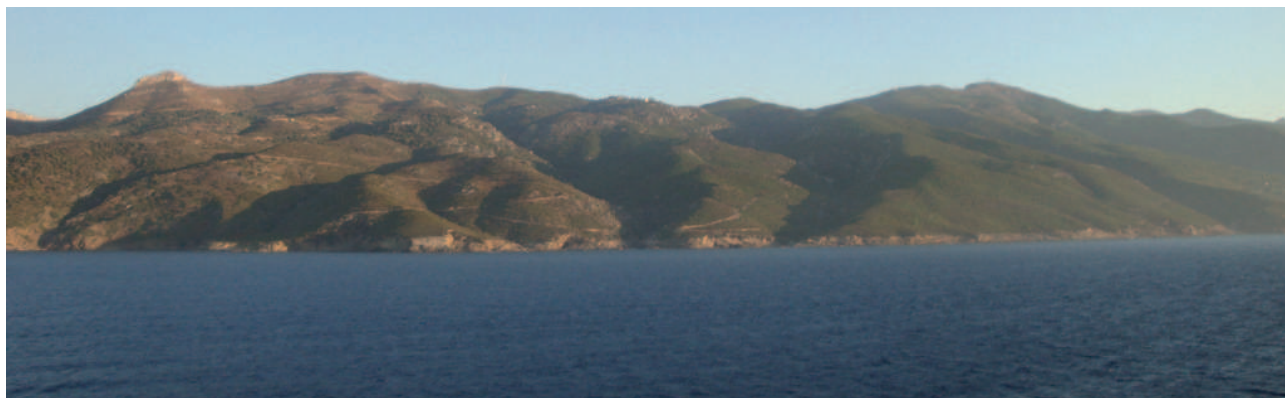
Level: National.

Type of policy: Sectorial policy with landscape implications.

Types of landscape affected: Rural & agricultural landscapes; NATURA protection areas, semi-natural landscapes and forest landscapes.

Description: It sets the following goals affecting landscape:

1. In the forestry sector the objective is to raise the long-term competitiveness of forestry to a level, which ensures the restoration of forest potential in damaged by natural disasters and fires and establish relevant preventive actions;
2. Applied farming practices should ensure a stable status of the environment and agricultural land use should also be guaranteed in the regions where it is important for shaping traditional landscapes and for the preservation of high nature value areas;
3. The development plan foresees training activities, advisory support, modernization of agricultural holdings, NATURA 2000 support for agricultural land, and funding measure (Leader-measure).



CASE STUDY 5: GREECE

Ratification of ELC: 17/05/2010

Before the ratification, Landscape was viewed as a complementary parameter; its affecting policies were scattered articles within many different policies, which were mainly focused on management and protection; and there were only considered landscapes of outstanding natural or cultural significance.

The first law approved after the ratification (Law 3937/2010) provides that ordinary or degraded landscapes are also included to be legislated, there are specific measures regarding citizens' engagement as well as awareness rising and education/training or emphasize on landscape elements to be protected.

With the ratification, it was committed to: introduce landscape as a horizontal concept valid at every level of planning; ensure active public participation in policy making, as well as the formulation of landscape objectives; and create a new administrative system at a central and regional level, in order to allow the effective implementation.

LAW: "Conservation of Biodiversity, Law 3937/2010"

Level: National.

Type of policy: Cross-sectorial policy with a focus to biodiversity.

Types of landscape affected: Based on ELC, there is no discrimination between landscapes of outstanding beauty and ordinary or deteriorated landscapes.

Description: Landscape is referred as a separate parameter and, in accordance with biodiversity and nature, is protected and maintained, in order that all the natural processes and resources are ensured, that the balance and evolution of ecosystems is achieved, and that the diversity, distinctiveness or uniqueness is secured. For the first time, there is a reference to landscape structural elements, especially for their protection in the agricultural landscape. There is an emphasis on protected landscape elements as parts or components of the landscape with special ecological, aesthetic and cultural value, or which contribute to the protection of natural resources, due to particular natural or manmade characteristics. This Law is the first attempt by the Greek State to incorporate into legislation the principles and measures of the ELC.



CASE STUDY 6: SPAIN

Ratification of ELC: 26/11/2007

In Spain, certain political and legal responsibilities were decentralized and devolved to the regional governments, following the approval of the Spanish Constitution in 1978. One of these is the spatial planning. Spain has, at a national level, a comprehensive legislative framework. The Land Law 2008 sets basic principles and a strategic framework to guide the regional and sub-regional legislation to be approved by each Regional Government, to legislate land development and spatial planning in their region.

Before the ratification done at national level, ELC had already been ratified by two regional governments (Comunitat Valenciana in 2004 and Catalonia in 2005). Only one more regional government (Galicia) has approved its specific landscape legislation since the Spanish ELC ratification. So far, only three regions out of seventeen have produced specific legislation on landscape, all based on the ELC (2000).

LAW: Decree 120/2006, August 11th, 2006, of the Consell, by which it is approved the Regulation of landscape of the Comunitat Valenciana. [2006/9858]

Level: Regional

Type of policy: Cross-sectorial policy with a landscape focus.

Types of landscape affected: Its scope includes all natural areas, urban areas, peri-urban and rural areas and reaches all areas of land and coastline. It concerns all remarkable landscapes as both the common and degraded.

Description: The Regulation has three main objectives: a) To regulate the actions of protection, management and planning of landscapes from Valencia through landscape instruments; b) To integrate and to preserve scenic values so that they are compatible with everyday use, with creativity and with the improvement of their conditions; and c) To organize cooperation between administration bodies and between territorial administrations of the Comunitat Valenciana.

It also introduces the use of public participation processes with the objectives of: a) Increasing the transparency of administration actions in landscape and achieve greater viability of the project, involving stakeholders from the origin of space management; b) Obtaining valuable information on the landscape provided by citizens; and c) Engaging citizens in making decisions affecting the landscapes that concern them.



CASE STUDY 7: GERMANY

Ratification of ELC: It hasn't been ratified.

Germany has one federal government and 16 state governments. Some large states have settled sub-regions and regional cooperation bodies. The federal government is responsible for country-wide policies that are relevant to landscape. At local level the municipalities have the authority over landscape policies.

Each of the states is responsible for their territorial and spatial development. For this purpose, each one elaborates regional development policies and plans, which must be taken into consideration in local planning. Local policy and plans provide development guidance. With the purpose of integrating landscape policy into statutory planning, landscape planning usually runs in parallel to local (land-use) and regional planning. Ideally, local and regional landscape planning correspond to regional provisions which are in turn detailed in local plans, at the time municipal needs are considered in regional planning.

Although the ELC has not been ratified, Germany has a strong tradition in landscape policy making through landscape planning. Many of the ELC recommendations are already integrated in the State and municipal landscape documents.

All German landscape documents should include:

- Information about existing and anticipated states of nature and landscape;
- Objectives and principles of nature conservation and landscape management (to be detailed for every planning area in question);
- Assessment of the existing and anticipated state of nature and landscape (done on the basis of objectives and principles), including conflicts that need solving;
- Policy recommendations on measures proposed to avoid, reduce or eliminate adverse effects on nature and landscape, and to protect, conserve and develop certain areas.

FINAL REMARKS

According to the analysis of the landscape policy in several countries that have been carried out in the E-Clic project, there are different stages of implementation of the ELC depending on each nation or even the regions of a same country.

Reasons for ELC adoption differences across countries:

- Lack of common agreement on a common ELC framework, due to of its openness degree, flexibility and consensus-oriented nature.
- Sustainable development as key principle, which is already widely accepted within the political European spectrum.
- Difficulty of setting a common agreement on an environmental-oriented policy considering cultural, historical, even economic differences of European countries.
- Landscape interpretation diversity across European nations and regions.

Source: Dejeant-Pons, 2006; Jones et al., 2007; Jordan and Adelle, 2012; Pedroli et al., 2006.

Some landscape related documents, as laws or guidelines, have been approved after countries had signed the ELC.

Landscape hasn't been the main subject of currently active policies, planning instruments and regulations across Europe, although the number is increasing after the ratification of the ELC by the different countries.

Fifteen years after the ELC was launched, it still remains a need for political authorities to address key issues for the implementation of objectives, including the role of the public, across policy sectors, institutional levels and spatial scales.

Most of the policy and planning instruments operate at the national level, although some countries, such as Spain, define and approve most of their landscape-relevant policies at regional or local levels.

There is still a lack of policy or planning instruments focused individually on the main targets of landscape (planning, management and protection).

Landscape usually comes under the jurisdiction of a single administrative or political authority, institutional complexity and lack of policy coordination hinders implementation of the ELC.

It is still very rare to find administrative or political units or departments in European countries that place landscape at the core of their functions, responsibilities and areas of work. This has resulted in an array of distinctive approaches to the management, planning and protection of rural and urban landscapes. Nevertheless, some countries and regions have managed to produce unique strategic approaches, or at least common frameworks. Some have opted to unify landscape policy under the umbrella of spatial and land use planning, whilst others have opted to implement explicit landscape policies, laws and strategic frameworks.

The different European countries which have ratified the ELC have adapted its own different regulations affecting the landscape regarding the ELC, although they usually hadn't created a transversal law where all these regulations are collected and unified for better understanding. So, the regulation of landscape still depends on different specialized departments, which determine each one by hand, the nature and orientation of landscape policies under their jurisdiction, without taking account the different policies created by the other departments involved in the landscape policies. It makes that, for example, the urban and rural landscape is usually separated into different policy instruments.

International and cross-regional cooperation in landscape policy and decision-making is limited despite the international and unifying scope and vocation of the ELC.

There are some types of landscapes that are found to be more widely covered by policies than others. These include rural-agricultural and semi-natural and forest landscapes.

The management, planning and protection of landscapes are commonly addressed across Europe under unique, single pieces of legislation. These legislative instruments were found to be either wider land use or spatial planning policies, or alternatively specific policies aiming at providing an explicit framework for landscape policy at national and regional levels.

In general, there is a geographic gradient, northwest to southeast across Europe with a decreasing role for the public in policy and planning through indicators such as awareness raising, public participation and the role of education.

Access to the "Review report of landscape related policy issues" in:
<https://drive.google.com/file/d/0B2bTVdRrYngteV9TbEtEQ1RTS00/edit?pli=1>

TASKS

1. The public participation has a big role in the ELC. You can see some best practice examples in the annex 1 (pages 69-88) where is explained what public participation process was realized.

1.1. Choose two of the examples and compare them. Do you think there is an improvement in the result of the intervention/action due to the public participation? Which are the reasons?

1.2. Choose an example. Analyse the three principles of the ELC and explain what are the reasons of its ELC principles selected in the template.

1.3. After analysing some best practice example, select one case in your country and explain what are the reasons to choose it.

2. Look at the different policies selected in this module and fill in the template with a policy of your country. Has your country ratified the ELC? How has ELC affected to the policy selected?

3. Look at landscape images that accompany the different approaches to the policies of E-Clic Partners countries. Select two countries and compare their urban and rural images. Do they have any similarity? Which are the differences?

Learning Module 2

DETECTING AND DEALING WITH LANDSCAPE CHALLENGES

Outcomes

At the completion of this module, you will be able to:

- Develop key competences relating to public participation, policy comprehension and problem solving.
- Identify landscape challenges in people's surroundings.
- Deal with any landscape challenge detected.

Purpose

The learning objective of this module is focused on checking out if ELC is a necessary common framework for improving European Landscapes. The E-CLIC project has shown that the ELC is not a sufficient tool for a successful improvement of landscapes, which should be adapted to each country through the re-working of their national policies at different levels (local, regional and national scale). So, for having better European Landscapes is needed people with landscape knowledge who care about it and who get involved in the improvement of the policies affecting it.

Aims

- To aware-raising regarding policies which affect the landscape.
- To analyse different challenges affecting landscape.
- To learn that landscape challenges depend on specific geographical, climatic and cultural characteristics of the country.
- To understand that a challenge in a country may not be in another. So, challenges to be addressed are different depending on each territory.
- To know that some landscape challenges were already overcome a long time ago in some countries, while these are completely actual problems in others.

LEARNING CONTENTS

With the aim of awareness-raising regarding policies which affect the landscape, there have identified different challenges which were selected to be developed and solved for the competitions organized within the E-CLIC project.

BOX 4: E-CLIC Competitions

During the E-CLIC project, six national-CLIC competitions and a Internacional one were launched to discuss the challenges defined for each target group (secondary school students; university students and lecturers; general public) and to work out innovative solutions, based upon cooperation across societies to create learning resources for other people to benefit from.



Following this rationale, after being discussed the challenges through the competition entries presented, one national winner for each category was selected on each National Conference. A virtual platform set up helped to stimulate discussion and public participation, in preparation for the international conference and the dissemination of national results.

The international E-CLIC conference gathered all national winners for a further selection of the European winners. Find full information of all competition entries at: <http://e-clic.ning.com/competitions>

There were proposed three challenges for each country competition and three ones for the Internacional competition. Table below summarizes these challenges proposed on these countries. These are organized by topic. These are planned to be used to develop exercises with the aim of improving the surrounding landscape. According to the user’s European reality, the challenge fitting better can be selected; or even under a world-wide scope since these challenges may not be only suitable for European countries.

Table 2 – CHALLENGES	
Challenge	Rationale
IMPROVING URBAN LANDSCAPE	
Soviet Era housing areas	Have you ever asked yourselves how the housing areas built in Soviet times could be improved? They were not built for cars, often there is no good quality greenery, play facilities for children or places for older people to use. Does anyone really care about the spaces between the buildings, about the aesthetic appearance and creating places comfortable for everyone’s life?
Give a voice of nature in urban space	The cities and the countryside are often perceived as two different worlds. Cities are hubs of information, trading, business, knowledge, science, entertainment, culture while the countryside is a source of nature, biodiversity, raw materials, recreation, health, landscape beauty and identity. How can we create places in cities which also provide a connection to the rural landscapes? How can we give them a voice?
Urban sprawl/inner urban shrinkage	Have you noticed how cities are often sprawling, expanding into the surrounding countryside with vast areas of housing, commercial and businesses, motorways and other infrastructure? At the same time the centres of many older cities are becoming full of holes as old industry and poor housing is demolished yet nothing seems to be replacing this? Have you thought how the landscape of the urban fringe could be controlled and linked better with the countryside? How can inner urban areas be improved for people to live in? Should the countryside on the edges of cities be preserved? Should natural areas be recreated? Should inner areas become more compact or should they contain more green areas? Can we afford to let cities expand forever and to joining up with each other?

Urban recovery of degraded landscape.	Urban expansion in Spain in recent years has led to the development of a landscape zone which is neither urban nor rural and which lacks any kind of landscape identity. Suburbs, shopping malls, transport systems and other infrastructure have helped to create a kind of no-man's-landscape. What actions could be done to help the regeneration of these areas? How can an identity be given to these landscapes? How can important landscape elements in these zones be protected or restored?
Allotment gardens and change in urban landscape	Have you ever walked or driven around the edge of your town or city and thought about the scattered plots where vegetables and flowers seem to grow in the middle of industrial and other built-up areas? Do you know anyone, or are you, actively involved in managing an allotment garden? Have you ever thought of the different benefits that these might bring to people in terms of health, wellbeing, and the environment? Are there negative impacts on the environment? What are the pressures for change into other land–uses such as housing, retail, industry or infrastructure? How would you employ ICT-tools to help understand what these landscapes contribute to the local population and environment, and how they could be protected from, or enhanced by, development?
IMPROVING RURAL LANDSCAPES	
The historic shaping of upland landscapes	Have you ever walked in the hills and uplands and wondered how the content, shapes, colours of landscapes have evolved? Have you wondered how different uses of land (e.g. grazing, forests and woodlands, recreation, fishing, conservation) are decided, and by whom? Are you aware of the types of pressures for change facing these landscapes, such as climate change, land abandonment, land-use change, access to land? How would you employ ICT-tools to help understand the character and importance of landscapes you know, and raise awareness of the challenges they face?
Regenerating and giving value to forest landscape that have suffered fire.	Forests are an integral part of the Spanish landscape, forming an essential backdrop to many rural areas, providing habitat for a wide range of wildlife and opportunities for recreation. Hot and dry summers frequently present conditions where, either by accident or deliberately, extensive and catastrophic fires can occur. How can we design measures to prevent fires? What actions can we do to restore the forest landscape? How can we give value to the territory while the trees grow back?

Abandoned rural landscapes	Do you care about the remote rural areas, perhaps where you parents or grandparents still live, where few people farm, where field lie uncut and the forest is taking over? Should the traditional rural landscape be protected? Can it be kept as a living landscape? Should the forest be allowed to take over? How do the people living there deal with the emptying landscape?
Extensification/intensification of rural landscapes	Have you noticed how some rural landscapes are very intensively managed for high levels of production and with most natural elements such as trees, woods or hedges taken away? Conversely, have you seen other rural landscapes where little or no productive agriculture is taking place and where fewer and fewer people are living? Should we allow the countryside to be divided between intensive and extensive areas? Are there ways in which the intensive agricultural landscapes can be made more attractive and offer more habitats for wildlife? Should traditional countryside landscapes be protected or preserved? What kind of future landscapes do we want in our countryside areas?
“Invading” the Landscape: Building where we shouldn’t (Arbitrary off plan building)	The arbitrary off-plan building is the illegal construction of buildings, fences, factories, and other facilities in rural areas. The illegal building takes no account of the common good and is one of the biggest problems in Greek planning and in fact the Greek society, having decades of history in the country. The illegal buildings usually lack the necessary infrastructure and are often permanent, having devastating consequences to the particular features of the landscape, i.e. aesthetic, cultural, historical, environmental, etc. People can deal with challenges, ranging from the necessary awareness and providing appropriate education at school, to identifying and assessing the consequences the phenomenon of arbitrary and illegal building has for the landscape, and proposing management and planning methodologies.
HUMAN ACTIVITIES WITH IMPACT ON LANDSCAPE	
Issues and consequences of tourism on landscapes	Tourism has become an important economic factor in recent years in Germany. The figures on income and employment are seen as something positive. Concurrently tourism impaired a burden of nature and environment. So what does tourism mean for landscape? What effects are seen and felt through tourism within the landscape? In this challenge problems and consequences of tourism within a selected landscape can be shown. It would be also conceivable to develop ideas for a “sustainable tourism”.

Solutions in coastal landscape to the urban pressure	From the 1960s onwards, Spain has experienced a tourist boom of “sun, sea and sand”, which led to a belt of continuous development along many coastal zones. This growth has often been at the expense of the natural and cultural landscape which was originally there. We associate coastal areas with high recreational and tourism values but neglect the landscape which is one of the reasons for visiting there along with the sunny climate. How can we protect and develop unspoiled areas more sustainably? How can tourism landscapes be improved for the benefit of residents and visitors, keeping the essential qualities of the Spanish landscape intact? What innovative solutions can be implemented to promote more rational and sustainable territorial models in coastal Spain, without compromising employment and economic returns?
Oil shale mining regions	Oil shale mining has been going on for 70 years or more and has left – and still leaves – the landscape scarred with quarries, heaps of excavated rock or semi-coke as well as derelict mining buildings and isolated, run down housing areas. As the oil runs out and the mining starts to slow down, what can we do to improve the landscape of mining? Should we plant trees on the hills, make them into recreation sites, demolish the old buildings? What about the heritage of mining as part of the landscape? How can the lives of people living in these areas be improved by restoring the landscape?
Post-industrial landscapes	Many countries have seen the older heavy and extractive industries such as steel making, mining, manufacturing and associated infrastructure disappear, to be replaced by what? Derelict land, heaps of material dug out of mines, abandoned factory sites, settlements with few inhabitants or high levels of unemployment. Should we preserve or manage some industrial areas as part of our heritage? Should we think about restoring them to different uses? Should nature be allowed or encouraged to take over? What kinds of new uses could be developed in these so-called post-industrial landscapes?
Perceptible and visible consequences of climate change in the landscape	Climate change is a term that actually everyone knows - but what does climate change means for us and our environment? Warming within cities, extreme weather events and sea level rise are some words that express the effects of climate change. These terms are however in everyday life not necessarily noticeable. Within this challenge you had to deal with the issue of climate change. Whether concrete consequences within the landscape are noticeable it is a central issue.

Offshore re- newables in coastal lands- capes and sea- scapes	Do you think differently about views of the sea and of the land? What potential impacts could offshore renewable energy developments have on landscapes and seascapes? What are the onshore impacts of offshore developments? What do you know of the processes of decision-making which lead to development of such forms of renewables? What are the possible trade-offs between seascape management and protection, climate change mitigation and economic development? How would you employ ICT-tools to raise public awareness of the roles of such developments, different means of mitigating their impacts, or opportunities to exploit their contributions to landscapes and seascapes?
Renewable energy, but ... how does it af- fect the lands- cape?	Renewable energy technologies have undoubtedly come into our lives for good, offering energy produced from renewable, environmentally friendly sources (wind power, geothermia, solar energy). However, renewable energy infrastructure (solar panels, wind farms, etc.) are bulky and occupy large areas and strongly affect the landscape. So, there are the dilemmas resulting, like “renewable energy or landscape quality”. In most cases, people feel their needs are not taken into account, that their interests are affected, and that they have no say in the process. You can suggest an idea that helps solve this problem. It can move in many directions, e.g. involve the participation of citizens in the processes and decisions, evaluate the consequences of the renewable energy infrastructure to the landscape, and defining the criteria to be taken into consideration before making such an acute intervention to the landscape.
Changes in the landscape by the energy turnaround	By deciding the nuclear phase-out the energy supply will be completely changing in the next few years in Germany. A rethink in the population can be observed in recent years. Wind power and solar energy from biomass and from water power are just a few examples, which are becoming more and more important. Within this challenge you can deal with the changes in the landscape of the prevailing energy supply.

RAISING AWARENESS OF LANDSCAPES

Settlements and landscape identity	The reconstruction and the new construction of buildings, streets in settlements in Slovenia frequently does not respect the rules which ensure coherence with the landscape identity. Do investors have a right to opt for such construction? What is the role of residents, experts and politicians in these cases? How can we bring landscape identity closer to all of them?
Enhancing, outstanding landscapes of Slovenia	<p>The actual list of outstanding landscapes of Slovenia includes almost 100 relatively small landscape areas (http://www.ppz.mz.gov.si/doc/aplikacije_prost_podatki/5-19-4.htm) which are the parts of national strategies. They:</p> <p>a) represent traditional forms of dwelling and land use, adapted to natural landscape structure; b) have visually distinctive patterns of settlements and visually expressive architectural elements; c) have symbolic, cultural and associational values; d) make a great impression (natural structures, cultural values); e) are unique in regional, national or even broader scale; f) have special values of natural landscape structures; g) have a consistent landscape structure which enables their spatial limitation; h) are of great importance for national identity; and i) Although so important outstanding landscapes are constantly losing their values because of lack of knowledge particularly at the local and implementation level.</p> <p>How can we rise awareness and ensure sustainable development in such landscapes? Which are their potentials for knowledge, local economy and tourism? What innovative solutions can be implemented in order to promote them (local communities, young people, owners, general public) for better planning, conservation and management?</p>
Together with citizens: We are changing the landscape of our City.	<p>Have you ever thought about how important the urban landscape is? It is more important than we think, because it affects the quality of life of all those people living in cities. Even though this issue has not received the necessary attention, all citizens have the right to express their opinion on the quality of the landscape in which they live and work.</p> <p>Whether it is a place in our neighborhood or our workplace, a place for fun, or a central part of our city, we can participate in upgrading it, we can help to manage it, in order to preserve the character and specific details of the urban landscape.</p>
Source: E-CLIC partnership elaboration.	

BOX 5. Regenerating and giving value to forest landscape that have suffered fire



A challenge of “Regenerating and giving value to forest landscape that have suffered fire” is very pertinent in Mediterranean countries as Spain, Portugal or Greece where the lack of rain and high temperatures converge during the summer while it isn’t a problem in Northern European countries which haven’t these weather conditions.

BOX 6. Infrastructures of renewable energy



The infrastructures of renewable energy are modifying the natural landscape all over Europe. There are countries which detected that it can be a conflict between economic and industrial sector and local institutions and people time ago so they made policies in order to regulate the conditions to permit the construction of these elements. However, there are other countries, which didn’t have this long view, that have to develop regulations and deal with the different interests now.

TASKS

1. Look at the challenges proposed.

1.1. Different challenges are regarding how energy elements affect the landscape. Choose one of these cases and express pros and cons. Is there any other solution for creating energy less aggressive with landscape?

1.2. Is any one of them a challenge in your country? How can you deal with it?

1.3. Propose a challenge in your country and write its rationale as it is done in this module.

1.4. Propose solutions to the challenge of other classmate.

2. Go to the best practice examples in the annex 1 (pages 65-84). It is explained which are the challenges that they had to deal with and the solution made.

2.1. Choose two of the examples and analyse the challenges and the solutions adopted in each one.

2.2. Can you imagine another solution to the challenges of the examples chosen in the previous exercise? Explain it.

2.3. Choose a best practice example in your country and explain the challenge and the solution adopted.

2.4. Fill in the template of page 65 with the information of a best practice example in your country, region.

3. Look at the winning entries in the annex 2 (pages 85-117). Competitors have dealt with one of the challenge of the module.

3.1. Choose one winning entry and analyse the specific example and the proposal. Do you think it's a good proposal? Why?

3.2. Give a different proposal for the description of the winning entry selected in the previous exercise (3.1).

Learning Module 3

**THE ROLE OF ICT TOOLS IN IMPLEMENTING THE ELC THROUGH LEARNING,
CHALLENGE, COOPERATION AND INNOVATION**

Outcomes

At the completion of this module, you will be able to:

- Use open-source Information and Communications Technology (ICT) tools in order to deal with landscapes challenges.
- Choose better ICT tool for the idea you want to transmit.

Purpose

The learning objective of this module is understanding the importance that ICT tools have nowadays and the possibilities of analyses and expression that the ICT tools bring regarding the landscape. For showing how they can be used to deal with landscape problems or implementation, the E-Clic Competitions winning entries are shown in the annex.

Aims

- To learn how the cooperation between people permits to achieve better results.
- To transmit the importance of the ICT tools in order to facilitate the public participation.
- To know how ICT tools can be used for learning and engaging citizens.
- To familiarise with the different types of ICT Tools and what they are useful for.
- To give examples of ICT tools that can be used to learn and engage citizens.
- To equip people with easy visual mechanisms with whom express the problems that affect them and/or propose ideas and solutions.
- To improve learning and cooperation processes in innovative ways.

LEARNING CONTENTS

Significant advances have been made in developing better ICT tools, and by providing political, planning and regulatory support to the processes of landscape planning, management and protection. This includes improvements in the processes of landscape-related public participation, awareness raising, education and innovation.

Important dates for the improvement of public participation and education regarding sustainable development which are behind of the promotion of the ICT Tools:

- In 1987, the Brundtland Commission report recognized the importance of developing suitable tools that exploit the links between social organisation (e.g. recognition of the importance of information and participation in issues relating to the management and planning of change) and state of the art in technology.
- In 1992, the United Nations 'Rio Earth Summit' was focused in the principles of sustainable development. It was also developed the 'Agenda 21' which placed people at the centre of sustainable development, and stressed the need for participation and partnership in the delivery of the objectives of these conventions. It also noted that '... education is critical for promoting sustainable development and improving capacity of the people to address environment and development issues'.
- In 1998, the importance of engaging the public in environmental issues was also at the core of the Aarhus Declaration on access to information and public participation in decision-making (European Commission, 1998). Its General Provisions noted that governments should take the necessary legislative and regulatory steps to:
 1. "...ensure that officials and authorities assist and provide guidance to the public in seeking access to information, in facilitating participation in decision-making and in seeking access to justice in environmental matters."
 2. "... promote environmental education and environmental awareness among the public, especially on how to obtain access to information, to participate in decision-making and to obtain access to justice in environmental matters."
- The United Nations decade of education for sustainable development (2005 – 2014) emphasise the importance of education and capacity building to increase levels of public and professional engagement in environmental challenges and decisions.

Citizens have achieved little by little the knowledge to understand and to take consciousness about landscape. As there are some different types of people, they can be distributed in different targets groups for a better success in the transmission of knowledge. One proposal of distribution that fits quite well with the European society is the one chose by E-Clc partners to develop the project: high school students, university students and general public.

“Landscape education can be defined as a process whereby landscape values are recognized, and the concepts and methods are acquired which enable the student to incorporate a landscape-sensitive behaviour and aptitude”.

Gomez-Zotano and Riesco Chueca (2013)

Many authors emphasise the importance of making better use of ICT tools to improve standards of sustainable development for European landscapes. They can help enhance learning capabilities, which are valuable for the educational components of landscapes (and of the ELC) in a framework of sustainable development.

Capabilities that can be achieved by using ICT Tools:

- Accessibility of up-to date knowledge.
- Comparisons of different forms of information.
- Consideration of topics from different perspectives, descriptively or visually.
- Insight to perspectives of people who are personally affected by issues of sustainability (e.g. impacts of development, environmental pollution).
- Analysing the world and its mental representations.
- Helping understand the conceptualisations and attitudes of people from different cultures.
- Visualising multi-dimensional environmental issues relating to sustainable development.
- Promoting skills of synthesis and evaluation.
- Developing understanding, skills, attitudes and values, necessary for sustainable behaviour.

There are different types of tools and each one can be addressed more efficiently to one landscape purpose. Bertrand de Montmollin (2006) has distributed them (ICT and others) in three groups: 1) those one for awareness raising and training, 2) those helping participation, and 3) those ones that show the technical part. It is summarized below the objectives and aspirations supposed to be achieved by using them, regarding the three groups:

1. Tools for awareness raising and training:

- To inform and train groups and agencies concerned with landscape about the interdisciplinary and specific nature of the problems associated with it
- To inform and train politicians and civil servants
- To inform and train local authorities and administrations
- To inform and educate children about landscape
- To educate communities about landscape
- To understand, identify, describe and prioritise landscape
- To promote university courses in landscape management and planning.

2. Participatory tools:

- To facilitate community input to and participation in the protection, management and planning of landscape.
- To work at a local level helping communities to identify and understand the characteristics, value and vulnerability of the landscapes in which they live, and to express their aspirations.

3. Technical tools:

- To assess and demonstrate the economic importance of landscape
- To set up landscape observatories to monitor changes and evaluate intervention in landscapes
- To improve the quality of landscape in peri-urban, industrial and commercial areas
- To develop techniques for rehabilitating degraded landscapes.

ICT tools, and visualisation in particular, have been increasingly used as part of information, consultation, and collaboration in relation to issues of global significance. For example, visualisation tools have been used for helping communities to plan for adaption against impacts and effects of climate change or, linked to GIS, can support discussion with land managers with respect to future land uses and indicators of change in landscape features.

ICT resources include different combinations of hardware, software and data. Tools can result from different configurations of tools to use with desktop, mobile, or more specialist media (e.g. virtual landscape theatres). They may facilitate forms of use such as formal and informal types of engagement, individual and group forums, game-based learning, text and image based, and 2D or multi-dimensional structures.

In the following table the different ICT are grouped in order to explain what they are useful for in terms of landscape:

Table 3. Classification of ICT tools		
Type of ICT Tool	Useful for	Examples
3D Computer Aided Drafting	Testing alternative options and solutions to identified issues	Blender, Rhinoceros, Autodesk 3DS Max, Autodesk Maya, Blender, SketchUp...
Video Games	Involving young people in important concepts while they are playing	Survivalcraft, Minecraft, The Sims 3,
Map viewers	Exploring/visualising places around the world	Google Maps, Bing Maps, Google Street view, Google Earth,...
Geo-ICT tools	Analysing information and producing results which are visually attractive.	ArcGIS, Grass Gis, Global Mapperqsig, GVsig,...
Image editor	Modifying images	Gimp, Adobe Photoshop,...
Imaging Platform	Sharing images and notes with others users	Pinterest, Instagram, Facebook,...
Programs to make presentations	Organizing the material and making the slideshow	Powerpoint, Prezi, Slideshare,...
Word processor	Having a text for the computer	Microsoft Office Word, Open word,...
Video Editor	Creating and composing videos	Adobe Premiere,...
Video Platform	Sharing videos with others users	Youtube, Vimeo,...
Landscape Model-ler	Modelling and visualisation of the territory	Visual Nature Studio, World Construction Set, Terragen, Genesis IV,...
Source: E-CLIC partnership elaboration.		



A Library of ICT tools has been created during the development of the E-Clic project. The partners have selected some of them and distributed compared according to the knowledge objective of the different target group this learning package is intended for. However, all of them can be used by any of the three target groups, being the only barrier each individual's knowledge.

Tables below summarize the ICT tools selected. For each tool it can be find its name, a brief description, what it can be applied for, operating system it uses, an approximate cost and a link where full information might be found.

Table 4. ICT tools appropriate for Secondary School Students

Name	Description	Application	Operating Sys-tem	Cost	Web Link
Minecraft	Game	Game based learning	Windows, iOS, Android, Xbox 360	€19.95	https://minecraft.net/
Google Maps and Street View	Web based Maps of the world	Exploring / navigating the world	Uses internet browser	Free	https://maps.google.co.uk/
S k e t c h U p Make	2D/3D Com-puter Aided Drafting	3D Modelling	Windows	Free	http://www.sketchup.com/

Source: E-CLIC partnership elaboration.

Table 5. ICT tools appropriate for University Students

Name	Description	Application	Operating System	Cost	Web Link
ArcGIS	Desktop GIS	Create, organise, analyse geographic information	Windows	Contact Vendor	http://www.esri.com/software/arcgis
Blender	Modeller	3D modelling and animation	Windows	Free	http://www.blender.org/
Virtual Terrain Project	Landscape Modeller	3D Landscape modelling & visualisation	Windows, Linux	Free	http://vterrain.org/

Source: E-CLIC partnership elaboration.

Table 6. ICT tools appropriate for General Public

Name	Description	Application	Operating System	Cost	Web Link
Genesis IV	Modeller	3D Landscape modelling & visualisation	Windows	Free	http://www.geomantics.com/freeware.htm
Gimp	Image Editor	Photo /image retouching	Windows, OS X, Linux	Free	http://www.gimp.org/downloads/
Aris	Game authoring	Geo-tagged game authoring	iOS	Free	http://arisgames.org/

Source: E-CLIC partnership elaboration.

For more ICT Tools, visit the full Library of ICT Resources created for the E-CLIC Project.
(<https://drive.google.com/file/d/0B2bTVdRrYngtMzNYTFVTNG5SLW8/edit>)

In order to illustrate with some examples how can be used ICT tools to implement national policies around Europe or raising awareness regarding landscape, you can see the E-Clic Competition winning entries in the Annex 2.

TASKS

1. From the list of “Capabilities that can be achieved by using ICT Tools” that is written in the module, choose the three more important to you and explain why.
2. From the nine ICT tools selected in the three tables, classify them according to the Bertrand de Montmollin’s three types.
3. Choose one challenge of the table 1 (Learning Module 2) or propose a new one. Select a specific example in your country where this challenge exists and think solutions to deal with it. After that, make a proposal using ICT tools in order to express visually your ideas to protect, plan or manage the landscape. It can be done individually or in group.

Process:

1. Choose challenge.
2. Choose an example where you have detected the challenge.
3. Think solutions to deal with it.
4. Analyse winning entries of annex 2 in order to know how other people have dealt with a challenge by using ICT tools.
5. Think which ICT tools fit better to express your ideas.
6. Use them to create your proposal.

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Annexes

1. BEST PRACTICE EXAMPLES

2. WINNING ENTRIES OF THE E-CLIC NATIONAL COMPETITIONS

Annex 1

BEST PRACTICE EXAMPLES

There have selected two examples from each E-CLIC partner country (United Kingdom, Estonia, Slovenia, Hungary, Greece, Spain, Germany). A template has been created in order to present the same information for each one of the them. It is structured as follow:

- Name: Title to identify each example.
- Description: Brief introduction of the example.
- Place and years: Information to know where the example is from and period needed to be developed.
- ELC principles: In order to know how many ELC principles the example focuses on.
- Main actors involved: What type of actors have been involved to achieve the good result?
- Funding: How is it paid this type of intervention?
- Public participation: To know if there has been and, if so, to find out how it was done.
- Challenge: What is the challenge the intervention had to deal with?
- Solution: How is the challenge managed to achieve the good results?
- Link to database: Links where you can find more information about this example.

All the selected examples for the project can be consulted in the Best Cases Examples database http://data.prismanet.gr/e-clic/search_form.php



Name: Naravni Rezervat Škocjanski zatok

Description: Škocjanski zatok is the largest brackish marshes wetlands in Slovenia. The Municipality of Koper planned to infill the Skocjan's zatok, and uses it for urbanization. At least 280,000 m³ of mud was deposited in the lagoon, and two rivers diverted which had previously flowed into the marshes, and Škocjanski zatok lost its sources of fresh water. The area was designated for the disposal of construction materials, but it has seen the deposit of materials from organic matter to cars. Therefore, a large area of the few habitats of endangered bird species was destroyed.

Place and years: Slovenia, 2003–2009

ELC Principles: Landscape planning, management and protection.

Main actors involved: Society for the observation and study of birds Slovenia, Ministry of Environment and Spatial Planning, Municipality of Koper, Institute of Water, Environmental Agency of Republic Slovenia, SCT d.d.

Funding: The project was co-financed by a financial instrument for the Environment of the European Communities - LIFE, Luka Koper d.d., and two project partners (the Ministry of Environment and Spatial Planning; and, the developer, the Society for the observation and study of birds Slovenia, DOPPS, BirdLife, Slovenia).

Public participation: The project was intended to raise awareness of local population, above all people of Koper and its surroundings.

Challenge: The challenge was to settle the necessary conditions for the protection of birds as well as nationally endangered migratory birds and other species, to ensure a favourable conservation status over the long term. This should support the restoration of the natural appearance of the area's landscape

Solution: The most important activity was the design and implementation of landscape restoration to increase habitats in the reserve. The main actions were the restoration, enhancement and maintenance of the habitats of endangered animal and plant species; the elimination of the consequences of old environmental burdens citizen's engagement; the increase in the influx of fresh water and seawater in the lagoon; and increase environmental awareness.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=24>



Name: The Tweed Rivers Heritage Project

Description: It's a project which aim is the conservation, enhancement and awareness raising of the natural, built and cultural heritage of the rivers and valleys of the Tweed Catchment.

Place and years: United Kingdom. The project ran from 1999 to 2006.

ELC Principles: Landscape management, planning and protection.

Main actors involved: 60 Public and private entities through the Tweed Forum, an umbrella organization.

Funding: It was financed by 50 small projects worth a total of £9 million, 45% of was directly granted by the Forum. The Heritage Lottery Fund provided a considerable proportion of the financial and operational support required.

Public participation: It depends on the project and the institutions responsible for its implementation.

Challenge: Bringing together, under a set of common objectives, the large number of public and private organizations and actors with a stake in the river heritage and associated landscapes. The project aimed to challenge situations where conservation and development are in competition.

Solution: The creation of a centralized unit for coordination and monitoring (the Tweed Forum) of projects across all stages, and the wide and open interpretation of guidelines and principles to be followed by all participants. It was also important the strong degree of communication and interaction with local stakeholders.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=19>



Name: Great Trossachs Forest

Description: Landscape-scale initiative with a 200-year lifeline which wants to transform the landscape from heavily-grazed land and plantation forest to a more natural mix of habitats, as well as creating over 4,400 hectares of new native woodland.

Place and years: United Kingdom. The project was launched in 2009.

ELC Principles: Landscape management, planning and protection.

Main actors involved: Four partners: Scottish Forest Alliance (partnership between the energy company BP and Forestry Commission Scotland), Royal Society for the Protection of Birds, Scotland and Woodland Trust Scotland.

Funding: It is supported by £10 million from the energy company BP. In 2008, Forestry Commission Scotland secured £965,500 from the Heritage Lottery Fund (HLF). In 2013, It also was awarded a grant of £848,000 by HLF to support Phase 2 between 2013 and 2017.

Public participation: Local communities and stakeholders have played an active role in developing interpretative strategies for the forest. Businesses and forest users have made significant contributions to developing a sustainable access strategy.

Challenge: Creating a forest landscape large enough to support a dynamic and functional ecosystem which expands and contracts over time allowing as many habitats and species as possible to adapt and move in response to climate change.

Solution: Making an extensive program of tree planting, natural woodland regeneration and active land management.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=45>

**Name: Soomaa National Park Plan**

Description: Soomaa is one of five national parks in Estonia. It is important for its swamps and bogs and cultural heritage. The project aims to identify the activities required to protect, restore and manage the basic nature values of the park, and to prepare a financial plan for the tasks top required.

Place and years: Estonia. The plan started in 2011 and has to manage it between 2012-2021.

ELC Principles: Landscape management and protection.

Main actors involved: Environmental Board.

Funding: Estonian Ministry of the Environment.

Public participation: Interested parties were involved. Public meetings were held and landowner's proposals were taken into account before compiling the full management plan.

Challenge: The project seeks to blend tourism and local economic development through a filter of nature protection.

Solution: The project lists species to be protected in the area, and the associated protection measures, plus details of landscape features and elements, human habitation and cultural heritage. Actions for protecting features are: settlements management, protection against alien species, management of animal activities, and restoration of habitation. A separate section about cultural traditions is provided, built heritage and planning new buildings in the landscape. Recommendations about developing nature tourism and recreation were prepared, including establishment of a new nature study area, reconstructing existing buildings, renewal of children's playground, and building trails and paths.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=39>



Name: Demolishing ruined soviet military complex in Kuressaare.

Description: Kuressaare is a resort city which primarily attracts visitors in summer. The project aims to clear the landscape of derelict buildings which have become dangerous and unsightly after the departure of the soviet military.

Place and years: Estonia, 2012.

ELC Principles: Landscape Management.

Main actors involved: Kuressaare City Council.

Funding: It was by the Ministry of Environment through the Environmental Investment Centre. €95,000 was provided to demolish the unused military, agricultural and industrial installations.

Public participation: None.

Challenge: Providing an example of the wider programme that aims to clean the landscape, reduce threats to the landscape caused by decayed and decaying objects, and provide improved assets to people and the quality of water bodies.

Solution: There were demolished the 22 installations of the three different types of military feature (garages, storage sites, and ramps) which had become former unused and decayed ruins. The 1,7 ha area of the military complex was cleared and leveled, allowing the views to open up. A new housing district is being planned for the site.

Link to database: <http://data.prismanet.gr/e-clc/view.php?id=42>



Name: Maintaining Landscape Heritage of Bükkalja Region

Description: The project seeks to involve local and regional actors in the protection of landscape heritage and in the performance of active nature conservation operations, and to raise the local population's awareness of landscape and re-create the identity of the inhabitants of Bükkalja.

Place and years: Hungary, 2010.

ELC Principles: Landscape protection.

Main actors involved: Beehive Rock Nature Conservation and Cultural Association

Funding: Not mentioned.

Public participation: Not mentioned.

Challenge: Guaranteeing long term legislative protection of rocky landscapes. The project leader initiated the procedure required for the legislative protection. Such legislative protection would ensure nature conservation status for all known beehive rocks, eliminating the need for lengthy procedures to obtain protected status.

Solution: The activities performed were with the aim of preserving and displaying the "rock relics" geared towards environmental sustainability. These activities were aimed at developing green tourism in the region, which is an important factor for economic sustainability.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=25>



Name: Freshwater Rehabilitation of Kurca Creek Valley

Description: Restoration of an aquatic ecosystem, and awareness raising about the values of Kurca Creek valley, with particular attention to harmonizing the various land use of water from angling to irrigation

Place and years: Hungary, 2012.

ELC Principles: Landscape protection.

Main actors involved: The municipality of Szentes.

Funding: Not known.

Public participation: There were presentations in schools and the municipality building to raise stakeholder awareness.

Challenge: The main challenge was to reduce the negative effects and pollution on the watershed area of Kurca Creek to improve water quality, to eventually lead to better and more sustainable land use and management.

Solution: Some actions were done: Presentations to raise stakeholder awareness establishment of the citywide sewage water treatment system to reduce pollution; monitoring and removing illegal dumping sites in the watershed, to improve water quality and to increase landscape value through reducing negative impacts on the view; and re-introduction of historical agriculture land uses and the rehabilitation of the shore of the creek to create an attractive leisure environment for citizens.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=28>



Name: Larissa

Description: The project “Total art operations for the reestablishment of the natural, historical and cultural landscape of the city of Larissa” aims to create a new landscape identity for the city based on the enhancement of the ancient Theatre. It intends to do so by involving local communities and revealing the memories of a distinctive agricultural landscape such as the plain of Thessaly with the Pinios River.

Place and years: Greece, 1992-2006.

ELC Principles: Landscape planning, management and protection.

Main actors involved: The master plan was commissioned and supervised by the Technical Service Department of the Municipality of Larissa. The townscape project was developed by the Landscape Sculptor Ms Nella Golanda.

Funding: All funds for the master plan and implementation of the project have been obtained from the Sectorial Operational Program about Thessaly and from local funding.

Public participation: A public participation process was embedded through the development of the project, and construction process. Local craftsmen and art students were involved during the construction of mosaic duplicates of the originals, which were found during the excavation of the center of Larissa.

Challenge: Enhancing public awareness of the historical landscape of Larissa, and achieving sustainable development based on a balanced and harmonious relationship between social needs, economic activity, culture and the environment. It also aims to alter the landscape character of the city and to raise consciousness amongst citizens of the local historical characteristics of their town.

Solution: The master plan tries to re-establish the connection between the city of Larissa and its historical and mythical Pinios River. It also aims to “prepare” the city centre for the accommodation of the revealed Ancient Theatre. To achieve these goals, it proposes the design of “the sculpted river”, marking this lost relationship and emphasizing the different landscape types of Thessaly (the uplands and the lowlands) along its route. The two main squares of the town, the Central Square and Post Office Square, are also included in a holistic design approach, to highlight the temporal historical character of Larissa.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=8>



Name: Restructuring the Ancient Olive Grove of Athens

Description: Within the organization of the Olympic Games of 2004, Athens designed a range of projects concerning the modernization of its urban structure, and the unification of its archaeological sites and historic locations. Apart from the renovation of its traditional waterfront and the construction of a subway system, motorway rings and a new international airport, the Greek capital reconstructed parts of another historic monument: it's ancient Olive Grove.

Place and years: Greece, 2001-2010.

ELC Principles: Landscape planning and management.

Main actors involved: Two projects were planned by Alexander Bofilias, Grd. Eng. Landscape Architect, in cooperation with the Athens Master plan Organization (ORSA), and realized by the Public Corporation of Urban Planning and Housing SA (DEPOS AE), both central institutions in Greek urban development.

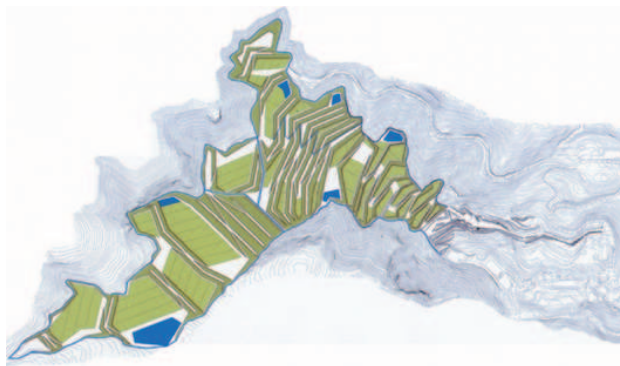
Funding: "Restructuring of Petrou Ralli Street" has been funded by the Greek Public Investment Program with a budget of €2,670,000. "Designing of the Olive Grove" (€714,285) was provided in the framework of the Olympic Green Works Budget.

Public participation: Local citizen organizations have been integrated in the discussion to create a dense and vivid use of the new public spaces.

Challenge: The establishment of operational links between different groupings and perspectives; the use of the funds and political will available to implement more essential changes in the urban structure of Athens, with a clear link to the needs of the population; and balancing the overall vision for a new Olive Grove area and the practical possibilities and requirements in situ.

Solution: The proposed objectives were achieved by shared understanding of the clear benefits offered by the concept being developed on the upgrading of the urban space. New green space and green networks were developed, linking existing green elements of the cityscape, and allocating new space to pedestrian zones. It was important that the project area was designed as a whole and the key areas developed were designed according to citizens' needs at a neighborhood scale. The direct communication with public authorities and with citizen organizations at all planning stages was significant in implementing this strategy.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=11>



Name: En Joan Valley

Description: It's a large intervention to restore a devaluated space, within the Garraf Natural Park, which was used as a landfill for the metropolitan area of Barcelona between 1974 and 2006. The project aimed to create the transition from waste storage use to that of an open space, and to integrate the degraded area into the environment.

Place and years: Spain, 2001-2010.

ELC Principles: Landscape planning, management and protection.

Main actors involved: The Entity of the Environment and the Council of Barcelona, and Provincial Council of Barcelona realized two Initials Projects which were the basis for the Execution Project, phase 2 of which was managed by the Waste Agency. The Restoration Project for the valley was developed by Batlle i Roig Arquitectes and the technical agriculture engineer Teresa Galí-Izard.

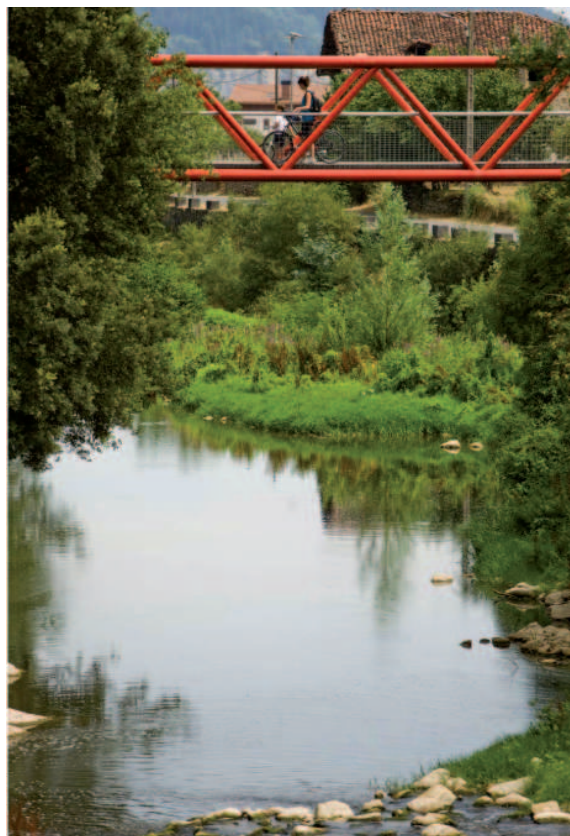
Funding: It was funded jointly by the Council of Barcelona, the Barcelona Provincial Council, the Association of Municipalities, the Waste Agency, The Ministry of Finance and the EEA-EFTA (European Economic Area - European Free Trade Association).

Public participation: When the project was proposed, there was no requirement for public participation as part of a process. However, once the plan was completed there was a requirement for public consultation for a compulsory period of time.

Challenge: The principal challenge was to stop the leakage of harmful products from the decomposition of waste that were polluting the surrounding aquifers. This required treatment of the land where the old landfill was located. Following resolution of the problem of land pollution, the old landfill should be transformed in a metropolitan space for public use, and be integrated into the natural landscape of the Garraf Natural Park.

Solution: i) To achieve the objective of removing the ground leakage and stored waste treatment. Two functions were then supported: the prevention of rain water coming in contact with rotting waste, and of waste gases being expelled into the environment. A rainwater collection surface and a network of ducts were constructed, which collected the biogas produced and carried it to a treatment plant where it was transformed into electricity. ii) Eleven terraced farms were created and connected to service roads to improve access as part of the recovery and integration of the valley into the landscape. Native species were planted, suitable for drought conditions and the characteristics of the area, helping control soil erosion.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=31>



Name: Nervion River

Description: The Nervion River is located in a Valley of a region of rugged and mountainous relief, resulting in urban, industrial and infrastructure land uses being concentrated in the flattest areas. The project was implemented in phases. The proposal was based on developing a pedestrian-cyclist axis which follows the course of the river, and is connected to the system of railway stations and halts. The aim is to regenerate the landscape associated with the river and to promote ecological connectivity between different towns through which the river passes.

Place and years: Spain, 2008-2013.

ELC Principles: Landscape planning, management and protection.

Main actors involved: The Plan was written by LKS Ingenieria. It was contracted and coordinated by the Department of Spatial Planning and Environment of the Basque Government and Department of Environment and Planning of the Provincial Council of Alava. The City Councils of the seven towns involved in the Special Plan were responsible for purchasing and land lease for the Plan and developing the execution projects.

Funding: The project was funded jointly by the Provincial Council of Alava (50%) and the Basque Government (50%).

Public participation: The drafting team met with the Provincial Councils of Alava and Vizcaya, with the town councils involved and Administrative Boards. Many proposals including conception of the strategic plan were the result of these meetings.

Challenge: There are three challenges: to create a continuous linear park linked to the Nervion River to enhance the river area, and to offer easily accessible natural spaces to the local population; to promote an ecological alternative (on foot, by bike, by train) for the displacements between the municipalities involved in the Plan; to enhance the relationship between the river and the urban area through which it passes.

Solution: i) The creation of a pedestrian-cyclist axis, with bridges, tunnel and restoration of riverside area. ii) The new concrete road connects the railway stations and halts to support daily work itineraries, walks and weekend leisure trips, taking advantage of the connections between the rail and bicycle routes. iii) Specific projects have converted the riverbanks which link the town and the new urban parks.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=32>



Name: Wind power in the region Baden-Baden and Rastatt

Description: It is a study concerning the development and regulation of wind energy in urban land-use planning.

Place and years: Germany, 2012.

ELC Principles: Landscape planning.

Main actors involved: Hage+Hoppenstedt Partner (landscape planner), municipalities and interested public.

Funding: No information available.

Public participation: It was applied to most stages of the planning process.

Challenge: The federal government's aim to reduce CO2 emissions has led to a growing support for the extension of wind energy. The provincial government of Baden-Württemberg aims for 10% of the demand for electricity to be provided by local wind power. Currently, the proportion is less than 1%.

Solution: To identify potential sites for wind energy the area has been surveyed and analyzed and a number of guidelines established. These are primarily to secure economically sensible sites, with little potential for conflicts, the avoidance of areas with a high landscape sensitivity, with a preference for areas which have already been identified for wind energy use, the development of existing wind energy plants, preference to areas which already have good infrastructure, the concentration of plants to avoid single plants, a preference for efficient sites concerning wind strength, the avoidance of an excessive number wind plants in one area

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=52>



Name: Revitalization of the Rhein riverside meadows

Description: Landscape Master Plan for the Germersheimer river front. The project aims to enhance the site by increasing the possibilities to experience the space.

Place and years: Germany, 2011-13.

ELC Principles: Landscape planning.

Main actors involved: Local authorities, Landschaftsarchitekturbüro Snow (landscape architects), Behörde untere Landespflege (nature conservation authority), Water Management Authority, interested public, University Karlsruhe student's projects.

Funding: It was funded by the Federal State Rheinland-Pfalz

Public participation: It was applied to most stages of the planning process.

Challenge: The aim of the project is to find ways to transform the riverfront under a tight collaboration with the public.

Solution: Different forms of public participation have been applied at all stages in the planning process. For the survey, a questionnaire about perception and requirements of the landscape, video recording of public opinions and a workshop to find ideas under professional guidance have been carried out. For the analysis, the ideas of the public have been evaluated and tested, and guided walks informing about cultural/historical highlights arranged. For the evaluation of the transformation and the determination of objectives of landscape quality, the most popular public ideas are being presented and integrated in further concepts and discussions. The University of Karlsruhe contributes to the project, for example through student projects on the implementation of seating at the riverfront.

Link to database: <http://data.prismanet.gr/e-clic/view.php?id=53>



Name: Project ‘We Are Making Our Landscape’

Description: It is dedicated to raising awareness and educating the general public about the importance of landscapes for human development. It ran training events through which participants gained insight to the protection, management and planning of landscapes.

Place and years: Slovenia, October 2004 to May 2005.

ELC Principles: Landscape planning, management and protection.

Main actors involved: Slovenian Association of Landscape Architects in cooperation with the Landscape Architecture Department and Biotechnical Faculty of the University of Ljubljana.

Funding: Ministry of Environment and Spatial Planning, tender for NGOs 2004-2005. There was also a diversity of sponsors.

Public participation: The project focused on education of mentors, teachers, children and their parents, and the general public.

Challenge: It represents the first attempt at informing teachers and children about the contribution of landscape to the quality of life. It was created to spread knowledge of landscapes amongst the public, and especially to learn about Slovenian landscapes.

Solution: A number of instruments were used: (i) posters of “Slovenian Landscapes”, (ii) a seminar for teachers with a workshop, (iii) a publication on the workshop issued, (iv) a competition for art and photographic works, (v) an exhibition of the selected works and a ceremony with the presentation of awards to the best participants, (vi) brochure of the project, (vii) exhibition and presentation of the project at a international conference.

Link to database: <http://data.prismanet.gr/e-clc/view.php?id=50>

Annex 2

WINNING ENTRIES OF THE E-CLIC NATIONAL COMPETITIONS

A template has been created in order to present the same information for each one of the winning entries. It is structured as follow:

- Name: Title given by the competitor to his/her proposal.
- Country: National Competition to which the proposal was presented.
- Category: The target group (High School Students, University Students or General Public) from whose is the proposal.
- Challenge: What is the challenge the intervention had to deal with? Title of the challenge selected, from those proposed on each competition, to which the proposal relates.
- Description: Brief description of the territory, problems,... that have been selected to deal with the chosen challenge.
- Proposal: Explanation of the ideas and actions realized to deal with the chosen challenge.
- ELC Principles focused on: So as to know how many ELC principles (Landscape management, planning and/or protection) the example focuses on.
- ICT tools used: Programs used to realize the proposal.
- Link: Link to the proposal presented to the competition.

All the entries selected for each national competition can be consulted in the Ning Platform:
<http://e-clic.ning.com/competitions>



Name: Ephemeral one day

Country: Spain

Category: Secondary school students

Challenge: Urban recovery of degraded landscape.

Description: It's motivated by the aggressive urban development in the city of Arrecife, leading to unhealthy spaces with great visual impact. One of these spaces have been chosen for this regeneration action, aimed to create on it a place where city becomes much more than a simple place of transition and disaffection.

Reused materials and personal effort are the basis for this regeneration, along with three actions: area cleaning; settlement of leisure and resting areas; reused material. An open space attractive for population is sought, in order to enrich the place by interacting with it and with other people, as an experience lived individually but also together with the promoters of the action.

Proposal: Five students belonging to the Professional Training Programme, Control and Environmental Education, at Zonzamas High School on the island of Lanzarote, have set themselves a challenge to transform an urban site in the centre of the capital city, Arrecife.

Reusable materials and lots of effort to conceive a personal and unique urban space where citizens can enjoy meeting themselves and at the same time can come closer to a city which becomes more and more impersonal every time.

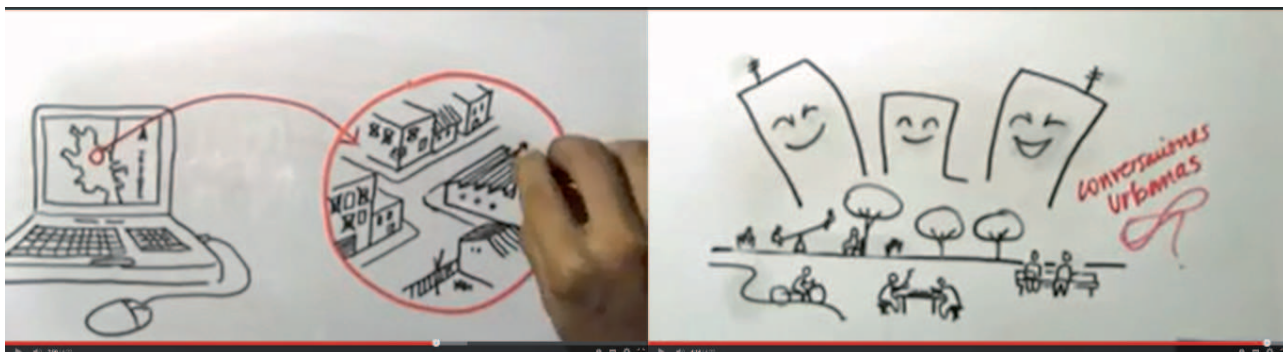
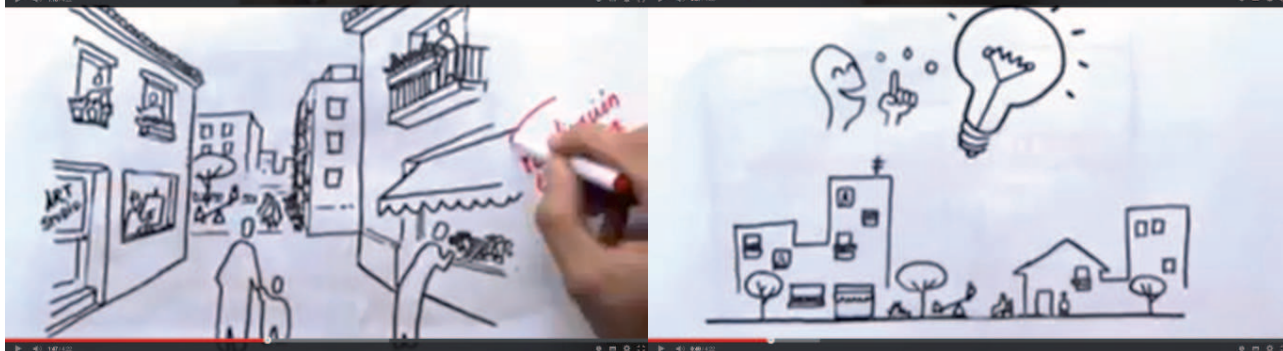
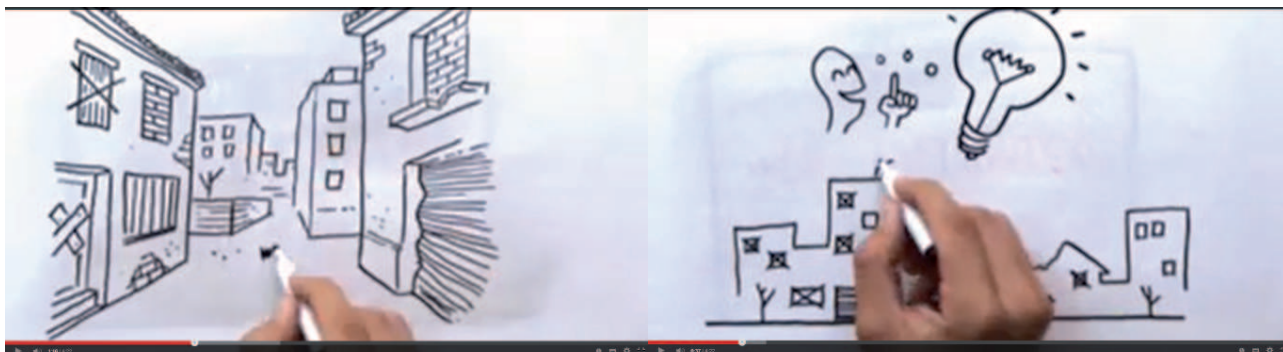
One only day to build and destroy a place with a resting corner furnished with armchairs from where you can enjoy the city atmosphere, a labyrinth to provide the youngest with alternative leisure activities, and a chill out area close to a vertical garden which makes it possible to relax on a green area and gives a chance for starting a conversation. All that built on a wooden floor made out of pallets, as the base for a model of combinability in a city.

"Ephemeral One day" is a project for regenerating urban areas where the citizenship can enjoy the city under another perspective, that is, the ephemeral one, as a metaphor for the amazing capacity of human beings to create and transform the environment.

ELC Principles focused on: landscape management and protection.

ICT tools used: OpenOffice (<https://www.openoffice.org/>); Google Earth (<https://www.google.com/earth/>); Final Cut Pro (<https://www.apple.com/es/final-cut-pro/>).

Link: <https://www.youtube.com/watch?v=Fz3Gu7z6ms4>



Name: Urban talks – Conversaciones urbanas

Country: Spain

Category: General Public

Challenge: Urban recovery of degraded landscape

Description: Two symptoms are identified as main contributors to the creations of a 'landscape of no one': increasing presence of abandoned or misused spaces on our cities and lack of sources to access them, either economic, communication, administrative or social resources.

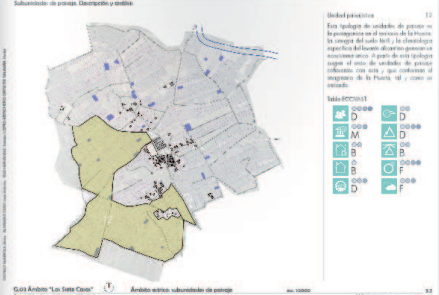
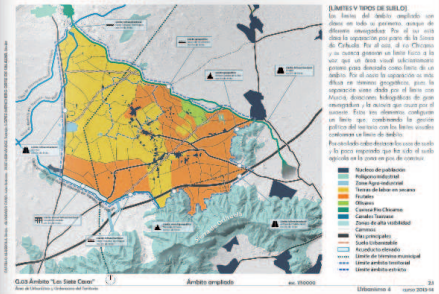
The project aims to ease access to these misused areas or urban spaces, which have seen how socio-economic activity gradually decreases on our cities. This is, it's intended to promote social interaction through higher public participation, of inhabitants and agents able to transform these spaces, so as this relation ends up with a physic restoration of the spaces leading to a local economic revitalization.

Proposal: Conversaciones Urbanas born with the objective to serve as a tool to stimulate the revitalization of spaces, economic activity and social interaction in cities. This project intends to set up recovery mechanisms spaces, which would be mostly a revitalization of socioeconomic activity areas under the risk of neglect or being involved in processes of urban obsolescence. Therefore, restoration of these spaces for the use neighbours and technicians best consider necessary, improving communications and easing the way to access them so as a 'landscape for everyone' be achieved is the scope of this project.

ELC Principles focused on: landscape planning and protection.

ICT tools used: ArcGIS (<http://www.arcgis.com/features/>); Google Maps Maker (<http://www.google.com/mapmaker>); Autodesk Auto CAD (<http://www.autodesk.com/education/free-software/autocad>); OpenOffice (<https://www.openoffice.org/>).

Link: <https://www.youtube.com/watch?v=YATOlqJY8qQ>



Name: Living allotments – Viure l’horta

Country: Spain

Category: University Students

Challenge: Solutions in coastal landscape to the urban pressure.

Description: The towns of “La Vega Baja del Segura”, such as Orihuela, are found in a situation of gradual identity loss. The end of the 20th century has supposed the destruction of the personality at landscape, economic and social levels. Therefore, they are now confronting a great challenge: the creation of strategies that integrate cultural and natural aspects of the territory, in order to make visible the roots that have given way to his now lost identity and have contributed to a sustainable (both social and economic) development of the communities that inhabit this rural space.

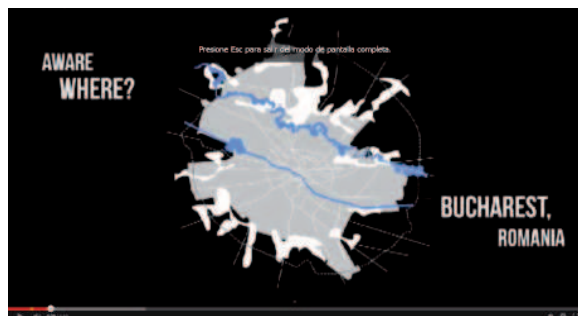
Consequently some management strategies attractive and flexible enough are set out in order to motivate the compromise of public and private entities. Firstly, it’s tried to examine and diagnose the existing problematic of the area through a deep analysis of its ambit and its influence ambit. As a result of the former we establish objectives and specific strategies that easily could be exportable to other similar territories as management models.

Proposal: Main objective is the creation of an integrated management model on the territory and its social structure to favour allotments and the living ways and benefits emerging around them. Under this philosophy it’s intended to generate a massive dissemination based on two quality items: bio and quality crops, where resources land offers are maximally optimized, avoiding the use of artificial products which alter crops; rural living way, far from global village has much to offer to people living on it. It’s intended therefore, the return to a former model environmentally -resource efficient and respectful, updated to current social and economic trends. ICTs will be used as social platform for land management, networking and its functioning and dissemination.

ELC Principles focused on: landscape management, planning and protection.

ICT tools used: Google Earth (<https://www.google.com/earth/>); Google Maps (<https://maps.google.com/>); GoPro (<http://es.gopro.com/>); Cartoweb (<http://cartoweb.org/>); Open Office (<https://www.openoffice.org/>); Rhinoceros (<https://www.rhino3d.com/>), plug-in Lands Design (<http://www.lands-design.com/>); Adobe Illustrator (<https://www.adobe.com/products/illustrator.html?promoid=KLXLT>); Adobe Photoshop (<https://www.adobe.com/products/photoshop.html?promoid=KLXLS>).

Link: http://issuu.com/javilmos/docs/viure_l_horta



Name: Peri-A-Where

Country: EU

Category: University Students

Challenge: Urban sprawl/inner urban shrinkage

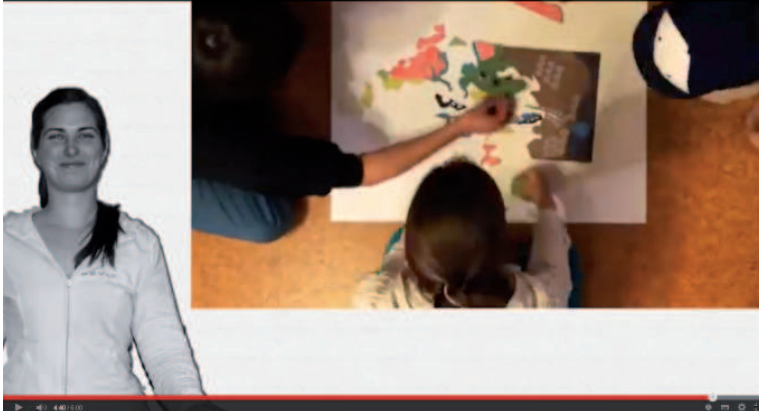
Description: Bucharest's urban sprawl process became significant during the 90s, following the political changes, which were made in 1990. That year meant the end of the communist area, beginning of a socialist one. Private property restitutions took place, so part of the agricultural land situated outside the city was sold. People started to build houses, individually, but the process was so rapid, the local authorities couldn't elaborate a strategy/ plan for development. Today, the residential areas are destroyed, dominated by different types of architecture, heights, materials, colors, textures and so on. New houses/villas are being built but the economic crisis prevents people from buying them. The road infrastructure is extremely poor and few roads are asphalted.

Proposal: Main objective is to capture the peripheries ambience and its destroyed landscape and to show how the built environment puts aggression into the rural in order to be aware of the situation and find solutions for improvement towards a sustainable development.

ELC Principles focused on: Landscape management.

ICT tools used: Google Maps (<https://maps.google.com/>).

Link: <https://www.youtube.com/watch?v=dXVOWkrVBO4&feature=youtu.be>



Name: Recolor your creek

Country: EU

Category: General Public

Challenge: Urban sprawl/inner urban shrinkage

Description: The Hosszúréti-creek is situated in the suburb of Budapest, capital of Hungary, and characterized by the typical problems of the urbanization process. Housing, traffic, commercial zones, agricultural and pasture along the creek that is still a living linkage between the capital and the countryside explains how land use affects water quality.

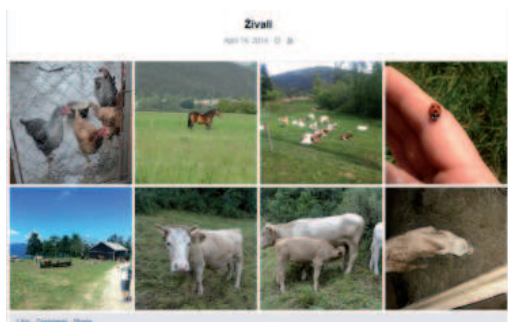
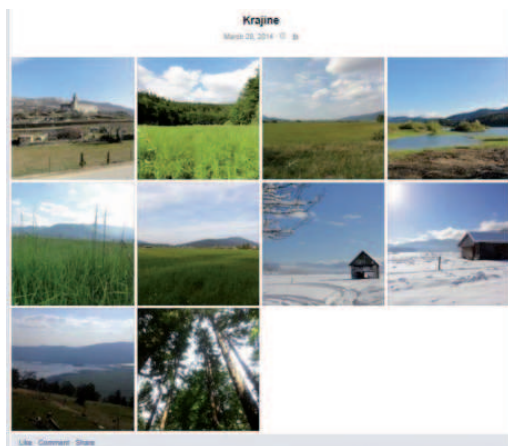
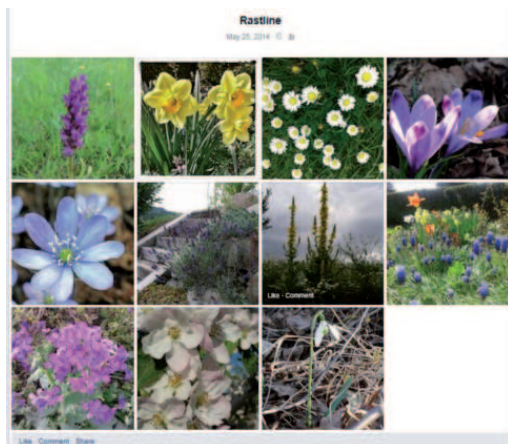
The project is based on the findings of a master thesis written in 2014. Research tools included stakeholder analysis at governmental, municipal, NGO and residential levels as well as interviews with municipal decision-makers and local and national NGO representatives and professionals. Interviews and focus group research among residents mapped generational differences in terms of connection to the creek. With those conclusions in hand we proposed a stakeholder constellation and also investigated types of participatory approaches. As part of the research environmental education program for secondary schools were developed and the “protecting our water bodies” lecture was prepared in a way to emphasize active participation.

Proposal: The project contains two main parts: a video and an interactive game. The video is the tool to introduce water-connected problems and solutions in the catchment of the Hosszúréti-creek for the commuting society of the area; and the interactive game aims to make people understand how the various land use types affect the quality of the water and that the characteristic of the creek changes according to these uses. This game, called “Recolor your creek”, includes basic ideas to solve water-connected problems and draws attention to careful planning and implementation of water sensitive solutions. With the possibility to redraw and recolor the environment of the creek people are able to improve their analytical skills and express their ideas in a constructive way and shapes the attitude of active participation in users.

ELC Principles focused on: Landscape management and planning.

ICT tools used: Java programming in Processing (<https://processing.org/>), Blogger (<https://www.blogger.com>) and iMovie (<https://www.apple.com/mac/imovie/>).

Link: <http://youtu.be/J4tdRCgkpQ4> <http://www.openprocessing.org/sketch/179523>



Name: Landscaper

Country: Slovenia

Category: Secondary school students

Challenge: The creation of stories and publication on Facebook page aiming to show all seasons, different challenges and aspects of operations on farm. Using ICT tools can help making the story more beautiful and more interesting.

Description: Landscaper “is my humorous name for a farmer who produces food in his good faith and other products on the farm for the family and for sale. In the same time he is also designing the beautiful landscape which people use it for sports, recreation, creation, tourism or just for family having a picnic”.

The idea is to edit daily life farmers’ stories on Facebook in a short or in comprehensive way. Photographs or sketches, even video presentation of farmers’ can be represented. For this purpose, it was made a list of interesting content for stories about family and farm (facilities, animals, pastures, machinery...). It’s very important how farms are presented, to have proper material (images, film, music, books) and also to know how to present it in English.

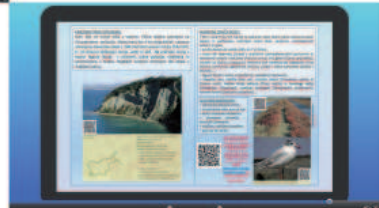
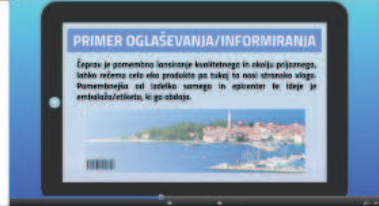
Apart from being this farm involved on a network of didactic farms in this region, by using Facebook each new feature can be introduced in the images, text as well as in the film. This gives this farm a completely new look and everyone more proud of it.

Proposal: The aim of this project is to create a story that describes the work on our farm in terms of creating landscapes and to share this story with others via Facebook.

ELC Principles focused on: Landscape protection.

ICT tools used: Facebook (<https://www.facebook.com/>).

Link:<https://www.facebook.com/profile.php?id=100009235986700>



Name: Re-Vive

Country: Slovenia

Category: University students

Challenge: Enhancing outstanding landscapes of Slovenia.

Description: Nowadays, information depends not only on technology itself, information tools and advertising, but also on how we present it to be the most pervasive and understandable. So that ELC becomes closer to general public, we need to simplify it and expose its essential elements, being sure ELC message remains clear. In order to achieve information at all stages of perception of information, we need to look wider. This can be done by thinking on “human activities” present at all age groups (i.e. eating; to satisfy this need, buying food becomes a global pattern).

The Re-Vive project is based on a simple concept of advertising through consumerism, using simple ICT tools. The main purpose of the Re-Vive project is to inform a large number of individuals or a wider public about extraordinary Slovenian landscapes (SL) and in the same time make the European Landscape Convention (ELC) closer to them.

Proposal: The project consists of a very simple concept, which is based on advertising, and it is intertwined with some use of friendly IT tools. The target group is the general public and covers all generations from children to our oldest grandmother.

The Re-Vive project suggest advertising through consumerism as the basis for achieving the objective of promoting ELC, SL and also as a strong support to local product/crafts within the outstanding landscapes. In order to achieve this, the local products would be included under the newly established brand with a simple name, “KRAJINA” (Landscape) “Eng. Landscape”. The long-term aim of this brand is to gather as many local products within the landscape and provide a better promotion, in addition, to improve promotion of landscapes.

ELC Principles focused on: Landscape protection.

ICT tools used: QR codes from mobile phones and links to web pages (<http://goqr.me/>); Corel Draw (<http://www.corel.com/gb/>); Picasa (<https://www.google.com/intl/en/picasa/>); Microsoft Power Point (<https://office.live.com/start/PowerPoint.aspx>); ArcGIS (<http://www.arcgis.com/features/>); Windows Movie Maker (<http://windows.microsoft.com/es-es/windows-live/movie-maker>); Prezi (<http://prezi.com/>).

Link: http://prezi.com/qimzbd7sco5k/?utm_campaign=share&utm_medium=copy&rc=ex0share

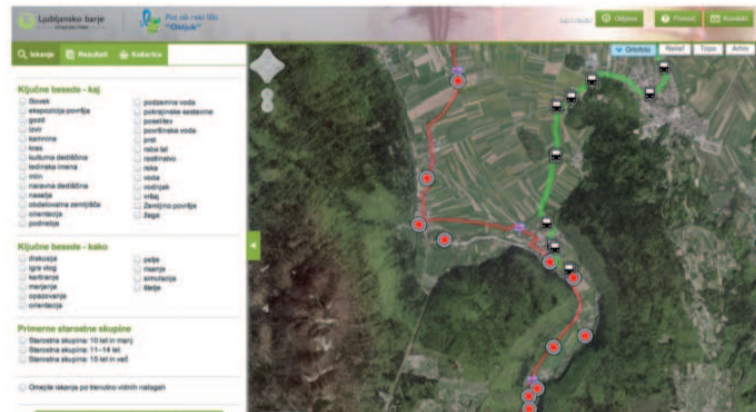
Učna pot ob reki Iški – “Okljuk”
http://www.ljubljanskobarje.si/uploads/datoteke/IG_table_vse_corr%207.pdf

http://www.ljubljanskobarje.si/uploads/datoteke/IG_table_vse_corr%207.pdf



banka nalog “Barjanska banka”

<http://barjanskabanka.geopedia.si>



Name: Okljuk - Interpretation polygon as a tool for understanding the cultural landscape

Country: Slovenia

Category: General Public

Challenge: Outstanding landscapes of Slovenia

Description: Environmental interpretation is not only one of the most suitable and effective processes for informing and raising the awareness of visitors to and residents of protected areas, but also one of the most demanding and complex ones. This proposal presents the successful design of the environmental interpretation polygon along the Iška River in the Krajinski Park Ljubljansko barje (Landscape Park). The created interpretation polygon consists of the educational trail in the landscape, interactive e-lessons in digital media, and the field exercise bank, which is a combination of digital media and experimental work in the landscape. The intertwining of the various interpretative methods encourages the visitors on site and the ones researching on a computer to gain a deeper understanding of the landscape processes. This will contribute to more comprehensive understanding and positive attitude toward the landscape, as well as toward preserving its natural and cultural heritage.

Proposal: Despite the increasingly integrated discussions/proceedings and preservation of the landscapes in Slovenia, there is lack of quality, attractive learning materials for the understanding of the processes in the landscape and the protection of natural and cultural heritage.

Our aim is to present successful design polygon interpretation of the nature along the Iška river in the Nature Park Ljubljana Marshes. This enables visitors to experience nature, cultural heritage and spiritual values of selected outstanding landscape.

The man has interfered the river basin, creating the current landscape, which intertwines the work of nature and man. With the interpretation we wanted to highlight the relationship between nature and human in the past and the present, and human (in) adaptation to natural processes. We have developed a number of interpretive tools, either classical or computerized: learning path; information boards; e-lessons; bank of field tasks; classroom and outdoors; brochure. This variety enables us to attract a wide range of potential visitors of different ages and different interests and skills.

ELC Principles focused on: Landscape planning and protection.

ICT tools used: edu.plexor (<http://www.abelium.eu/razvoj/edu.plexor>), doctrine and dedi for e-lessons; GWT tool (<http://www.gwtproject.org/>); Geopedia (<http://www.geopedia.si/>); iText (<http://itextpdf.com/>).

Link: <https://drive.google.com/file/d/0BwOqIQrR4wzCNUlIVkhMY0Y5WEE/edit>

Name: I dream of a city that is brighter, more at home...

Country: Greece

Category: Secondary school students

Challenge: Together with citizens: We are changing the landscape of our City (Upgrading / Managing the Urban Landscape)

Description: A second grade students of class B3, of the 3th Secondary High school in Corinth got involved in the E-CLIC Competition through certain actions which permitted them to revive some of their ideas about how each can contribute to make the planet a better place to live in. They conducted five actions: a school replanting, the creation of an outdoor exchange library, a seaside bicycle trip in Corinth, an expedition to clean a beach and graffiti on the walls of their school.

Proposal: The planting on their school flower beds, and the creation of graffiti on the exterior walls of the school, contributed decisively both in improving the appearance of the courtyard area, and creating a better environment for students who spend quarter of their daily time there.

The creation of the outdoor exchange library in the old municipal market of Corinth, gave life to an old, abandoned, neglected and historic city building. Number of visits increased, increasing interaction and communication of visitors, from young to elder people.

Through the action of the bicycle route they tried to promote the ecological mobility of residents. Reducing the use of private cars and increasing the use of bicycles, will make the city more environmentally friendly.

Cleaning the most popular beach of Corinth, Kalamia, with voluntary participation, literally transformed the beach, making it more attractive to fellow citizens. The intervention also contributed to the development of environmental consciousness.

Schools usually are painted with monotonous colors so they decided to light things up at their school through painting a colorful graffiti which gave life to those empty walls.

ELC Principles focused on: Landscape management.

ICTtoolsused: Adobe Photoshop (<https://www.adobe.com/products/photoshop.html?promoid=KLXLS>), Gimp (<http://www.gimp.org/>), Google Maps (<https://maps.google.com>), Google Earth (<https://earth.google.com/>), Minecraft (<https://minecraft.net/>), Pinterest (<https://www.pinterest.com/>), Google Sketchup (<http://www.sketchup.com/>), Windows Movie Maker (<http://windows.microsoft.com/es-es/windows-live/movie-maker>), Microsoft Word (<https://products.office.com/en-us/word>), Microsoft PowerPoint (<https://office.live.com/start/PowerPoint.aspx>), Open Office Writer (<https://www.openoffice.org/product/writer.html>) and Open Office Impress (<https://www.openoffice.org/product/impress.html>).

Link: <http://www.slideshare.net/mmalliou/ss-36770710>

KΕΝΤΡΙΚΟ ΘΕΜΑ



Στο πρόχειρο μας αυτό, μετά από περιήγηση, εργαστήκαμε πάνω στο θέμα της υδροηλεκτρικής ως ΑΠΕ - ενέργειας.

Αναρωτηθήκαμε κατά πόσον οφείλει τον άνθρωπο αυτή και, απεναντίας, ποιες είναι οι αρνητικές επιπτώσεις που απορρέουν από την παραγωγή της στη ζωή μας.

Έτσι, συντάξαμε την πρόσησή μας για την διάδοση της οποίας επιστρατεύθηκε μια γκάμα εργαλείων ΤΠΕ.

Μεγάλα Φράγματα του κόσμου

ΥΔΡΟΗΛΕΚΤΡΙΚΗ ΕΝΕΡΓΕΙΑ ΚΑΙ ΦΡΑΓΜΑΤΑ



Η Υδροηλεκτρική Ενέργεια είναι η ενέργεια η οποία στηρίζεται στην εκμετάλλευση της μηχανικής ενέργειας του νερού των ποταμών και της μετατροπής της σε ηλεκτρική ενέργεια με τη βοήθεια **στροβίλων**. Προκύπτει από τη ροή του νερού στον υδροφόρο ορίζοντα.

Η υδροηλεκτρική ενέργεια είναι μια πρακτικά ανεξάντηλη πηγή ενέργειας, που στηρίζεται στην εκμετάλλευση των ποταμών και των **τεχνητών ή φυσικών εξορμητών**.

ΕΝΕΡΓΕΙΑ ΑΠΟ ΗΛΕΚΤΡΟΛΥΣΗ



Πώς μπορούμε στην 'οικονομία του υδρογόνου' να παράξουμε το καύσιμο από το θαλασσινό νερό...

Είναι αλήθεια ότι η προηγούμενη πρακτική δεν είναι κατάλληλη για όλα τα τοπία. Υφολοι, ροα υμρά, δια επικελεύονταν περισσότερο από μιν άλλη, διαφορετική οπτική...

Έτσι, βρισκόμαστε ότι η νέα εφαρμογή της ηλεκτρολυσής θαλασσινού νερού μπορεί να αποβεί μια ελπιδοφόρα εναλλακτική.

Έτσι, ο συνδυασμός ηλεκτρολυτικής συσκευής με υψηλή PEM που καιο υδρογόνο, μπορούν να δώσουν μεγάλα ποσά καθαής ενέργειας με μόνο παραπροϊόν των αντιδράσεων, το μη ραποτόνο νερό...

Μάλλον ότι ασούμε σιγά για αυτή την τεχνολογία στο μέλλον...

Για παραποϊα, δια το κίε της κατασκευής.

Levels of sea salinity around the globe



Καταλλήλγττα περιοχή για παραγωγή ενέργειας μέσω ηλεκτρολυσής θαλασσινού νερού

Name: I can

Country: Greece

Category: Secondary school students

Challenge: Renewable energy, but ... how does it affect the landscape?

Description: It is a fact that dams are widely used today with worldwide proliferation from the 19th century to modern times. They provide a range of functions, the most important being the production of hydroelectric power, offering a number of advantages.

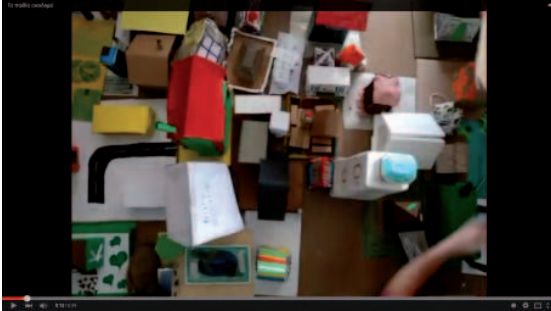
However, in the impact assessment, the disadvantages brought about by the construction of dams in large and smaller rivers are not always taken into account. Connecting our daily activities to the operation and construction of dams, we also evaluate the negative impacts of them. In this way, it is possible to make an objective assessment of the contribution of the construction of dams based on our needs. Initially, an ecological impact is that interrupting the steady flow of a river may cause changes in the microclimate, changing moisture contents in time and causing harmful effects on living organisms, disruption of the ecosystem, modifying abiotic factors and leading perhaps to elimination of living organisms, often rare or endangered. In addition, the impact on the environment seems even greater, if one takes into account the quality of the filtered water resulting from the operation of the dams

Proposal: The proposal is about how to create clean green energy without using the dams, which have an impact on landscape and environment. They suggested electrolyzing seawater ashore and burning the hydrogen product to produce electric energy. A practice that offers significant amounts of energy with very low cost which is expected to hear a lot in the future. In these two ways, they managed to offer a global solution to minimize the consequences of dams on the landscape.

ELC Principles focused on: Landscape planning.

ICT tools used: Minecraft Game (<https://minecraft.net/>), Google Earth (<https://earth.google.com/>), location-game platform Aris Games (<http://arisgames.org/>), Adobe Photoshop (<https://www.adobe.com/products/photoshop.html?promoid=KLXLS>), Adobe Illustrator (<https://www.adobe.com/products/illustrator.html?promoid=KLXLT>), Microsoft Word (<https://products.office.com/en-us/word>), Microsoft PowerPoint (<https://office.live.com/start/PowerPoint.aspx>), electronic platform Layar (<https://www.layar.com/>), ArcGIS (<http://www.arcgis.com/features/>), Twitter (<https://twitter.com/>), 3D Tinkercad (<https://www.tinkercad.com/>), Pioneer Vue (http://www.e-onsoftware.com/products/vue/vue_pioneer/), Como App Maker (<http://www.como.com/>), Loxia Studio (www.loxiastudio.com/), Emaze (<http://www.emaze.com/>), iSpring Suite (<http://www.ispringsolutions.com/ispring-suite>), Windows Live Movie Maker (<http://windows.microsoft.com/es-es/windows-live/movie-maker>), Movavi Video Editor (<http://www.movavi.com/videoeditor/>) and Youtube (<http://www.youtube.com/>)

Link: <http://app.emaze.com/559624/presentation-e-clic#1>



Name: The children build

Country: Greece

Category: General public

Challenge: “Invading” the Landscape: Building where we shouldn’t (Arbitrary off plan building)

Description: A teacher and a group of students inspired one another with regard to the creation of urban landscapes on a small scale, that of a model, setting up their own village –the “ Sunvillage” in a spinney close to the school yard.

Proposal: They weighed the “for” and “against” of building in two randomly chosen points in the spinney through interaction and role-playing concluding in the following: land may belong to specific people but landscape- as a life experience- belongs to everybody , so the active participation in its care is everybody’s affair. Even more, the per se deconstruction of the landscape could end up being catastrophic for everyone. On the contrary, if it is accompanied by a deconstruction in the way of thinking and viewing it, resulting in the further sensitization of citizens and the creation of a new culture with reference to the landscape, the environmental and social benefits will be numerous. Thus, “the children –as the only present and future of this nation- will built” but only where this is allowed, letting the landscape “lie” safe and sound under the “umbrella” of human care far away from the dark shadow of building in the breach of planning regulations.

ELC Principles focused on: Landscape management and planning.

ICT tools used: Youtube (<http://www.youtube.com/>)

Link: <https://www.youtube.com/watch?v=oCm3SIAY8Fg&feature=youtu.be>

Kasseler Herz des Tourismus

English Deutsch

Welcome
Introduction
Process
Scenarios
Video
Questions

Introduction

The Mountainpark at Wilhelmshöhe is the largest mountain park in Europe. It is known for its fascinating nature, the baroque monuments and – last but not least – its famous trick fountains. Since 2013 the Mountainpark at Wilhelmshöhe has been part of the UNESCO world heritage of mankind. Lots of visitors are attracted by it every day, especially of course on the days when the trick fountains are displayed.

This high amount of tourists causes severe traffic problems because most of them get there by car. The high rate of individual transport causes air- and noise pollution, as well as chaotic parking situations. Moreover, the connections by public

transport, especially to the Hercules monument, are often confusing for visitors.

We have tried to develop attractive, easy and environmentally friendly solutions for the access to the unique world heritage ensemble supporting tourism as well as protecting nature.

The aim of our project is to create a minimal affecting coexistence of tourism and nature conservation. Tourism is an important economic factor for Kassel, therefore we want the city to maintain an international tourist attraction. But it is also important and necessary for us to protect the beauty of the Bergpark for the following generations. Our solutions hardly disturb tourism however they can contribute a lot to nature conservation. Our main idea is the improvement of the connection to the Hercules monument by public transport with a tramway. Until now visitors have to change to a bus at the terminus "Druseltal." The advantage of our solution is that foreign visitors can get to the main tourist attraction of Kassel without changing. This is easy and environmental friendly. Furthermore a tram has got a higher promotional capacity and its frequency can be adjusted to the seasonal demands. The interests of the visitors may differ so we would offer an expansion of the visitors' excursions. In this way we want to decentralize the flow of visitors. All in all many small measures like the ones mentioned above or a reduction of the amount of water being used during the water displays combined with improved information in the accommodations would support nature and tourism equally.

Name: Das Kasseler Herz des Tourismus

Country: Germany

Category: Secondary school students

Challenge: Issues and consequences of tourism on landscapes

Description: The Mountainpark at Wilhelmshöhe is the largest mountain park in Europe. It is known for its fascinating nature, the baroque monuments and its trick fountains. Since 2013 it has been part of the UNESCO world heritage of mankind. Lots of visitors are attracted by it every day.

This high amount of tourists causes severe traffic problems. High rate of individual transport to this place causes air and noise pollution, as well as chaotic parking situations. Moreover, the connections by public transport, especially to the Hercules monument, are often confusing for visitors.

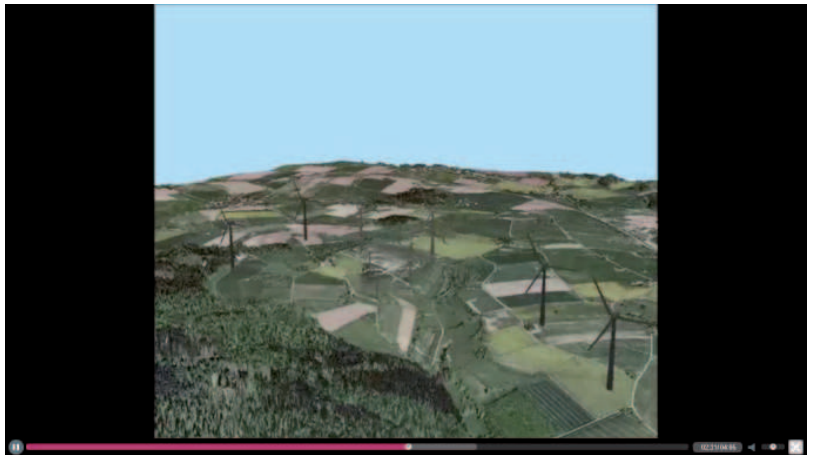
Proposal: The aim of the project is to develop a proposal minimally affecting coexistence of tourism and nature conservation. It is important and necessary to protect the beauty of the Bergpark for the following generations. The proposed solutions hardly disturb tourism, although they can contribute a lot to nature conservation. The main idea is the improvement of the connection to the Herkules monument by public transport with a tramway.

It has been created a website with which we want also to offer an open discussion for citizens and visitors in which they can introduce their ideas and suggestions in order to improve the situation for both groups. So the people can take part in the process of creating a tourist attraction which can also be visited by following generations because it is based on sustainability.

ELC Principles focused on: Landscape management and protection.

ICT tools used: Google Sites (<https://sites.google.com/>), Windows Movie Maker (<http://windows.microsoft.com/es-es/windows-live/movie-maker>).

Link: <https://sites.google.com/site/kasselerherzdestourismus/>



Name: Change of the landscape due to the increasing amount of wind turbines

Country: Germany

Category: University students

Challenge: Changes in the landscape by the energy turnaround

Description: Germany is in the process of energy transition and switching from conventional to renewable sources of energy. This change has effects on the visual perception of the landscape. A transformation of the historically developed cultural landscape towards an energy landscape is a consequence of this change. The wind power is a major player in this process and shapes the landscape and the characteristic scenery.

But renewable energies affect the environment in the area and are a trending topic in the region. The extension of the wind farm in Fürstenau has been discussed for a long time. Rising awareness in residents and other stakeholders is an important aspect in the overall process. The visualization of the future development of a wind farm can be an opportunity for informing the public in this part of the process.

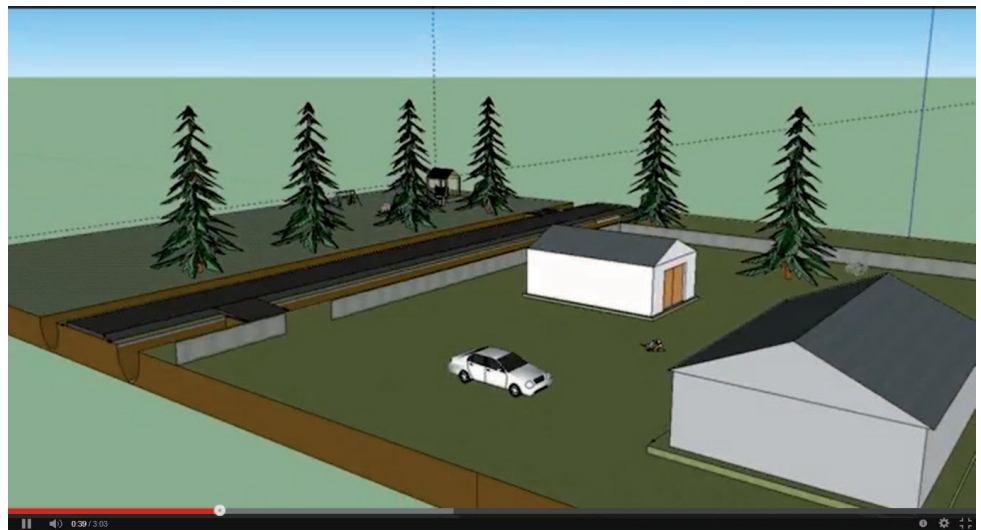
Proposal: It is done a visualization of the wind farm Fürstenau, which is close to the University and an expansion of the farm is planned. This visualization makes possible to show the visual impact of wind turbines on the landscape. The method used in GIS is transferable and can be used for many different scenarios.

The short film shows the existing stock and planned wind turbines in the context of the surrounding landscape and the close settlement. You could use this type of visualization to take the residents' fears regarding planned upgrades and to increase understanding for the change of the landscape due to the increasing amount of wind turbines.

ELC Principles focused on: Landscape management and planning.

ICT tools used: Adobe Photoshop (<https://www.adobe.com/products/photoshop.html?promoid=KLXLS>), Windows Movie Maker (<http://windows.microsoft.com/es-es/windows-live/movie-maker>), ArcGIS (<http://www.arcgis.com/features/>) and ArcScene (<http://www.esri.com/software/arcgis>).

Link: <http://univideo.uni-kassel.de/video/2212/>



Name: Periphery

Country: Estonia

Category: Secondary school students

Challenge: Abandoned rural landscapes

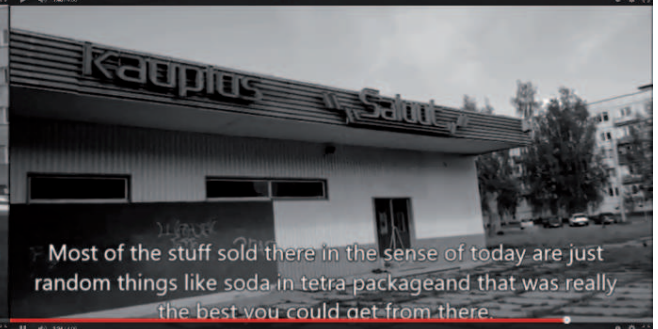
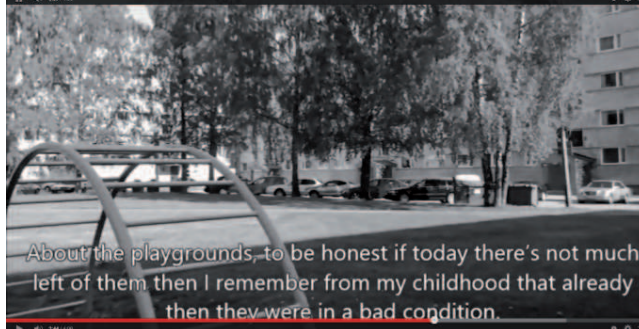
Description: The project is analysing the current situation where rural areas are not so attractive place to live in and people are moving more and more to bigger cities. The presentation worries about life in the countryside and proposes ways and methods to enliven the periphery and bring it back to life. As people and their everyday life make big part of the landscape, the project is more oriented towards social interaction and providing people reasons to stay in the countryside.

Proposal: The project has taken one village under consideration as an example to solve the problem of decreasing rural population. Project maps the benefits of the village and promotes life in rural settlements. Project finds that countryside has its benefits: peace and calm, small, but united community, long traditions and identity. The project acts as a promotion for rural life. The work is looking at the problem how to keep landscape alive, how to live in the rural landscape.

ELC Principles focused on: Landscape management.

ICT tools used: Google Sketchup (<http://www.sketchup.com/>)

Link: <http://www.youtube.com/watch?v=Aj7RwAU1krQ>



Name: Annelinn as Soviet Heritage

Country: Estonia

Category: University students

Challenge: Soviet Era housing areas

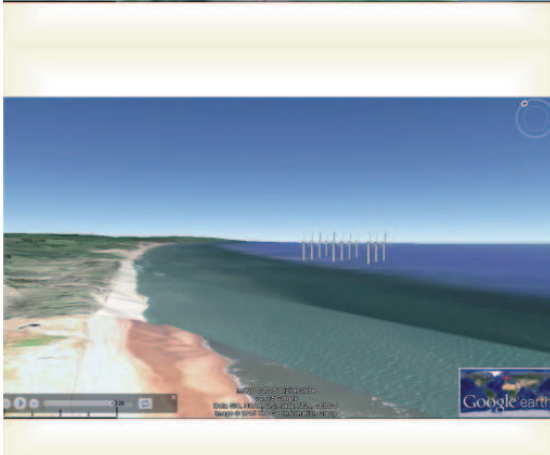
Description: The Aim of the project is to study the history of Annelinn to understand its development and to specify the future perspectives. Is it necessary to preserve Annelinn as Soviet heritage or should there be a completely different environment developed? Maybe even to change the function of the area.

Proposal: To give a good overview of the history, there have been made interviews with local people, who have been living in Annelinn since Soviet period. In this project it has been displayed one short interview that gives an overview of one person (male, 33), childhood experiences in Annelinn. Additionally, I made a timeline to describe the past, present and future. I chose to do an interview because it was intended to get a picture of an authentic experience of living in Annelinn during its prime time. The best way to do it is to describe it through the memories of people.

ELC Principles focused on: Landscape management.

ICT tools used: Youtube (www.youtube.com/)

Link: https://www.youtube.com/watch?v=i-zuly_IJk



Conflict of Interests



- ✧ Golf course development created a conflict
- ✧ Nature versus Economics

Nature Conservation

- Protected natural area
- North part characterised as a site of Special Scientific Interest (SSSI)
- Symbolism: nature conservation underestimated
- Local houses encircled
- Plans for development of offshore wind turbines
- Influences unspoilt landscape

VS

Economic Development

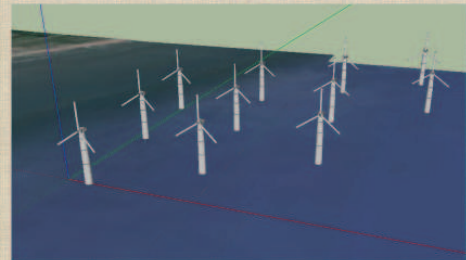
- Tourist and economic boost
- Creation of jobs

Importance of Public Awareness



- ✧ Petition commenced against the golf course development
 - Public opinion changed
 - Increased exposure and awareness
- ✧ More people will take part in decision-making
- ✧ Local residents should have a clear view and express their opinion
- ✧ Possible similar conflict outside the United Kingdom

Generation of Turbines Model



Name: Offshore Wind-Farm in Aberdeen

Country: United Kingdom

Category: University students

Challenge: Offshore renewables in coastal landscapes and seascapes

Description: There are people around Europe who do not have a clear view of what an offshore wind-farm looks like. For them, it is a new form of renewable energy. Furthermore, onshore wind-farms are more common than the offshore ones. Many of them are located across Europe and people seem to be familiar with them.

Proposal: The project includes the visualisation of a wind-farm close to the city of Aberdeen. A map is made showing the exact location of the wind-farm. In addition to this, a view of the wind-farm is produced, so that a clear understanding of the way it affects the seascape is possible. What this project achieves is to familiarise people with a view of a wind-farm.

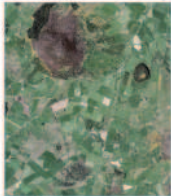
ELC Principles focused on: Landscape management.

ICT tools used: ArcMap (<http://www.esri.com/software/arcgis>), Google Sketchup (<http://www.sketchup.com/>) and Microsoft Power Point (<https://office.live.com/start/PowerPoint.aspx>).

Link: <https://drive.google.com/file/d/0B2bTVdRrYngtRUR4bkJxRjJXbkE/view?usp=sharing>

Digital Data Acquisition

Ordnance Survey Mosaic 30/05/2014



Ordnance Survey Aerial photo
30/05/2014



Scottish Southern Energy (SSE) Voltage
and Electricity Utility Data Layer



The James Hutton Institute Soil Survey
8974, Glenbarry NIS5

Edilic



Edinburgh
Population: 495,360 (2011)
Capital city of Scotland
Location of Scottish Parliament

Scottish Government purpose
statement: To focus Government
and public services on creating a
more successful country, with
opportunities for all of Scotland to
flourish, through increasing
sustainable economic growth.

Scotland is working to secure the
benefits for the rural and upland
landscapes by working on the
ecosystem services.

Results (cont)

Knock Farm Land Use 2012



Knock Farm Land Use 2013



Knock Farm Land Use 2014



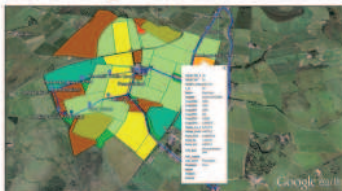
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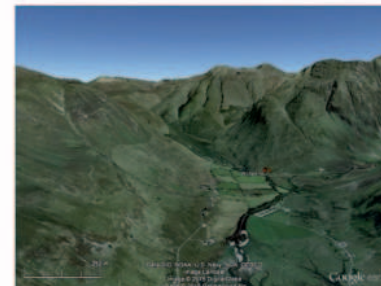
**Loch Lomond and the
Trossachs National Park**
Encompasses 1,965km²
Established in 2002, it is the
largest fresh water expanse in
mainland Britain.
Loch Lomond is located on the
Highland boundary fault.
West Highland Way runs along
the east of the loch.
21 munnos with Ben Lomond
(974m) as one of the most
popular munnos in Scotland.

GIS in Google Earth

The digitised rural landscape polygon features are opened and saved onto MyPlaces in Google Earth Pro. All attribute information is transferred when creating a .kmz file. The information can be edited in GoogleEarth Pro.



Edilic



Hill farming
55% of Scotland's agricultural land
is dedicated to sheep farming and
mixed sheep and beef cattle in
the uplands.

Name: Changes and Threats in Upland Rural Landscapes: Geographic Information Systems (GIS) and Web-mapping for Protection, Management and Planning

Country: United Kingdom

Category: General Public

Challenge: The historic shaping of upland landscapes

Description: Scotland's landscape faces many challenges to meet objectives set for renewable energy, food security, employment, commercial and natural forestry cover, transport links, all while maintaining the national identity that natural Scotland bestows upon its citizens.

In rural areas with a capability for agriculture the planning and management of the farmland is necessary; considering crop rotation, properties of the soil, input and output costs, market costs, etc. The legislative requirements for land use management and planning, such as the length of hedgerows on the farm or reporting the status of protected natural areas to Scottish Natural Heritage (SNH), are now a daily bind. Farm managers have accountability for the landscape they manage and so it is inherent that there is a challenge they face in organising the spatial data.

Proposal: The aim of this project is to apply Geographic Information Systems (GIS) as an ICT tool to collect, store, analyse, edit, and visualise spatial data. Particular GIS tools and techniques are used to produce tangible deliverables to communicate land use on a farm in North East Scotland. The private land manager is interested in an ICT-tool to assist in the day to day running of the organic agriculture, commercial forestry and native habitat protection. The final result is to use web-mapping as a way of communicating privately and publicly the protection, management and planning of the farmland and rural landscape.

ELC Principles focused on: Landscape planning, management and protection.

ICT tools used: ArcMap (<http://www.esri.com/software/arcgis>), Google Earth (<https://earth.google.com/>) and Microsoft Power Point (<https://office.live.com/start/PowerPoint.aspx>).

Link: <https://drive.google.com/file/d/0B2bTVdRrYngtdUpvZk15RIIVSk0/view?usp=sharing>