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**Computer Assisted Education for Environment  
Protection**

NaturNet Plus

**Dissemination strategy for NaturNet Plus**

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## Abstract

NaturNet Plus is a multilateral project funded by the European Commission's Lifelong Learning Programme. NaturNet Plus will transfer knowledge from previous projects and initiatives, like the NaturNet Redime project, to regions and enterprises. The main focus is on vocational training in sustainable tourism; mainly in sensitive areas as protected territories, national parks and coastal zones.

The project will establish a newly generated education content and will introduce it through innovative platform for vocational training and eLearning to a preset group of final beneficiaries interested in the field of sustainable tourism, GIS technologies, metaschools tools etc.

The platform will include components for

- Video lecturing
- URM implementation
- Matrix for integrated environmental impact assessment(IEIA)
- Tools for mobile learning
- Metadata with regional specific information
- Catalogue
- Gehosting

All project deliverables will be introduced to the stakeholders through university centres for distance learning and eLearning and certified centre for vocational training according to the national law of each partner country.

This document describes the framework for dissemination activities and communication strategy.



## 1. Target groups

NaturNet Plus is mainly targeting the following groups for dissemination activities:

- On local level – the project partners (politicians and decision makers in the field of environment and tourism, regional and local governments, cities, ...)
- On regional and interregional level (public authorities, private companies, associations, universities, tourist offices, tourist industry)
- On national and European level (expert panels on basic issues of sustainable tourism, professional associations, universities and other relevant research centres)
- Citizens and different tourist social networks (this groups are main users of tourist services) - their opinion is most important for local authorities and tourist services providers. Their involvement is also important for education of other groups. Their need has to be satisfied by tourist services. Involvement of this group is a complex process and it requires new techniques supporting the interconnection with existing social tourist networks.

## 2. Involvement and feedback of target groups

NaturNet Plus is based on a bottom-up approach. An important part of the communication plan is the involvement and feedback of target groups to define their requirements and to validate the project results. This includes project partners of NaturNet Plus as well as external institutions and other private and public users and target groups. Communication with those groups will take place via questionnaires, papers and articles, internet and mainly via events (workshops, seminars, professional education events, vocational trainings).

An important role of the dissemination activities is validation of project results. The aim of the validation is to ensure and to raise the quality of the NaturNet Plus products.

Three main questions can be identified concerning validation:

- Who is addressed by the NaturNet Plus products and what are their interests?
- Who has to be involved for further activities to ensure sustainability of the NaturNet Plus results?
- How should the results be prepared and presented to obtain a high acceptance by the NaturNet Plus partners and relevant stakeholders beyond the partnership?



The mentioned target groups and stakeholders have different interests in the field of sustainable tourism. The NaturNet Plus results should be communicated in the way that fits to the needs of the target users.



### 3. Communication and Dissemination Strategy

The communication and dissemination strategy includes several interconnected objectives. It aims at providing information about the project issues and project results to the project partners and other stakeholders. It includes also a feedback from all the partners and stakeholders that will serve as a validation step of our results and aims. Informing broader public and possible future users of the ongoing project research and its results should be noticed too.

There can be distinguished five key tasks of the dissemination and communication strategy. These tasks are as follows:

- Defining the intended audience key target groups within NaturNet Plus tasks
- Preparing target group oriented communication
  - added value for the key target groups
- Keeping in touch with NaturNet Plus
  - website, portal, newsletters
  - regional workshops
  - other events
- NaturNet Plus vocational trainings
- Linking NaturNet Plus activities with target group activities

### 4. Communication and dissemination tools

The main NaturNet Plus communication and dissemination tools aim at providing information about project issues and project results to the project partners and other stakeholders. This goal will be followed during the course of the project by coordinated actions, including

- Single Events
  - Workshops with target groups, providing feedback
  - Regional workshops with target groups to discuss case studies and get feedback
  - Vocational training, professional training



- Recurring events and regularly processed information
  - Internal communication and exchange at the NaturNet Plus project meetings (twice a year)
  - Project website
  - Newsletters
  - Press releases and media contacts on different levels (EU-wide, national, regional, local), especially in connection with workshops and events and accompanying case studies
- Supportive actions
  - Recognition, Corporate Identity: presentations, publications, etc.
  - Visibility at conventions and meetings (roll ups, brochures for target groups, leaflets)
  - Articles, information and innovative elements in journals
- Initiating long-term networking activities including social network sites. Connection of the geoportal and professional and social network sites (e.g. Facebook, Linked-In) are envisaged. See chapter Web 2.0 and NaturNet Plus for more details.

## 5. Graphical Identity

NaturNet Plus has adopted the same logo as used in the NaturNet Redime project:



This will increase the awareness of the project and the continuation of the activities.

NaturNet Plus uses common template for presentations.



## 6. NaturNet Plus Website

A key element in dissemination is the project website (<http://www.naturnet.cz>).

MediaWiki is used to handle all the information and documents related to the NaturNet Plus project.

MediaWiki is free server-based software which is licensed under the GNU General Public License (GPL). It is designed to be run on a large server farm for a website that gets millions of hits per day.

Pages use MediaWiki's wikitext format, so that users without knowledge of XHTML or CSS can edit them easily.

When a user submits an edit to a page, MediaWiki writes it to the database, but without deleting the previous versions of the page, thus allowing easy reverts. MediaWiki can also manage image and multimedia files, which are stored in the file system.

MediaWiki is installed on the coordinator's server and it is regularly backed-up. This MediaWiki instance is accessible through the Internet browser. It is divided into two parts:

1. Public website
2. Internal website

Both parts are accessible at <http://www.naturnet.cz>.

More information about MediaWiki can be found at <http://www.mediawiki.org>.

MediaWiki help: <http://meta.wikimedia.org/wiki/Help:Contents>.

### 6.1 Public website

The public website is used to present to the public:

- project summary in 6 languages;
- consortium;
- objectives;
- deliverables;
- events;
- contact information.

### 6.2 Internal website (WIKI)

The internal (non-public) website (hereinafter referred to as WIKI) is restricted for the NaturNet Plus project members.



## 7. Web 2.0 and NaturNet Plus Geoportal

### 7.1 Web 2.0

The concept of "Web 2.0" began with a conference brainstorming session between O'Reilly and MediaLive International (O'Reilly, 2005). There are many definitions of what Web 2.0 is. For the purpose of this report we have selected the following one:

"Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "architecture of participation," and going beyond the page metaphor of Web 1.0 to deliver rich user experiences."

(cit. Tim O'Reilly: *Web 2.0: Compact definition?*,  
<http://radar.oreilly.com/2005/10/web-20-compact-definition.html>)

Web 2.0 can be described according to the report by Osimo [2008] and research of O'Reilly and Forrester. Web 2.0 is composed of a set of:

- **Technologies** - building blocks of web 2.0, e.g Ajax, XML, Open API, Microformats, Flash/Flex and other techniques for creation of web applications.
- **Applications** - allow easy publishing, information sharing and collaboration. They include blogs, wikis, podcasts, RSS feeds, tagging, social network sites (e.g. Facebook, Myspace), search engines, Massive Multiplayer Online and others.
- **Values** - they build on the knowledge and skills of the user –
  - user as a content producer/provider,
  - user providing feedback, comments, reviews of the existing content,
  - users who access, read and watch the existing content,
  - user who does not benefit from web 2.0 applications and values.

#### 7.1.1 Web 2.0 Design Patterns

Web 2.0 websites are focused on involvement of their users as content providers with rights to control the data. As a summary of key features of Web 2.0 O'Reilly (2005) introduced eight key patterns of Web 2.0.

"Each pattern describes a problem that occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice." [Alexander, 1997]

1. **The Long Tail** - Small sites make up the bulk of the internet's content; narrow niches make up the bulk of internet's the possible applications. Therefore: Leverage



customer-self service and algorithmic data management to reach out to the entire web, to the edges and not just the center, to the long tail and not just the head.

2. **Data is the Next Intel Inside** - Applications are increasingly data-driven. Therefore: For competitive advantage, seek to own a unique, hard-to-recreate source of data.
3. **Users Add Value** - The key to competitive advantage in internet applications is the extent to which users add their own data to that which you provide. Therefore: Don't restrict your "architecture of participation" to software development. Involve your users both implicitly and explicitly in adding value to your application.
4. **Network Effects by Default** - Only a small percentage of users will go to the trouble of adding value to your application. Therefore: Set inclusive defaults for aggregating user data as a side-effect of their use of the application.
5. **Some Rights Reserved** - Intellectual property protection limits re-use and prevents experimentation. Therefore: When benefits come from collective adoption, not private restriction, make sure that barriers to adoption are low. Follow existing standards, and use licenses with as few restrictions as possible. Design for "hackability" and "remixability."
6. **The Perpetual Beta** - When devices and programs are connected to the internet, applications are no longer software artifacts, they are ongoing services. Therefore: Don't package up new features into monolithic releases, but instead add them on a regular basis as part of the normal user experience. Engage your users as real-time testers, and instrument the service so that you know how people use the new features.
7. **Cooperate, Don't Control** - Web 2.0 applications are built of a network of cooperating data services. Therefore: Offer web services interfaces and content syndication, and re-use the data services of others. Support lightweight programming models that allow for loosely-coupled systems.
8. **Software Above the Level of a Single Device** - The PC is no longer the only access device for internet applications, and applications that are limited to a single device are less valuable than those that are connected. Therefore: Design your application from the get-go to integrate services across handheld devices, PCs, and internet servers.

## 7.2 NaturNet Plus Geoportal

NaturNet Plus Geoportal is a package of applications that allows you to work with maps in web environment based on OGC Web Services.

The geoportal is accessible at: <http://portal.naturnet.org>

### 7.2.1 Catalogue

The catalogue client allows you to search metadata using OGC CSW. There is a possibility to show the detail information of the record.



## 7.2.2 Map

The map client allows to view maps based on OGC Web Services and other formats (Google maps, KML, MapServer, GML).

Basic functions:

- Viewing web services (OGC WMS, WFS) selected by user from the catalogue or directly by address.
- Saving user defined map project on local hard drive a re-loading of this saved composition (OGC WMC)
- Distance and area measurements.
- Searching in maps.
- Inserting user defined objects into map.
- Large format printing in PDF.
- Showing legends, metadata and querying in map.

## 7.2.3 Geoportal & Social Network Sites

“A social network consists of a finite set or sets of actors and the relation or relations defined on them. The presence of relational information is a critical and defining feature of a social network.” [Wasserman, 1994]

As already stated, examples of web 2.0 applications include blogs, wikis, podcasts, RSS feeds, tagging, social network sites (e.g. Facebook, Myspace), search engines, Massive Multiplayer Online and others.

The focus of the NaturNet Plus project is on social network sites (e.g Facebook, Twitter) as one of the main dissemination and communication tool.

The main aim of this activity is to communicate (to give information and to retrieve some feedback) about the NaturNet Plus developments through the NaturNet Plus Geoportal. This will enable to induce discussion about certain topics. The retrieved feedback should serve as input information for further developments.

The NaturNet Plus Geoportal will be an entry point for any news (new developments, problematic topics, progress in the project, etc.). News will be posted by the project partners and will be automatically distributed to a number of selected communities – social network sites. Feedback from these social network sites will be retrieved using RSS and answered again from the central point – NaturNet Plus Geoportal. See Figure 1.

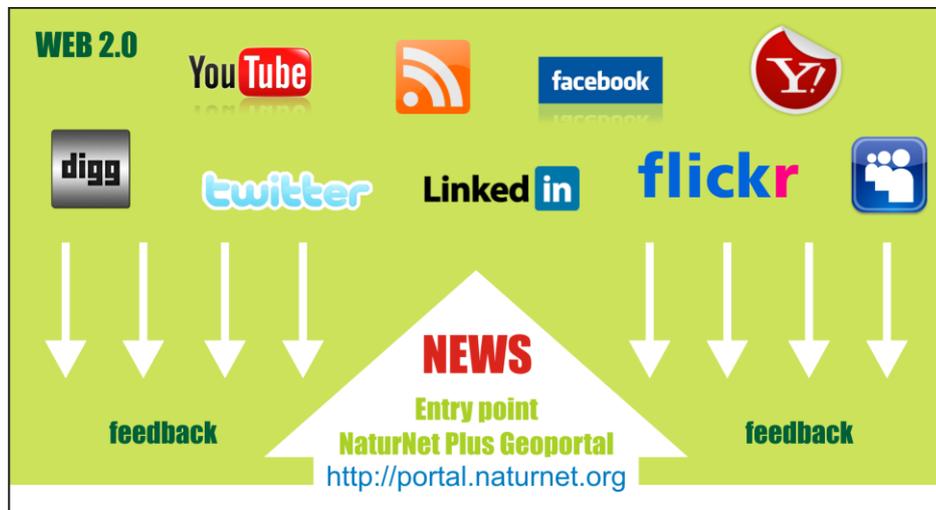


Fig. 1 - Geoportal & Social Network Sites

This approach will allow involving other communities from one place without having to enter each community. Users of various social network sites can read entries and comment through their respective communities and don't have to register elsewhere. This will form Citizen and tourist communities group. Its feedback will give an opinion about different types of tourism. The opinion of tourist community will be important part of the education. The main purpose of tourism is user satisfaction. The tourist community will be able to use these NaturNet Plus social networks tools to satisfy their needs.

### 7.2.4 Other functions

Other functions including maintaining geographic databases, metadata storage etc. are available only for logged-in users.

## 8 References

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