



Grant Agreement N°: 603847

Project Acronym: POLIMP

Mobilizing and transferring knowledge on post-2012 climate policy implications

D5.4: Report on Initial Sustainability Strategy

Project Coordinator: **JIN**

Work Package **5** Leader Organization: **Ecologic**

Task 5.4 Leader Organization: **UPRC**

Authors: **UPRC**

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Preface

POLIMP intends to facilitate a process to identify, for different policy and decision making levels, knowledge gaps about implications of possible directions of international and EU climate policies. The core objective is to cover these gaps with knowledge packages derived from a broad range of existing reports, research and climate policy decisions at, e.g., EU and UNFCCC levels. With these information packages, climate policy associated stakeholders will be better able to extract key policy conclusions. Through series of workshops these packages will be communicated with stakeholders and collect feedback. In addition, POLIMP will develop a knowledge platform for EU policy makers on climate policy implications.

Knowledge gaps will be identified for a range priority issues related to climate policy making in consultation with stakeholders, but as a starting point for discussion the following three (categories of) issues are suggested by the POLIMP partners:

- ⤴ What would different possible international climate policy scenarios entail for EU society, business, Member States and EU as a whole, in the terms of economic, social, and environmental impacts looking especially at likely reactions and resulting political acceptability for different groups such as those impacted by job losses and reductions in welfare as well as potential gains?
- ⤴ How can EU stakeholders deliberate in an evidence based manner about the advantages and disadvantages of these different scenarios?
- ⤴ How can EU and EU stakeholders learn from design and implementation of climate policies worldwide as well as share the experience the EU has gained in designing and implementing climate friendly actions?

Project Partners

N°	Participant name	Short Name	Country code
CO1	Joint Implementation Network	JIN	NL
CB2	Centre for European Policy Studies	CEPS	BE
CB3	University of Piraeus Research Center	UPRC	GR
CB4	Universitaet Graz	UNI GRAZ	AT
CB5	Ecologic Institut Gemeinnutzige GmbH	ECOLOGIC	DE
CB6	Climate Strategies	Climate Strategies	GB
CB7	Fundacja Naukowa Instytut Badan Strukturalnych	IBS	PL



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Executive Summary

The objective of the sustainability strategy is to ensure the continuing efficient operation of the POLIMP Knowledge Platform, building on its current assets, reputation, visibility and the momentum gained.

According to the project workplan, the POLIMP Knowledge Platform was established under the name "[Climate Policy Info Hub](#)", by Ecologic and went online in January 2015. The University of Piraeus Research Centre (UPRC) is responsible for the operation and maintenance of the Platform, under Task 5.4: "Operation and maintenance of the Platform". It has also been agreed by POLIMP partners to keep the platform accessible for 5 years after the end of the project.

The current deliverable aims to outline the main directions taken by the Task leader and the Project partners in general, in order to ensure the operational and financial sustainability of the Platform over the next period of 6-7 years.

The deliverable is structured as follows:

- In the 1st Chapter a short introduction is presented.
- In the 2nd Chapter the model that was adopted for the design of the sustainability strategy is analysed.
- In the 3rd Chapter the selected model is applied to the POLIMP Knowledge Platform case.
- In the 4th Chapter an overview of the analysis is presented to facilitate general conclusions.

1 Introduction

After the end of the project, we foresee that the number and types of the relevant stakeholders of the sustained POLIMP project Platform will supersede those anticipated during the project lifetime, and their foreseen involvement and use of the published data will also surpass the anticipated Platform functionality. It is envisaged that the POLIMP Knowledge Platform will address the following stakeholders:

- Policy Makers
- Parliament Members
- Scientists/Researchers
- Citizens
- Journalists
- NGOs
- Private sector
- Public Sector
- Industrial or trade organizations
- Experts

The sustained POLIMP Platform will have to accommodate the need of all stakeholders with respect to data re-use and active participation, through common and domain-specific tools, and for this objective the sustained POLIMP project will have to employ software developers in order to enrich the basic POLIMP Platform functionality implemented by the end of the contractual lifetime of POLIMP.

Within the framework of this deliverable an operational and financial needs analysis of the POLIMP Platform is undertaken in order to clarify the internal processes and requirements needed to run, maintain and update the POLIMP Platform. It will also help us define more general requirements and characteristics of the Platform such as its reliability and availability. The ultimate aim is to determine how the Platform can continue to operate for the rest of the project lifetime and for the following 5 years, according to contractual obligations.



Figure 1: Operational and Financial needs

Preconditions to achieving sustainability of the Knowledge Platform beyond the end of the project are its usefulness to the EU and stakeholders involved, as well as the reaching of substantial momentum in its operations. In practice, stakeholders will continue to make use of the Platform and its services only when they recognise that they derive some value from it.

2 Methodology

2.1 Selection of a Model

The sustainability strategy is formed based on the philosophy of the Business Model Canvas. A Business Model is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams (Osterwalder et al. 2005). For the scope of this deliverable, based on the definition given by Osterwalder & Pigneur, a business model is defined as the rationale of how the POLIMP Consortium creates, delivers and captures value from delivering products and services provided by the POLIMP Knowledge Platform.

Business canvasses are a method of representing key aspects of business models. The Business Canvas consists of 9 blocks, arranged in a structured way. In order to apply the methodology, a series of specific questions has to be answered per block, following a pre-defined direction.

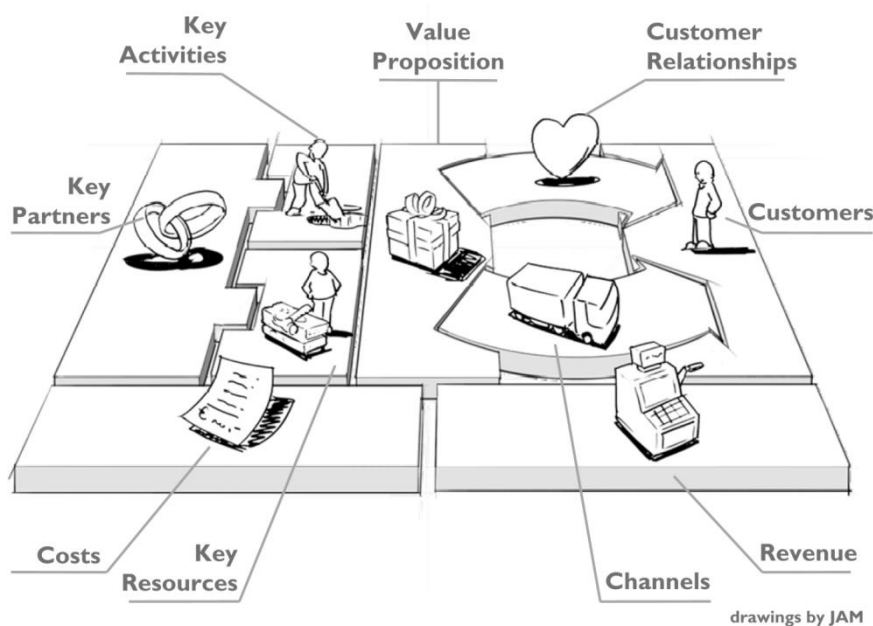


Figure 2: The Business Model Canvas

2.2 Description of components

Customer Segments

Customer segments are groups of customers, categorized based on their common needs, behaviours or other attributes. It is important to initially identify such groups that the POLIMP team will aim to reach, serve and benefit from.

Key questions:

- Who are the POLIMP Knowledge Platform customers?
- What are their needs?

Value Proposition

Value Proposition describes the way in which a company aims to create value for its customers. It defines the characteristics of the products and the services that are offered, underlining the problems solved, the benefits expected and the needs of the customers satisfied.

Key questions:

- What do we offer our customers?
- What value do we create for our customers?
- Which needs do we cover?

Channels

Channels represent the way in which an organisation reaches its customers and communicates with them in order to deliver the value proposition. Channels can be with regard to communication, distribution and sales, either of a physical or virtual nature, direct or indirect. The channels concern a wide range of stages, including making customers aware of the services, facilitating evaluation, purchase and delivery, as well as the after sales support.

Key questions:

- Through what channels do we reach our customers?
- Through what channels do we deliver our services?

Customer Relationships

Customer relationships describe the type of relationship a company has to establish and maintain with each specific customer segment. In developing customer relationships the company aims to attract new customers, maintain existing ones and encourage re-use of the service.

Key questions:

- How do we build and maintain good customer relationships?

Revenue Streams

Revenue streams result from value propositions successfully offered to customers. Identifying the revenue streams mainly concerns the definition of the source of profits for a company and describes how the business activity generates value for the company itself while providing value to customers.

Key questions:

- How do we create revenues?
- What value are our customers really willing to pay for?
- How would they prefer to pay?

Key Resources

Key resources refer to the specification of the most important assets required to create and deliver the previously described elements: value proposition, market reach, customer relationship maintenance and revenue generation. Those resources can be physical, intellectual, human, or financial.

Key questions:

- What key resources do we need to fulfil our value proposition, our distribution channels, our customer relationships and our revenue streams?

Key Activities

Key Activities concern the identification of the most important actions an organisation must take to operate successfully. They are the actions required to offer and deliver the previously described elements by performing a number of key activities (marketing, problem solving, production, construction etc)

Key questions:

- Which key activities must we perform to deliver our value proposition?

Key Partners

Identification of the network of Key Partners, as it may not be possible for a company to own all resources or perform all activities required to offer all value propositions to its targeted customers. In such a case, partnerships could be established between companies to optimise the allocation of resources and activities, reduce risk and uncertainty, or acquire specific resources and activities.

Key questions:

- Which partners and suppliers do we work with to deliver our value proposition?

Cost Structure

The Cost Structure describes all the costs included in the business operation described.

Key questions:

- What types of costs do we have to operate our business model and deliver our value proposition?

<p>Key Partners</p> <p>Who are our Key Partners?</p> <p>Who are our key suppliers?</p> <p>Which Key Resources are we acquiring from partners?</p> <p>Which Key Activities do partners perform?</p>	<p>Key Activities</p> <p>What Key Activities do our Value Propositions require?</p> <p>Our Distribution Channels?</p> <p>Customer Relationships?</p> <p>Revenue streams?</p>	<p>Value Proposition</p> <p>What value do we deliver to the customer?</p> <p>Which one of our customer's problems are we helping to solve?</p> <p>What bundles of products and services are we offering to each Customer Segment?</p> <p>Which customer needs are we satisfying?</p>	<p>Customer Relationships</p> <p>What type of relationship does each of our Customer Segments expect us to establish and maintain with them?</p> <p>Which ones have we established?</p> <p>How are they integrated with the rest of our business model?</p> <p>How costly are they?</p>	<p>Customer Segments</p> <p>For whom are we creating value?</p> <p>Who are our most important customers?</p>
	<p>Key Resources</p> <p>What Key Resources do our Value Propositions require?</p> <p>Our Distribution Channels?</p> <p>Customer Relationships?</p> <p>Revenue streams?</p>		<p>Channels</p> <p>Through which Channels do our Customer Segments want to be reached?</p> <p>How are we reaching now?</p> <p>How are our Channels integrated?</p> <p>Which ones work best?</p> <p>Which ones are most cost-efficient?</p> <p>How are we integrating them with customer routines?</p>	
<p>Cost Structure</p> <p>What are the most important costs inherent in our business model?</p> <p>Which Key Resources are most expensive?</p> <p>Which Key Activities are most expensive?</p>		<p>Revenue Streams</p> <p>For what value are our customers really willing to pay?</p> <p>For what do they currently pay?</p> <p>How are they currently paying?</p> <p>How would they prefer to pay?</p> <p>How much does each Revenue Stream contribute to overall revenues?</p>		

Figure 4: Key Questions of the Business Model Canvas

3 Design of the Sustainability Strategy

For the design of the POLIMP Knowledge Platform sustainability strategy, the philosophy of the previously mentioned model will be followed. However the POLIMP Project is a research project aiming at offering scientific contribution and value, not oriented in economical profit generation and the Knowledge Platform is not designed to be a commercial product. The purpose of this sustainability strategy is to ensure that all resources necessary for the continuous operation of the Platform will be provided; generation of additional revenues will not be pursued.

For this purpose, it was considered appropriate to refer to users instead of customers.

3.1 Customer Segments

The target groups of the POLIMP Knowledge Platform are stakeholders at different policy-levels and different decision-making levels (see POLIMP D5.1: Report on knowledge needs and priorities). The category of "Knowledge users", referring mainly to policy and decision makers, constitutes the main target group, while a significant, yet secondary target group is composed by businesses, researchers and NGOs, defined as the group of "Knowledge Producers". More in detail:

Knowledge Users include decision-makers on the national and European level, and exclude persons involved in international climate policy making. Examples of people that belong to this target group are officials of the European Commission, the Council, the Committee of the Regions, and Member States, as well as Members of Parliament. These officials however are more likely to be reached through their scientific staff and assistants, rather than directly using the Knowledge Platform by themselves.

Knowledge Producers: Those who wish to influence the above described decision makers. These might include representatives from business, research, NGOs, public, national or international institutions, industrial or trade organizations and the press.

3.2 Value Proposition

The main objective of the Platform is to address scientific knowledge gaps by presenting complex facts and data in easily understood language and in intuitively understandable structure and searchable format. Thereby the target groups' understanding of the potential implications of climate policies and regulatory frameworks shall be increased. This in turn should enhance science-based decision-making.

The contents of the Platform will focus on climate policy implications closely linked to current discussion issues in EU climate policy. The Platform will provide insights on consequences of possible climate policy directions and present the existing stock of evaluation outcomes of various climate policy scenarios as far as possible in a comparative manner. The knowledge Platform will appeal to its target groups by offering a narrow, tailor-made selection of the vast amounts of available information on climate policy. It will follow the principle of maximized information reduction. The Platform will furthermore make consequent use of information segmentation by using modular drill-

down texts structured with meaningful sub-headings and extensively interlinking the modules throughout the Platform. Information segmentation and multimedia integration will correspond to different levels of prior knowledge and enables the target group to individually decide on the desired level of detail.

At its first launch, the POLIMP Knowledge Platform will focus on providing and disseminating information. During and after POLIMP, the Knowledge Platform is envisaged to be transformed into a lasting communicational focal point creating an online community-of-practice.

It is also envisaged that the POLIMP Knowledge Platform will be interlinked with the [POLIMP website](#), for dissemination and promotion purposes, as well as the [Climate Policy Database](#), implemented within Task 3.5. In the framework of this Task an ontology for annotating and structuring the knowledge related to climate policies was developed in order to provide a database that allows exploration, editing and extension of the concentrated knowledge.

The developed Climate Policy Database serves as an electronic library that hosts sources of information used for the creation and composition of the knowledge packages that are published in the POLIMP Platform. It facilitates the search of information related to climate policies based on specific keywords, which in turn lowers the barrier for data re-use and integration.

The fact that the Climate Policy Database ontology uses the Ontowiki platform as interface facilitates discussions among users supported by the Community feature. The users of the database may comment on the resources available. This enables community driven dialogue, for example about the validity of certain statements or the proposal of certain changes.

Within this integrated set of services provided, the users will be able to view the published knowledge packages and be directed to the Climate Policy Database, where they will be given the opportunity to further expand their knowledge by selected issue, keyword or knowledge package. The selection can even be performed by certain characteristics of the reference, such as specific authors or publications, offering the user a holistic overview of the topic.

The interface of the POLIMP Knowledge Platform provides a user friendly main navigation structure including **four navigation menus** (Figure 5):

- 1. Main:** including "Home", "About" and "Contact" pages. The main navigation menu, always remain visible to the user, in the header of the webpage. "About" page shortly explains the objectives, target groups and authors of the POLIMP Knowledge Platform. "Contact" page provides a form to contact the editor(s) of the Platform for feedback, suggestions or any help.
- 2. Issues and Sectors:** including "Adaptation", "Energy Efficiency", "EU Climate Policy", "International Climate Policy", "Emission Trading" and "Renewable Energy" pages concerning "Issues" category and "Agriculture", "Energy", "Household", "Industry" and "Transport" pages regarding "Sectors" category. The navigation tabs "Issues and Sectors" lead to split screen prominently displaying a list of all Issues and Sectors pages of the Platform on the left side of the website.

- 3. **Keywords:** including a tag cloud with all Platform keywords is illustrated in the lower side of the website, where the size of the fonts of the keywords reflects to the number of knowledge packages tagged with the respective term. Clicking on one tag, result in the display of an overview of all Knowledge Packages tagged with the selected term.
- 4. **Search:** including "Search" page that offers a field for typing a search term. The results are also sorted by advanced search filters by each issue and sector (Figure 6).

It is worthy of mention that POLIMP Knowledge Platform is a recognizable product of POLIMP and uses the project’s visual identity design such as colours, fonts etc. The *Look & Feel* of POLIMP’s Knowledge Platform website resembles a scientific consumer magazine and its design is responsive and adapts automatically to desktop computers, laptops, and mobile devices. The Platform is optimized for the current versions of Firefox, Internet Explorer, Chrome and Safari.

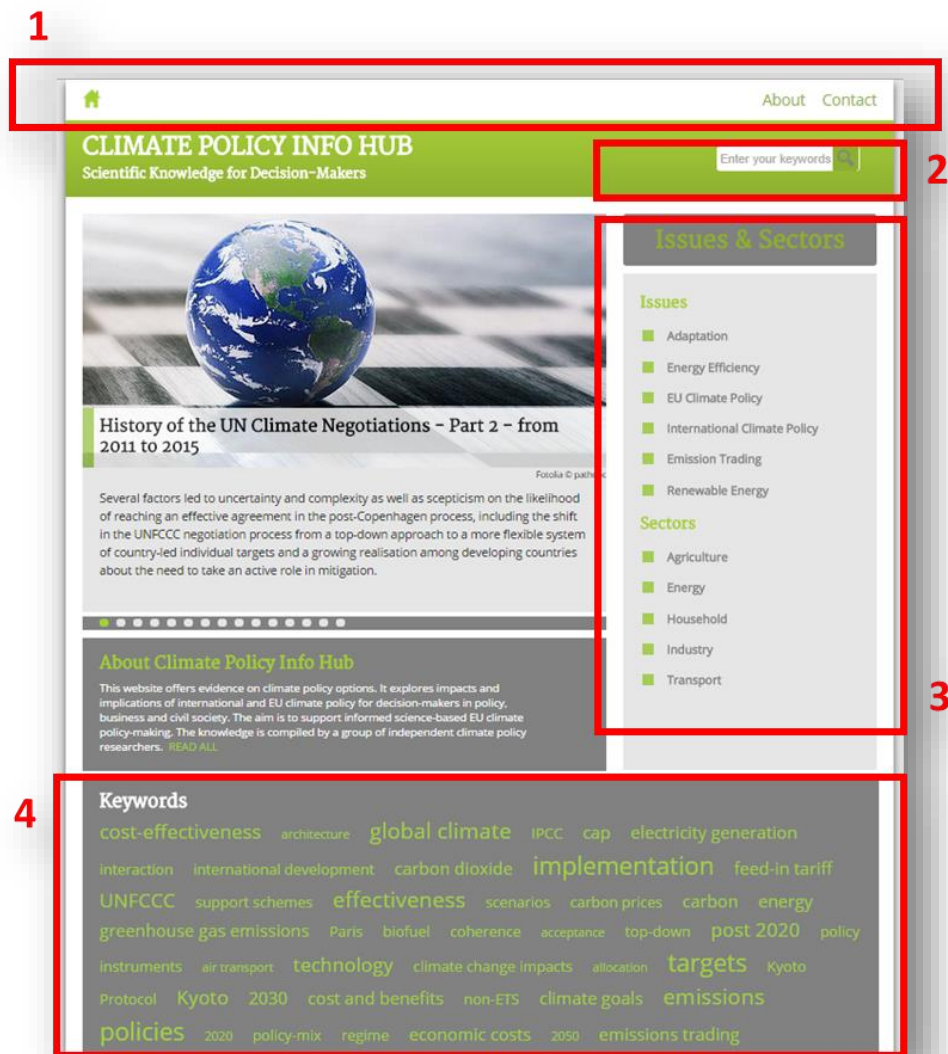


Figure 5: The Four Navigation Menus

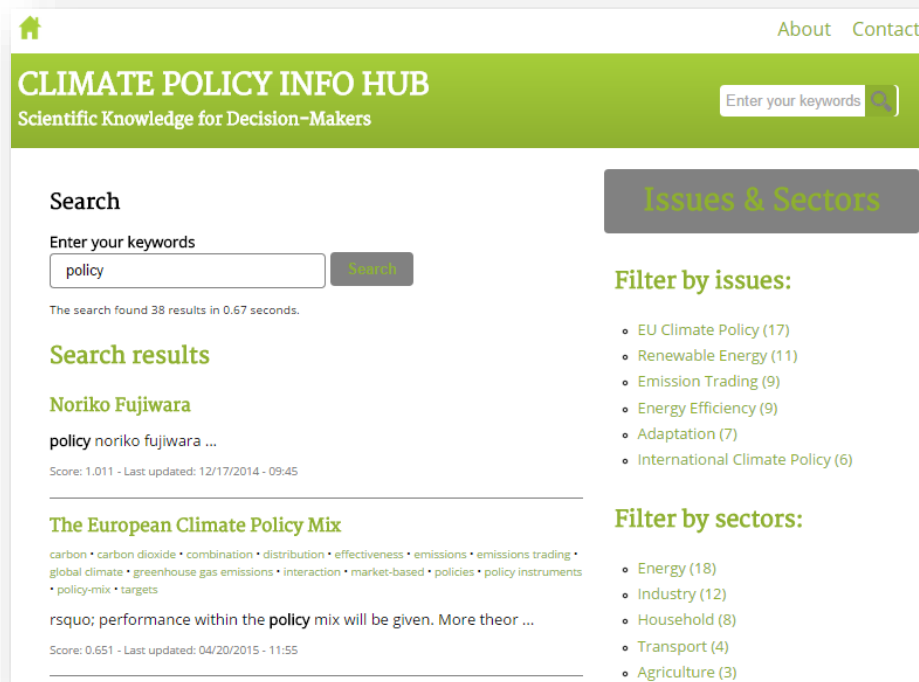


Figure 6: Result Page with Filters

3.3 Channels

As already mentioned, the Platform will be interlinked with the project website. Dissemination and communication of the services provided by the Platform will be supported by the website, as well as all social media accounts already representing the POLIMP project (Facebook, Twitter, LinkedIn, MyEuropa Platform).

However, unlike the POLIMP website, the POLIMP Knowledge Platform:

- will only present selected POLIMP outcomes for selected target groups;
- does not inform in detail about the POLIMP project;
- has its own domain, information structure and navigation.

Community uptake is a critical success factor for the POLIMP Platform. Therefore, the POLIMP consortium will work towards engaging existing target communities of end users to ensure mass participation, a sustainable interest and constant flow of new users.

This critical mass of users interested in using the project results will have to be maintained after the project end. Therefore, a number of dissemination activities should be planned before and after the end of the project lifetime, in order to arrange for the smooth transition from the project consortium governance to the project results sustainability period governance. The dissemination activities will

build on the existing dissemination strategy of POLIMP and extend, if possible, followed practices transition.

- The Platform itself will be the main implementation instrument for the communication and outreach plan, as an individual identity has already been established through specific social media accounts, aiming at their promotional exploitation.
- The Platform's use and several statistics concerning its real-world adoption will be monitored through an analytics suite (e.g. Google analytics). This will enable us to:
 - Identify popular issues and keywords and derive trends.
 - Identify the countries/cities with the most visitors and analyse why specific countries have more interest. This can lead to a re-alignment of the communication plan.
 - Identify most downloaded knowledge packages.
 - Identify and leverage purpose of use on knowledge packages.
 - Identify visitor trends (space, time, pages, etc.).
- Users will be able to sign in either using Platform specific credentials (username/password), or through OAuth, which will include sign in with their social network credentials (e.g. Google Account, Twitter, Facebook, LinkedIn, etc.)
- Each author already has a public profile section with their information and list of articles. Registered visitors will have the following means for direct communication:
 - A simple rating scheme (from 1-5), enabling the users to evaluate the author and knowledge package.
 - Open comment section for each knowledge package.
 - Social network integration. A user will be able to post a comment for the specific knowledge package through one click (Twitter, Facebook, LinkedIn).
 - An email button will enable the user to receive updates for new content published under specific issues or keywords.

The communication plan can be enriched by a number of additional activities, to be carried out by the sustained POLIMP project Consortium:

- by systematically monitoring the effect of the communication and outreach plan through the available Platform statistics and analysis of user feedback, and:
 - Monitoring and analysis of references (mentions), likes and activity on social networks.
 - Monitoring of news posts relating to the Platform and its data (through Google Alerts and periodical Google Search).
- by adapting the Platform over time through the following means:
 - Redesign specific parts of the Platform interface.

- Provide different search facilities to abide to new requirements set by the Platform users.
- Identify important issues and keywords
- Design and develop new, targeted knowledge packages (e.g. for specific thematic areas, user groups).

3.4 Customer Relationships

It has been agreed among partners that during the project duration, open access will be granted to the Platform and its articles. However, in order to access the Climate Policy Database, a log-in procedure will be necessary with username/ password, as changes made in the Ontowiki environment should be monitored and controlled.

After the end of the project, it is envisaged that account creation will be required for the use of the POLIMP Knowledge Platform, as well. An annual subscription fee could be established for members. Members could either be authors or readers of articles. Authors may be required to pay a small fee for submitting an article, while a subscription fee could also be established for readers. Various schemes of subscription may apply, customized to the needs of the users. For example, subscription for specific thematic areas will be available, or for the whole Platform.

Various membership levels can also be offered, such as individual membership, institutional membership for non-profit organizations or corporate membership.

3.5 Revenue Streams

The objective of the POLIMP financial sustainability plan is to secure the required financial resources to cover the Platform operational cost. As mentioned above, no revenue streams are expected during the project lifetime, as respective costs for the Platform operation are covered by the POLIMP project budget. Moreover, due to the fact that during the coming year the Platform will operate under an informal legal framework, another financing option will not apply.

After the end of the project, an option is to ensure revenues provided by membership fees, as explained in the previous paragraph. This financing option will be utilized in case a legal entity is formed, being able to keep financial accounts/records. However, other options can be explored later in the project and be decided on by project partners.

Possible financing sources for the Platform in the post-project period are:

Members' contributions: The POLIMP Partners are committed to the sustaining of the Platform operation, so they may need to commit own resources, within their capacity.

Funds from research or other programs, in which the partners of POLIMP will participate. It is important that the POLIMP management team elaborates and investigates other sources of funding that can be utilized by the POLIMP Knowledge Platform, to cover costs of specific activities and to sustain a growing visibility and increasing added-value. Such sources of funding indicatively include: research projects where the POLIMP participates directly through its key partners. The objective in

these cases is to include in the project work programme POLIMP relevant dissemination actions that can be (partly) funded by the project, ensuring that these activities meet the objectives of the project and provide a clear visibility tool for the Platform as well.

The POLIMP Partners have to be all aligned and committed to taking up any funding opportunity arising, in order to meet immediate or future needs of the Platform.

3.6 Key Resources

The POLIMP project brings together a highly skilled consortium of seven leading institutes in the areas of climate change, energy, and environmental policy research and advice, with a focus on both international and EU level developments. The individual partners have specific expertise regarding energy, technology, environment, policy and science and are all working under one management structure towards the final outcome of the project. Therefore, while looking at the operational needs of the Platform we have to consider the management of the Platform that clearly recognises which professional roles/functions have to be engaged to deploy the Platform.

Functionality - The capability of the software product to provide functions that meet stated and implied needs when the software is used under specified conditions (Suitability, Accuracy, Interoperability, Security, Functionality compliance).

Reliability - The probability that the software will not cause the failure of a system for a specified time under specified conditions (Maturity, Fault tolerance, Recoverability, Reliability Compliance).

Usability - The capability of the software product to be understood, learned, used and attractive to the user, when used under specified conditions (Understandability, Learnability, Operability, Attractiveness, Usability compliance)

Efficiency - The capability of the software product to provide appropriate performance, relative to the amount of resources used, under stated conditions (Time behaviour, Resource utilization, Efficiency compliance)

Maintainability - The capability of the software product to be modified. Modifications may include corrections, improvements or adaptation of the software to changes in environment, and in requirements and functional specifications (Analysability, Changeability, Stability, Testability, Maintainability compliance)

In case it is decided in the future to use the Platform for another policy area or involve a different stakeholder group, it is crucial to involve an expert that understands how to set up the content on the Platform to attract the correct audience and how to engage the desired users.

Before looking for a viable financial model, the anticipated cost and cost sources for the sustained POLIMP Platform have to be figured. It will require at least financial resources for infrastructure on which the POLIMP Platform will be running. POLIMP Platform will use two virtual machines with the following description:

Hardware Machine A:

- 4 core CPU
- 6 Gb RAM
- 100 Gb HDD

Hardware Machine B:

- 4 core CPU
- 6 Gb RAM
- 40 Gb HDD

Machine A will be used as:

- Central firewall and security server
- Logging
- Backup

Machine B will be used as:

- application server
- database server

Machine A Software:

- Ossec 2.7
- Nagios 3.4.1
- Munin 2.0.6
- Haproxy 1.3
- Varnish 3.0.2
- OpenSSH 6.2

Machine B Software:

- Debian Linux Wheezy software
- Apache 2.2 prefork
- OpenSSL 1.0.1
- Mysql-server 5.5.30
- Mysql-client 5.5.30
- PHP 5.4.4

- Munin-node
- Nagios client
- Ossec client
- OpenSSH 6.2

Auxiliary equipment:

- UPS

3.7 Key Activities

The operation and maintenance of the Platform will need careful planning and monitoring to guarantee its sustainable use. This involves one or more persons that can confidently execute the following tasks: managing all the operations, managing the communications within the team, administration, media management and promotion, user feedback collection and evaluation and final reporting and strategic forward planning.

Operational Procedures

The Platform is developed using open source software and programming languages such as PHP and MySQL. It is serviced and updated at regular intervals during the project, ensuring maximum availability and reliability. Technical issues are identified and immediately removed. Necessary changes to the infrastructure and the code will be implemented.

In respect of that, for the implementation of the Climate Policy Info Hub, for the Content Management System (CMS), Drupal software has been used. Drupal is a free software package that allows users to easily organize, manage and publish their content, with an endless variety of customization and safety. This CMS is an open source software maintained and developed by a community of over 1,000,000 users and developers. This open development model means that people are constantly working to make sure Drupal is a cutting-edge platform that supports the latest technologies that the Web has to offer. The Drupal project's principles encourage modularity, standards, collaboration, ease-of-use, and more.

In order to ensure the sustainable operations of the Platform, we focused our attention to the followings aspects for the basic architecture of the software:

Security - The Platform has a very good track record in terms of security, and has an organized process for investigating, verifying, and publishing possible security problems. Drupal's security team is constantly working with the community to address security issues as they arise. Members of the security team sometimes perform analysis of core or contributed project code, especially if there is a weakness that can be found by easy scanning, but in general the team does not review core nor contributed code.

Organize and find - The Platform website has many tools to help the administrators and the users to organize, structure and find the content. Categorize with taxonomy, automatically create friendly

path URLs, create custom lists, associate content with other content on the website, and create smart defaults for content creators.

Creative Content - The Platform architecture, allows users to create content with an easy-to-use web interface. Platform's flexibility handles countless content types including video, text, blog and podcasts with robust user management, menu handling, real-time statistics and optional revision control.

Administer - The Platform comes with great options for new user accounts and user permissions. Users can be assigned one or more roles, and each role can be set up with fine-grained permissions allowing users view and create only what the administrator permits. The installation of Drupal 7 admin theme makes administering a site easier than ever.

Collaborate - The Platform uses the Drupal's focus on social publishing core, that can help the developers create applications to help Platform users express their opinions and engage with one another. Administrator can have tight control over who can create, view, administer, publish and otherwise interact with content on the Platform site.

Connect - The Platform architecture allows with an easy way to connect to other sites and services across the web, using aggregation, feeds, and search engine connection capabilities. Social networking integration is also widely supported to help the engagement with a wider audience. Drupal core also, offers your site easy ways to interact with external media and file services.

Functionalities

The following functionalities are successfully implemented in the Platform website:

Printer, e-mail and PDF - The Printer, e-mail and PDF Platform module allows to generate printer-friendly versions of any knowledge package of the POLIMP Knowledge Platform in PDF format and an automatic functionality to send the article by e-mail. PDFs will be created including all contents, and active hyperlinks of a knowledge package. Furthermore, the permalink of the knowledge package and the date of PDF creation will be included. Especially, for the print version, users can choose individually if they wish to include: images, sources, related knowledge packages, further readings, stakeholder positions, definition of abbreviations and technical terms used in the text. The permalink of the knowledge package and the date of printing is always included (Fig. x).

Share - In each knowledge package, share functionalities are offered, including all the major social media communities: LinkedIn, Twitter and Facebook (Figure 7).

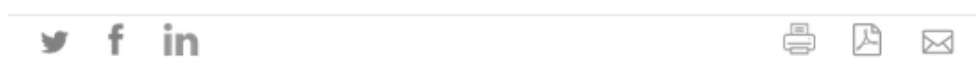


Figure 7: Printer, e-mail, PDF and Share function buttons in the Platform website.

Full text search - The POLIMP Knowledge Platform offers a well-organized and advanced full text search function where users can filter the search results by issue/sector. In general, search results

display the title of the article, tags and a text snippet containing the highlighted search term. The content types and total number of search results will be displayed.

Commenting – In the lower section of the page, under the knowledge packages, users are able to send comments. The commenting function is meant to serve to make a statement, add additional reading suggestions, ask questions or share experiences regarding the content of the article. No registration is necessary to make a comment. Users are asked to indicate their names and e-mail address (non-mandatory) for a potential reply. Comments are sent to the editor who decides if it needs to be forwarded to the author of the knowledge package. Comments are not be visible on the Platform.

User Rights and Roles – The website has three main user categories:

1. *Public visitors*, that can read all content, use print, send, PDF, share and search functionalities and comment to the editor,
2. *Editors*, that can do all of the above and edit the assigned contents by the Chief Editors,
3. *Chief Editors*, that can do all of the above and register new authors, create, assign, edit, publish and delete all contents, optimizes contents (e.g. regarding writing style, interlinkage, tagging, definitions, multimedia enrichment), receive and handle user comments, identifies issues for new articles and motivates authors to write them, motivates authors to up-date contents, support authors in dealing with the Content Management System of the Platform, access the Platform statistics and check customized mash-up feeds for relevance, fine-tune feed rules

For the maintenance of the website and keep alive the Platform, the Administrator should always:

1. Update the modules of the website, installing all the latest security updates,
2. Optimize and clean the database,
3. Check the availability of the website servers to the internet,
4. Install the latest software in the Application (FTP) and Database server,
5. Check and update the security procedures in the main servers,
6. Check users and user activity for suspicious behaviour,
7. Back-up the Application (FTP) and Database server,
8. Check for the domain expiration.

Ongoing implementation:

Web Feed - Web feeds are made available on home and in the issue/sector/keyword overviews of the POLIMP Knowledge Platform. Users can subscribe to a web feed for instance in their browser, e-mail software, a feed reader installed on their smart phone or in Google Reader. The users decide on which issues they want to receive information (e.g. receive all new knowledge packages tagged "Renewable Energy"). The Platform's home web feed should be embedded in the POLIMP website.

E-Mail Alert - Users will be able to register to an e-mail list, in order to be alerted when new knowledge packages or major revisions are published. This will concern all knowledge packages, regardless of their issue. If the amount of newly published knowledge packages / major revisions exceeds one per week, an issue related e-mail alert will be created.

3.8 Key Partners

As initially defined by contractual commitments, Ecologic was responsible for the development of the POLIMP Knowledge Platform and its hosting at their server. The procedures of maintenance will be undertaken by UPRC that will be responsible for service and updates of the Platform at regular intervals during the project, ensuring maximum availability and reliability. Ecologic will also identify technical issues ("bugs") that may arise and notify UPRC accordingly, under condition that UPRC will have access to the server. Necessary changes to the infrastructure and the programming code will also be implemented through the two institutes, in close collaboration.

UPRC will also be responsible for the regular upload of documents provided by project partners during and after the end of the POLIMP project lifetime. However, other partners except for UPRC and Ecologic, will not be required to technically involve in the maintenance process but will be actively involved in all social aspects of the Platform administration and moderation.

3.9 Cost Structure

Since the Platform will continue to be hosted by Ecologic, it will not be necessary to purchase new technological equipment for the purpose of the POLIMP Knowledge Platform maintenance. However, costs for usage and maintenance of technological equipment, as well as licences and domain name retaining will have to be taken into account.

Operating costs concern expenditures for:

- Personnel (human resources for operation, administration and overall management)
- Energy
- Internet connection

Costs for ensuring the following should also be considered:

- Human capital and training: related to internal and external human resources, employing and training
- Management costs: related to data centre administration, security and disaster recovery costs

4 Conclusions

In the framework of this deliverable a series of crucial parameters for the sustainability of the POLIMP Knowledge Platform were defined, outlining a general draft of the initial sustainability strategy.

Such parameters are:

- Customer Segments
- Value Proposition
- Channels
- Customer Relationships
- Revenue Streams
- Key Resources
- Key Activities
- Key Partners
- Cost Structure

It is of interest to POLIMP partners to exploit the Platform in a commercial and effective way, if such an option is possible. For this reason it was decided to formulate the sustainability strategy following a business model pattern. It is envisaged that this current initial sustainability strategy will be updated and further specified later in the project and as the operation of the newly launched Platform reveals further needs and requirements to be taken into consideration.

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