



Final Report



Version number: Version 1.0

Dissemination level: Public

Date: 13/05/2016

7th EU Framework Programme

Accelerating progress towards the Green Economy (ENV.2013.6.5-1)

Grant agreement for: Coordination and support actions

Grant agreement no.: 603939

AUTHORS

José VEGA BARBERO, Roberto RINALDI, Corrado TOPI (Stockholm Environment Institute - University of York),

Alexandros FLAMOS, Sotiris PAPADELIS, Danai MANOLI (University of Piraeus Research Centre),

Vasileios RIZOS, Arno BEHRENS (CEPS - Centre for European Policy Studies),

Wytze van der GAAST, Erwin HOFMAN (Joint Implementation Network),

Oliver GREENFIELD, Emily BENSON, Chris HOPKINS (Green Economy Coalition - IIED),

Martin HIRSCHNITZ-GARBERS, Terri KAFYEKE (Ecologic Institute)

PROJECT PARTNERS



DISCLAIMER

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information. The views expressed in this publication are the sole responsibility of the author and do not necessarily reflect the views of the European Commission.

Reproduction and translation for non-commercial purposes are authorized, provided the source is acknowledged and the publisher is given prior notice and sent a copy.

Table of Contents

1. Final publishable summary	8
1.1. Executive summary	8
1.2. Summary description of project context and objectives	9
1.2.1 Project context	9
1.2.2 Main objectives	10
1.3. Main S&T results/foregrounds	11
1.3.1 WP1 Development of a taxonomy for the Green Economy Landscape	12
Task 1.1 - Categorization of the private-sector part of the "Green Economy"	12
Task 1.2 - Categorization of initiatives and strategies towards the "Green Economy"	17
1.3.2 WP2. Setup and operation of GreenEcoNet Platform	18
Task 2.1 - Assessment of the taxonomy adequacy to address information needs of potential users	18
Task 2.2 Development, rollout and running of the web-platform	18
Task 2.3 Pool of Experts	24
Task 2.4 Create a green economy network and ensure deeper engagement	25
1.3.3. WP3. Stimulating GreenEcoNet Debate	28
Task 3.1 GreenEcoNet Annual Work Plan	29
Task 3.2 Stakeholder Engagement Plan	29
Task 3.3 Platform Launch Event	29
Task 3.4 Annual Conference	30
Task 3.5 Organization and Implementation of Thematic Workshops	30
Task 3.6 Multidisciplinary Structured Public Consultation and Dialogue through Web Platform	30
1.3.4. WP4: Improving the knowledge support to Policy Making and Business	33
Task 4.1 Decision support tools for the GreenEcoNet platform	33
Tasks 4.2 and 4.3 Proposals for EU Green Economy Initiatives and Policy Dossiers / briefs	33
Task 4.4 Extending the reach beyond the EU	37

1.3.5 WP5: Project Management.....	37
1.4. The potential impact and main dissemination activities and exploitation of results.....	39
1.4.1 Potential impacts	39
1.4.2 Socio-economic impacts and wider social implications.....	40
1.4.3 Dissemination activities	46
2. Use and dissemination of foreground.....	46
2.1 Dissemination measures.....	47
2.2 Exploitable foreground and plans for exploitation.....	48
2.1. Applications for patents, trademarks, registered designs, utility models, etc.....	48
2.2.1 Future exploitation of GreenEcoNet online platform.....	49
2.2.2 Key performance indicators to measure impact	54
3. Wider societal implications of the project.....	55
Annex I: Project public website and other dissemination material.....	55

Table of figures

Table 1: Categorization of the type property of the green solution.....	13
Table 2: Categorization of the technology property of the green solution.....	15
Table 3: Overview of greeneconet.eu website content (1 June 2014 - 30 May 2016)	21
Table 4: list of actions made and material circulated during each contact.....	27
Table 5: Definition of KPIs applied to the GreenEcoNet project for SMEs.....	54

Table of tables

Figure 1: GreenEcoNet unique users, by country (June 2014-May 2016).....	20
Figure 2: Peaks in number of site registrations (red) and related project events (blue).....	21
Figure 3: Representative geographic coverage of solutions (chart numbers from 10 March 2016).....	22
Figure 4: Most popular classification of solutions (as of 30 May 2016)	23
Figure 5: Published communications content, # of publications.....	23
Figure 6: Examples of posts and engagement from social media, @GreenEcoNet twitter feed.....	26
Figure 7: GreenEcoNet consortium countries (light green) and non-core target countries (dark green)	28
Figure 8: .GreenEcoNet public polls and results.....	31
Figure 9: TW6 Webinar briefing	32
Figure 10: Approximate SME landscape in Europe for green business.....	34
Figure 11: Enhancing green business information exchange among SMEs using best practice	35
Figure 12: Barriers to the implementation of green circular economy business models	35
Figure 13: Enablers for implementing green circular economy business models.....	36
Figure 14: list of dissemination activities.....	46

1. Final publishable summary

1.1. Executive summary

The European Commission (EC), to further contribute to the Rio+20 agenda, is undertaking a range of activities to accelerate the transition towards a green economy. An important goal of these activities is to assist business communities in the transition towards greener business models and practices. This requires a clear understanding of green business opportunities and associated costs, as well as of how to plan, design and operationalize greening of businesses.

To address the challenge of spreading green business practices among European enterprises, a consortium of six European organisations took the initiative, within the EU FP7 programme, to establish GreenEcoNet, a Green Economy Network with a particular focus on small and medium-sized enterprises (SMEs).

The GreenEcoNet project developed the first European-based platform to support small and medium-sized enterprises (SMEs) in greening their business and helping them take part in a transition towards a green economy. The platform has an online component and an offline component: the online component is a platform of the same name (<http://www.greeneconet.eu>) which supports a series of offline networking activities.

The online platform contains case studies of best green practice among SMEs: in particular it allows green SMEs to create a company profile, to showcase green solutions, products and services, they have adopted, developed or marketed, and to search for other companies best practice case studies in order to learn from them, or to adopt them. The platform also offers to those SMEs who would like to “go green” supporting tools, in particular in the area of business planning, and the opportunity to access support from other SMEs and from research institutes, and to channel their feedback to policy makers. This is complemented with face-to-face workshops bringing together green SMEs and business networks to share green best practices. GreenEcoNet also aims to strengthen links between the private sector, policy makers and the research community, so that, based on lessons learned from the platform, policies aimed at business support can be more effective and less burdensome.

As far as the broader audience is concerned, GreenEcoNet aims at engaging a wide audience interested in green economy issues, which we categorise into the following five groups: SMEs who have already greened their businesses; SMEs interested in greening their business model but who have not made this step yet; SME networks such as SME associations, federations, groups, and supporting organisations; Policy-makers working on green economy issues at subnational, national and international levels; Research community, i.e. researchers and academics working in the sustainable business space.

The partners components of the GreenEcoNet consortium are: CEPS (Centre for European Policy Studies),

Ecologic Institute, GEC (Green Economy Coalition), JIN (Joint Implementation Network), SEI (Stockholm Environment Institute - University of York centre), UPRC (University of Piraeus Research Centre).

To conclude, whilst the platform was developed and rolled out as part of an EC FP7 funded project, the consortium is working towards the survival of the GreenEcoNet platform beyond the end of the EC funding in May 2016. More information about the project is available at <http://project.greeneconet.eu/> while the GreenEcoNet platform is accessible at <http://www.greeneconet.eu/>.

1.2. Summary description of project context and objectives

1.2.1 Project context

The European Commission (EC), to further contribute to the Rio+20 agenda, is undertaking a broad range of activities to accelerate the transition towards a green economy. An important goal of these activities is to assist business communities in greening their operations. This requires a clear understanding of green business opportunities and associated costs, as well as of how to plan, design and operationalize green transition strategies in private enterprises.

Yet, familiarity with these aspects of the green economy transition among business communities is often limited, for two reasons:

1. First of all, the wider business community struggles to identify what “best-in-class green practice” means in practical terms for a variety of reasons, which limits the potential of learning from proven practice.
2. Second, research often models the benefits and costs of green economic transitions from a theoretical perspective, but insufficiently addresses everyday business practice.

To address the challenge of spreading green business practices among European private enterprises, a consortium of six European organisations took the initiative, within the EC FP7 programme, to establish GreenEcoNet, a Green Economy Network with a particular focus on small and medium-sized enterprises (SMEs).

Since the beginning of the project, the consortium work focused on planning how to most successfully develop and establish the Green Economy Network, both online as offline. In particular, the first project year had the main objectives to develop a stakeholders engagement plan for the GreenEcoNet platform, the second part instead was dedicate to consolidate and expand the Green Economy Network throw the multiple channels foreseen in the DoW.

More in detail, in WP1 we developed a taxonomy for an efficient collection and categorisation of the

information to be collected from SMEs and their networks, including: who the actors are, in which sector they operate, whether they are green solution users or providers, etc.. The taxonomy (D1.1) was extended with updated categorisation and search functionalities in January 2015. Under WP2, we continued with the development, population and improvement of the GreenEcoNet Platform, aiming to create a global online destination of choice for green economy practitioners, policy makers and researchers. WP3 aimed at stimulating the GreenEcoNet debate. To do so, we completed the consolidated report #2 (D3.4) which includes the briefs from the Second and Third GreenEcoNet Thematic Workshop (TW2 and TW3), the second Annual Work Plan, the second Annual Conference brief and fourth Thematic Workshop. The consolidated report #3 includes the brief from the Thematic Workshop 5, a summary of the discussions held during the Thematic Workshop 6 (webinar) and the brief from the GreenEcoNet Final Conference, organised in Brussels in May 2016. WP4 had as a main objective to improve the knowledge support to policy makers and business. Four deliverables were concluded as part of the work towards the achievement of this objective: an overview of tools for SMEs for use in the process of preparing for greener business operations (D4.1), a final report of green economy policy proposals (D4.2), a compilation of GreenEcoNet Policy Dossiers based on these policy proposals (D4.3) and the GreenEcoNet beyond the border strategy plan (D4.4). Finally, WP5 was dedicated to the coordination of the project, the implementation of the quality control, the development of an appropriate structure and funding strategy to ensure the survival and growth of the platform beyond the end of the project and the carbon footprint reporting of the project. In this context, the three deliverables for this WP were the quality report #2 (D5.3), the Business Development Plan for GreenEcoNet platform beyond the end of the project and the Carbon Footprint report of the project (D5.5).

1.2.2 Main objectives

The aim of the GreenEcoNet project was to develop and deploy a European platform of the same name rooted in the theory of institutional and social learning through communities of practice, to support SMEs across Europe in their quest for solutions to implement green transition and to contribute to the more general goal of achieving the transition to a greener economic model, i.e. a more environmentally and socially sustainable and resilient model.

To achieve this goal, the GreenEcoNet has developed two components, an online space and an offline network:

- 1) an online space where SMEs exchange examples of best green practice, e.g. green solutions, products and services they have developed, commercialised and / or adopted: these examples of best practice can be published on the platform after a vetting process which ensures the solutions provide real world social and / or environmental added value, are taxonomically organised and are searchable through a friendly interface, so that SMEs can learn from each other and exchange

knowledge on the best green solutions to different technological challenges and eventually sell and buy green solutions to and from each other whether they are ideas and concepts, products or services. A space is available also for those SMEs network who have strong green economy programmes. Finally, GreenEcoNet enables SMEs member of the platform to access support from research institutions and other likeminded SMEs: in particular, they can upload on the platform technical information, information financing instruments and tools to help with business planning, monitoring and evaluation of strategies, which can be searched and used by the SMEs to generate business plans for the uptake of green solutions.

- 2) An offline network where SMEs, SME networks, research institutions and policy makers, can meet in workshops and conferences to exchange experience and interact on hot topics relating to the transition to a green economy model to learn from each other.

GreenEcoNet was initially thought as a European only platform and it is progressively developing to include also SMEs and SMEs networks from other continents. The online component of the platform was made available in the current production form towards the end of 2014, and as of 01/05/2016, contains approximately 144 companies and 15 networks from 5 continents which have presented 91 green solutions.

The project was structured in three major phases: the development of the platform; the deployment of the platform and the expansion of the platform after the end of the EC FP7 funding.

1.3. Main S&T results/foregrounds

The main scientific goal of the GreenEcoNet project was to explore, through the use of modern social media and internet technology, how well small and medium-sized enterprises (SME) could learn from each other's experience with greening business operations and whether communities of practice which extend beyond the traditional reach of the businesses who participate in the community could be an effective instruments to support the transition to a green economy model.

Many SME networks exist that operate 'off-line' in their regions of reference and such networking can be detailed and frequent. However, it was also acknowledged that connections between the several offline networks hardly exist, so that learning benefits remain within existing networks and are not easily spread across networks in other regions and countries. Obviously, it can be argued that SMEs' operations are often strongly determined by their regional/sectoral contacts, but at the same time it was asked "why a hairdresser in Belgium could not learn from the experiences of a hairdresser in Greece."

The challenge of geographically extended networking therefore is to tap into existing offline networks and

set up an international online networking platform for sharing learning experiences across offline networks. This is the challenge that the GreenEcoNet project has addressed.

The first part of the project, roughly speaking, focussed on setting up the online platform and reaching out to a selection of existing offline networks (through workshops and inviting practitioners to the GreenEcoNet Pool of Experts). Once completed, the system was ready for being populated by concrete case studies of SMEs that had successfully made a transition towards a green operation of their business. The second part of the project focussed on learning lessons across case studies in order to draw common lessons and formulate policy recommendations based on existing good practice. Finally the last part of the project, which has recently started and goes beyond the end of the EC funding, focuses on the evolution of the platform towards a service based platform, where green SMEs can be matched to funding partners who could finance their green solution, and where they can market their green solutions, products and services and form partnerships with like-minded SMEs in order to participate in large procurement contracts.

In the following sections we describe per WP and task what was the work conducted under each of them.

1.3.1 WP1 Development of a taxonomy for the Green Economy Landscape

The progress made within WP is divided in task 1.1 and 1.2, and a detailed summary is presented below.

Task 1.1 - Categorization of the private-sector part of the "Green Economy"

The deliverables of this task are the following ones:

1. Deliverable D1.1 Taxonomy for the Green Economy landscape which was updated on January 27, 2015
2. Deliverable D1.2 Procedure manual for the maintenance and extension of the taxonomy procedure which was delivered on April 30, 2015.

The aim of the D1.1 was to develop a 'case study template' in order to upload best practices following the same form. The development of the template was necessary to enable the collection of 'green solutions' in a standard format based on a structured form so that the information could then be structured and taxonomically organised on the platform. For the same reason and in order to develop a searchable and traceable collection of best practice case studies, it was necessary to develop a taxonomy enabling the effective population and search of the GreenEcoNet database.

The first deliverable contains the semantic data model that can be used to organise the information on the platform, to which we refer as "the taxonomy". The taxonomy encompasses the categorisation of the private sector part of the 'green economy', along with the initiatives and strategies towards the consolidation of the 'green economy'. This report extends into further literature for more specific classifications of multiple aspects of the private sector and green economy and green growth initiatives and

strategies (such as research reports, scientific papers, sustainable technology handbooks, etc.).

For the construction of the template a two-stage approach was adopted:

1. Conceptualisation of the case study structure: during the first stage, the conceptualization of the case study structure, the literature review and the development of a draft template were conducted. This allowed the development of a strategy for the abstraction of the green solution-related information, along with the utilization of existing classification schemes in order to build in existing knowledge.
2. Revision of taxonomy based on validation and feedback on the classification scheme: during the second stage of the template development, validation and feedback on the classification scheme, and the structure of the template was electronically received by a number of selected experts from business, academia and research covering various fields of the green economy. As a subsequent step, the taxonomy was revised incorporating the comments of the validators.

The structuring of the taxonomy of the private sector part of the green economy was divided into the classification of actors and the classification of the green solutions according to a number of distinctive properties. First of all, the classification of the associated SMEs was conducted in accordance to a number of properties characterising the users (i.e. SMEs) of the platform. Those properties are the following ones: Name of the SME; Description of the SME; Logo of the company; Industry type; Contact details of the SME; Country; Address; Role in the featured case study.

Following the same approach, more specific categorisation schemes appear in distinguishing properties for the green solution. The properties for the green solutions are the following ones: Name; Type; Technology; Cost; Benefit type; Prerequisites; Benefits; Development stage.

The type property categorisation of the green solution is summarised in the following table.

Table 1: Categorization of the type property of the green solution

Type of the green solution	Sub-categorizations
Technology	Raw Materials
	Pre-fabricated Structures
	Chemicals and Compounds

	Products (Goods)	
	Machinery	
	Electrical Equipment	
	Electrical Power Generation Equipment	
	Automation (i.e. how equipment is used)	
	Infrastructure	
	Information Technology	
Service	Education	<i>Behavioural Patterns</i>
		<i>Carbon Social Responsibility</i>
	Organisational Methods	<i>Development and Implementation of Environmental Management Systems</i>
		<i>Environmental Auditing</i>
		<i>Carbon Footprint Analysis and Monitoring</i>
	Technical Consulting	<i>Technology Assessment</i>
		<i>Resource Consumption Audit and Analysis</i>
		<i>Waste Stream Analysis and Waste Management</i>

		<i>Restoration and Rehabilitation</i>
	Engineering Design / Installation	
	Regulatory Compliance	<i>Environmental Impact Assessment</i>
		<i>Risk Assessment (e.g. SEVEZO II, ATEX)</i>
		<i>REACH, CLP</i>
Green Business Model		

Source: Adapted from classification of Environmental Goods and Services Sector (EGSS)

The technology property categorization of green solutions is demonstrated within the following table:

Table 2: Categorization of the technology property of the green solution

Technology of the green solution	Sub-Categorizations
Materials	Bio-based Materials; Nano-materials; Glass Materials; Chemical Materials; Building Materials; Ceramics; Polymers; Biodegradable Products
Industrial Processes	International Standard Industrial Classification of All Economic Activities (ISIC), Rev.4
Energy Production	Conventional Energy; Alternative Energy: (Wind Energy; Solar Energy; Geothermal Energy; Tidal Energy; Bio-fuels; Biogas; Biomass Energy and Waste-to-Energy)
Resource Efficiency	Energy Efficiency; Fuel Efficiency; Raw Material Efficiency; Water Efficiency; Land/Soil Efficiency; Other

Agriculture and Fisheries	Food and Feed Management; Land Management and Fertilisation; Pest and Disease Management; Aquaculture
Protection of Natural Resources	Air Pollution Prevention and Mitigation; Water Pollution Prevention and Mitigation; Soil Pollution Prevention and Mitigation; Protection of Biodiversity
Waste Treatment and Recycling	Solid Waste Management; Waste Water Treatment; Hazardous Waste; Management; End of Life Product Recovery; Material Reclamation; Waste Exchange
Transportation	Vehicle Technology; Vehicle Fuels; Fuelling and Charging Infrastructure; Traffic and Route Management; Driving Patterns and Choice of Transport Modes
Building	Building Design; Building Automation; Insulation; Lighting; HVAC: (heating, ventilation and air conditioning)
Hospitality	Accommodation; Travel and tourism; Food and beverage service; Sporting events

Source: Authors' elaboration

Furthermore, a categorisation scheme was developed according to the benefit type property of the green solution, which relates to the strategic decision of an SME to participate in a market created as a result of regulatory forces or consumer demand that is shaped by their values of health, safety, localism and fairness. The main benefit typed for the green solution are the following ones: Environmental Protection; Resource Efficiency; Protection of Public Health; Compliance with Regulatory Requirements; Other.

The extended version of the deliverable D1.1 presented an additional benefit type of the green solution, the social benefits. It is important to analyse the factors that contribute to the improvement of the social well-being. In order to capture this information qualitatively - and quantitatively whenever possible - the following fields were included in the analysis: more equal distribution of employee salaries; improved healthcare; a safer workplace; philanthropic activities; enhanced career opportunities; more employment; gender equality; training opportunities for social enterprising; prevention of child labour; and other factors.

In order to avoid the chance that the taxonomy becomes onerous, discouraging the user to carefully classify his case study, a baseline taxonomy was constructed to accommodate the case study data and

progressively allow additional complexity/rigorousness throughout the project, in parallel with the maintenance of the collection of case studies, 'best practice' interventions, and examples.

S&T results

Task 1.1 provided the conceptual framework behind the structure of a case study in the GreenEcoNet platform, as well as the categorization scheme for their description. To this end, a series of data sources were reviewed so as to explore existing domain knowledge in the different sectors, technologies and services that constitute the private-sector part of the Green Economy.

Furthermore, Task 1.1 delivered a formal process for assessing the utility of possible taxonomy changes, as well as a way of integrating changes while keeping the taxonomy's consistency. At the same time, it developed an approach where the categorization of a case study is inferred by the keywords found inside its description. For each green solution technology area, a lexicon of keywords and their combination was compiled that will signify the relevance of a case study description to this specific technology category.

Task 1.2 - Categorization of initiatives and strategies towards the "Green Economy"

The results of Task 1.2 are published in the deliverable D1.1 Taxonomy for the Green Economy landscape. As aforementioned, an extended version of this deliverable was submitted, including a new category of the taxonomy which refers to the social benefits aspect. This topic includes information in terms of some social indicators and aiming to measure the social sustainability performance of a case study or a company in general.

Moreover, in the framework of the task 1.2, the deliverable D1.2 Procedure manual for the maintenance and extension of the taxonomy was submitted. This deliverable introduces a detailed description of the process to implement in order to guarantee an extension or simply maintenance of the taxonomy developed so far within the GreenEcoNet platform.

First of all, aiming at ensuring the taxonomy's consistency, a process for assessing the utility of possible taxonomy changes, as well as a way of integrating changes, was presented. In addition, within the content of D1.2, an approach where the categorization of a case study is inferred by the keywords found inside its description was demonstrated.

Detailed examples were presented for different technology areas of each green solution. The main topics included in the categorization are the following ones: buildings; materials; waste treatment and recycling; energy production; resource efficiency; agriculture and fisheries; protection of natural resources; transportation; industrial processes and hospitality.

S&T results

Task 1.2 provided the categorisation scheme for the strategies and initiatives towards the 'Green Economy'. To this end, the task conducted an overview of existing approaches for the categorisation of initiatives and strategies towards the 'green economy', and then derived an appropriate categorisation to be utilized by the GreenEcoNet database.

1.3.2 WP2. Setup and operation of GreenEcoNet Platform

Task 2.1 - Assessment of the taxonomy adequacy to address information needs of potential users

The verification process for the assessment of taxonomy's ability to serve the users' queries functionality of the platform is conducted on the basis of producing a set of potential user questions, so as to check the ability of the proposed taxonomy to provide answers and enable the functionality that the GreenEcoNet platform must provide.

Additional through this task, the online template of the case studies was modified based on the feedback received by SMEs in order to achieve an efficient and quick form aiming at collecting important and useful information for each case study.

S&T results

Under this task a categorization of the potential users of the platform was completed. Each identified category includes the users who are expected to use the platform's searching capabilities to address a homogeneous set of questions. Each stakeholder group has a specific interest in utilizing the platform, which is related to the stakeholder's key area of expertise, business scope, etc. Specific participant's interests could be 'translated' into a set of queries to the platform.

As result, the verification process for the assessment of taxonomy's ability to serve users' queries regarding the functionality of the platform was conducted on the basis of producing a set of potential user questions. Additionally, through this task, the online template of the case studies was modified based on the feedback received by the SMEs in order to achieve an efficient and quick form aiming at collecting important and useful information for each case study.

Task 2.2 Development, rollout and running of the web-platform

The design, rollout and running of the web platform involved several stages and a range of discrete tasks to meet the specified objectives.

The initial design stage focused on creating an attractive, multilingual web platform that would allow SMEs, policy makers and the wider green economy community to collaborate on improving SME best practice. To achieve this the GreenEcoNet.eu (<http://www.greeneconet.eu/>) site was designed with features to be participatory and engaging, such as unique branding, logo and colour scheme, a discussion forum for

members to discuss SME or green economy issues, links to social media pages, a news space to keep users up to date with relevant green SME news, and blog feed to give them space to read and share their own experiences of SME greening. A bespoke content translation system was also included so that the platform could be of use to users speaking a range of languages.

These features were designed around the core content of a library of 'solutions' (green SME case studies) which could be submitted by users to highlight their SME's activities and share best practice with peers, policy makers and researchers. Users would fill out an online template which guided them to create and classify a case study on their particular example of SME greening, which would then be reviewed by the consortium and approved for publication on the platform, making a permanent addition to the solution library. Solution content was sourced by the consortium in advance of the platform launch, and supported by a cultivated tools library, giving SME visitors immediate content to help them go green.

S&T results

The launch and roll-out of the web platform from June 2014 saw these features and design elements tested against the objective of creating an exciting and engaging platform of green SME content. Solutions were sourced by the consortium's program of bilateral outreach to SMEs and SME stakeholders, but SME users also found the site interesting enough to join and submit solutions of their own. In order to further encourage and engage users, further site improvements were made by the development team in addition to those originally planned in Task 2.2:

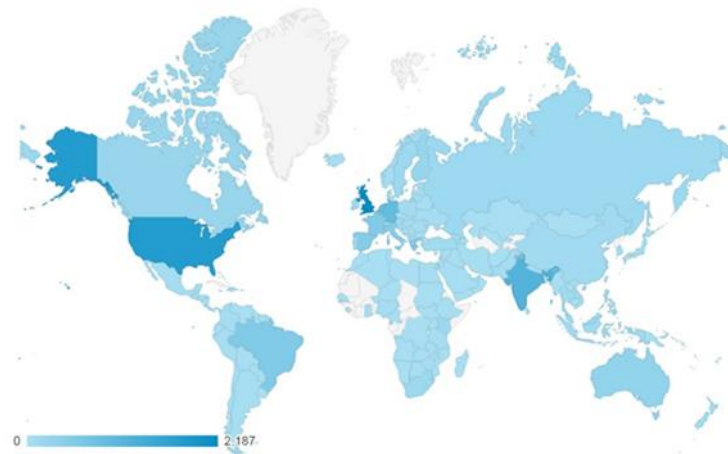
- **Homepage design revision:** Based on feedback from stakeholders the homepage layout and design was redeveloped to highlight the developing library of content on the site, rather than focusing on encouraging new members to sign-up. The strength of the free content itself, combined with clear calls to action, would provide a more attractive prospect for turning visitors into registered users.
- **Improved interface and content filtering:** Interface and filtering improvements were focused on the platform's central content of green solutions, but also apply to new content types such as company profiles and SME networks. The categorisation system was reviewed so that uploaded solutions and profiles could be filtered using the more easily using the taxonomy developed in Task 2.1, with clearer categories and drop-down menus.
- **Improved search functionality:** The site search functionality was upgraded and improved to allow faceted search of the expanding library of GreenEcoNet content. This dramatically increased the usability of the solutions library and blog and news archive.
- **Upgraded solution template and linked company profiles:** Substantial revisions to the 'solution form' used by SMEs to submit green solution information to the consortium were made to account for user feedback that the template was unclear and difficult to use. Categorisation options were made clearer for users and a quick navigation menu added allowing easy to access any part of the

form. A new relationship interface for linking company profiles to specific solution pages was also added, allowing multiple SMEs or supporting companies to be linked to one solution. This was primarily an interface improvement, but it also introduced new functionality since solutions that succeed and proliferate can now be more easily linked to corresponding company profiles.

- **Company and SME network listings:** The upgraded solution template allowed the linking of companies and SMEs directly to solutions, but it also prompted the creation of new company profile content. SMEs or supporting stakeholders could now create a profile of their company without needing to create a full green solution, lowering the barriers to entry on the platform. Based on this model, a further content listing for SME networks was created to allow a new type of stakeholder to host their information on GreenEcoNet. These new listings were pre-populated with companies and networks gathered through the consortium's solution outreach process.
- **Content mapping:** GreenEcoNet's presence at COP21 in Paris 2015 saw the launch of the 'GreenEcoMap', allowing the display of GreenEcoNet solutions, companies and networks on a customised, interactive map. This dramatically improved GreenEcoNet's 'first glance' usability, allowing users to immediately grasp which SMEs, networks and solutions might be most relevant to them.

GreenEcoNet.eu has seen extensive usage by users visiting from around the world, with the UK, US, India, Germany, the Netherlands, Belgium, Brazil, France, Spain, and Greece delivering the most. Over 60% of users are between the ages of 18-34, and 54.15% are male.

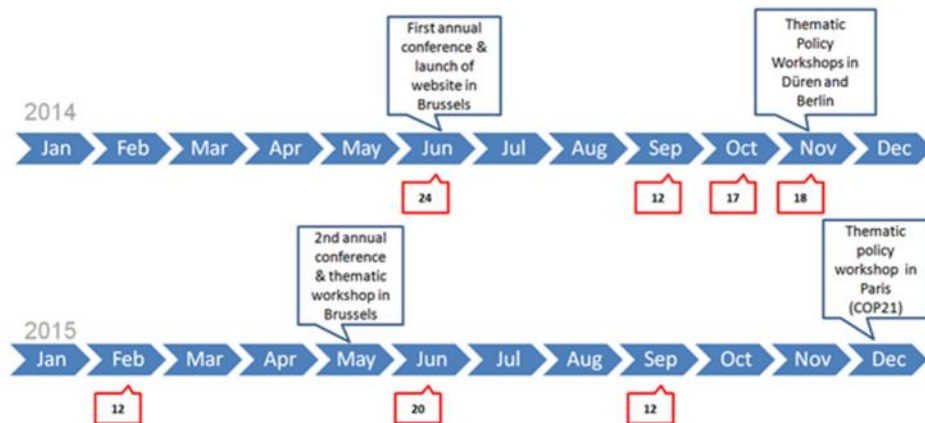
Figure 1: GreenEcoNet unique users, by country (June 2014-May 2016)



Over the course of the project the site has attracted more and more new visitors, with 15.5k site sessions (67.4%) started by new visitors.

Turning visitors into registered site users has been an ongoing challenge, and the benefits of GreenEcoNet events, social media and in-person engagement are clear in achieving this - as shown by peaks in site registrations surrounding key GreenEcoNet events in 2014 and 2015.

Figure 2: Peaks in number of site registrations (red) and related project events (blue)



The seven highest registration months took place in 2014 and 2015, in the “middle” years of the project which is also the moment when the most project events were organized and where recruiting efforts were in full force. It is evident in Figure 2 that there was a bump in registrations after each of the two annual conferences in Brussels (June 2014 and May 2015), which means that these events were successful in generating interest for the web platform. The two thematic policy workshops that took place in Germany (Düren and Berlin) in November 2014 also seem to have attracted new users. The other highest months of registrations are not directly related to specific events, but are the result of an ongoing recruiting effort by all project partners.

Over the course of the project GreenEcoNet site content has grown and expanded, with solutions, company profiles and tools some of the most important types created.

Table 3: Overview of greeneconet.eu website content (1 June 2014 - 30 May 2016)

Overview of greeneconet.eu website content (1 June 2014 - 30 May 2016)

# of page views	75,227
# of unique visitors	15,394
# of registered companies	143
# of registered users	278

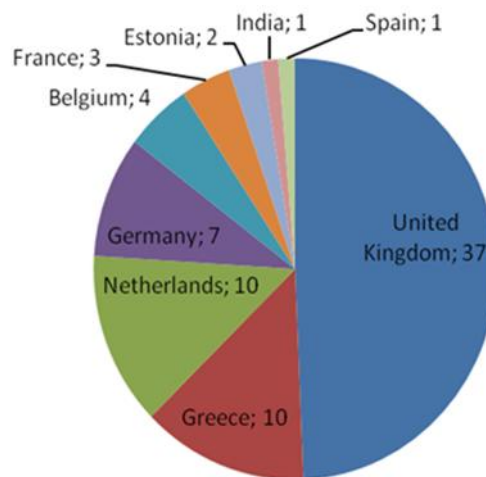
# of published case-studies	83
# of tools provided	28

As the primary type of GreenEcoNet site content, green solutions were successfully sourced and submitted from a range of countries - with the countries of project partners with the strongest and widest networks unsurprisingly contributing the most.

Figure 3 shows that the top 5 countries of origin of case studies are, unsurprisingly, the five countries in which GreenEcoNet partner institutions are based. There is a clear overrepresentation of case studies from the United Kingdom. The probable reasons for this are twofold. Firstly, two of the six GreenEcoNet partners are from the UK, meaning that there was twice as much effort in that country than in other countries of GreenEcoNet partners. Secondly, the website being in English, SMEs from the UK did not face a "language barrier" as SMEs from other countries.

These submitted solutions also made full use of the GreenEcoNet classification taxonomy, but some solution types, technology areas, and SME sectors proved particularly popular.

Figure 3: Representative geographic coverage of solutions (chart numbers from 10 March 2016)

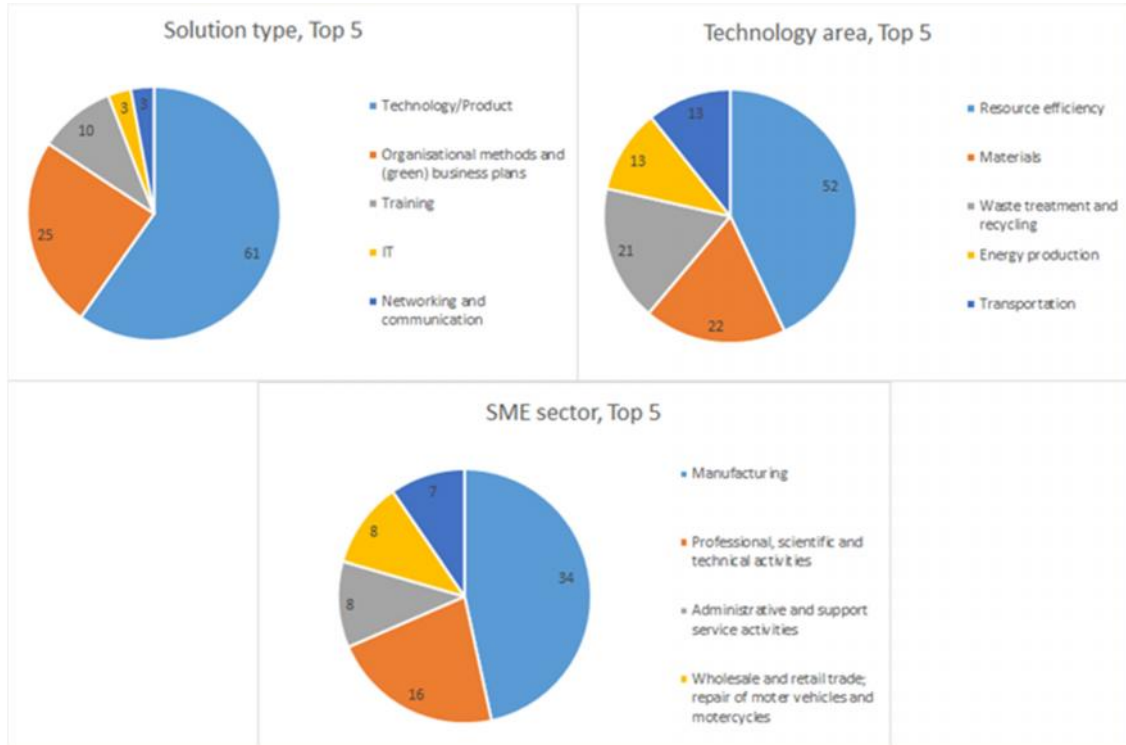


By far, the most popular case-study solutions type on GreenEcoNet were either green technologies or products produced by SMEs (61 solutions), or greening of business practices by conventional SMEs (25 solutions).

Technology areas were slightly more diverse, with resource efficiency the most common (52 solutions), with materials, and waste treatment and recycling following up (22 and 21 solutions, respectively). For

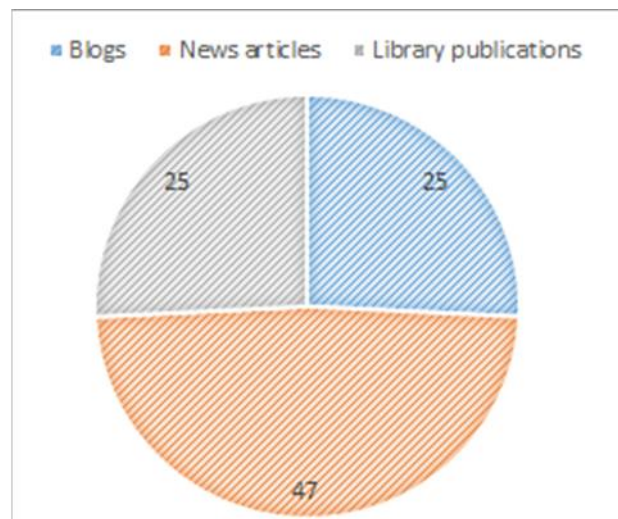
SME sectors there was by far the highest diversity in classification, with manufacturing the most common at a relatively low figure (34 solutions), followed by professional, scientific and technical activities (16 solutions).

Figure 4: Most popular classification of solutions (as of 30 May 2016)



Communications content on GreenEcoNet was divided between news articles (~50%), blogs (~25%) and library publications (~25%). As shown below, there were 97 separate items produced as of May 30th 2016.

Figure 5: Published communications content, # of publications



Ultimately, the design, rollout and ongoing development of the web platform under task 2.2 has contributed

greatly to the success of the project. The main site content of green solutions and the site interface were the main areas where, thanks to users' feedback, improvements were identified and implemented. Thanks to this development the platform has been able to maintain an increasing user base of SMEs, researchers and stakeholders, and curate a unique and informative library of original content relevant to green SMEs, unmatched by other portals.

Task 2.3 Pool of Experts

The Pool of Experts (PoE) provided relevant and valuable support to the project in that its members contributed to the development of both the online and offline GreenEcoNet network. More specifically, the experts helped to:

- identify and recommend green SMEs whose solutions could be featured on the platform;
- Identify and contact relevant speakers for GreenEcoNet events (in the case of the two thematic workshops in November 2014, dealing with SMEs in the paper industry (26 November 2014, Düren, Germany) and with SME multipliers and intermediaries (28 November 2016, Berlin, Germany). The PoE member Henning Sittel from Effizienz-Agentur NRW established key contacts to paper industry SMEs and hence enabled the workshop to take place in the first place. Furthermore, the Agentur's CEO Dr. Peter Jahns presented virtually at the 28 November 2014 workshop.);
- provide input(s) to GreenEcoNet events themselves (e.g. Mr. Henning Sittel from the Effizienz-Agentur NRW presented SME perspectives and recent relevant developments in all three annual conferences; Guido Lena from UEAPME presented his views on the impact of the circular package on SMEs at the final conference);
- Reach out through their networks to further intermediaries and communication hubs (e.g. the Effizienz-Agentur's own online platform PIUS (in German));
- improve understanding of relevant target groups and their perspectives on needs, barriers and drivers for SMEs in becoming green(er);
- Foster identification of topics relevant to businesses or multipliers worth discussing at events or exploring further in GreenEcoNet deliverables.

S&T results

In particular the diffusion of GreenEcoNet cases through the German Effizienz-Agentur NRW and the PIUS website provided an important outlet to engage regional business members with other potentially relevant SME solutions from across Europe and vice versa, hence increasing the awareness of international exchange and also market opportunities. In addition, over a dozen cases from PIUS were submitted to be translated and featured on the GreenEcoNet website, which helped expand the content of the website. The interaction with the PoE was intended to be regular enough to keep them interested in the project and

informed in the development of the network, without overwhelming them as they were not compensated for their help in the project. This translated into a mix of invitations to events, semi-formal newsletters (twice a year during the second half of the project) and bilateral correspondence with experts who were keen to participate or explore more specific collaboration opportunities (e.g. PIUS). The result was that the opinion of experts from business and academia constantly fed into project decisions.

Despite the relevant and valuable support of the PoE, the chosen approach also had its limitations, which mainly consisted in the difficulty to continuously engage all PoE members. Due to the members' varying individual capacities to support the project there were more engaged and less engaged members. Apart from covering travel costs for PoE members attending GreenEcoNet events no further engagement of the members could be reimbursed. This further limited some members' opportunities to support the project as regards GreenEcoNet event participation, feedback to and review of GreenEcoNet deliverables and attendance as well as engaging with the web platform. However, due to a larger share of the PoE being very active throughout the project and supporting its events, dissemination and understanding (as outlined in the six bullets above) the lacking support capacities of some members did neither affect the role in nor the contribution of the PoE to the GreenEcoNet project.

Task 2.4 Create a green economy network and ensure deeper engagement

Task 2.4 aimed at leveraging the consortium partners' existing networks and contacts as part of GreenEcoNet's outreach and engagement approach. The extensive networks of SEI, GEC and CEPS amongst policy making and research communities were targeted as key resources for GreenEcoNet in building deeper engagement with the platform and offline events and workshops.

S&T results

Green Economy Coalition network: At the GEC's Global Meeting in September 2014, which gathered 120 representatives from business, NGO and research, as task lead the GEC hosted a breakout session on the opportunities for GreenEcoNet to expand its reach into international SME networks via the Coalition members. Members of the GEC have formed an internal working group to explore the opportunities in more detail. See blog providing a summary:

<http://www.greeneconet.eu/greening-smes-everyones-talking-about-it>

Networking: The GEC has hosted over 15 bilateral meetings with key institutions based in the UK and internationally to explore the. These include the following institutions: Institute for Chartered Accountants for England and Wales (ICAEW); Association for Chartered Accountants (ACCA); Carbon Trust; Brighton Green Growth Platform; UNIDO Green Industry Platform; SEED International; Eco-Union (Spain); Centre for Sustainable Design; Trade and Industrial Policy Centre (South Africa); Development Alternatives (India); New Economics Foundation (UK), Sustainia (Denmark), GreenWin (Austria), CANARI (Caribbean), AFRICGE (South

Africa), and TIPS (South Africa). Other partners also created strong bilateral relationships with organisations and multipliers such as Ecopreneur (Belgium), PIUS (Germany), Ciclogreen (Spain), GreenBiz.es (Spain), Entreprendre Vert (France), involving appearances at GreenEcoNet events and workshops. Contacts with over 200 SMEs and stakeholders were also recorded by consortium partners as part of outreach to attract users and new solutions to the platform.

Social media: Social media proved essential for engaging and developing the network, with [@GreenEcoNet](#) twitter account, [Facebook account](#) and #GreenEcoNet tag key for further engaging with GreenEcoNet users away from the platform itself. While these social media accounts were of relatively small size (309 twitter followers, 130 facebook page likes), content was shared and reflected by the @GECoalition (4185); @Ceps_thinktank (28.6K); and @SEIResearch (19.2K) twitter accounts, providing much wider engagement than would have been possible otherwise. Figure 6 includes some examples of post and engagement from social media

Figure 6: Examples of posts and engagement from social media, @GreenEcoNet twitter feed



Moreover, in the framework of GreenEcoNet different kind of activities were undertaken in order to promote the communication with partners and multipliers. To ensure this engagement UPRC built a flowchart which was used as a guideline for the partners during their communication. Based on each contact, a periodic report was provided which described the status of the procedure.

The following table illustrates the actions that were made and the material that was circulated during each contact. In the first contact a detailed description of the purpose of our communication was provided, by the "Newsletter for Multipliers", which was written by SEI.

Table 4: list of actions made and material circulated during each contact

	Purpose of the call	Way of getting in contact	Necessary material	Outcome of the call (ideally)
1st call	Identify a person/ or a department that is responsible for the public relations of the Hub and try identifying the potential ways of collaboration	Email (or phone call in case we do not receive a response)	- "Newsletter for Multipliers" signed by Corrado - "Short presentation" of the Platform (e.g. Flyer)	Identify contact details of that specific person/department
2nd call	Define the degree of collaboration	Email	- step by step guide	I. Presentation of GreenEcoNet via the multiplier main channel of communication (newsletter, event, blog post, etc.) II. Share of their content (solutions or tools) in GreenEcoNet and define how + Share our content with them III. Share their contacts to become GreenEcoNet users (or send the aforementioned material to their mailing list)
3rd call	Investigate collaboration for post-EU FP7 funding.	Email	- Maybe a newsletter that will outline the necessary costs for the maintenance of the platform	Receive a positive answer for post-EU EP7 funding

GreenEcoNet's initial outreach to SMEs, multipliers and stakeholders focused on the consortium partner's respective countries of the UK (GEC, SEI-Y), Belgium (CEPS), Netherlands (JIN), Germany (Ecologic), and Greece (UPRC). These networks delivered a wealth of content to the platform, but it was recognised that the platform should not be dominated by these countries. The consortium consequently targeted further 'non-core' countries in Europe and beyond through 2015 and 16 to diversify the user base and content library.

Figure 7: GreenEcoNet consortium countries (light green) and non-core target countries (dark green)



The true strength of GreenEcoNet's networking has proved to be the essential offline collaboration and thematic workshops and conferences. While SMEs themselves are time poor and individually prefer social media or web/app based engagement, the best way to access large groups of SMEs was through the use of existing networks, multipliers and stakeholders, the representatives of which are much more keen to attend workshop type events in their own countries. The deepening of the GreenEcoNet network has been most successful around these events, as demonstrated by the peaks in user registrations shown in figure 2 in the T&S results for Task 2.2.

1.3.3. WP3. Stimulating GreenEcoNet Debate

WP3 was oriented towards stimulating the debate regarding the green economy. The following sections describe the multiple activities that the consortium carried out to incentivize that debate through WP3 tasks. S&T results might not be able to be directed allocated to the following tasks, but they were key towards the dissemination of the work carried out under the umbrella of GreenEcoNet. Through these activities hot debate topics were identified, the strategy for engaging with stakeholders was defined, the event to launch the platform was held, annual conferences and thematic workshops to stimulate the debate were hosted and additional mechanisms to ensure public participation in the GreenEcoNet debate were

used.

Task 3.1 GreenEcoNet Annual Work Plan

The Annual Work Plans were strategic documents for the project since they provided detailed activity planning and defined the strategic priorities of GreenEcoNet for each of the project years. Each year, the Work Plans focused on two “hot topics” emerging from the EU policy agenda. These two topics were carefully selected through discussions with EU Policy Officers and key stakeholders in order to ensure that the project addresses topics which are relevant and important for policy makers and other stakeholders. The Work Plans also featured a literature review on each of these “hot topics” to ensure that the team developed a good understanding of the key issues of interest for businesses, academics and policy makers. The two Work Plans included in total four “hot topics: i) Governance for SMEs - How can policies help ‘green’ entrepreneurs? ii) the circular economy: waste as business iii) Growing a sustainable EU economy through SMEs - Boosting jobs, growth and entrepreneurship and iv) Internationalisation of SMEs - Improving access to markets for green SMEs. These topics were further debated during the several events organised by the GreenEcoNet team throughout the project.

Task 3.2 Stakeholder Engagement Plan

The Stakeholder Engagement Plan (SEP) was another strategic document for the project since it defined the strategy for engaging stakeholders throughout the three-year course of the project. In view of the importance of this document, The EU Project Officer closely monitored the development of the Plan. All partners contributed to a major mapping of relevant stakeholders and used their databases/contacts to identify relevant stakeholders. These stakeholders came from business, policy, NGOs and from the academic community. In total a major list of 303 stakeholders was compiled. This list served as a basis for gradually building the GreenEcoNet network and was also used for inviting experts to join the GreenEcoNet events as speakers or participants. The list was also used in the selection of experts for the project’s Pool of Experts (see WP2). The Plan also defined the steps for making the initial outreach to SMEs, multipliers and stakeholders but also for engaging these stakeholders throughout all the project’s stages. Overall, it guided the process of building a significant GreenEcoNet network featuring many businesses and other stakeholders from the EU and beyond.

Task 3.3 Platform Launch Event

The Platform Launch Event featured for the first time a visual presentation of the GreenEcoNet platform in front of a wide range of stakeholders from business, policy and research. This event offered the opportunity

to officially launch the GreenEcoNet platform and provided a momentum for kicking-off the GreenEcoNet network. The event featured as speakers three SMEs from different EU countries (UK, Greece and Belgium) which presented to the participating audience their innovative “green solutions” and their experiences from implementing the green economy.

Task 3.4 Annual Conference

The Annual Conferences took place in the end of each project year with the aim to steer debate on the “hot topics” selected in the Annual Work Plans and present to the audience the experiences of the GreenEcoNet team through its collaboration with SMEs. The Conferences were followed by the preparation of a summary document that presented the main policy conclusions of the event. The Annual Conferences featured participants from all key stakeholder categories and provided an opportunity to identify key contacts and further grow the GreenEcoNet network. Each year the number of participants increased (the first Annual Conference featured around 60 participants, the second 80 and the third around 120) which illustrates that the GreenEcoNet network was constantly growing through the various stakeholder engagement activities. The events also provided the opportunity to collect valuable feedback on the features of the platform. This helped the team add additional functionalities to the platform and thereby increase its impact for businesses and other stakeholders.

Task 3.5 Organization and Implementation of Thematic Workshops

In addition to the Annual Conferences the team organised six Thematic Workshops during the course of the project. The aim of the Workshops (with the exception of the First Thematic Workshop) was to conduct focused discussions on issues that attract significant attention from businesses, policy makers and the research community. The First Thematic Workshop (named “Innovation Lab Event”) featured a presentation and discussion on the taxonomy of the green economy landscape that was developed during the early stages of the project (see WP1). This enabled the team to collect valuable feedback which was then incorporated in the conceptualisation of the case study template and in the revision of the taxonomy. The revised taxonomy was used as a basis for the design of the GreenEcoNet platform. The remaining five Thematic Workshops helped the team to be present in the policy debate and provided an opportunity to collect from SMEs feedback on key business-related issues that was then included in a Summary Document. The results of the Thematic Workshops were also presented to the European Commission in several occasions, such as for example the meetings of the Task Force on the Implementation of the Green Action Plan for SMEs.

Task 3.6 Multidisciplinary Structured Public Consultation and Dialogue through Web Platform

The central GreenEcoNet objective for Task 3.6 was the use of smart mechanisms to ensure public participation in the GreenEcoNet debate. This was achieved through digital accompaniments to the in-

person offline thematic workshops/conferences and specific online virtual workshops/meetings.

For the GreenEcoNet web platform itself, these dialogue activities were based around the forum functionality allowing users to engage and discuss thematic issues, blogs by consortium partners to summarise events and prompt debate, and the publications library to host full deliverables and documents of interest. This was supplemented by GreenEcoNet and consortium partners' social media presences, allowing direct engagement with SMEs.

For virtual meetings, TW1, 2 and 3 were targeted for incorporating an additional virtual component, with TW 4 and 5 planned to be fully virtual. The ambition for virtual TW1, 2 and 3 proved less successful due to the relatively weak engagement by SMEs with forum functionality. This led to the development of the successful polling functionality and a stronger focus on bespoke webinars.

Though added late in the platform's life in mid-2015, public polling functionality proved to be the strongest consultation tool based on the web platform itself. Visitors were invited to engage with events and issues through simple polling questions, and vote on their preferred answer (see figure 8).

Figure 8: .GreenEcoNet public polls and results



Virtual meetings after each thematic workshop proved not to be a viable approach given platform functionality and community, but written summaries of thematic workshops hosted as blogs or news - and

later in the publications library - fulfilled the purpose of ensuring ongoing engagement with the content. Significantly, smart mechanisms for digital public participation in GreenEcoNet were deployed for the final thematic workshop (TW6) which was an entirely digital webinar on the topic of finance opportunities for SMEs (figure 9 shows the TW6 webinar briefing).

Integration of webinar software with the web platform itself was not practical economical, so a separate software was used to improve engagement.

Figure 9: TW6 Webinar briefing



The webinar saw an engaged audience experience an introduction to the GreenEcoNet platform and exploration of finance opportunities for green SMEs by the consortium, followed by presentations on 'Private climate finance delivery mechanisms for SMEs' by Valentino Marini Govigli of SEI, 'Funding options for small and medium businesses' by Steve Richardson of Funding Options Ltd, and 'Funding for SMEs in the Spanish Green Economy' by Jesus Iglesias Saugar of Greenbiz.es network and ECOVE. See the full briefing and video of the webinar hosted on GreenEcoNet here: <http://www.greeneconet.eu/greeneconet-6th-thematic-workshop-%E2%80%98%E2%80%99finance-opportunities-green-smes%E2%80%9D>

Overall, public consultation and dialogue on the web platform was shown to be challenging, and best met

with stronger integration with smart engagement methods through social media, public polling, and webinars, complemented by networking and consultation at offline events, where SMEs and particularly stakeholders are most willing to enter into dialogue on green economy issues.

1.3.4. WP4: Improving the knowledge support to Policy Making and Business

In WP4, the project has been more focused on distilling knowledge from the SME case studies posted on GreenEcoNet, with a particular focus on:

- What supporting tools have SMEs used in the process of greening their business and how can these be helpful for other SMEs? (Task 4.1)
- What are the main lessons on barriers that SMEs face when greening their business and what are possible solutions (enablers) to clear these barriers and how can these lesson be made relevant for policy making? (Task 4.2)
- What are key messages based on the lessons learned for policy makers? (Task 4.3)
- How can the knowledge on GreenEcoNet, including tools, best practice and policy lessons, become relevant for wider geographical regions, for further broadening the GreenEcoNet networking? (Task 4.4)

Task 4.1 Decision support tools for the GreenEcoNet platform

From the case studies, as well as from a literature review, an overview of tools has been made (as a toolbox) for each of these stages. Some of these tools are online applications while others are based on third party consultation. The toolbox is available on the GreenEcoNet.

S&T results

The main S&T impact of this task is that SMEs can obtain help on the GreenEcoNet platform for the above stages. It has thereby been acknowledged that many times, SMEs do not conduct these stages as systematically as described above. Rather do the stages flow into each other and May decision-making become more ad-hoc based than structured. Nevertheless, the eventual decision must be solid and the result of the toolbox generation is that the selection and application of tools can fit well in a less-structured decision making by time-constrained SMEs.

Tasks 4.2 and 4.3 Proposals for EU Green Economy Initiatives and Policy Dossiers / briefs

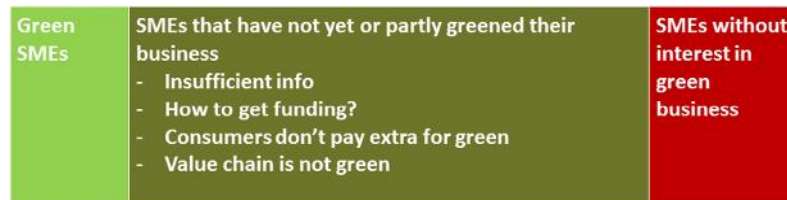
An important consideration, when initiating GreenEcoNet, was to keep a double focus:

1. The case study focus would be on success stories: which SMEs have successfully greened their business operations, why and how have they done this?

2. The audience focus of the platform would be all SMEs, in order to enable all SMEs to learn from the success stories.

The GreenEcoNet consortium assessed, at the beginning of the project, based on meetings with practitioners, that the SME landscape in Europe approximately looked like the diagram below:

Figure 10: Approximate SME landscape in Europe for green business



According to this assessment, only a relatively small group of SMEs have greened their business, for example, due to compliance with new legislation, greening of demand by customers or greening of the value chain in which the companies operate. The majority of SMEs, however, have, for several possible reasons, not yet been able to green their business, even though they might be interested in doing so. Possible reasons for no greening yet can be:

- Lack of information about success stories elsewhere or negative perceptions about costs, etc.,
- Obstacles in obtaining the required funding for the required investments, which can vary from not knowing that funding exists, to not knowing how to apply for funding, or experiencing difficulties in applying for funding as an SME,
- Lack of willingness or interest among customers to pay extra for greener products, or
- Insufficient interest from other actors in the value chain, e.g., if the value chain leads to an end product which is not green, then there is little incentive for actors to produce their intermediate goods in a green manner.

Nevertheless, throughout the GreenEcoNet project it has become clear that not having greened their business operations does not necessarily imply that these SMEs have no interest in green operations. Their main challenge for them is to find ways and respond to changes in their business environment so that they can become green SMEs when the time is ripe.

The project has also acknowledged that there is probably a third category of SMEs that have no interest in greening their business, as this is not in their interest and in the interest of their business environment.

GreenEcoNet decided that the case studies for inclusion on the platform greeneconet.eu would come from the category 'Green SMEs' and that the main audience would be the SMEs that have not yet or only partly greened their business as well as the SMEs without interest in green business. GreenEcoNet success stories, showing how to overcome the barriers to business greening, and decisive enablers towards this,

are the key communication tool for that.

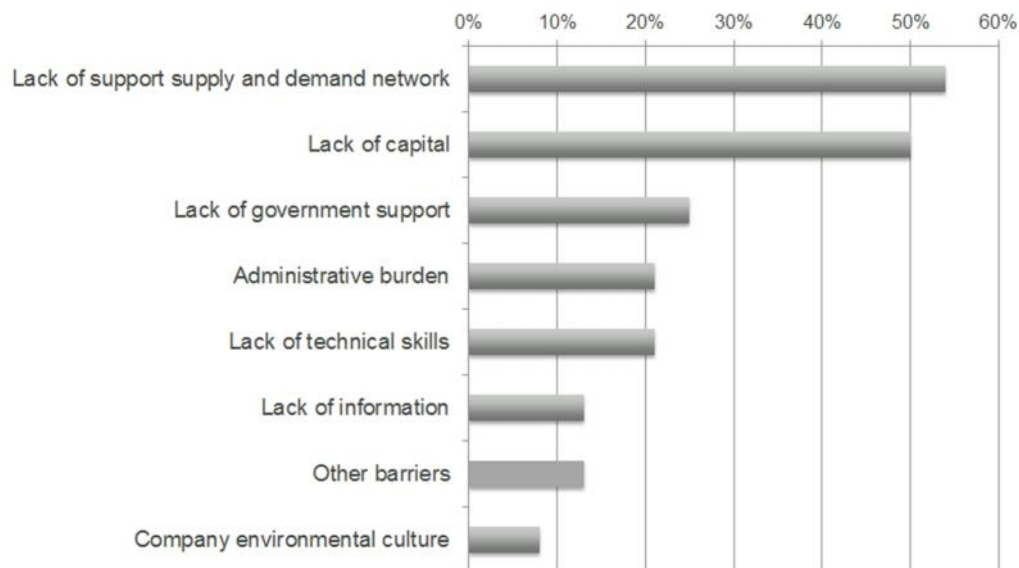
Figure 11: Enhancing green business information exchange among SMEs using best practice



S&T results

With this larger picture in mind, in work package 4, resources were used to analyse in more detail all uploaded green SME success stories on Greeneconet.eu and to identify what have been important barriers that companies had to overcome for greening their business. Based on this, figure 12 shows the resulting overview from the analysis (i.e. barriers mentioned most often by green SMEs):

Figure 12: Barriers to the implementation of green circular economy business models

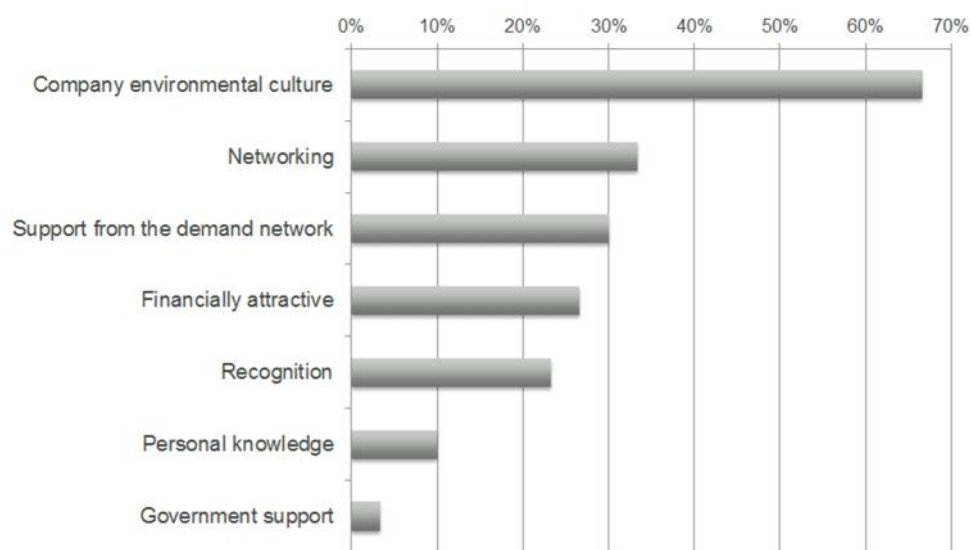


Most often quoted barriers are lack of support supply and demand network, lack of capital and lack of government support, which supported the initial observation in GreenEcoNet that SMEs operate in complex market systems which they usually can only follow and not steer. Therefore, if the business environment does not support or require green businesses, and then SMEs have limited scope to go against the flow. Lack of capital could mean lack of capital that is suitable for funding SME investments, or availability of

capital but without knowing this. With lack of government support, SMEs explained that regulations are not often in favour of creating circumstances for SMEs to green their business.

The most often quoted enabling factors for green SMEs is the company's environment culture (see figure 13 below). Often, the success of a green SME investment depends on how progressive, interested and dedicated company owners and managers are towards greening their business. Networking also turned out to be an important enabler, as well as support (pull and push factors) from the demand network, such as consumers demanding green products and/or a value in which an SME operates becomes greener, and pulls the company to a greener business profile.

Figure 13: Enablers for implementing green circular economy business models



Finally, insights from actual green SME practice were used to analyse:

- The possible contribution of SMEs to a circular economy.
- How green SMEs in the transportation sector can significantly contribute to reducing greenhouse gas emission in this sector not covered by the EU ETS. A specific achievement in this policy framework was to identify what regulatory and other stimulating measures could be taken to enabling scaling up green SME activities in transportation.
- The specific link between greener SMEs and incorporation of the Energy Efficiency Directive in different Member States.
- The direct link between finance needs for green SMEs and innovative tools that the finance sector has developed.
- What are effective networking structures and tools to support SMEs in greening their businesses.

For each of these policy topics, policy briefs were developed and disseminated to EU private and public sector decision makers. The aim of these briefs was to provide key recommendations to policy makers

based on the academic expertise of the GreenEcoNet team members and their experiences from collaborating with SMEs. One of the additional key contributions of the team was the preparation of an academic paper that was based on the first policy brief on barriers and enablers to the implementation of circular economy business models by SMEs. This paper was presented during the World Resources Forum 2015 and provided a high visibility to the GreenEcoNet platform to a scientific audience.

Additionally, the team was invited to participate in a high-level Task Force, jointly organised by DG Grow and DG Environment of the European Commission, on the Implementation of the Green Action Plan (GAP) for SMEs. This provided the team the opportunity to directly introduce to policy-makers, policy recommendations developed through the experience gained from GreenEcoNet and the direct contact with SMEs. For example the barriers and enablers to the implementation of circular economy business models by SMEs described above were presented to this Task Force.

Task 4.4 Extending the reach beyond the EU

This task aimed to extend the reach of the GreenEcoNet project beyond the European Union. As a result D4.4 was completed. The aim this deliverable was to describe the strategy to develop and expand the GreenEcoNet platform beyond the borders of the European Union in order to tap into the huge potential of SMEs turning towards a greener economy in other parts of the globe. The rationale behind this strategy was that experience with the GreenEcoNet project development showed that there is a large learning potential for SMEs when they become familiar with success stories about green business development of other SMEs, in different countries and even business contexts. The core idea of the Beyond The EU Border Strategy was to establish a centrally coordinated (by the GreenEcoNet Secretariat) international network of hubs. D4.4 not only describes the typology, structure and potential roles that the Secretariat and each type of hub might have but also proposes a series of pilots cases to test the proposed approach, a risk management plan and a section where describes a plan for action beyond the duration of the project.

S&T results

The key outcome of this task was to develop a strategy to expand the GreenEcoNet platform beyond the borders of the European Union in order to tap into the huge potential of SMEs turning towards a greener economy in other parts of the globe. The core idea of the Beyond The EU Border Strategy is to establish a centrally coordinated international network of hubs.

1.3.5 WP5: Project Management

WP5 included, on one side, the management of the project itself, including the appointment of the Project support team (PST) (task 5.1), the coordination of project activities (task 5.2) and the quality management of the project. On the other side, two additional deliverables were carried out, the business Development

Plan for GreenEcoNet platform beyond of the end of the project (D5.4), within the framework of task 5.4 and the Carbon Footprint Report (D5.5), within task 5.5.

S&T results

Although this WP contribution towards the scientific and technological outcomes of the project might not be able to be considered *per se* towards the achievement of S&T results,, we would like to stress the importance of D5.4, since it presents the potential business development plan of GreenEcoNet beyond the duration of the project, i.e. the strategy for the survival and the development of the GreenEcoNet platform beyond the end of the project funding provided by the European Commission.

This document sets the foundations for upcoming GreenEcoNet activities. It covers the governance structure, the operational management structure, the revenue strategy and the funding strategy. Thus, although scientific and technological outcomes can't be directly linked to it, it sets instead the framework for their achievement.

The Carbon Footprint report (D5.5) collects the carbon footprint calculations that were annually produced by the consortium to monitor the emissions generated in the implementation of the project. The annual output of this report was fed back into the project management structure, and used to inform organizational decision makers with the aim of maintaining the footprint as low as possible since the focus of the GreenEcoNet project was on reducing the carbon and resource footprint to the minimum and maintaining it to that level. It contains the methodology on assessing carbon footprint estimations that was used in the European-funded research project "GreenEcoNet". The analysis is based on two components: emissions deriving from daily work activities of the project consortium, therefore including emissions from the electricity use, transportation, etc.; and emissions related to project events. In both cases, a specially designed survey was conducted to collect primary data that allowed accurate assessment of emissions for each organisation that composes the GreenEcoNet project consortium and their activities; as well as emissions to be allocated to the organisation of project events.

From the assessment of the carbon footprint for the GreenEcoNet project, the framework that was drawn has the potential for been applied in future similar assessments by European-funded projects. This framework could be applied at the initial stage of project proposal development, and validated throughout the project implementation collecting the relevant data.

Through the experience that was gained by building the carbon footprint tool of the GreenEcoNet project, a list of different criteria was outlined and presented below. For each methodology of estimating carbon footprint, all the case studies should be led by the following values:

1. Occupancy: All related information should be included in the calculation of GHGs emissions (carbon footprint), and therefore there should not be any gap in the data, that would affect the calculations and the

researcher decisions.

2. Consistency: The methods and the procedures must always be applied in the same way in all places of work, taking into account the same criteria everywhere.

3. Transparency: The Information that are being used, must be collected in a transparent manner, and in an objective way. All the data should be clearly documented and any ambiguities should be fully clarified. Also the result and the conclusions should be clear and understandable

4. Conservatism: The evaluation methods must be conservative.

5. Balance: The data should be representative and should reflect both the negative and the positive dimensions of GHG emissions.

1.4. The potential impact and main dissemination activities and exploitation of results

This sections includes the potential impacts of the project, the list of dissemination activities and socio-economic impact and the wider societal implications of the project.

1.4.1 Potential impacts

GreenEcoNet led to a number of impacts with respect to green economy analysis, planning and policy and decision-making. Regarding green economy research and knowledge exchange the following specific impacts were achieved:

- Recognition of the benefits of green economy by the business community, including efficiency gains, competitiveness enhancement and job creation.
- Improved communication and transfer of knowledge to policy making, business and to the general public.
- Reinforced dialogue at international level.
- Regarding green economy planning and policy and decision making, GreenEcoNet in general aimed at supporting the implementation of EU strategic initiatives, such as Flagship Initiatives on the Innovation Union, the EC Communication on a 'Roadmap to a Resource-Efficient Europe', as well as the EU Strategy for Sustainable Development. This was conducted by developing, during the second and the third years of the project an Annual Work Plan, which was closely linked with the EU policy agenda and which took into account various policies, processes and initiatives at the EU level. Taking key "hot topics" related to these initiatives into the GreenEcoNet debate, the project managed to support and implement these initiatives in the context of a structured exchange between different stakeholders and by highlighting best practices. This did not only contribute to achieving EU policy

goals, but also fostering a green economy in Europe and abroad.

The impacts described above, need to be understood within the context of the final results of the project that described below::

- GreenEcoNet has built an extensive portfolio of over 83 green solutions, which demonstrate innovative green products, services or business models implemented and/or provided by SMEs.
- More than 3,748 users were created,
- Being originally an EU-oriented web platform, a majority of solutions presented on GreenEcoNet focus on European SMEs. The platform is not limited to EU-based case studies and recently also SMEs from, for example, India posted their innovative solutions on the platform.
- Searching for specific GreenEcoNet solutions is facilitated by an easy navigation which enables filtering of case studies by: country, solution type, technology area, and social benefit and SME sector.
- By reaching out to several existing offline business networks, GreenEcoNet established a wider cross-sectoral and interregional network of green SMEs and SME associations, which strengthens mutual learning. Next to the online platform, GreenEcoNet organises workshops and conferences throughout Europe to increase networking opportunities.
- Based on experiences of SMEs in the GreenEcoNet network and extensive literature review, the GreenEcoNet team published a series of policy dossiers for EU and Member State policy frameworks relevant to the green ambitions of SMEs, and proposals for improving the support provided to green SMEs. Topics covered by these dossiers are: SMEs and the circular economy, how greening of SMEs supports the EU's long term goals of a decarbonised economy and enhanced energy efficiency, what finance structures can support greening of SME business operations, and what could be the role of on- and offline networking in connecting SMEs for a green economy.
- In the policy domain, GreenEcoNet was invited by the European Commission to participate in a high level Task Force on the green economy which involves the leading SME stakeholders.
- GreenEcoNet hosted an expanding portfolio of other useful web content:
 - 143 green company listings covering SMEs and their partner organisations.
 - A set of listings of SME networks, including a wide range of network types such as local business clubs and national business federations.
 - A wide-ranging set of tools to help SMEs to analyse sustainability aspects of their business, and plan and implement green businesses models.
 - An exciting news and blog portal on sustainable business issues.

1.4.2 Socio-economic impacts and wider social implications

This section includes the interactions that the project had with SMEs, policy makers and research institutions along each of three years the project lasted.

GreenEcoNet and SMEs

The progressive engagement of SMEs with the platform can be characterised by three steps. Firstly, SMEs start to register into the GreenEcoNet platform and upload case studies without consortium partners contributing to the process. Secondly, SMEs participate into the green economy discourse by interacting with policy-makers involved in the GreenEcoNet activities. Finally,

Many SMEs start to transform their business operations or goods/services they provide by implementing the GreenEcoNet solutions and/or by using the GreenEcoNet tools.

Following the discussion with partners, the most significant change that has been observed by partners in relation with SMEs can be described as follows:

June 2013 – May 2014

If there were some changes it was difficult to see interaction and causation between green economy and our platform and SMEs since it was very early times for the project. Indeed, during the first year, consortium efforts were focussed on the design of the online component for the GreenEcoNet platform. However, we can conclude that the most important change observed after the first project year was the SMEs being aware of the GreenEcoNet platform and the desire to create a platform through us that has been achieved by contact from project partners.

For example, initial contact with SMEs in the UK shown an interest to the platform but still the need for developing a feeling of trust towards the network was to be built. In other partner countries there were SMEs that were interested, especially young entrepreneurs but there were also concerns as language and time. More generally, SMEs realized the necessity of creating a network aiming at interacting among SMEs regarding the green economy due to the growing awareness that the challenges faced as SMEs are common across different sectors.

The initial year change was observed thanks to the interactions with businesses. Emails and phone calls were not as effective as the meetings in person, and specifically allocated time in following up with businesses, heavily supporting them in the registration process, as well as in the collection of data necessary to develop a green solution (also called case study) as well as the publication process in the beta version of the platform.

June 2014 – May 2015

The start of the second project year was marked by the launch of the web-platform www.greeneconet.eu. This contributed to the built of trust by the SMEs towards the project and therefore heavily started to engage with the online platform by registering to GreenEcoNet, and sharing their green solutions publicly.

SMEs also participate in the events organised by the project consortium both in an active manner by participating as guest speakers in the session panels, as well GreenEcoNet - D5.3 Quality Report #2 as being part of the audience.

In particular, partners remarked the following:

- SMEs saw that platform is practice to use with a user-friendly design. The attractiveness of the tool motivated them afterwards. Especially, when the consortium uploaded the case studies for them;
- SMEs that have been contacted by the consortium project were willing to share their solutions and tools into the GreenEcoNet platform, but more generally interested in our offer. In our perception SMEs were open to express policy needs by the events or the pool functionality developed during the second project year;
- SMEs started to realise that policy-makers may be interested in what SMEs had to say to them especially regarding the challenges that were across different business sectors. SMEs also realised that GreenEcoNet had a lot to offer to SMEs in terms of marketing and communications. SMEs they also realised that policy makers would interested in their view.

The official launch event of the platform, and most importantly the publication of content in the platform (mainly solutions and tools from other SMEs) was key in the development of trust by the businesses towards the GreenEcoNet project and platform. This developed trust that has been the key element for the business to share content to publish in the platform. Similarly to the first project year, face to face meetings have been key in achieving the change.

June 2015 – May 2016

Final year did not see any significant change in comparison with the previous years, it has been considered more of a consolidation year. SMEs kept engaging with the platform, despite doing so in a less pro-active manner. Solutions triggered new visitors and make them reflect about the possibility to interact. SMEs also shown interest in the financial aspect of transitioning towards a greener economy, either by requesting more information about the SME Instruments in the H2020 funding stream, or requesting clarification in what was available at national level in terms of stream of funding. It is worth of note the fact that SMEs are not familiar with the jargon that is used by researchers and organisation that provide funding for the circular economy. SMEs focus their efforts in running the business, rather than being involved in research activities; resulting in their source of information being social media and traditional information media, largely newspapers and other Businesses. In the final year, a reduction in the number of meetings with SMEs

resulted in a lower level of engagement by businesses in the development of content for the platform. However, the organisation of a free webinar specifically dedicated to finance opportunities for SMEs had attracted them towards GreenEcoNet.

GreenEcoNet and policy-makers

From the questions related to policy-makers and aware of the expected outcome being “contributing to a reinforcement of an EU-wide policy-makers dialogue in which the communication gap between policy-makers and SMEs diminishes”, the most significant changes that we observed throughout the project lifespan are summarised in the following sessions.

June 2013 – May 2014

No significant change observed since we did not interact with policy makers in the first year of the project. Policy makers contacted from the different DGs were perceiving GreenEcoNet as a “yet another funded project” that wouldn’t be able to making an impact.

June 2014 – May 2015

In the following year, policy makers at local level showed interest in the platform activities and provided some contacts of businesses that they knew in the area. Through several activities and publications that we made, the DGs started to realised that the project is interesting, very well received, and could actually make an impact. It was also in line with what the Commission was developing (new business models, jobs, growth, etc.) and when they noticed that they included GreenEcoNet in the Task Force for the Implementation of the Green Action Plan for SMEs (this is one of the main achievements of the project) due to our contacts, content and policy contribution that we could contribute with to the policy developing process. In many of the EU meetings regarding SMEs, when GreenEcoNet wasn’t there to present, was often mentioned by senior commission officials as one of the main tools to promote the circular economy.

June 2015 – May 2016

European and international policy makers aware of the GreenEcoNet project and some showed interested, following the participation to COP21 in Paris (December 2015). During the third year this privilege situation consolidated even more. It also helped to have a very appealing platform, making EU commissioners prod to show it around.

Across the whole project, interaction was very keen, especially personal interaction with DGs and commissioners. Events and seminars were key to the development and strengthening of this relationship and achievement. Several DGs are actually interested in GreenEcoNet created a momentum of different DGs bringing them together. Participation of the consortium to COP21 in Paris on December 2015 through

the organisation of an official event in the EU pavilion made it possible to raise the profile of the platform on the eyes of policymakers.

GreenEcoNet and research institutions

For this part of the monitoring exercise, questions related to academics/researchers and the expected outcome to be “academics/researchers contribute in the discussion of future trends with scientific support of decision support systems that will “feed in” the GreenEcoNet process”.

The most significant change observed throughout the project lifespan are here presented divided in each single year:

- June 2013 – May 2014: Following the first year of the project, academics and researchers that we contacted to present them the GreenEcoNet project and the beta version of the platform are interested and willing to be involved, but no funding available for them to do so straight away
- June 2014 – May 2015: Master students show interest in the topic of SMEs and the green economy

GreenEcoNet - D5.3 Quality Report #2 economy. More than one student develop their dissertation projects on this topic and are supervised by us

- June 2015 – May 2016: Successful inclusion of the topic in the academic debate that has been verified by the number of downloads and views of the policy brief and other technical reports publicly available.

The factors contributing to this change were multiple and can be distinguished according to the stage of development of the project.

- June 2013 – May 2014: bilateral meetings in person and the prestige of the organisation composing the GreenEcoNet project consortium
- June 2014 – May 2015: the pro-active engagement of some of the consortium partners with local universities in order to develop dissertation project proposals that students could select
- June 2015 – May 2016: the publication of scientific papers, technical reports, and other type of academic and non-academic publications

1.4.4 Exploitation of results

The starting point for the business plan is that the GreenEcoNet project has established a solid online platform for SMEs to post their success stories, share their experiences or otherwise connect for a green economy. However, continued funding will be required to keep the platform at the current high quality level,

to maintain the vibrant community that surrounds it and to develop new functionalities.

This business plan foresees three main development stages for GreenEcoNet from the current solid structure and set of functionalities:

1. Stage 1 - June 2016 - May 2017. During this stage we will develop additional functionalities using a modular approach to increase networking capabilities. Some of these functionalities have already been identified and are discussed in more detail in chapter 4.
2. Stage 2 - June 2017 - May 2020. The platform develops towards an open source, self-sustaining and self-monitored networking platform with a critical mass of users. During this stage we will introduce an open source approach to validation, which will ensure the information that is uploaded on the platform remains at high quality levels.
3. Stage 3 - June 2020 and beyond. GreenEcoNet becomes as a global community of practice based social network for green SME or SMEs interested in greening their operations. At this stage, we imagine GreenEcoNet will be self-sustaining.

Each stage may require different types and amounts of funding, and the use of different legal and organisational structures. In the following we attempt to identify and describe such types of funding and of organizational and legal structures.

1.4.3 Dissemination activities

Figure 14 lists all the dissemination activities that were conducted during the duration of the project.

Figure 14: list of dissemination activities

Project Dissemination Activities											
N°	Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed	Status	Actions	Order
1	Organisation of Workshops	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Innovation Lab	28/11/2013	Brussels, BE	Scientific community (higher education, Research) - Industry - Policy makers	50	EU	VALIDATED		
2	Organisation of Conference	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Platform Launch Event & GreenEcoNet Annual Conference Connecting SMEs for a green economy	25/06/2014	Place du Congrès 1, 1000 Brussels, BE	Scientific community (higher education, Research) - Industry - Policy makers	50	EU	VALIDATED		
3	Organisation of Workshops	ECOLOGIC INSTITUT gemeinnützige GmbH	GreenEcoNet Thematic Workshop 2 "Transnational Networking as an Opportunity for SMEs"	26/11/2014	Düren, DE	Scientific community (higher education, Research) - Industry	20	EU	VALIDATED		
4	Organisation of Workshops	ECOLOGIC INSTITUT gemeinnützige GmbH	GreenEcoNet Thematic Workshop 3 "Role and challenges of SMEs in a green(er) economy: barriers, needs and policy options"	28/11/2014	Berlin, DE	Scientific community (higher education, Research) - Industry - Policy makers	20	EU	VALIDATED		
5	Organisation of Conference	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Annual Conference, "Growing a sustainable EU Economy through SMEs: Boosting jobs, growth and entrepreneurship"	27/05/2015	Brussels, BE	Scientific community (higher education, Research) - Industry - Policy makers	60	EU	VALIDATED		
6	Organisation of Workshops	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Thematic Workshop #4, "Internationalisation of SMEs: Improving access to markets for green SMEs"	27/05/2015	Brussels, BE	Scientific community (higher education, Research) - Industry - Policy makers	50	EU	VALIDATED		
7	Flyers	UNIVERSITY OF YORK	GreenEcoNet flyer	15/05/2014	York, UK	Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias		EU	VALIDATED		
8	Organisation of Workshops	UNIVERSITY OF YORK	GreenEcoNet Thematic Workshop #5: Opportunities and challenges for SMEs in realising the COP21 vision	09/12/2015	Paris	Scientific community (higher education, Research) - Policy makers	15	EU	VALIDATED		
9	Organisation of Workshops	UNIVERSITY OF YORK	GreenEcoNet 6th Thematic Workshop Brief Finance opportunities for green SMEs virtual webinar live from York (UK)	20/04/2016	York	Industry	22	EU	VALIDATED		
10	Organisation of Conference	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Final Conference Moving towards a circular economy: Challenges and opportunities for SMEs	26/05/2016	Brussels, BE	Policy makers	110	EU	VALIDATED		
11	Web sites/Applications	UNIVERSITY OF YORK	European Parliament (2015) Green growth opportunities for SMEs Green Action Plan,	11/08/2015	Brussels, BE	Scientific community (higher education, Research) - Policy makers		EU	VALIDATED		
12	Films	UNIVERSITY OF YORK	video of the GreenEcoNet 5th Thematic Workshop in Paris during COP21 https://vimeo.com/165413994	09/12/2015	York	Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias		Worldwide	VALIDATED		
13	Films	UNIVERSITY OF YORK	video of GreenEcoNet Finance opportunities for green SMEs webinar https://vimeo.com/167873347	20/04/2016	York	Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias		Worldwide	VALIDATED		
14	Videos	UNIVERSITY OF YORK	Introduction to GreenEcoNet video https://vimeo.com/165413356	29/04/2016	York	Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias		Worldwide	VALIDATED		

2. Use and dissemination of foreground

¹This section describes the dissemination measures, section A1 includes the list of all scientific publications whereas section A2, includes a list of all dissemination activities.

Section B instead specifies the exploitable foreground that will potentially add value and positive impact of the project on the European Union. Section B1 doesn't apply to GreenEcoNet, therefore, information was

¹ Section directly filled in SESAM

only included in section B2.

2.1 Dissemination measures

A1. List of all scientific publications relating to the foreground of the project

TEMPLATE A1 - LIST OF SCIENTIFIC PUBLICATIONS, STARTING WITH THE MOST IMPORTANT ONES										
No.	DOI	Title	Main author	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Date of publication	Relevant pages	Is open access(4) provided to this publication? Type
		The circular economy: barriers and opportunities for SMEs	VASILEIOS RIZOS (CEPS), ARNO BEHRENS (CEPS), TERRI KAYFEKE (ECOLOGIC), MARTIN HIRSCHNITZ-GARBERS (ECOLOGIC) AND ANASTASIA IOANNOU (UPRC), WITH CONTRIBUTIONS BY LENNARD DUURSEMA (JIN)	GreenEcoNet 4.3 (compilation)				31/05/2016	1-9	Yes Article/Section in an edited book or book series
		Decarbonisation of the EU economy by 2050: the potential contribution of the transport sector	CHRIS NEALE (SEI), ROBERTO RINALDI (SEI), DANAI MANOLI (UPRC), CHRIS HOPKINS (GEC), CORRADO TOPI (SEI) AND JOSE MANUEL VEGA BARBERO (SEI)	GreenEcoNet 4.3 (compilation)				31/05/2016	30-37	Yes Article/Section in an edited book or book series
		Energy efficiency policies for SMEs in Europe	DANAI MANOLI (UPRC), ALEXANDROS FLAMOS (UPRC), SOTIRIS PAPADELIS (UPRC) AND NIKI SPYRIDAKI (UPRC), WITH CONTRIBUTIONS BY VASILEIOS RIZOS (CEPS)	GreenEcoNet 4.3 (compilation)?				31/05/2016	19-29	Yes Article/Section in an edited book or book series
		Private-to-private climate finance instruments and SMEs	VALENTINO MARINI GOVIGLI (SEI) and CORRADO TOPI (SEI)	GreenEcoNet 4.3 (compilation)?				31/05/2016	38-53	Yes Article/Section in an edited book or book series
		Networking for SME innovation	ERWIN HOFMAN (JIN) AND CHRIS HOPKINS (GEC), WITH CONTRIBUTIONS BY DANAI MANOLI (UPRC) AND ROBERTO RINALDI (SEI)	GreenEcoNet 4.3 (compilation)				31/05/2016	10-18	Yes Article/Section in an edited book or book series
		Green Economy Policy Proposals	Erwin HOFMAN (JIN) and Wytze van der GAAST (JIN) editors	GreenEcoNet 4.2				31/05/2016	1-100	Yes Article/Section in an edited book or book series

Implementation of circular economy business models by small and medium-sized enterprises (SMEs): Barriers and enablers	Rizos V., Behrens A., van der Gaast W., Hofman E., Kafyke T., Hirschnitz-Garbers M., Topi C., Rinaldi R., Ioannou A., Fiamos A.	World Resource Forum	World Resource Forum	13/10/2015		Paper in Proceedings of a Conference/Workshop
ASSESSING THE MOTIVATIONS AND BARRIERS FOR SMALL MEDIUM ENTERPRISES (SMES) WHEN IMPLEMENTING BEST PRACTICES TOWARDS A GREEN ECONOMY: A UK CASE STUDY	Samantha CRICHTON		University of York	30/04/2015		Thesis/Dissertation
Barriers to Green Innovation: Evidence from SMEs in the Residential Construction Sector	Jos Oosterom		Rijksuniversiteit Groningen	Lingestraat 26, 9725 GR Groningen	01/03/2015	Yes Thesis/Dissertation

A2. List of Dissemination activities

TEMPLATE A2 - LIST OF DISSEMINATION ACTIVITIES								
No.	Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
1	Organisation of Workshops	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Innovation Lab	28/11/2013	Brussels, BE	Scientific community (higher education, Research) - Industry - Policy makers	50	EU
2	Organisation of Conference	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Platform Launch Event & GreenEcoNet Annual Conference "Connecting SMEs for a green economy"	25/06/2014	Place du Congrès 1, 1000 Brussels, BE	Scientific community (higher education, Research) - Industry - Policy makers	50	EU
3	Organisation of Workshops	ECOLOGIC INSTITUT gemeinnützige GmbH	GreenEcoNet Thematic Workshop 2 "Transnational Networking as an Opportunity for SMEs"	26/11/2014	Düren, DE	Scientific community (higher education, Research) - Industry	20	EU
4	Organisation of Workshops	ECOLOGIC INSTITUT gemeinnützige GmbH	GreenEcoNet Thematic Workshop 3 "Role and challenges of SMEs in a green(er) economy: barriers, needs and policy options"	28/11/2014	Berlin, DE	Scientific community (higher education, Research) - Industry - Policy makers	20	EU
5	Organisation of Conference	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Annual Conference, "Growing a sustainable EU Economy through SMEs: Boosting jobs, growth and entrepreneurship"	27/05/2015	Brussels, BE	Scientific community (higher education, Research) - Industry - Policy makers	60	EU
6	Organisation of Workshops	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Thematic Workshop #4, "Internationalisation of SMEs: improving access to markets for green SMEs"	27/05/2015	Brussels, BE	Scientific community (higher education, Research) - Industry - Policy makers	50	EU
7	Flyers	UNIVERSITY OF YORK	GreenEcoNet flyer	15/05/2014	York, UK	Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias		EU
8	Organisation of Workshops	UNIVERSITY OF YORK	GreenEcoNet Thematic Workshop #5: "Opportunities	09/12/2015	Paris	Scientific community (higher education,	15	EU
9	Organisation of Workshops	UNIVERSITY OF YORK	GreenEcoNet 6th Thematic Workshop Brief "Finance opportunities for green SMEs?" virtual webinar live from York (UK)	20/04/2016	York	Industry	22	EU
10	Organisation of Conference	CENTRE FOR EUROPEAN POLICY STUDIES	GreenEcoNet Final Conference "Moving towards a circular economy: Challenges and opportunities for SMEs?"	26/05/2016	Brussels, BE	Policy makers	110	EU
11	Web sites/Applications	UNIVERSITY OF YORK	European Parliament (2015) Green growth opportunities for SMEs Green Action Plan,	11/08/2015	Brussels, BE	Scientific community (higher education, Research) - Policy makers		EU
12	Films	UNIVERSITY OF YORK	video of the GreenEcoNet 5th Thematic Workshop in Paris during COP21 https://vimeo.com/165415594	09/12/2015	York	Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias		Worldwide
13	Films	UNIVERSITY OF YORK	video of GreenEcoNet "Finance opportunities for green SMEs" webinar https://vimeo.com/167873347	20/04/2016	York	Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias		Worldwide
14	Videos	UNIVERSITY OF YORK	Introduction to GreenEcoNet video https://vimeo.com/165415356	29/04/2016	York	Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias		Worldwide

2.2 Exploitable foreground and plans for exploitation

2.1. Applications for patents, trademarks, registered designs, utility models, etc...

Not applicable to the GreenEcoNet project

2.2 Exploitation of foreground

2.2.1 Future exploitation of GreenEcoNet online platform

The main exploitable foreground of Greeneconet is the online platform that was developed under the duration of the project, including the functionalities that have been developed as well as the functionalities that are planned to be developed in the next future.

In order to exploit the platform in the future, on one hand D4.5 describes a possible business development plan containing the strategy for the survival and the development of the GreenEcoNet platform beyond the end of the project funding provided by the European Commission under the EU FP7 stream of funding. It covers the governance structure, the operational management structure, the revenue strategy and the funding strategy.

On the other hand, the GreenEcoNet Consortium developed a *continued consortium agreement* in order to set the structure and define the process for the continued collaboration of the parties in the framework of the finalised GreenEcoNet project. The whole text of the continued consortium agreement has been included in order to show the purpose of the agreement, the collaboration protocol to attract funding for the continuation, maintenance, and/or development of the GreenEcoNet online platform and related activities, the identification of a potential new funding opportunities protocol, the conditions in which consortium partners will have access rights to the GreenEcoNet online platform, and the right to add contents and finally the commitment of the parties towards the maintenance the GreenEcoNet platform.

GreenEcoNet continued consortium agreement

Memorandum of Understanding for the continuation of the GreenEcoNet platform and collaboration among the consortium

This agreement is made June 30th, 2016, and signed by the following parties [hereafter: parties, unless specified otherwise]:

- Stockholm Environment Institute, Stockholm, Sweden (SEI) at the University of York, York, UK (UoY)
- University of Piraeus Research Centre, Piraeus, Greece (UPRC)
- Centre for European Policy Studies, Brussels, Belgium (CEPS)
- JIN Climate and Sustainability, Groningen, Netherlands (JIN)

- Green Economy Coalition, London, UK (GEC)
- Ecologic Institute, Berlin, Germany (Ecologic)

It is hereby agreed as follows:

1. Purpose of this agreement

The purpose of this agreement is to set a structure and define a process for the continued collaboration of the parties in the framework of the finalised GreenEcoNet project.

GreenEcoNet (full title: 'GREENECONET: A best practice platform to support the transition towards a green economy') was a 3-year project (1 June 2013 – 31 May 2016), co-funded by the European Union's Seventh Framework Programme (FP7) under grant agreement number 603939, and implemented by the parties under coordination of SEI.

During the project duration, the GreenEcoNet project has launched the GreenEcoNet online platform to support small and medium-sized enterprises (SMEs) in the transition towards a green economy. The platform includes, among others, functionalities for SMEs to showcase their green solutions, tools to support SMEs that want to green their business, company and SME network profiles, news and blogs about the green economy, and a discussion forum.

The parties aim to continue the functioning of the GreenEcoNet online platform beyond the finalisation of the GreenEcoNet project, and therefore establish two protocols:

- Collaboration to attract follow-up funding for the GreenEcoNet online platform and/or related activities, and procedures in case of new funding opportunities; and
- Collaboration for maintenance of the GreenEcoNet online platform, and ensuring high quality and timeliness of its contents.

2. Attracting funding

Parties agree to collaborate on attracting funding for the continuation, maintenance, and/or development of the GreenEcoNet online platform and related activities, therewith attempting to attract funding for the consortium as a whole (all parties). The following protocol is in place:

1. Parties keep each other informed about potential funding opportunities at all times. Parties will register such opportunities in a funding acquisition logbook (online spreadsheet), which will be regularly monitored (Article 5, section 1).
2. Parties agree on the suitability of a funding opportunity based on consensus, and the criteria as set in Article 3.
3. Parties are at all times 'preferred partners' in the establishment of a new consortium to be formed for a funding opportunity, and all parties will be invited to join the consortium if they are eligible to do so as per the criteria for the funding.

4. Parties join this agreement on an equal footing, and aspects such as project coordination and budget distribution will be decided upon on a case-by-case basis in the framework of the new funding opportunity.
5. Parties are in no way obligated to join the consortium as mentioned in step 4.
6. Based on parties' judgment and agreement, additional project partners may be invited to join a consortium. In a later stage, the additional project partners may become a party to this agreement, following the procedure as set out in Article 6.

3. Criteria for new funding opportunities and activities

Following the identification of a potential new funding opportunity (see Article 2, step 1), all parties will have the opportunity to assess its relevance, appropriateness, and acceptability to GreenEcoNet. A decision is to be made on the basis of consensus of all parties (see Article 2, step 2). A funding opportunity will not be pursued – in the framework of GreenEcoNet – by any of the parties in the case of an objection by any one of the parties. A web or telephone conference may be organised in the case of an objection by one or more of the partners, in order to reach consensus.

While a funding opportunity may not be utilised by all parties, for reasons of interest and eligibility with funding criteria, all parties must agree with utilising this funding opportunity for GreenEcoNet development and maintenance.

Objections by parties to the pursuit of a funding opportunity may be based on the list of criteria below, which is not exhaustive. An objection may however not be based on a lack of interest or resources of the party to join a potential consortium, as in that case the pursuit of the funding opportunity may continue without this partner (see Article 2, step 5).

In order for a funding opportunity or assignment to be pursued in the framework of GreenEcoNet, it should be related to; in line with; complementary to; or at least not contradictory to the following criteria:

1. *SME*: A focus on small and medium-sized enterprises (SMEs).
2. *Green*: A focus on the transition to the green economy (e.g. eco-innovation, sustainability, circular economy, renewable energy, resource efficiency)
3. *Non-exclusionary*: GreenEcoNet will remain available for all individuals and entities that comply with the criteria, and can therefore not be limited to e.g. the members of a certain organisation.
4. *Non-commercial*: The main purpose of GreenEcoNet will remain to be a not-for-profit support platform for SMEs, and GreenEcoNet may not be used solely for commercial gains of an individual or organisation.

4. Use of GreenEcoNet platform, name, and domain

Follow-up projects and activities to GreenEcoNet, that have completed the protocol as set out in Article 2 and are in line with the criteria as set in Article 3, may use the GreenEcoNet platform, name, and web domain.

All parties – as well as new consortium partners in follow-up projects, if any – will have access rights to the GreenEcoNet online platform, and the right to add contents.

For significant changes or additions to the functionality of the web platform, consensual agreement should be reached among the parties.

5. Maintenance of the GreenEcoNet platform

The parties commit to maintaining the GreenEcoNet platform, and ensuring the quality and timeliness of its contents, even if no additional funding is acquired according the protocol in Article 2. Therefore, all partners aim to contribute 16 man-hours per year. This adds up to in total 96 man-hours per year collectively for all parties, or 8 man-hours per month.

1. *Technical maintenance and coordination* (2 hours per month, alternately by all partners except GEC): This task consist of two parts. Firstly, the technical maintenance check encompasses a check for broken hyperlinks and in general the correct functioning of the GreenEcoNet platform. Secondly, the coordination task encompasses a check of the maintenance logbook (see below) and the funding acquisition logbook (see Article 2, step 1), and follow-up if necessary.

2. *Content maintenance* (3 hours per month, alternately by all partners except GEC): Check the eligibility of new green solutions uploaded and contact the uploader to request additional information if necessary, and/or contact SMEs to invite them to upload their green solutions.

3. *News or blog update* (2 hours per month, alternately by all partners): Write a news or blog update on the GreenEcoNet platform, in order to ensure the continuous flow of at least one update per month. The updates can be e.g. an announcement of a green SME-related event, or an article on a new relevant publication.

4. *Social media* (1 hour per month, by GEC) Ensure that the @greeneconet Twitter account will continue providing updates on new solutions on the GreenEcoNet platform, and other green economy-related updates and 'retweets'. In addition, updates will be posted on the GreenEcoNet Facebook and LinkedIn pages.

Logbook: A spreadsheet will be available in Google documents where all parties should provide a short update on the proceedings with regard to their assigned tasks (i.e. 1 update per task per month). The party responsible for task 1 (coordination) is responsible to verify whether all parties have completed the logbook for the previous month, and if necessary to follow up on this. This party responsible for coordination may also inform the entire consortium by email in case a party has failed to carry out its task, even after being reminded.

Work programme: based on the division of tasks as set out above, the following work programme applies, with for tasks 1 and 2 the same schedule applying again starting in the 6th month, and for task 3 the same schedule applying again starting in the 7th month. Task 4 is carried out every month by GEC.

Task	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
1. Tech + Coordination	SEI	UPRC	CEPS	JIN	Ecologic	
2. Contents	UPRC	CEPS	JIN	Ecologic	SEI	
3. Update	CEPS	JIN	Ecologic	SEI	UPRC	GEC
4. Social media	GEC					

6. Administrative provisions

1. Responsibilities

All parties commit to the observance of the requirement to notify all other partners in case of potential funding opportunities (Article 2, step 1), and all parties commit to the participation in the maintenance of the GreenEcoNet platform (Article 5).

2. Withdrawal

Parties have the right to unilaterally withdraw from this agreement at all times. A withdrawal results in the suspension of the responsibilities (Article 6, section 1), as well as a suspension of this party's status as a 'preferred partner' (Article 2, step 3).

3. Removal

A decision to remove one of the parties from the agreement may be taken by all other parties unanimously, on the basis of non-compliance with the responsibilities (Article 6, section 1).

4. Accession of a new party to the agreement

Parties may decide on the accession of a new party to this agreement on the basis of unanimity. The accession of a new party is specifically intended for the case of a new GreenEcoNet follow-up consortium that includes new partners (Article 2, step 6).

5. Termination

The agreement will be deemed terminated if the number of parties has reduced to less than three, or if there has been no activity in the framework of this agreement (Articles 2 and/or 5) for at least 6 months.

7. Signatures

This section contains the signature pages of all signatory parties.

2.2.2 Key performance indicators to measure impact

To monitor and evaluate how effectively the implementation of GreenEcoNet was, we used Progress Markers (PMs) to identify the observable steps it will take for the boundary partners to change their behaviour during the project. To capture this information, we use Key Performance Indicators (KPIs) which translate the designated desired outcomes in quantitative terms, providing a measure to track and assess the status of the GreenEcoNet platform development.

We plan to use the same KPIs we used during the three years the project lasted, for the next future.

The KPIs used for the GreenEcoNet web-platform derived from those usually used by social media, as they seem to be the most appropriate indicators for us, and they were integrated with more qualitative indicators whenever actual quantitative information cannot be collected.

Table 4 below includes all the KPIs we used as well as a brief explanation specifying time periods at which the information is to be collected.

Table 5: Definition of KPIs applied to the GreenEcoNet project for SMEs

KPI	Explanation of measurement	Collection
Users registered	Number of users already registered discounted for the users who left the platform divided by type of user: SME and SME multiplier, policy-makers, or academic/researcher	Monthly aggregate, biannual detailed
Users demographics	Area of access, age range, sex	Monthly
Usage (quantitative)	Page views and % of users accessing the website for the first time against the % of old users	Monthly
Usage (qualitative)	Analysis of survey undertaken to investigate SMEs behavioural changes towards green economy	2016
Dissemination of platform existence	Number of published press releases, articles, and social media inputs about GreenEcoNet	Biannual
Case studies	Number of new case studies uploaded since the last collection of data	Monthly
Population of platform with other content	Number and dynamic of discussion forum entries, blog entries, news entries and their social media dissemination	Biannual
Participants to project events	Number and type (SMEs, policy makers, researchers/academics) of participants to the	Biannual

	GreenEcoNet project events	
Interaction policy makers	Analysis of database collecting information about interactions with policy makers	Annual
Interactions academia and researchers	Analysis of survey undertaken to investigate changes in interactions between research institutions / academics and SMEs	2016

3. Wider societal implications of the project

This entry was included in SESAM

Annex I: Project public website and other dissemination material

We attached in a separate document deliverable 2.6, Compilation of communications content. This document collects together the **blog, news, and publications** posted on the GreenEcoNet website, www.greeneconet.eu, over the life of the project – June 2013 to May 2016. The compilation includes all content published online as of the 26th May 2016. This communications content includes that created by the GreenEcoNet team, sourced from other media outlets, and blogs and news pieces submitted by SMEs, partner organisations, and greeneconet.eu users. It also includes items in the GreenEcoNet publications library, hosted on greeneconet.eu to ensure this research is made available to policy makers and other interested users.

In a separate document, we attached a **list of all videos** made during the project.

Regarding **photographs** of the events, we attached a couple of them from each annual conferences

First annual conference held on the 25-27/07/2013 in Brussels



Second annual conference held on the 26/06/2014 in Brussels



Final Conference held on the 27/05/2016 in Brussels



As **presentations**, we uploaded in the SESAM system, 2 presentations that were delivered by Corrado Topi, the project coordinator, during the duration of the project, one corresponds to the presentation given at the final GreenEcoNet conference in Brussels and the other one corresponds to the SEI Science Forum in Stockholm.