

GRASPINNO

Transnational model, strategies and decision support for innovative clusters and business networks towards green growth, focusing on green e-procurement in EE/RES for energy refurbishment of public buildings.

Deliverable: 4.4.1

Report on GRASPINNO

Living Lab

CY Living Lab (Green Policy Living Lab), Cyprus

Prepared by Department of Public Works, Ministry of Transport, Communications and Works

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1 EXECUTIVE SUMMARY

GRASPINNO project aims to support and strengthen innovative clusters and network for increasing their capacity and competence in green growth and eco-innovation, especially in innovative energy refurbishment and green public procurement. It addresses the challenge of developing effective energy management solutions by improving the capacity of both public and private sector on eco-innovation solutions by adopting Living Lab methodology. Indeed, the Living Lab (LL) presents a specific trend in open innovation approaches that enables co-creation of novel user-oriented solutions. Its role is likewise deployed within GRASPINNO project to change the stance of actors and civil society toward green sustainable growth. The GRASPINNO Living Labs integrates R&I processes and creates a user-oriented open innovation ecosystem to strengthen transnational cooperation and networking among existing clusters and networks of green energy market eco-innovation. The main goal of GRASPINNO LLs is to transfer the knowledge obtained within the project's pilot actions and to exchange experiences or concerns for green growth, especially including end-users, and so setting the base for further actions.

The CY Living Lab (Green Policy Living Lab), set up in Cyprus aims **to enhance the capacity of public building owners to manage energy efficacy moving towards almost-zero-energy buildings and strength the capacity of SMEs and other eco-innovation actors in the green energy market.** Policy recommendations and funding solutions were investigated and proposed for better roll out of green criteria in Cyprus. In the CY Living Lab, the current national policy was further analysed, due to the high need to empower the green policy in Cyprus. Thus, the two national competent authorities for GPP were invited to participate in the CY Living Lab. We need to stress that the main activities and actions of the CY Living Lab lead to the enhancement of the green policy in Cyprus. However, some activities included the promotion of the eGPP platform, training activities and the promotion of the LCC tool.

The CY Living Lab (Green Policy Living Lab) will consist of different actors, such as SME's, clusters of SME's, Public Authorities (Pas), Local Authorities (LAs), decision and policy makers in the field of GPP, Universities and NGOs and will:

- actively involve them in the process of green public procurement, public building refurbishment, public lightning, eco-innovation, funding and mentoring;
- improve policies and SEAPs for green building energy refurbishment, policy recommendations;
- establish an interaction among them;
- transfer to actors and other interest's stakeholders GRASPINNO knowledge and pilot results in field of green energy;
- stimulate the GPP market and public - private procurers;
- tackle the identified weakness in Cyprus (support of the procurers, policy framework, knowledge transfers and successful implementation of Green Public Procurements).

2 INTRODUCTION

The Deliverable 4.4.1 Report on GRASPINNO Living lab (CY Living Lab (Green Policy Living Lab), Cyprus) consist on two main parts, part I and II. The first part of document presents a short introduction to concept of Living labs and the GRASPINNO methodology used in setting up the Living lab, while the second part presents an overview of actual setting up of the Green Policy Living Lab in Cyprus.

In the part I, the general description and definition of Living Labs is given together with detailed approach on setting up GRASPINNO Living Labs. The set-up of GRASPINNO Living Lab consists of six phases each following several steps, whereas the sequence of this steps within the phases can differ based on the demand or environment of the Living Lab. The deliverable concludes with short but valuable experience of setting up the Living Lab and some valuable conclusions to encourage other interested stakeholders to approach to innovation in field of green energy by adopting Living Lab approach.

In the part II, the setup of the Green Policy Living Lab in Cyprus following the GRASPINNO Living lab methodology is presented. This report is a standalone report and feeds report D4.4.2 Findings from Living labs (together with other GRASPINNO Living Labs reports) where the main conclusions and recommendations deriving from all living labs provide valuable insights for suitability of living labs.

3 PART I: INTRODUCTION TO LIVING LABS

3.1 GENERAL DESCRIPTION AND DEFINITIONS

Living Labs present a specific trend in open innovation approaches. In Living Lab approach, external ideas are resources in innovation process. The aim of the Living Lab approach is to support innovation process with a usable product or service as a result of the innovation process. Different stakeholders are involved in the Living Lab, from researchers, developers and end-users with the goal to co-create innovative products and services in a real-world environment. The Living Lab concept is based on a systematic user co-creation and integrating research and innovation processes (bringing together users, R&D institutions, producers, service providers and all relevant stakeholders in focused and integrated development process). These are integrated through the co-creation, exploration, experimentation and evaluation of innovative ideas, scenarios, concepts and related technological artefacts in real life use cases. Such use cases involve user communities, not only as observed subjects but also as a source of creation. This approach allows all involved stakeholders to concurrently consider both, the global performance of a product or service and its potential adoption by users. This consideration may be made at the earlier stage of research and development and through all elements of the product life-cycle, from design up to recycling.

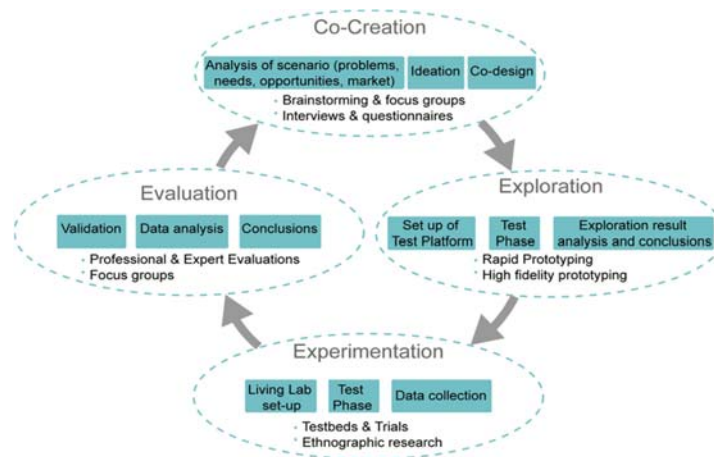


Figure 1: A visual representation of the Living Lab process
(Vicini, Bellini, Sanna, SMART 2012)

Living Labs usually exploit opportunities of modern ICT and can be seen as “a large, broadly conceptualized laboratory”. Cooperation of all stakeholders (from users, to companies, ICT providers, developers, government organizations, universities and other involved institutions) is sought.

3.2 GRASPINNO LIVING LAB METHODOLOGY

The GRASPINNO Living Lab methodology is applied in each participating country and consists of 6 phases i.e. Connect, Educate and train, Implement, Improve, Evaluate and Disseminate, as shown from Figure 2.

Through Living Lab approach stakeholders (public sector, SMEs as well as other interested participants) are involved as active contributors as well as a source of creation and not only as observed subjects. Namely, innovations (including new approaches and tools) generally face resistance from the users especially if users are not sure about benefits to be gained - this might be especially true for the public sector. Experiential learning is one of the most powerful teaching and learning tools to overcome this reluctance and to facilitate behavioural change. Experiential learning involves: (i) a “reflective learning phase”; (ii) a learning phase coming from the experimentation; and (iii) a learning phase coming from feedback. These phases are well aligned with the phase Educate and train, Implement and Improve of the iterative GRASPINNO Living Lab approach.

Two main types of stakeholders in particular are targeted – namely public sector and product providers (especially SMEs). Beside mentioned, also mentoring/financing experts need to be involved to share their expertise in funding/mentoring opportunities, to invent/produce/use eco-innovative solutions in eGPP/building refurbishment. Additionally, the LL need to involve policy stakeholders with power to design public policies for eco-innovation, action plans for energy refurbishment of public buildings, framework of models, strategies, methods, database and tools to support the green energy MED policies.

In order to implement the Living Lab approach in GRASPINNO procedures were informalized thus the activities of LL are implemented without formalisation in terms of legal commitments, formalisation of procedures and management. The informal establishment of Living Lab, not requiring establishment of new legal entity but only

formal commitment to participation (Declaration of Participation or similar) is intended to ease the involvement of stakeholders. Nevertheless, the work in LL is structured and led by project partners following joint methodological approach. One LL per partner country is mobilized bringing together organisations actively involved in GRASPINNO implementation as well as other organisations interested to observe but not to actively participate. The activities follow the phases of Living Lab as shown below. Some activities are open to all participants while other activities (individual consultations and individual support with implementation) are given only to organisations actively participating in GRASPINNO activities.

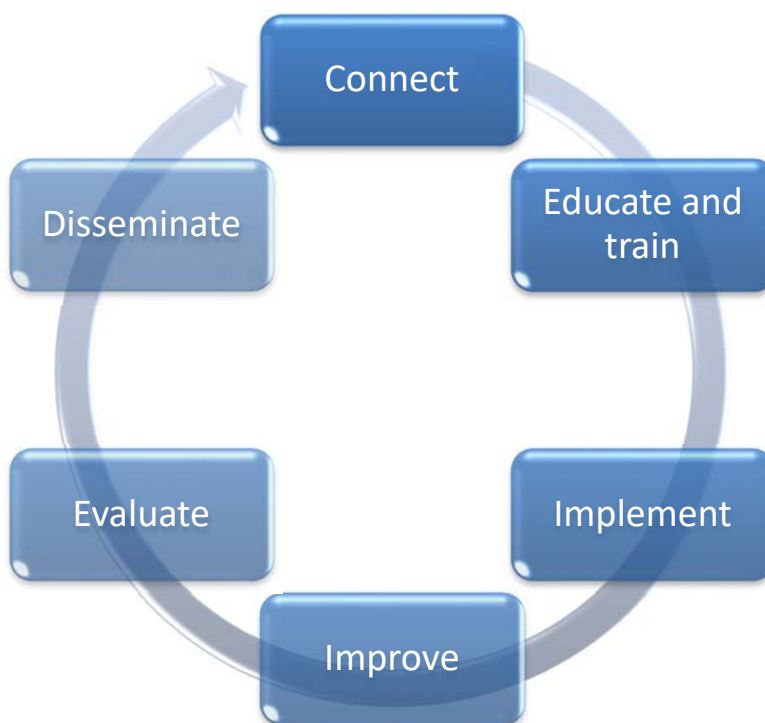


Figure 2: GRASPINNO Living Lab approach

The national Living Labs work together following the same methodology and exchanging experiences. At the same time the Living Lab implementation methodology is flexible enough to allow for adaptations to national/regional specifics.

4 PART II: SETTING UP THE GREEN POLICY LIVING LAB IN CYPRUS

4.1 Connect

4.1.1 The leader of the CY Living Lab (Green Policy Living Lab)

The main leader of the CY Living Lab (Green Policy Living Lab) is the Department of Public Works in Cyprus. The Department of Public Works will have the overall responsibility for smooth operation of the CY Living Lab (LL), with the support of the Department of Environment in Cyprus. The Department of Public Works will be the main facilitator to motivate the stakeholders to participate actively in the CY LL activities, to organise the meetings with the LL stakeholders and the training activities and finally to achieve the schedule activities according to the LL plan.

The contact details of the main responsible person for the CY Living Lab are presented below:

Table 1: Cyprus Living Lab contact person

Contact Person	Contact Details
Mrs Katerina Pantazi	Organization: Department of Public Works
	Tel: +357 22806777
	Email: kpantazi@pwd.mcw.gov.cy

The Department of Public Works was established in 1878 and after the declaration of independence of the Republic of Cyprus is operating under the Ministry of Transport, Communications and Works. One of Department's Vision which are aligned with GRASPINNO project aims is also to ensure that citizen receives decent and comfortable conditions of service in (modern) public buildings and to contribute on the regeneration of social environment, in harmony with the natural environment. Within the framework of achieving its mission, the Department has the following main activities:

- Design or management of designs that are carried out by the private sector, supervision and management of the contracts for the construction, improvement and maintenance of government and other buildings.

- Maintenance of residences and other buildings in refugee housing estates as well as supervision of construction of residences that are built as part of the Plan for Self built shelter and issuing of the relevant progress certificates.
- Laboratory testing (investigations, trials etc.) of construction materials both for projects carried out by the Department and the private sector, in accordance with the relevant specifications.
- Provision of technical advice to other Ministries, Departments, Services, Organisations as well as to private individuals.
- Participation and representation of the Department in various Technical Committees such as the Committee of Cypriot Standards, the Central Committee for Variations and Claims, the Rent Committee, Judging Committees for Architectural Competitions etc.

4.1.2 Potential CY Living Lab (Green Policy Living Lab) stakeholders

Since the main aim of the CY Living Lab (CY LL) is to empower the GPP policy in Cyprus, the two-main national competent authorities, Department of Environment and Treasury of the Republic Cyprus, were invited to participate. Until 19/12/2017, five (5) main stakeholders were invited in the initial set-up of the CY LL and signed the Declaration of Participation (DoP). The main GPP stakeholders were identified from previous European projects and initiatives (BuySmart, GreenS) and were invited to participate in the CY LL, together with the pilots' stakeholders, during the beginning of the 2018. Besides the stakeholders that have signed the DoP, the stakeholders from the public sector that were identified and showed interest to participate in the CY LL and project's actions were the following:

- Treasury of the Republic Cyprus,
- Cyprus Scientific and Technical Chamber (ETEK),
- Cyprus Employers and Industrialists Federation (OEB),
- Department of Electrical and Mechanical Services,
- Ministry of Defence,
- Cyprus University of Technology,
- Union of Cyprus Municipalities,
- Government Services Purchasing & Supply,
- Frederick University,
- Cyprus Chamber of Commerce and Industry (KEBE)

Apart from those from the public sector, stakeholders from SMEs were, also, identified and showed interest in the CY LL. Some of them participated in the pilot while others were chosen due to their field of business and products which were related to building renovations and constructions that will lead to increase of energy efficiency in buildings. Those are:

- Nikolaides & Kountouris Metal Comany LTD,
- MUSKITA Aluminium Industries Ltd,
- ASVESTAS CO LTD,
- MONOSI NET Cyprus LTD,
- DIMCO LTD

4.1.3 GPP situation in Cyprus and the CY Green Policy Living Lab scope

Cyprus within the framework of its obligations to the European Union, has prepared its own National Action Plan for promotion of Green Public Procurement. The first Action Plan was approved by the Cabinet of Ministers in March 2007 and the second plan in January 2012. The competent authority for the promotion and support of GPP in Cyprus is the Department of Environment, of the Ministry of Agriculture, Rural Development and Environment. The implementation of the national Green Public Procurement Action Plan is mandatory for all the Public Sector Contracting Authorities, Public Law Organizations, Local Authorities, since it has been approved by the Cabinet of Ministers.

The Cyprus National Action Plan for GPP includes four Annexes:

- Annex A: summarizes the categories of products and the implementing measures (targets)
- Annex B: refers to environmental implementation and management
- Annex C: lists the criteria (GPP Toolkit), core and comprehensive
- Annex D: contains the lists of Authorities and Organizations

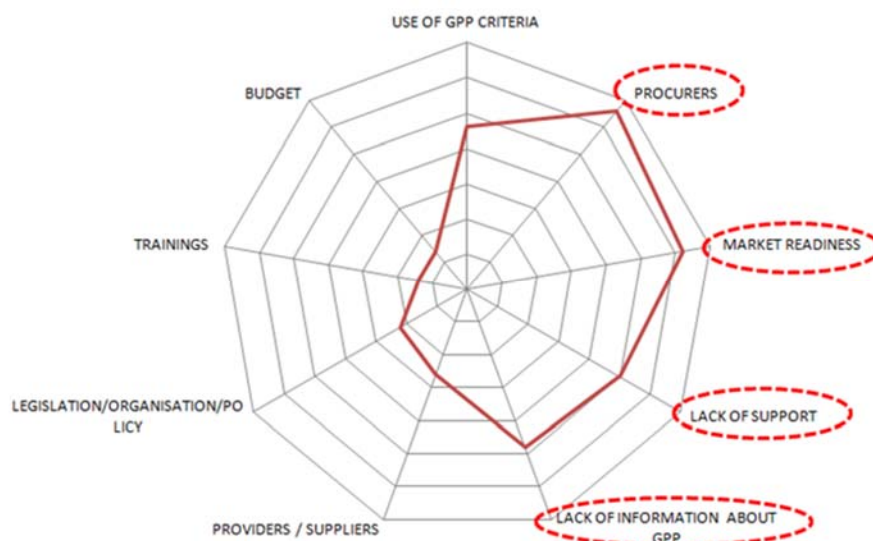
For the purposes of supporting and promoting the GPP different training sessions were organised by GPP supporters, covering different energy related products. Furthermore, Cyprus established Green Public Procurement Awards (CY CPP AWARDS) in 2014, which had an exceptional response and support from the contracting authorities along with the targeted entities and authorities including State Authorities-Public Sectors, public bodies and local authorities.

In 2015 and 2016, the ceremony and the awards were organized by the Department of Environment, in cooperation with the Cyprus Energy Agency. Also, the GPP Awards have been included in the annual program of the Ministry of Agriculture, Rural Development and Environment and in the future and it will be extended to more categories included in the GPP National Action Plan.

Despite the promotional and supportive efforts, gaps and weaknesses have been identified for effective GPP implementation in Cyprus. The weaknesses were identified under the project GreenS (Green public procurement supporters for innovative and sustainable institutional change, funding from the European Union's Horizon 2020), where more than 20 Public-Local procurers were interviewed.

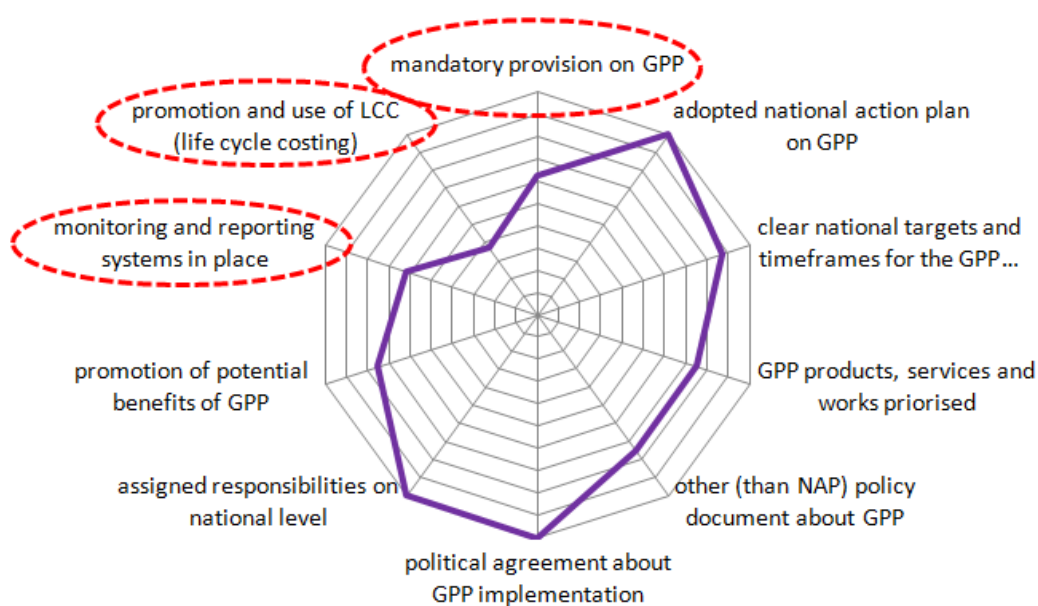
The main weaknesses (Figure 3) for the implementation of GPP according to the opinion of the Cypriot procurers (local /public authorities), can be identified in the lack of support and information about GPP and also in the market readiness to cover the green needs of the procurers.

Furthermore, the flaws on policy framework (Figure 4) are consisted by the absence of GPP monitoring and reporting system, the non-use of Life cycle costing and the relax legal conditions for strict implementation of GPP.



Source: Cyprus Energy Agency, GreenS project

Figure 3: Weaknesses of GPP implementation in Cyprus (What procurers believe?)



Source: Cyprus Energy Agency, GreenS project

Figure 4: Weaknesses identified on GPP policy framework

4.1.4 The CY Living Lab (Green Policy Living Lab)

4.1.4.1.1 The CY Living Lab objectives

The overall goal of the CY Living Lab (Green Policy Living Lab) is to transfer knowledge and exchange experience regarding green policies and green public procurement and make use of the eGPP tool as a public tool for green procurement.

The setting up of the CY Living Lab (Green Policy Living Lab), aims to empower the capacity of public building owners to manage energy efficiency moving towards almost-zero-energy buildings and strength the capacity of SMEs and other eco-innovation actors in the green energy market. Towards this direction, actions for policy and SEAPs improvement for green building energy refurbishment was

investigated and proposed for better roll out of green criteria in Cyprus. Under this scope the following goals were set for achievement:

- To improve policies and SEAPs for green building energy refurbishment
- To learn how green public procurement in Cyprus works
- To overcome barriers hindering the growth in green energy and energy refurbishment of public buildings (funding barriers, barriers connected to cultural heritage restrictions etc.)
- Improve capacity of public building owners to manage energy efficiency moving towards almost-zero-energy buildings
- Strengthen the capacity of SME and other eco-innovation actors and grow in the green energy market by networking and capitalizing on their knowledge
- To ensure the wider uptake of green electronic public procurement to achieve green energy refurbishment of public building

4.1.4.2 The CY Living Lab activities

The main activities of the CY Living Lab are presented below:

- Collect good practices on public buildings green refurbishment, benchmarking and design of public policies for eco-innovation
- Adoption of green actions for energy refurbishment of public buildings in the SEAPs of the Municipalities
- Raise awareness of PAs and SMEs regarding Green Public Procurement and Green Policies
- Enable implementation of GRASPINNO conclusions and results into regional, national and EU policies, influencing key stakeholders in the domain of e GPP and green building energy refurbishment
- The promotion of the eGPP and the LCC tool, which will be provided through organised training individual and joint meetings. The eGPP and LCC tool is a powerful tool, strongly supporting the procurers and the formation - evaluation of the public procurement with green criteria. The tool will be promoted and adjusted to the local conditions if necessary.
- Training material will be created and provided to the participants for energy products and services and more related for sufficient manage of energy efficiency in public buildings

- The promotion of eGPP platform as a mean, where the public- local authorities and SMEs can cooperate for implement successfully GPP and get familiar with the GPP concept.

4.1.4.3 Stakeholders role and responsibilities

The main leader of the CY LL will be the Department of Public Works. The Department of Public Works will have the overall responsibility for organising the meetings with the Lab stakeholders and the training activities, with the support of the Department of Environment. The role of the stakeholders involved in the CY LL is to cooperate with the leader of the CY LL and participate in the CY LL activities. The CY LL stakeholders are presented in table below.

Table 2: Cyprus Living Lab stakeholders

Cyprus Living Lab Stakeholders

Stakeholder	Government/SMEs/Organisation	Role/Capacity
Department of Public Works, Ministry of Transport, Communications and Works	Government	Leader of the CY LL
Department of Environment, Ministry of Agriculture, Rural Development and Environment	Government	Competent GPP Authority
Union of Cyprus Communities	Public Authority	Local Authorities/Communitie s
Associations of Enterprises (Renewable Energy Sources, Energy saving equipment)	SMEs	Association of RES companies/ Energy Experts
Cyprus Energy Agency	NGO, non-profit	GPP support and training structure for public-local authorities

4.1.4.4 Special agreements

A total of 2 stakeholders' meetings will be organised per year (2017-2018), discussing the progress and actions of the CY Living Lab. When necessary, tele-meetings will be scheduled to facilitate the communication between the stakeholders and the Leader of the LL.

4.1.4.5 Cost issues

No additional cost issues are expected to arise apart from the cost for the organisation of the meetings that is provided within the project budget.

4.1.4.6 Profit issues

No profits are expected from the activities of the CY Living Lab during the implementation of the project.

4.1.4.7 Risk issues

A potential risk may be the low interest and participation of the invited stakeholders in the Living Lab meetings but also the low participation of Public-Local authorities in the training activities. For that reason, only departments and organizations dealing actively with GPP are (will) invited to participate in the CY Living Lab.

The training sessions will be organised in attractive way serving the needs of the Public-Local authorities and they will try to tackle some of the main weaknesses of GPP in Cyprus.

The follow main weaknesses were identified for effective GPP implementation in Cyprus: 1) non-use of Life cycle costing from the procurers, 2) lack of support and information about GPP, 3) absence of GPP monitoring and reporting system, 4) lax legal conditions for strict implementation of GPP.

4.1.4.8 Time plan

The time plan of CY Living lab is presented in table below.

Table 3: Cyprus Living Lab time table

CONNECT	Start: 1/11/2017
	End: 31/1/2018
EDUCATE AND TRAIN	Start: 1/1/2018
	End: 31/03/2018
IMPLEMENT	Start: 1/2/2018
	End: 30/4/2018
IMPROVE	Start: 1/4/2018
	End: 30/6/2018
EVALUATE	Start: 1/6/2018
	End: 31/7/2018
DISSEMINATE	Start: 1/8/2018
	End: 31/10/2018

4.1.5 Declaration of participation

The departments/organisations that had signed the declaration so far are:

- Department of Public Works, Ministry of Transport, Communications and Works
- Department of Environment, Ministry of Agriculture, Rural Development and Environment
- Cyprus Association of Renewable Energy Enterprises
- Cyprus Energy Agency
- Union of Cyprus Communities

4.1.6 Key Performance Indicators

In order to measure overall performance and effectiveness of LL and proposed solutions/opportunities assorted Key Performance indicators (KPIs) have been specified (presented in Table below). These KPIs will be measured on level of Living Lab coordinator while different set of indicators will be used on level of LL participants.

Table 4: Living Lab Key Performance Indicators (KPIs)

Area	No.	Performance indicator name	Metric	Description of performance indicator
Potential stakeholders (identification phase)	1	Number of potential PAs	No.	The indicator measures the number of potential PAs contacted by LL initiator to be involved in LL activities.
	2	Number of potential SMEs	No.	The indicator measures the number of potential SMEs contacted by LL initiator to be involved in LL activities.
	3	Number of potential higher education and research organizations	No.	The indicator measures the number of potential higher education and research organizations contacted by LL initiator to be involved in LL activities.
	4	Number of potential business support organisations	No.	The indicator measures the number of potential business support organizations contacted by LL initiator to be involved in LL activities.
	5	Number of potential other organizations	No.	The indicator measures the number of potential other organizations contacted by LL initiator to be involved in LL activities.
Participating stakeholders (connect phase)	6	Number of PAs	No.	The indicator measures the number of PAs involved in Living lab activities by signing the DoP.
	7	Number of SMEs	No.	The indicator measures the number of SMEs involved in Living lab activities by signing the DoP.
	8	Number of higher education and research organizations	No.	The indicator measures the number of higher education and research organizations involved in Living lab activities by signing the DoP.
	9	Number of business support organisations	No.	The indicator measures the number of business support organizations involved in Living lab activities by signing the DoP.
	10	Number of other organizations	No.	The indicator measures the number of other organizations involved in Living lab activities by signing the DoP.

Area	No.	Performance indicator name	Metric	Description of performance indicator
LL meetings	11	Number of individual meetings	No.	The indicator measures the number of individual/one-on-one meetings (for example between LL coordinator and other stakeholders, or between two stakeholders).
	12	Number of joint LL meetings	No.	The indicator measures the number of joint LL meetings (meetings held among all or almost all stakeholders).
	13	Number of participants on joint LL meetings	No.	The indicator measures the average number of participants per joint meetings.
	14	Number of meetings between LL coordinators	No.	The indicator measures the number of meetings organized between LL coordinators in case where more LL coordinators have been identified.
	15	Number of unique participants	No.	The indicator measures the number of unique (distinct, individual) participant (individual participant participating in two meetings is only counted once).
	16	Average duration of joint meetings	min	The indicator measures the average duration of joint meetings (in minutes).
Themes presented	17	Number of best practices	No.	The indicator measures the number of best practices (funding, procurement, energy savings, energy efficiency, building refurbishment etc....) presented within LL activities by LL coordinator or participants.
	18	Number of tools	No.	The indicator measures the number of tools (funding, procurement, energy savings, energy efficiency, building refurbishment etc....) presented within LL activities by LL coordinator or participants.
	19	Number of funding possibilities for green investments	No.	The indicator measures the number of funding possibilities for green investments presented within LL activities.

Area	No.	Performance indicator name	Metric	Description of performance indicator
Benefits gained	20	Co-creation of novel user-oriented solutions	Likert scale	The indicator measures if LL enables co-creation of novel user-oriented solutions.
	21	Strengthen the cooperation and trust between public and economic operators	Likert scale	The indicator measures if LL strengthen the cooperation and trust between public and economic operators.
	22	Strengthen cooperation among LL stakeholders	Likert scale	The indicator measures if LL support and strengthen cooperation among LL stakeholders.
	23	Strengthen stakeholders transnational cooperation and networking	Likert scale	The indicator measures if LL strengthen stakeholder's transnational cooperation and networking with other organizations (PA's, SME's, clusters etc....).
	24	Exchange experiences or concerns for green growth	Likert scale	The indicator measures if LL enables to exchange experiences or concerns for green growth among LL stakeholders.
	25	More positive attitude towards green sustainable growth	Likert scale	The indicator measures if LL enables more positive attitude towards green sustainable growth among LL stakeholders.
	26	Development and promotion of innovative products	Likert scale	The indicator measures if participation in GRASPINNO LL has enabled SMEs to better develop and promote innovative products.
	27	Improving knowledge and implementation of effective measures for energy management	Likert scale	The indicator measures if PA's, with participation in GRASPINNO LL, can improve their knowledge/understanding of energy management and can develop/implement effective measures.
	28	Partnerships in the field of green refurbishment of buildings and green public procurement	Likert scale	The indicator measures if PA's can benefit from different types of partnerships in the field of green refurbishment of their buildings and green public procurement.
	29	Effective policy recommendations for green energy innovation, green public procurement and energy refurbishment	Likert scale	The indicator measures if Policy makers, with participating in GRASPINNO LL, feel more competent in field of effective policy recommendations for green energy innovation, green public procurement and energy refurbishment.

Area	No.	Performance indicator name	Metric	Description of performance indicator
Knowledge	30	Knowledge on green policies (EU, national, local)	Likert scale	The indicator measures level of knowledge of LL stakeholder on EU, national and local green policies for eco-innovations and energy refurbishment of buildings before and after participating in GRASPINNO living lab activities.
	31	Knowledge on available mentoring mechanisms	Likert scale	The indicator measures level of knowledge of LL stakeholder on mentoring mechanisms for eco-innovations and energy refurbishment of buildings before and after participating in GRASPINNO living lab activities.
	32	Knowledge on funding possibilities for green investments	Likert scale	The indicator measures level of knowledge of LL stakeholder on funding possibilities for green investments, eco innovations and energy refurbishment of buildings before and after participating in GRASPINNO living lab activities.
	33	Knowledge on green public procurement (competence, skills)	Likert scale	The indicator measures level of knowledge of LL stakeholder on green public procurement before and after participating in GRASPINNO living lab activities.
	34	Knowledge on best practices	Likert scale	The indicator measures level of knowledge of LL stakeholder on best practices on funding, procurement, energy savings, energy efficiency, building refurbishment before and after participating in GRASPINNO living lab activities.
	35	Knowledge on GRASPINNO Living Lab concept	Likert scale	The indicator measures level of knowledge of LL stakeholder on GRASPINNO Living lab concept before and after participating in GRASPINNO living lab activities.
	36	Knowledge on GRASPINNO pilots actions in field of green energy	Likert scale	The indicator measures level of knowledge of LL stakeholder on pilot's actions in field of green energy before and after participating in GRASPINNO living lab activities.
	37	Knowledge on GRASPINNO eGPP tool (public procurement)	Likert scale	The indicator measures level of knowledge of LL stakeholder on GRASPINNO eGPP tool (public procurement) before and after participating in GRASPINNO living lab activities.

Area	No.	Performance indicator name	Metric	Description of performance indicator
GREEN POLICY	38	Development policies for involving private sector	Likert scale	The indicator measures if new ideas for policies involving SMEs in the refurbishment of buildings (e.g. using ESI/public funds) were proposed during the Living Labs activities.
	39	New policy recommendations, measures and actions for energy refurbishment of buildings	Likert scale	The indicator measures new policy recommendations for refurbishment of buildings were raised during the Living Labs activities.
	40	Recommendations for SEAP	Likert scale	The indicator measures if any new recommendations for Sustainable Energy Action Plan (SEAP) were proposed, especially in field of refurbishment of buildings, during the Living Labs activities.
	41	Recommendations for green public procurement	Likert scale	The indicator measures if any new policy recommendations for refurbishment of buildings were proposed during the Living Labs activities.
	42	Recommendation for eco-innovation	Likert scale	The indicator measures if any new policy recommendations for eco-innovation were proposed during the Living Labs activities.
	43	New local governance model	Likert scale	The indicator measures if any kind of new local governance model to improve local capacity and joint management of energy policies have been proposed during the Living Labs activities.

4.2 Educate and train

4.2.1 Education of Stakeholders

For the "Educate and Train" Phase, several individual meetings and one joint meeting were organised by the Department of Public Works.

The main stakeholders (those who signed Declaration of Participation) were educated, in the beginning, through individual meetings that were carried out in the buildings of the Department of Public Works in April 2018. In those meetings, topics regarding Green Policy in Cyprus and procedures for Green Public Procurements regarding energy efficiency issues were discussed.

On 23rd of May 2018, the Department of Public Works organised and successfully managed a joint meeting for the Cyprus Living Lab (Green Policy Living Lab), which took place in Semeli Hotel in Nicosia, Cyprus. In this meeting not only the main stakeholders but also other interest public authorities and SMEs participated. The workshop hosted approximately 30 participants, both from the public and the private sector (6 SMEs and 6 Pas). It is noticed that 13 out of 32 participants (40%) were from the Department of Public Works, while 8 out of 32 (25%) from the Treasury of the Republic of Cyprus. These big numbers of participants from these two governmental departments is very positive, as they are the main key-players/competent authorities, along with the Department of Environment, of the Green Policy and Green Public Procurements in Cyprus.

In the aforementioned educational workshop, the Living Labs' stakeholders were gathered together to be informed and exchange knowledge and experience in the field of Green Policy, Green Public Procurement and GRASPINNO's platform. During this session, external expertise from SMEs and Public Authorities presented Green Policy that the Department of Environment follows and laws related to it and explained the meaning of Green Public Procurement in Cyprus and how and with which EU regulations is connected. Furthermore, Energy Requirements for Green Public Procurement were presented, emphasizing opportunities and benefits that stakeholders will gain. Last but not least, it was fully and extendedly described that, in public procurements, the award criterion of the lowest price is not the only option and it is preferable to use Life Cycle Costing methodology, which was also presented and described.

The main speakers were Katerina Pantazi from the Department of Public Works, Anna Foka from Atlantis Consulting Cyprus Ltd - external expertise and assistant of the Department of Public Works, Natalia Georgiou from the Department of Environment and Maria Pavlou Georgiou from the Treasury of the Republic of Cyprus.

Stakeholders, in general, showed great interest in the presented topics and they wanted to be more involved in the discussed fields and the actions of the GRASPINNO project. Some of them were aware of the Green Policy and the procedures of Green Public Procurements and most of the PA stakeholders understood that they should not be afraid to use LCC methodology and should spend some time learning to do so. SMEs responded also very positively and engaged to search for environmental friendly products and include parameters in their characteristics that will help with the LCC methodology. The issue of promoting green products through green labelling and perhaps through increased taxation of poorly performing products was also raised but not discussed in detail.



Figure 5: Joint Meeting of CY Living Lab - Green Policy Living Lab (Education)

4.2.2 Training of Stakeholders

In the individual meetings mentioned above, stakeholders were also trained on the national e-procurement tool and in GRASPINNO eGPP tool. The main goal was to get familiar with the use of the national platform and learn the use and benefits of the eGPP platform and LCC tool.

Furthermore, additionally with the education session of the joint meeting described above, a training session took place on 23rd of May 2018, in Semeli Hotel in Nicosia, Cyprus. The main goal of the training session was to introduce and practically use (through real examples) the eGPP platform and the LCC tool. Examples of the pilots were used both for producing tenders (TIPs) and for comparing products through LCC tool (Figure 6 and 7). The eGPP and LCC manual (Del 3.4.2) was distributed to the participants in order to have a more detailed description of the presented tool.

Some of the participants, who participated in the individual meetings and in the training course (Del. 3.8.1), were more familiar with the GRASPINNO platform and their involvement was crucial and their inputs targeted. Even though some of the stakeholders were better educated in the GRASPINNO platform, all of the participants gained extra knowledge and experience on the eGPP and LCC tool.

All stakeholders, especially those from the public sector, agreed that GRASPINNO tool is a very useful tool, especially for market research, and with some improvements, additions and extended audits on the characteristics of the uploaded products, it could be used as the national tool for electronic Green Public Procurements, additionally with the existing national e-procurement platform.

During the round table discussion, a lot of feedbacks and suggestions for improvement were heard in order for the tool to be extendedly used. Stakeholders from the private sector showed great interest to implement the tool in their business and display their products in the platform. The main conclusion of the workshop was that the tool needs some improvement (more products to be uploaded, information regarding the uploaded products to be checked by a public expertise team, more countries to be included, products regarding other issues rather than energy efficiency should be added, etc.), so as to become more user friendly and have chances to be used as the national Green Public Procurement tool.



Figure 6: Joint Meeting of CY Living Lab - Green Policy Living Lab (Training - TIPS & eGPP).



Figure 7: Joint Meeting of CY Living Lab - Green Policy Living Lab (Training - Participants).

4.3 Implement

4.3.1 Process of implementing Green Criteria in eGPP for Green Policy in Cyprus

During the Phase 2 (Educate and Train) of the CY LL (Green Policy Living Lab), a round table discussion took place, in which inputs for improvements of the GRASPINNO tool and suggestions on how to involve green criteria in public procurements took place.

For the ‘Implement’ Phase, it was decided for the main stakeholders (those that signed the DoP) to use individually the eGPP tool for preparing specific tenders and the LCC tool for making a comparison of products with it, in order to set new aspects in the CY Green Policy. Specific guidance and assistance was given to all of them individually and an external expert was providing help the time each stakeholder prepared the tender and used the tool. Some of the stakeholders were contacted and supported by telephone and Skype, while others through face to face meetings. Guidance was mainly concerned the minimum green criteria in order for the products to be energy efficient and in accordance with the CY Law and the CY Green Policy. For better implementation the following project’s outcomes were used:

- eGPP tool and unified platform
- D32.1 Methodology for developing green electronic procurement criteria
- D 3.10 Reports on Pilots (eGPP tool)

Some criteria and guidelines of other EU project were also used (SINFONIA - Smart INitiative of cities Fully cOMmitted to iNvest In Advanced large-scaled energy, FP7, <http://www.sinfonia-smartcities.eu/en/knowledge-center/database-of-best-available-practices-in-energy-efficient-refurbishment>), in addition with the guidelines and the Action Plan for GPP of the Department of Environment.

All the criteria regarding the energy efficiency (U-Values from walls and openings) of the products used by the stakeholders were in line with the CY Law and their values were according to Law’s minimum requirements. However, after finishing the ‘Implement’ Phase, it came out that these minimum criteria were not green enough and instructions for new guidelines, greener criteria and specific needs for more detailed explanations were expressed.

All the guidelines and the minimum criteria were distributed to the stakeholders on 28th of May 2018. The Implementation process (preparing tender and comparing products) took place during the next two weeks, until 8th of June 2018, while external

expertise was on call for any assistance or guidance needed. During this assistance, valuable inputs, comments and suggestions were collected to be used in the “Improve” Phase.

4.3.2 Measurement of Key performance indicators

The KPIs were measured by LL coordinator concerning LL’s general organisation and process, stakeholders’ experience and the overall experience of the LL.

One of the outcomes was that many more stakeholders were approached and participated in the joint meeting and were willing to contribute to the results of the CY LL than expected. However, they haven’t signed the DoP yet and some of those who signed it, couldn’t participate in all meetings. Specifically, out of 15 stakeholders involved, only 5 have signed the DoP. In Figure 8, potential stakeholders, those participated and those signed the DoP are presented.



Figure 8: Number of Stakeholders involved in CY LL - Green Policy Living Lab.

Furthermore, the analysis of the questionnaires has shown high level of cooperation between stakeholders, even though there is still a mistrust among SMEs and PAs regarding the use of the GRASPINNO tool as a GPP platform.

Moreover, it can be concluded that, regarding the knowledge gained by the stakeholders, the level of knowledge in aspects like green policies, available

mentoring mechanisms and funding possibilities, GPP, GRASPINNO tool, etc. were upgraded 1-2 levels after the participation in Living Labs (from "Fair" or "Good" to "Good", "Very Good", or "Excellent").

4.4 Improve

4.4.1 Generation of potential improvements of Green Criteria in eGPP for Green Policy in Cyprus

At the end of Phase ‘Implement’, several valuable inputs, comments and suggestions were collected to be used in Phase ‘Improve’. For the ‘Improve’ Phase individual meetings and small joint meetings with the main stakeholders were organised in the offices of the Department of Public Works, in order to present the inputs and recommendations for the green criteria, eGPP tool, LCC tool and Green Policy in Cyprus. Additionally, the objective of these events was to collect innovative ideas and inputs, so as the GRASPINNO tool to be formally the main tool for GPP in Cyprus and address new Green Policy according to that tool.

To succeed so, the two main stakeholders (the Department of Environment - responsible for the green criteria and the GPP in Cyprus - and the Treasury of the Republic in Cyprus - responsible for the all Public Procurements in Cyprus) were mainly involved and efforts made to get their full commitment.

Main improvements suggested (Figure 9):

- Minimum requirements for specific values should be changed in order to be considered as green criteria. For example, in order for walls and openings to be considered as green, their U- Values should be in line with the new legislation (and not the existing one) that concerns NZEB. The new legislation refers to new public buildings from 2018 and on and new U-Values have been set up. However, it was through LL suggested that the U-Values of this law should also be applied to all public refurbishments, in order to be considered as ‘green’.
- More products should be added in the platform, in order to be a reliable tool for market analysis and assessing the level of green performance and associated budgets that can be realistically expected when preparing tenders.
- Implementation of the e-GPP by Cyprus Public authorities will require a due diligence procedure for ensuring the accuracy and validity of information provided by suppliers, It has been suggested that a team of experts be set up for this purpose.
- A Green Criteria Guide should be created. The range of products and the set of Green Criteria must be extended. As an example it was mentioned that only

U-values are not sufficient, but also energy consumption, CO₂ emissions, etc. should be documented. In line with the above, public authorities need to establish procedures and make systematic efforts to collect and utilise information regarding performance and cost of products available in Cyprus.

- It was proposed that the tool is translated at each of the national language, in order to be more user friendly for PAs to use it.

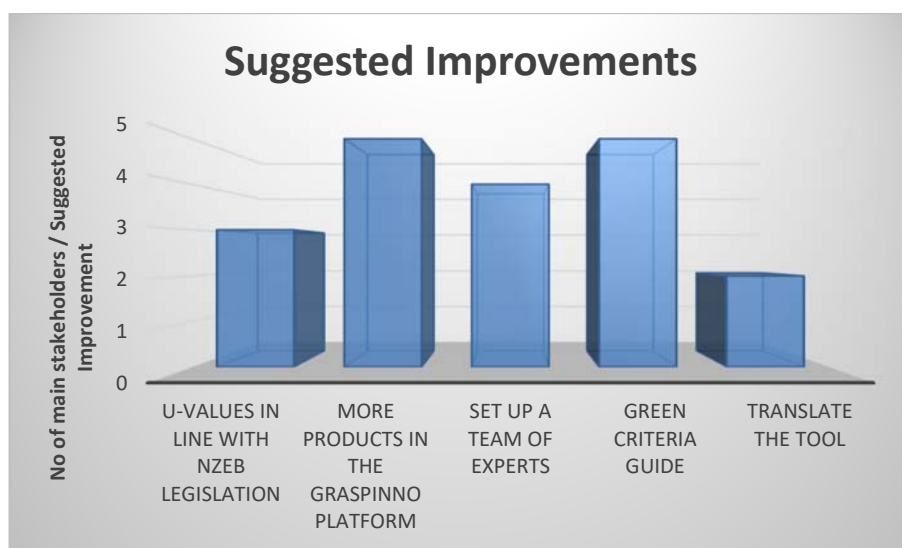


Figure 9: Stakeholders' proposals for improvements.

Although the involved experts mentioned several examples of good practices and green policies in Cyprus and described both the eGPP and the LCC tool extensively, the LL stakeholders still do not feel confident to use the tool by themselves and they requested a more detailed manual for the tool, especially for the LCC tool and the calculations needed. For this reason and also as a dissemination mean, a Help Desk decided to be set up.

Certificates of participation were distributed through email to all main stakeholders (those who signed the DoP) for participating and contributing on improving GPP and GRAPINNO tool.

4.4.2 Implementation of Green Criteria improvements in eGPP for Green Policy in Cyprus

After the proposed improvements by the stakeholders with the contribution and assistance of the experts, actions started in order to implement those improvements.

U – Values for refurbishments should be in line with NZEB legislation in order to be considered as "green": According to the legislation in Cyprus (ΚΔΠ119/2016), the U-Values in case of refurbishments should be considered as shown in Table 4.

Table 4: U-Values for walls and openings.

U-Values	
Walls	0.4 W/m ² K
Openings	2.9 W/m ² K

However, it is agreed during the Living Lab that for a refurbishment to be considered as "green" U-Values should be as shown in Table 5.

Table 5: U-Values for walls and openings considered as green.

'Green" U-Values	
Walls	0. W/m ² K
Openings	2.25 W/m ² K

These criteria, in addition with others will be added to the proposed Green Criteria Guide.

More products in the platform: For including more products in the platform telephone approach and personal meetings were organised with SMEs, in order to persuade them to add their products. Most of them were positive and found the idea very innovative, but most of them were not confident that the tool will be used as the national platform for GPP. Additionally, they stated that the competent authority should make it mandatory for use in case of GPP and only then it will be filled with products. For now, 13 products from Cyprus have been added in the platform, including heat pumps, insulating panels and products and PV inverters and panels.

Set up a team of experts: At this stage this improvement is not feasible, as the team has to be chosen and decided through many parameters and political decisions in a national level. However, the competent authorities agreed that the team is

something mandatory in order for the GRASPINNO platform to be used as the national tool for GPP and it will be the first step of many others in order to succeed so.

Green Criteria Guide: The Department of Environment (DoE) maintains a list of green products that currently disseminates to public authorities that engage in purchasing activities. It is suggested that the DoE extends the scope of their research and reporting to include a wider range of products. In addition, it is suggested that efforts are also made to identify green specifications for selected products currently applied in the EU or individual EU countries and use these as a basis for determining acceptable green performance criteria to be considered during purchases by the Cyprus Public Authorities. It is expected that the level of effort required means that additional staff or external assistance may be needed, thus implementation of this measure is to be decided in combination to the overall Green Procurement Policy of the DoE and Treasury of the Republic of Cyprus.

Translate the tool: This improvement is not feasible at the moment and it has to be discussed with the project team and decided if this will occur during the project or separately.

4.5 Evaluate

For the evaluation process, the University of Maribor developed an online questionnaire and distributed to all partners and Living Lab's coordinators, in order for them to send it to local stakeholders. In Cyprus, the Department of Public Works distributed the online survey through email to all stakeholders that had participated in CY Living Lab, including those who didn't sign the DoP. In total, 19 stakeholders were participated in the whole duration of the Living Lab, 5 of whom had signed DoP and 14 who hadn't. All of those signed DoP were PAs, while of the rest 14 who only participated, 9 of them were PAs and 5 SMEs. In total, 17 questionnaires were completed. The main topics of the questionnaires concerned the level of satisfaction, the benefits and the knowledge gained during the CY LL and the overall experience of the CY LL.

4.5.1 Green Policy Evaluation

CY Living Lab focus on enhancement of the green policy in Cyprus by transferring the GRASPINNO knowledge on pilot's actions, the GPP platform and LCC tool. In this context evaluation of stakeholder's knowledge about the Green Policy in Cyprus has shown that most of them had "fair" or "good" knowledge of the related issues before participating in the CY LL (Figure 10), which was increased mainly to "good" and "very good" after participating in the CY LL.

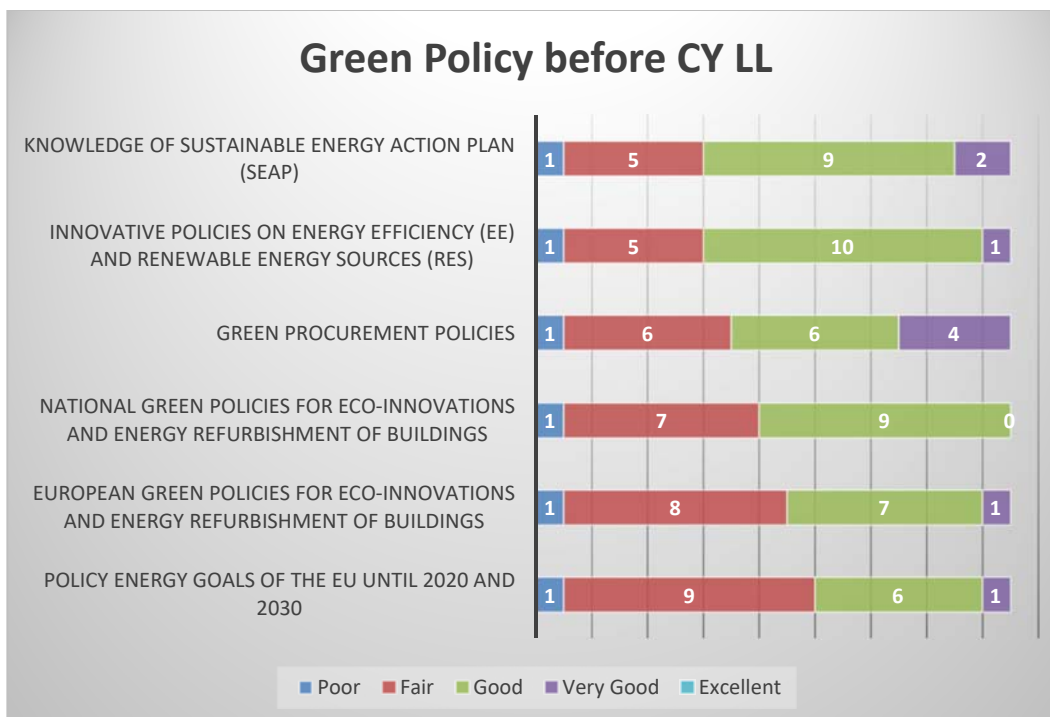


Figure 10: Stakeholders' Green Policy knowledge before participating in CY LL

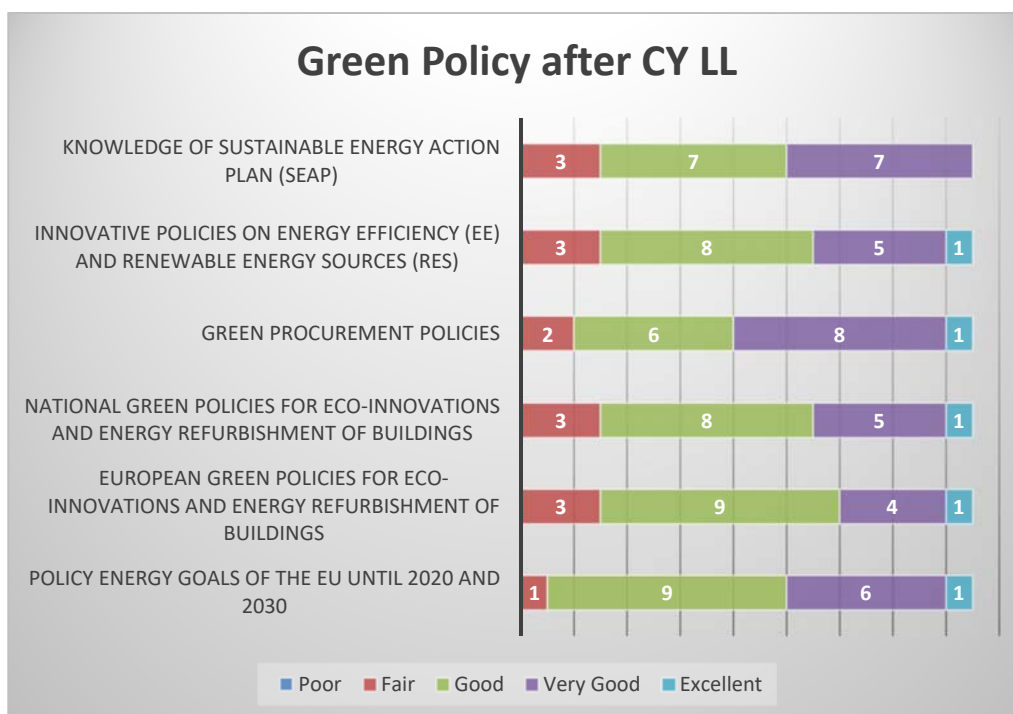


Figure 11: Stakeholders' Green Policy knowledge after participating in CY LL.

4.5.2 CY LL evaluation

According to the methodology provided by the University of Maribor and the analysis of the questionnaires, it came out that, in general, the level of satisfaction was above the average and most participants felt and agreed that participating in LL offers many benefits.

Specifically, stakeholders seem to gain new knowledge regarding issues of Green Policies in Cyprus, the GRASPINNO programme, the eGPP tool, GPP in general, etc., as it can be seen by the Figures 12 and 13. These Figures shows that stakeholders' knowledge of the aforementioned topics was "fair" or "good" before participating in the CY LL, while it became "good" or "very good" after the CY LL.

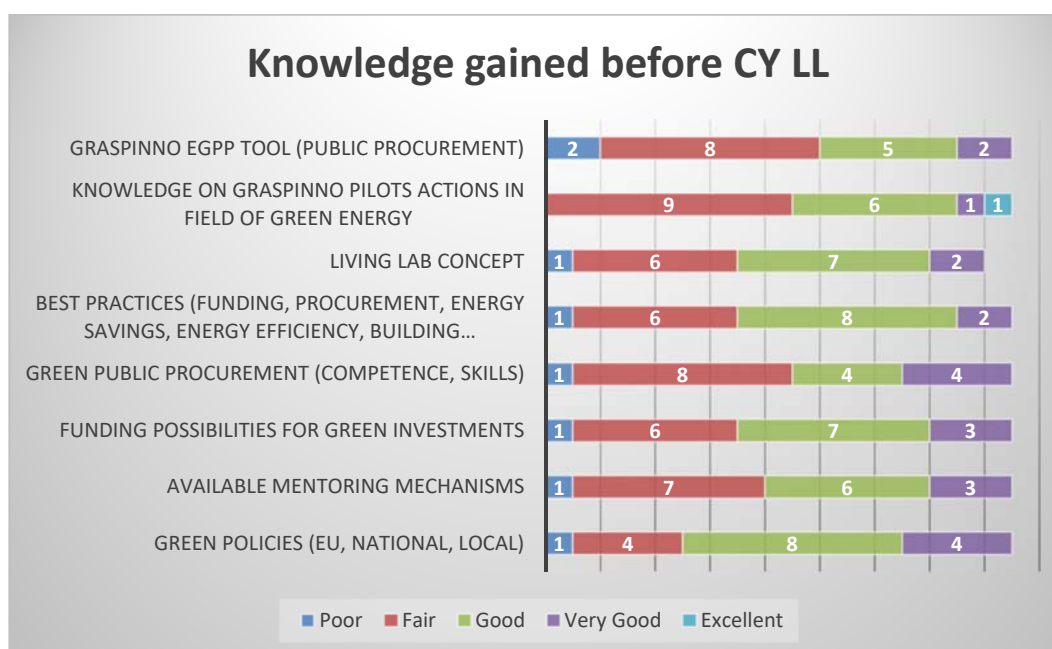


Figure 12: Stakeholders' Knowledge before participating in LL.

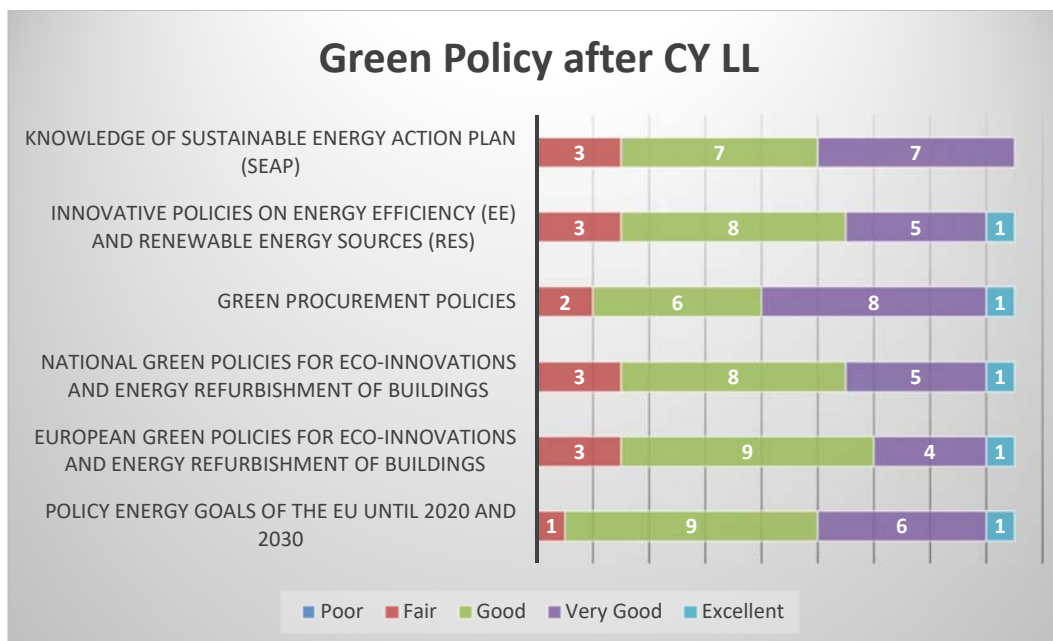


Figure 13: Stakeholders' Knowledge after participating in LL.

Regarding the satisfaction of the participants (Figure 14), most of them seem to respond very positively ("very satisfied"), especially with the organisation and the results of the CY LL.

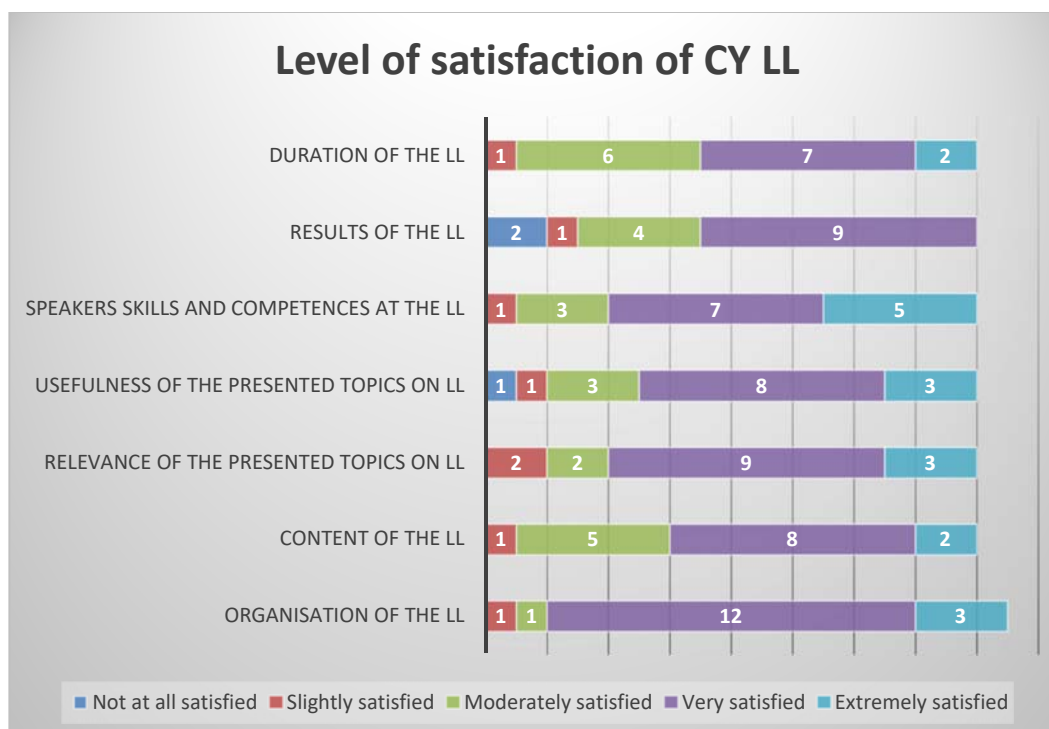


Figure14: Stakeholders' level of satisfaction of the CY LL

Stakeholders stated that they gained many benefits by participating in the CY LL and most of them stated that they would be willing to participate in relevant actions regarding green growth.

Most of them agreed that LL enables to exchange experiences or concerns for green growth, and enables more positive attitude towards green sustainable growth. Furthermore, more than half of them agreed that policy makers gain more effective policy recommendations for green energy innovation, GPP and energy refurbishment, while PAs can benefit from the different kind of partnerships in the discussing issues, SMEs can better develop and promote innovative products and LL strengthen stakeholders' transnational cooperation and networking with other organizations.

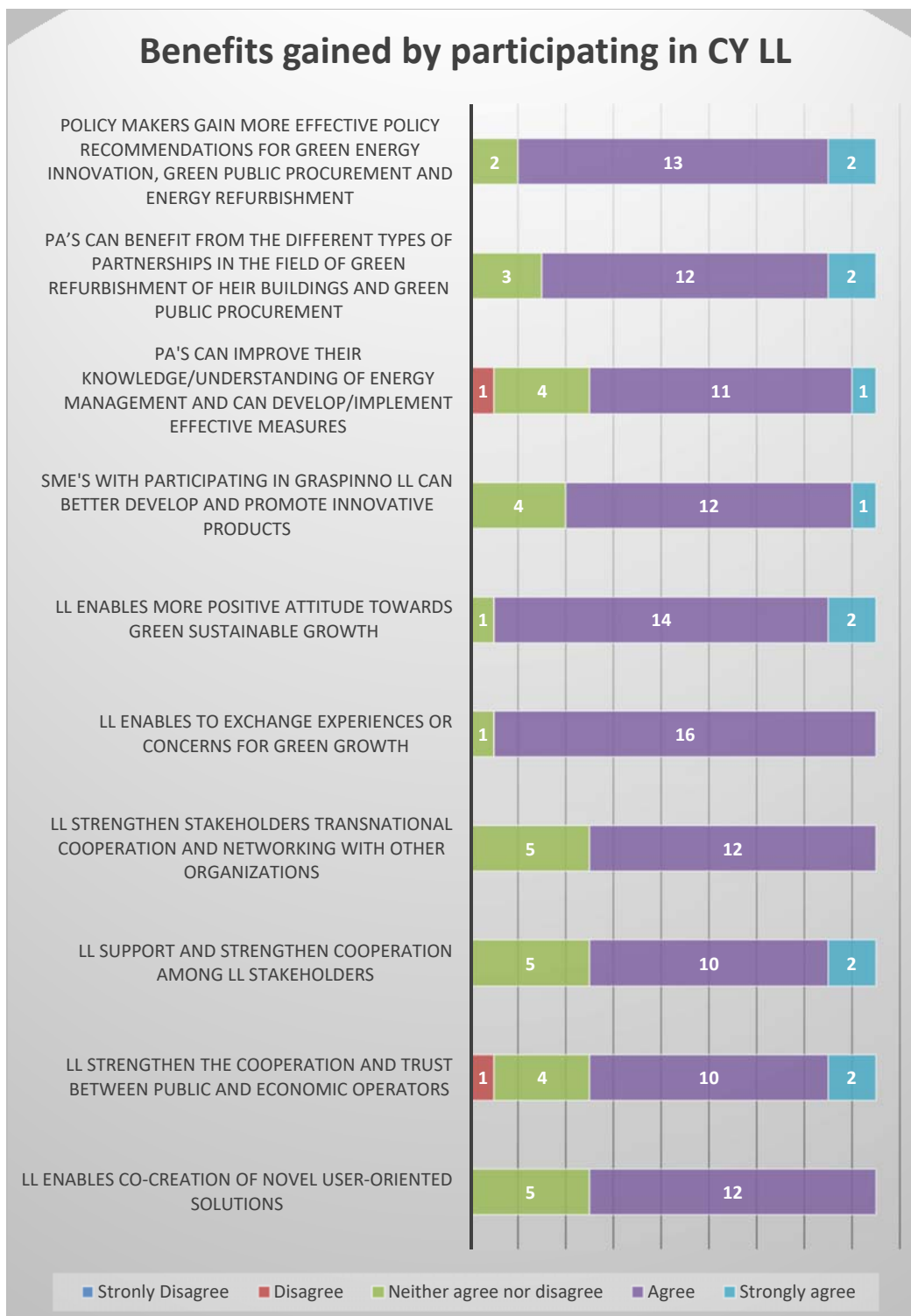


Figure15: Benefits gained by participating in CY LL.

4.5.3 Guidelines and recommendations

Based on the evaluation of the CY Living Lab some guidelines and recommendations were proposed in order to ensure the sustainability of the CY LL and ensure improvements.

The evaluation of the questionnaire showed that the main outcomes of the CY LL should be further disseminated to more stakeholders. To achieve that, more seminars and trainings sessions will be organised and more stakeholders will be targeted. Furthermore, participating in relevant events and present the outcomes of the CY LL will result in raising awareness and promoting Green Policies, GPP, GRASPINNO project and its tool and green growth opportunities and funding mechanisms, while attracting more stakeholders. It resulted that raising awareness about green growth and green policies is the best way to sustain green criteria and energy efficiency after the end of the project.

In addition, the Green Criteria Guide should be finalised soon enough and updated with the proposed draft of Green Criteria including energy efficiency criteria. These criteria, along with the whole guide, should be regularly updated and be in line with the national law and the EU policies. All LL members should ensure that the new version will be distributed and shared to other organisations and public authorities. Moreover, more actions and discussions should be carried out, in order for the proper expert team to be set up to check all the registered products in the GRASPINNO platform. After creating the team and the final version of the aforementioned Green Criteria Guide, the eGPP and LCC tool can be integrated to the national e-procurement platform and transformed to the national Green Procurement Platform.

4.6 Disseminate

The proposed dissemination plan aims to maximise the benefits of the Living Labs as well as of the GRASPINNO project as a whole. Dissemination activities therefore concentrate on communicating the LL results and addressing the issues and gaps raised during the LL thus enhancing the knowhow and uptake of GPP practices within public organisations and encouraging the utilisation of the e-GPP tool.

During the previous phases of the Living Labs several issues were raised concerning general problems in implementing GPP as well as technical and procedural aspects about the GRASPINNO platform (eGPP and LCC tool).

An overall conclusion of the LL discussions is that efforts should be made to facilitate initially the extensive use of the e-GPP tools by suppliers so that they can be used as instruments for market research concerning the level of availability, key performance characteristics, and costs involved for purchase, operation and maintenance. This information will greatly assist competent authorities in preparing green specifications and assessing budgets while drafting their tenders. At the same time it is important that Public Authorities become familiar with the E-GPP Tool as well as with GPP policies and practices in general. Lastly it is important to promote the need for preparing an integrated GP policy. For example it has already been mentioned that green taxation can help to increase the shift to green products. At the same time it can ease the e-GPP tender evaluation process as there will be a lesser need for premium ranking of products (a process that is both technically difficult and liable to litigation) as such considerations will already be integrated in the product price.

Based on the above, the goals of future dissemination activities are summarised as follows:

- Promote to suppliers the addition of their products and services to the e-GPP tool.
- Create awareness among public authorities about the need for integrated GP policies.
- Enhance the familiarity of Public Authorities regarding the use of the e-GPP Tool.
- Enhance awareness regarding Green Products and the impact of purchasing decisions on the environment

The following dissemination activities are foreseen:

- Open dissemination through Websites: Department of Public Works, DoE, Treasury of the Republic of Cyprus
All written material and documents relevant to GPP will be openly disseminated through these websites. Material will target both Public Authorities and product/service suppliers.
- Targeted internal communication of documents and materials through Circulars within the Public Sector
- Seminars and training sessions
It is foreseen that the Department of Public Works in cooperation with the DoE will actively engage in communication and training activities with relevant Public Authorities. The training and awareness material, guides, as well as existing and future policy documents will be utilised.
- Furthermore individual meetings should be carried out with the two main policy makers stakeholders (Treasury of the Republic of Cyprus and the Department of Environment) in order to strongly engage them and help them produce a full guide/catalogue with green criteria for the widest possible range of products and to utilise the GRASPINNO platform as a national platform for GPP.
- Communication with suppliers through email and Social Media
Communication will aim to engage suppliers in eGPP practices. As such it will create awareness about Green Procurement in general and relevant Policies in Cyprus, familiarise suppliers with the e-GPP Tool, and provide technical information and support for its use.
- Participation in relevant events:
The PWD in cooperation with DoE will actively seek to disseminate eGPP material in relevant events. Suggested events:
 - Annual Ecotech Expo,
 - EU sustainable week,
 - GPP Awards

Dissemination material

- Green Criteria Guide / Catalogue
- Action Plan for Green Public Procurement
- e-GPP tool and unified platform

- D32.1 Methodology for developing green electronic procurement criteria
- New Law for energy efficiency and NZEB
- Any other document that will be decided to be in relevance with GPP and Green Policy

In addition, the responsible public body for training all PAs (Treasury of the Republic of Cyprus), should include in its training sessions the benefits gained from GPP and how to use the improved and completed tool.

Apart from that it is suggested that a Help Desk should be created to provide guidance and assistance to PAs and SMEs in topics regarding Green Policy in Cyprus, Green Public Procurement and the use of the GRASPINNO tool and platform.

The List of Stakeholders is presented in the chapter 4.1. However, more will be approached from the following teams (some Departments have already been approached but efforts will be made to approach more from different cities):

- Public authorities
 - Department of Environment
 - Treasury of the Republic of Cyprus
 - Department of Energy
 - Purchasing Department
- Municipalities, Union of Municipalities
- Product Suppliers
- NGOs
- Academia

To engage more PAs to GPP and promote the tool, the suggestions are to make contact with the governmental authorities (especially the Department of Energy) and with private companies and NGOs working in the fields of energy efficiency, RES and environmental issues and organise direct meetings and distribute material to them.

5 CONCLUSIONS

The main goal of GRASPINNO LLs was to transfer the knowledge gained during the project's pilot's actions and to exchange experience regarding green growth, especially including end-users and set the base for further actions. Its main concept was to bring together public authorities with SMEs, R&D institutions, service providers and all relevant stakeholders to integrate research and innovation processes.

In Cyprus, the overall goal was to transfer knowledge and exchange experience regarding green policies and green public procurement and make use of the eGPP tool. The main activities of the CY Living Lab were to collect good practices and public policies for eco-innovation, adopt green actions in SEAPs, raise awareness of PAs and SMEs regarding GPP and Green Policies and present and practically use the eGPP and LCC tool.

During the "Connect" Phase, potential stakeholders were identified and 5 of them signed the Declaration of Participation, although many more were participated in almost every phase of the CY LL. During the "Education & Training" Phase, a joint meeting took place in Nicosia, where stakeholders were informed about the Green Policies in Cyprus, the Green Public Procurement regulations and the use of the GRASPINNO platform. The main outcomes of this phase were used during the "Implement" Phase, where the main stakeholders (those signed the DoP) used the eGPP and LCC tool and proposed improvements. The main improvements discussed during the "Improve" Phase were to add more products in the platform, to set up a team of experts in order to produce a Green Criteria Guide and translate the tool in native language.

The main obstacle that needed to overcome was to persuade private companies to upload their products on the platform, as they didn't seem to trust Public Authorities that will actually use it. To overcome this, the benefits of the platform were presented, the DoPs were shown to them and they discussed with the PAs their concerns. Furthermore, the team of experts hasn't still been set up due to the fact that it has to be politically discussed in high level.

The most common request for modification, apart from the number of submitted products was the creation of an additional Green Criteria Guide, which will include energy efficiency criteria. A draft version has been created and will be presented to the competent authority in due time.

During the "Evaluation" Phase, it came out that most of the stakeholders were very satisfied with the CY Living Lab and they gained many benefits by participating. Furthermore, their level of knowledge regarding issues of Green Policies, Green Growth, GPP and GRASPINNO project increased. Additionally, most of them stated that they would be willing to participate in relevant actions in the future.

After successfully organising the CY Living Lab, the main challenge is to disseminate its results in order for LL's and GRASPINNO's sustainability. For that reason, more seminars, trainings and meetings will be organised, much more stakeholders will be approached and more material will be distributed. Moreover, a Help Desk will be created to provide assistance to stakeholders and the competent authority will include GPP procedures in their training sessions for public procurements to public bodies.

6 APPENDIX - Stakeholders Declaration of Participation (5 DoP)

Declaration of Participation **in Living Lab Activities of the GRASPINNO Project**

The GRASPINNO project aims to strengthen innovation capacity of public and private sectors in MED region and to support smart and sustainable growth. The project will support green energy and eco-innovation networks/cluster and promote transitional cooperation by strengthening and adapting transnational network of eco-innovation actors. Through Living Labs, it will pursue behavioural change in favour of eco-innovation, green energy and green actors.

In line with the activities of the GRASPINNO project, the signatories hereby agree to participate in:

Green Policy Living Lab

which aims to improve policies and SEAPs for green building energy refurbishment and to overcome barriers hindering the growth in green energy and energy refurbishment of public buildings by forming policy recommendations.

With this signature of Declaration of Participation, the signatory decides to join the GRASPINNO **Green Policy Living Lab** and names a representative to communicate with the Living Lab regional organization:

Department of Environment, Ministry of Agriculture, Rural Development and Environment, 1498, Nicosia

(name and address of the organization)

Costas Hadjipanayiotou

(first and last name of legal representative)

(signature of legal representative)

Natalia Georgiou, 22408923, ngeorgiou@environment.moa.gov.cy

(first and last name of the representative, phone number and e-mail)

Department of Public
Works, Ministry of
Transport, Communications
and Works

(Living Lab regional organization)

(Living Lab regional representative)

(signature)

Nicosia, 18/12/2017

(place and date)

NOTE: This is a voluntary statement and does not imply any financial commitment or any other legally binding commitment.

Declaration of Participation in Living Lab Activities of the GRASPINNO Project

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Green Policy Living Lab

which aims to improve policies and SEAPs for green building energy refurbishment and to overcome barriers hindering the growth in green energy and energy refurbishment of public buildings by forming policy recommendations.

With this signature of Declaration of Participation, the signatory decides to join the GRASPINNO **Green Policy Living Lab** and names a representative to communicate with the Living Lab regional organization:

Union of Cyprus Communities, P.O Box 25466, 1310 Strovolos
(name and address of the organization)

Panayiotis Damianou

(first and last name of legal representative)

(signature of legal representative)

Andri Agathocleous, +35722672576, cuc@cytanet.com.cy
(first and last name of the representative, phone number and e-mail)

Department of Public Works,
Ministry of Transport,
Communications and Works

(Living Lab regional organization)

(Living Lab regional representative)

(signature)

Nicosia, 18/12/2017

(place and date)

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In line with the activities of the GRASPINNO project, the signatories hereby agree to participate in:

eGPP Living Lab

which aim is to improve capacity of public building owners to manage energy efficacy moving towards almost-zero-energy buildings and strength the capacity of SME and other eco-innovation actors in the green energy market by ensuring wider uptake of green electronic public procurement.

With this signature of Declaration of Participation, the signatory decides to join the GRASPINNO **eGPP Living Lab** and names a representative to communicate with the Living Lab regional organization:

Cyprus Association of Renewable Energy Enterprises (SEAPEK), 2 Acropoleos Ave. & Glafkou, 2000 Nicosia, Cyprus

(name and address of the organization)

Fanos Karantonis

(first and last name of legal representative)

(signature of legal representative)

Fanos Karantonis, t: +357 22 311234, e: f.karantonis@karantonis.com.cy

(first and last name of the representative, phone number and e-mail)

Σύνδεσμος Εταιρειών
Ανανεώσιμων Πηγών
Ενέργειας Κύπρου

Department of Public Works,
Ministry of Transport,
Communications and Works

(Living Lab regional
organization)

(Living Lab regional
representative)

(signature)

Nicosia, 18/12/2017

(place and date)

NOTE: This is a voluntary statement and does not imply any financial commitment or any other legally binding commitment.

Declaration of Participation **in Living Lab Activities of the GRASPINNO Project**

The GRASPINNO project aims to strengthen innovation capacity of public and private sectors in MED region and to support smart and sustainable growth. The project will support green energy and eco-innovation networks/cluster and promote transitional cooperation by strengthening and adapting transnational network of eco-innovation actors. Through Living Labs, it will pursue behavioural change in favour of eco-innovation, green energy and green actors.

In line with the activities of the GRASPINNO project, the signatories hereby agree to participate in:

Green Policy Living Lab

which aims to improve policies and SEAPs for green building energy refurbishment and to overcome barriers hindering the growth in green energy and energy refurbishment of public buildings by forming policy recommendations.

With this signature of Declaration of Participation, the signatory decides to join the GRASPINNO **Green Policy Living Lab** and names a representative to communicate with the Living Lab regional organization:

Cyprus Energy Agency, Lefkonos 10-12, 1011 Lefkosia

(name and address of the organization)

Savvas Vlachos

(first and last name of Director)

(signature of Director)

Harris Kordatos, +35722667716, harris.kordatos@cea.org.cy

(first and last name of the representative, phone number and e-mail)

Department of Public Works,
Ministry of Transport,
Communications and Works

(Living Lab regional
organization)

(Living Lab regional
representative)

(signature)

Nicosia, 18/12/2017

(place and date)



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(name and address of the organization)

(first and last name of legal representative)

(signature of legal representative)

CA Mellypp

(first and last name of the representative, phone number and e-mail)

Department of Public
Works, Ministry of
Transport, Communications
and Works

(Living Lab regional organization)

(Living Lab regional representative)

CA Mellypp
(signature)

Nicosia, 18/12/2017

(place and date)

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