

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: 3.7.1 Preliminary study for supporting clusters participate in eGPP

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1 Introduction

1.1 Scope and objectives of the deliverable

This report represents the " Preliminary study for supporting clusters participate in eGPP" deliverable for the GRASPINNO project and describes part of the work undertaken in WP3 "Testing". Its main objectives are the identification of clusters to participate in eGPP and, also, their support in order to get involved in the eGPP domain. The supported topics include:

- Legal requirements.
- "Green" labeling.
- "Green" criteria and technical specifications.
- How-to-guide for the clusters' members so as to be able to use the eGPP tool.
- Financing support.

1.2 Structure of the deliverable

This deliverable is structured in 6 chapters:

Chapter 2, **"Identified clusters to participate in eGPP"**, provides a brief description of the clusters, identified by the project partners, to be potentially involved in the eGPP domain and the respective tenders.

In Chapter 3, **"Green" criteria description and technical specs**", we array the identified "green" criteria and their technical specifications, of specific categories regarding public buildings' refurbishment.

A brief description of the current Green Public Procurement legal requirements and legal framework that is in force in the GRASPINNO

project partners' countries/regions, is presented in Chapter 4, **"eGPP legal requirements"**.

Chapter 5, **"GRASPINNO eGPP tool How-to Guide for SMEs"**, provides a comprehensive User Guide for SMEs, which will be involved in the eGPP domain by using the GRASPINNO eGPP tool.

Finally, Chapter 6 **"Funding Opportunities"**, describes alternative funding resources, in which the clusters and their members (SMEs) can have access in order to finance their business.

2 Identified clusters to participate in eGPP

2.1 Brief description

For the purposes of the GRASPINNO project, specific clusters were identified by the project partners, in order to be involved in the eGPP domain. More specifically, clusters were selected via identification of their business and RTDI capacities. These clusters will be supported by the consortium in order to get involved in the eGPP domain.

All the identified clusters, are briefly described in the following subsections.

2.2 Hellenic Association of Mobile Application Companies (HAMAC)

2.2.1 General information

The Hellenic Association of Mobile Application Companies (HAMAC), is a non-profit organization comprised of high-tech companies whose business activities include the development of added value mobile applications, the provision of added value services/products for telecommunication providers, the provision of innovative communication, content, products and application services.

The Association represents a vibrant sector of more than 80 IT companies participating, which comprise approx. 90% of the total domestic turnover of mobile/ICT industry, provide employment to more than 4.000 people, including one thousand professionals of the highest academic education. Additionally, the members of the association collect more than 400M€ turnover and have presence in more than 40 countries. Some of these companies are already expanded and

distinguished as worldwide leaders in the ICT services/products market, provide services/products to the largest telecom operators globally, are listed on Stock Markets of London LSE/AIM and achieve substantial growth both in national and international level.

HAMAC goal is to represent innovative, ambitious and pioneer Greek enterprises in ICT sector, having as a vision the extroversion of the sector which can bring financial growth in the country and can diffuse specialized knowledge.

2.2.2 Expertise - Capacities

Having as a goal the stimulation of innovation activities and the achievement of economies of scale through the development of a close cooperation between enterprises and institutions of the ICT sector, the establishment of the Association is expected to enhance the ecosystem in which company-members operate, aiming at their global business development. The objectives of the association are:

- The development of a spirit of cooperation between its members and the promotion of mutual collaboration.
- The promotion of the companies of the sector, through specific actions and the contribution towards innovation, extroversion and international development.
- The submission of business plans and proposals to government authorities, so as to achieve the gradual development of its members.
- The preparation of training courses with the aim to improve the administrative and technical skills of its members.
- The monitoring of scientific, technical, financial and educational developments in the mobile field and the provision of information to its members.

- The promotion and protection of the interests of its members, the support and coordination of activities towards this purpose.
- The representation of the sector at local, regional, and international level, as well as its representation in local and international events.

HAMAC occasionally organizes events, seminars and workshops that aim to promote cooperation among its members and connect their line of business. These events also create opportunities for innovative discoveries and ideas that contribute to the enhancement of the innovation capacity of the Association and its members. Furthermore, the association assists its members in legal or financial issues, with a well-organized department of legal/financial experts.

Finally, HAMAC has developed efficient ways to disseminate business related content and information to its members, concerning innovation updates generated from HAMAC members or the global ICT community, business opportunities, interesting national / international calls for tender, etc.

2.3 Greek Association of Electrical Appliances Manufacturers and Importers (SVEIS)

2.3.1 General Information

SVEIS represents 75% of the Greek market in household electrical appliances. Its Members - Greek Producers, Agents, Multi-national companies - offer a wide range of products that contribute in the daily comfort and convenience of consumers.

2.3.2 Expertise - Capacities

SVEIS represents the industry of household appliances in Greece. SVEIS Members produce or import the following products:

- Large household appliances such as refrigerators, freezers, ovens, dishwashers, washing machines and dryers.
- Small household appliances such as vacuum cleaners, irons, toasters, toothbrushes and personal and beauty care products.
- Heating, ventilation and air conditioning appliances such as air conditioners, heat pumps and local space heaters.

This wide range of products which contribute to the daily comfort and convenience of the Greeks consumers comply to European legislation on eco-design of these products.

SVEIS is Member of CECED since 2004 (CECED= EUROPEAN COMMITTEE OF DOMESTIC EQUIPMENT MANUFACTURERS, www.ceced.com).

2.4 The Athens Chamber of Commerce and Industry (ACCI)

2.4.1 General Information

The Athens Chamber of Commerce and Industry (ACCI) is one of the largest commercial organisations in Greece, playing an active role in commercial and government relations.

With more than 100.000 members, ACCI is an essential advisor of government on trade, industry and general economic policy issues. It provides efficient and innovative services to its members with a view to assisting them in every business activity.

2.4.2 Expertise - Capacities

ACCI has a mission to:

- Represent, support and promote entrepreneurship. More specifically it:
 - systematically informs its members about developments in critical financial and business issues;
 - provides free information and consulting services to its member companies;
 - organizes events, meetings and conferences for the analysis of financial and individual sector-based issues;
 - organizes and participates in trade missions to and from foreign countries aiming to expand international economic relations;
 - conducts research surveys in order to support productive classes in the best possible way and informs its member companies;
 - cooperates with European and international organizations in order to inform of and promote the views of Greek companies;
 - organizes educational programs and seminars that promote human resources' skills of its member companies;
 - regularly publishes informative documents thus upgrading its role and impact on the Greek enterprising community;
 - establishes and supports the annual Entrepreneurship Awards that aim to reward excellence and promote business activity by encouraging initiatives that contribute to Greece's economic and social growth.
- Assist the Government in the fields of commerce, industry, services and general development policy. More specifically it:

- formulates specific opinions as well as making interventions in the government for all the promoted by the State statutes which are related with its activities;
 - innovates by first recording the priorities of total purchasing power and promotes them to the responsible people and authorities at the right time;
 - observes carefully the latest developments and gives rise to a new era of growth in the fields of commerce, industry and services while trying to minimize their disadvantages and strengthen their advantages;
 - contributes to the establishment of a positive atmosphere for cooperation, mutual confidence and information provision of the enterprise world.
- ACCI's further actions, initiatives and interventions aim to:
 - encourage and help individual enterprising initiative;
 - eliminate every kind of disincentives which prevent developmental initiatives;
 - help small and medium-size enterprises (SMEs), so they can meet the requirements of the modern competitive environment;
 - promote the principles of corporate social responsibility and support environment-friendly business activities;
 - promote research and technological development and help Greek enterprises to adopt them;
 - create the appropriate conditions to attract and promote new investments
 - strengthen enterprise competitiveness and Greek economy in general;

- create a legislative and administrative environment that will guarantee effectiveness, transparency and healthy competition with equal terms and conditions for all;
- promote a more flexible labor market that will encourage employment enhancement in combination to the real needs of businesses;
- support and strengthen Greek companies' presence in international markets;
- enhance educational system in order to meet market's emerging needs;
- expand the range of services offered to its member companies.

2.5 UNION OF HELLENIC CHAMBERS (UHC)

2.5.1 General Information

The Union of Hellenic Chambers, as its main aim is to support the export activities of Greek SMEs, and subsequently improve their market competitiveness.

2.5.2 Expertise – Capacities

The UHC's main expertise and goals are the following:

- The effective participation of Chambers of Commerce in the formulation and implementation of economic policy, through the submission of opinions from the UHC in every financial aspect of proposed legislation.
- Active participation in Committees, created by the State and the various state institutions, regarding economic activity. This contribution will be to formulate common positions and designed

proposals for more effective intervention in the decisions and choices of its members.

- The active presence of the UHC abroad, especially in the area of the European Union, South Eastern Europe and the Eastern Mediterranean. The promotion of relations with the national associations of Chambers of these areas and, in particular, the close cooperation and action within the framework of the Association of European Chambers (Eurochambers) and the Union of Balkan Chambers (Association of Balkan Chambers).
- The development of a permanent and fixed communication network and cooperation abroad, through the operation of a representative office of the UHC and the Greek chambers of commerce in Brussels, in order to be able to offer better services to Greek companies, for the improvement of the business environment in which they operate and better access to the various financial instruments.
- The best adaptation to the rules and new data of the Single European Market, through the improvement of the competitiveness of enterprises.
- Maximizing the potential of small and medium-sized enterprises for employment, growth and competitiveness.
- Coordinating role for the view of entrepreneurship and better preparation of new, small and medium-sized enterprises and entrepreneurs.

2.6 Associazione Nazionale Costruttori Edili (ANCE)

2.6.1 General Information

ANCE (Associazione Nazionale Costruttori Edili) is the Italian Association of private construction builders, active in public works, residential and industrial building, and infrastructures. It represents 20 regional organisations, 101 provincial associations of construction companies of any specialization and dimension.

ANCE VENETO represents Veneto Region construction builders with 7 provincial associations.

2.6.2 Expertise – Capacities

ANCE VENETO is engaged in:

Technical innovation and quality certification in construction sector;

Green building technology, energy performance in buildings, energetic planning and strategy;

Dialogue with political, social and cultural Institutions. Ensures relationships with Administrative Authorities in governing the territory;

Company qualification for Public works.

Moreover, ANCE VENETO:

- Promotes the highest standards of integrity, quality, safety and wellbeing across regional construction industry;
- Promote quality and sustainability in construction supply chain. Promote and support buildings energy performance (new buildings and energy efficiency retrofit) in construction supply chain;

- Provides expert advice for members on legal, employment, financial services, taxation, procurement, health and safety, environmental, technical, training issues;
- Promote Innovation Technology in buildings construction companies;
- Elaborates trend analysis;
- Influences key decision-makers;
- Promote comprehensive training programs;
- Propagate advanced industry trends.

2.7 Venetian Smart Lighting

2.7.1 General Information

The lighting sector represents, within the “home” system, one of the leading sectors of Italian manufacture able to blend elegance, design and technology together. In particular, Veneto Region is the second area in Italy for number of companies operating within the lighting sector.

On the basis of such considerations in July 2008 the Veneto Region approved the Venetian District for lighting systems. In 2009 a group of these companies decided to join together in a Consortium, named Luce in Veneto Scarl, in order to strengthen their position in the market and cooperate on the following areas: research and innovation, internationalization and training.

Further to the new regional law n. 13/2014, Luce in Veneto Scarl promoted the candidacy of the Rete Innovativa Regionale (RIR) Venetian Smart Lighting in June 2016. The RIR groups together entities with different specializations in the smart lighting field, with world’s leading companies inside.

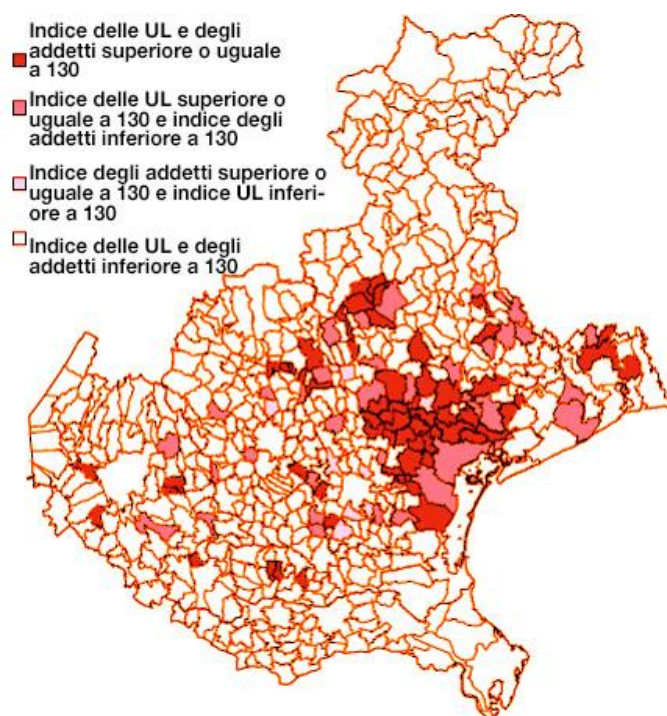
In January 2016, the Rete di Imprese Luce in Veneto was first established as legal entity designated to represent the RIR “Venetian Smart Lighting” at the Veneto Region.

GEOGRAPHICAL DISTRIBUTION

Most companies of Luce in Veneto stretch over nearly the whole Veneto Region, with a prevalence in the interprovincial territory of Padua, Treviso and Venice (77 % of the companies).

Breakdown of the companies by location of headquarters:

- 30% in Venice Province
- 27% in Treviso Province
- 20% in Padua Province
- 16% in Vicenza Province
- 5% in Verona Province
- 2% other



GOVERNANCE

The management of Luce in Veneto is entrusted to a Board of Directors consisting of 3 to 5 members appointed for a period of three years. The board dictates the strategic approach and promotes new activities to the network. The Board of Directors is supported in these activities by a Cluster Manager, working at the headquarter in Piombino Dese (PD).

NETWORK WITH UNIVERSITIES, RESEARCH CENTERS AND CLUSTERS

Luce in Veneto works closely with Local Authorities, Institutions, Research Centers, Clusters, laboratories, engineers, and professional organizations both locally and at European level in order to increase the participation in new development projects and to foster a debate on the possible thematic areas of common interest in the lighting field.

Since 2012 LUCE IN VENETO is a member of ELCA, an Association of European Clusters within the lighting industry. Since 2012 LUCE IN VENETO is a member of the ELCA (European Lighting Cluster Alliance), with headquarter in Denmark.

COMPOSITION:

Enterprises: 13 SMEs, a consortium of 43 SMEs and 1 big enterprise.

Universities and research centers: University of Padua (Department of Information Engineering, Department of Industrial Engineering); Ca 'Foscari University of Venice (Department of Molecular Sciences and Nanosystems, Department of design and planning in complex environments); University of Verona University (Department of Biotechnology); Science and Technology Park Galileo.

2.7.2 Expertise-Capacities

The Network aims to promote new business opportunities in the field of smart lighting to promote sustainable and inclusive growth. To this end it is expected to involve, in addition to companies in the lighting industry closely, also companies and organizations able to bring added value in various fields adjacent, such as ICT (home automation, electronics, IT), sustainable components; construction and green building; tourism and mobility; biomedical; design-furniture; Energy etc.

The Regional Innovation Network "Venetian Smart Lighting" wants to play an active role in the evolution of the Venetian lighting sector towards the concept of "smart lighting", through the promotion of new products and services for the welfare of the citizens, a greater energy efficiency and the improvement of living conditions.

The deployment of the SSL technology (solid state lighting) and LED (Light Emitting Diodes) has allowed a development of quality in the design of lighting appliances, showing how it is possible to improve the quality of life of people exposed to this type of lighting, and maintain a high level of attention in schools and in the workplace. New lighting systems will, in fact, tend to recreate the way the effect of sunlight as faithful as possible to make the least impact the use of traditional artificial light sources.

The development of smart lighting also requires a close collaboration with the electronics industry and, specifically, with the home automation for the design of new hardware, software and interfaces designed to facilitate the use of all citizens systems, with special attention to the elderly and disabled.

Luce in Veneto intends to strengthen the presence of the members in the established international markets and to enter new markets, paying attention to a market-oriented approach, identifying products that meet the needs of customers both in terms of aesthetics and in terms of innovative technologies.

TRAINING COURSES

Luce in Veneto organizes training courses to give maximum support to the professional development of the companies and of their personnel. All the training modules, depending on the number of participants, can be arranged for companies individually or in group. Luce in Veneto promotes also the inclusion of trainees in the companies.

CONFERENCES

Luce in Veneto organizes continuously meetings, workshops and conferences on different issues with the participation of regional leaders and industry experts.

RESEARCH AND DEVELOPMENT

Luce in Veneto promotes projects to boost innovation in new lighting technologies to meet economic challenges and encourages sustainable development in cooperation with Universities and Research Centers.

UL MARK: SUPPORTING THE ACCESS TO THE USA-CANADA MARKET

The May 19th, 2016 Luce in Veneto started the initiative to support the companies in accessing the North American market (USA and Canada) opening two UL files in General Coverage.

The General Coverage program does not include product testing, but requires a preliminary analysis to determine whether the product displays characteristics that allow their certification under the applicable UL standard. Once ensured the technical requirements of the program, the UL follow-up service will assess the compliance of the same over time. The opening of these files will allow the companies participating in the initiative, whose products meet the safety requirements established by the General Coverage program, to use the prestigious UL Mark on their products.

The long process of preparation has led to the creation of an internal regulation for the subscribers' companies for a quality management of the production chain and to the signing of an insurance policy with adequate limits for the markets as a further guarantee for the North American consumer.

MARKET RESEARCHES

Luce in Veneto maintains a constant monitoring of the evolution of the smart lighting sector elaborating or acquiring market research on different areas such as:

- Trend of development of the world market of luminaires.
- Trend of world market development of LED lighting fixtures and related information.
- The European market for lighting fixtures.
- State of the development of luminaires e-commerce.
- The market for lighting fixtures in Russia.
- The economic opportunity with the Internet of Things (IoT) for Smart Home.
- International trend of development of the high-end furnishings sector.

2.8 Association of Construction and Industry of Construction Material

2.8.1 General Information

The Association of Construction and Industry of Construction Material represents a group of SMEs organized within the Chamber of Economy of Zenica-Doboj Canton. It is consisted of 89 business entities form the Construction sector in general. They mainly operate in several subsectors such as high-rise building, civil engineering, production of construction material, interior works, planning, etc.

At the moment, the Association, formally, is not registered as a cluster but as sectorial group within the Chamber of Economy. It is well organized and managed by the Chamber in many segments of their interest (common participation in specific projects, participation and promotion in fair events, organization of specific seminars and educative sessions, distribution of information and facilitation of mutual communication and cooperation).

There is a serious intention for its formal transformation into the respective cluster, like it has been done for associations of metal and wood industry, which are organized as clusters now. It is important to note that clustering is quite new process in BiH/ZDC and many SMEs, belonging to the same sector of industry, are still not concentrated in specialized clusters.

2.8.2 Expertise-Capacities

The main expertise of the cluster's members includes:

- Planning in construction.

- High-rise building.
- Final works in construction – interior works.
- Installation works.
- Civil engineering.
- Production of construction material.

While, their available products are:

- Joinery (PVC, Al, wood)
- Window glass (double-glazed, gas filled, UV protection)
- Thermal insulation boards (EPS – BAS EN 13163)
- Granulate for light concrete and thermo-mortar
- Powdery and liquid construction material (decorative finishing plasters, impregnations, machine mortar and screed, construction glue, leveling and grouts, epoxy floors, thinners, wall colors)
- Thermo-constructions (roofing and ceiling)
- Concrete constructions
- Brick blocks (different types BAS EN 771-1:2011+A1: 2015)
- Prefabricated houses
- Stone for construction works
- Cement
- Asphalt

2.9 CAPENERGIES

2.9.1 General Information

CAPENERGIES is a competitive cluster based in PACA region (Aix-en-Provence city)

It is a network of about 500 public and private actors of energy, creating synergies between the academic and industrial world.

The cluster is part of the energy transition process by working towards the transformation of research into innovation on markets with high added value application with high potential of growth.

The main objective of the cluster is to allow companies to develop technology solutions and innovative products on identified markets, contributing to strengthen energy segments on its territories, generating growth and jobs.

2.9.2 Expertise-Capacities

CAPENERGIES as a strong specialization in insular and isolated areas. Its Strategic Business Areas are:

- Energy efficiency
- Insular and isolated areas energy system
- Renewable energy production

CAPENERGIES has, also, four main business orientations:

- Developing of low carbon energy production solutions (photovoltaic, wind, hydro, geothermal, biomass).
- Energy efficiency.
- Development of energy storage solutions to mitigate the variability of the injection of intermittent EnR on networks.
- Innovative projects fully using the potential of marine energy on these territories.

Finally, CAPENERGIES supports its members in their growth strategies so that they occupy a privileged position in the energy sector.

2.10 Bâtiments Durables Méditerranéens – BPM (Mediterranean Sustainable Buildings)

2.10.1 General Information

BDM is an association which brings together about 350 inter-professional stakeholders from all trades of the building sector: mainly contracting authorities (public and private), project managers (architects, design and development departments) and companies.

BDM approach is a project management tool which aims to promote bioclimatism, to minimize the impact of materials, to reduce the consumption of water and energy to preserve comfort and health of occupants, while taking into account social and economic issues.

BDM aims to:

- Facilitate the development of the market of sustainable design, construction and rehabilitation in the Mediterranean area.
- Support the cultural, technical and commercial adaptations of all stakeholders involved in sustainable design, construction and rehabilitation in the Mediterranean region.
- Assess the design, construction and rehabilitation projects, with reference to BDM approach.
- Enhance the stakeholders of these projects.

2.10.2 Expertise-Capacities

BDM offers a teaching assistance for the support and evaluation on the environmental, social and economic dimension aspects of buildings (construction or refurbishment). BDM offers a collaborative platform to support PAs in the development of eGPP.

They support project managers for the award of eco-related public aids and they label exemplary actions.

BDM supports the stakeholders involved in a sustainable approach at 3 stages: conception, implementation and operation.

2.11 ECO BUILDING SMEs

2.11.1 General Information

The cluster is based on the idea of giving value to companies and professionals working with eco-buildings and plant design with aim of improving energy efficiency in buildings also by using plant automation, domotics with lower management costs for water, heating and cooling systems, electricity and lighting, more comfort and safety. They are expert in bio-architecture, bio-building and rational and efficient use of energy. It means that their solutions guarantee a power consumption not exceeding 30 kW / m² / year and a labelling classification never lower than "B" class. They privilege local production (short supply chain) with the maximum use of renewable energy sources and virtuous systems of water management. The cluster companies are also used to deliver a computation of cost savings to their contractor. This computation provides evidence of eventual higher costs incurred for the energy efficiency in the building with a repayment plan for these eventual additional costs.

The sectors of intervention are:

- Improving energy efficiency of existing buildings.
- Eco- building.
- Renewable energy sources.

2.11.2 Expertise-Capacities

The cluster works by specific expertise and capacities in the building sector, domotics and plant design. The services and products provided are related to energy efficiency in buildings, domotic implementation by technological plants and energy production by RES.

The specific expertise fields of the cluster companies are:

1. The bio-architecture and bio building, where sustainability is about the construction, the use, the functionality and the disposal at the end of the useful life of the work. Such companies and professionals work only by environmentally friendly materials.
2. Electrical installations, plumbing and heating systems and automation systems.
3. RES in the buildings to make them more efficient: low energy buildings by RES and minimizing the use of traditional energies, generally more polluting and not renewable. They are: solar thermic for the production of household hot water and air conditioning; Solar Photovoltaic for the production of electrical energy; small wind turbines for the production of electrical energy; surface geothermal energy for air conditioning; Biomasses for the production of household hot water and air conditioning.
4. Construction materials: the choice of the adequate material allows the realization or the re-qualification of households by low energy consumption, high thermal comfort and low running costs. The materials normally privileged are available local resources (ex. local clay at low price and pollution for the transport) and natural products.

2.12 Alto Basento Green Cluster (ABGC)

2.12.1 General Information

The Alto Basento Green Cluster (ABGC) includes a very big network of small and medium enterprises with the certified registration in the official lists of approved suppliers of the Comunità Montana Alto Basento (CMAB) – Central Purchasing Body of the Programme Area Basento, Bradano Camastra.

The ABGC is a sub-regional high skilled network, able to:

- facilitate the implementation of green and sustainable development strategies and policies;
- promote awareness about the potential of innovative technologies in the energy efficiency and green sector fields
- search and promote excellent energy efficiency solutions that can be provided by cluster companies.

Its aim is to equip the local district with a cutting-edge technology facility, at the disposal of the business, institutional and research system, to implement research, development and innovation activities in the sectors of energy management and energy efficiency.

The ABGC is able to provide assistance to enterprises, public and private bodies for the development of initiatives in the sector of renewables, energy efficiency, natural and sustainable materials and productions and sustainability in general.

The ABGC cluster wants to be a point of reference in the dialogue among institutions, the research community and industry associations.

2.12.2 Expertise-Capacities

The majority of the ABGC SMEs have relevant competences and experiences in the following fields:

RES: Within the cluster are involved companies which produce products and components referred to the renewable energy sources.

ENERGY SAVING: It is a transversal area which includes companies working in the efficiency energy field (supporting R&D or innovation initiatives, promoting membership in European Programmes, such as "Covenant of Majors", increasing the knowledge of the availability of technology in PAs and other industrial sectors; providing trainings for professionals (designers, installers, maintenance).

SUSTAINABLE BUILDING: It includes the enterprises of the construction industry and related plant. The energy efficiency and rationalization of consumption in the building sector is a focal point as part of an integrated energy and environmental policy at the regional level. So, the ABGC's SMEs are able to ensure:

- innovative construction techniques to increase the quality of life in the civil and industrial buildings (eg, materials and / or construction techniques for buildings with high thermal and acoustic performance and low environmental impact);
- innovative "system-building" for the effective and efficient integration of renewable energy sources in buildings;
- innovative and integrated systems for monitoring energy consumption in industrial and civil buildings, with focus to public buildings.

2.13 Clúster of Energy Efficiency of Catalonia (CEEC)

2.13.1 General Information

The Energy Efficiency Cluster of Catalonia (CEEC) is as a nonprofit business association, from the fields of technology, research, institutional, regulatory, industrial, and business information, promoting the energy efficiency.

The overall objective of the cluster is to promote the competitiveness of its associate members, enhancing collaboration between companies and other stakeholders on energy efficiency in order to offer the market innovative and integrated solutions in energy efficiency, combining products and services the value chain and providing solutions in packages that include products, facilities, maintenance and management.

2.13.2 Expertise-Capacities

The cluster's expertise includes:

- Development of new packages or integrated solutions for energy-efficient, competitive in the international market.
- Identifying complementarities between companies and promotion of joint projects.
- Promoting the exchange of knowledge for the application of innovations and new developments.
- Enhancing access to public aid for investments in R & D.
- Fostering the exchange of experiences between professionals and business partners.
- Promoting the participation of partners in the market of energy efficiency through information on tenders, commercial contracts, etc.

- Dissemination and promotion capabilities, energy efficiency products and services offered by partners (training courses, participation in fairs, conventions, promotional campaigns, etc.).
- Promotion and participation in training courses for professionals.

Synergies platform: The Energy Efficiency Cluster of Catalonia (CEEC) aims to promote cooperation among its members. This platform synergies in energy efficiency, which aims to be a place where all members of the cluster can run collaboration proposals by requesting or offering products and services for energy efficiency and can be contacted directly by any member interested.

3 “Green” criteria description and technical specs

During the GRASPINNO implementation, specific EU “green” criteria related to works/services (i.e. indoor lighting, Office/Building design, Furniture, etc.) for the buildings’ refurbishment were identified. Specific main categories (Indoor lighting, Office Building Design/Construction/Management, Combined Heat and Power, Furniture, Toilets & Urinals, Wall Panels, Water-based heaters, Sanitary Tapware, Air conditioning, Thermal Insulation and Energy self-efficiency) related to buildings’ refurbishment, were also identified.

For each of these categories, “green” criteria and specific technical specifications were defined and are presented in the following subsections.

3.1 Indoor lighting

The main general categories of the identified “green” criteria, are the following:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Lamps	Lamps’ Energy Class	Minimum Energy Class C
	Lamps’ Life	Minimum lamp life 2.000 hours
	Lamps’ mercury content	Max. mercury content 2,5
	Lamps’ packaging	Shall be made of at least 50% post-consumer recycled material
Design of indoor lighting	Lighting power density	Max. density 2,5
	Normalized lighting power density	Max. density 2,2
	Lighting controls	<ul style="list-style-type: none"> Occupancy sensors which turn off the lighting after the space becomes unoccupied, unless this would endanger safety or security.

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
		<ul style="list-style-type: none"> • Installation of either time switches or occupancy sensors to switch off the lighting after the space becomes unoccupied at night or at weekends. • Should be controlled in rows parallel to the windows, so that the rows nearer to the windows can be switched off separately. • Accessible by the occupants switches in convenient locations. • Automatic daylight linked control (either switching or dimming).
	Installation of lighting systems	Provision of: <ul style="list-style-type: none"> • Disassembly instructions for luminaires. • Instructions on how to replace lamps, and which lamps can be used in the luminaires without increasing the stated power densities. • Instructions on how to operate and maintain lighting controls. • For occupancy sensors, instructions on how to adjust their sensitivity and time delay, and advice on how best to do this to meet occupant needs without excessive increase in energy consumption. • For daylight linked controls, instructions on how to recalibrate and adjust them, for example to take into

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
		<p>account changes to room layout.</p> <ul style="list-style-type: none"> For time switches, instructions on how to adjust the switch off times, and advice on how best to do this to meet occupant without excessive increase in energy consumption. All waste lamps and luminaires and lighting controls shall be separated and sent for recovery.

3.2 Office Building Design/Construction/Management

The identified “green” criteria were:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Office Building Design, Construction and Management	Minimum energy performance	Energy Performance Certificate (EPC) class C or three times the kWh/m ² cut-off value for the best class or a maximum of 135 kWh/m ² (whichever is the strictest);
	Cost optimal performance	The cost optimum primary energy demand for a public office building expressed in kWh/m ² as calculated according to the methodology in Commission Delegated Regulation No 244/2012.
	Energy management system	The user interface shall allow for information on the buildings energy use to be analyzed and downloaded by occupants and facilities managers without requiring significant training.

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
	Low or zero carbon energy sources	Where the building is located so as to benefit from the potential to connect to a high efficiency and cost-effective alternative energy systems, the building's energy systems shall be designed to connect to this infrastructure.
	Staff travel plan and infrastructure	The plan shall identify specific measures that, taking into account the local context, may reduce the need for commuting to the building by private car and promote the use of more sustainable modes of transport, to include cycling and walking, public transport, low emission vehicles, and car sharing.
	Recyclable waste storage	Dedicated recyclable waste storage shall be provided within the building, or within the curtilage of the building, to facilitate the segregation of recyclable materials and end-of-life products by occupiers.
	Thermal comfort conditions	Design indoor temperature values (minimum room temperature in winter, maximum room temperature in summer) for the office building shall comply with at least category II in accordance with EN 15251 or equivalent.
	Daylighting and glare control	Useable office space shall for 80% of the useable floor area achieve an average Daylight Factor of 0.7%.
	Ventilation and air quality	Quality rating of IDA 2
	Demolition waste audit and management plan	Re-use of the demolition wastes at a minimum of 55% of the wastes' weight.

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
	Sourcing of legal timber	All timber or timber products to be supplied must be legally harvested.
	Site waste management	Less than or equal to 11 tones per 100m ² gross internal office floor area.
	Selection of fit-out materials and finishes	10.000 µg/m ³
	Quality of the completed building fabric / Air tightness	4 m ³ /(h.m ²) at 50 Pascals
	Building energy management system	Monthly reports which disaggregate heating, cooling, ventilation and lighting energy use on a seasonal basis.
	Energy performance contract	At least 10 years
	Waste management system (Facilities management)	Installation of a waste management system that will allow occupiers to segregate paper, cardboard, food and drink packaging (glass, plastic and other materials for which local separate collection systems exist) into separate streams for recycling. Batteries, ink and toner cartridges, IT equipment and furniture shall also be collected and arranged for re-use or recycling where possible.

3.3 Combined Heat and Power

The criteria categories are the following:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Combined Heat and Power	Energy efficiency	Above 75%
	Energy saving	Above 70%

3.4 Furniture

The criteria categories, are:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Furniture	Wood and wood-based material furniture	All wood and wood-based materials shall come from legally sourced timber.
	Furniture plastic parts	All plastic parts $\geq 50g$ shall be marked for recycling and must not contain additions of other materials that may hinder their recycling
	Surface coating of wood, plastic and/or metal parts	"Not contain hazardous substances that are classified as carcinogenic (R40, R45, R49), harmful to the reproductive system (R60, R61, R62, R63), mutagenic (R46, R68), toxic (R23, R24, R25, R26, R27, R28, R51), allergenic when inhaled (R42) or harmful to the environment (R50, R50/53, R51/53, R52, R52/53, R53). cause heritable genetic damage (R46), danger of serious damage to health by prolonged exposure (R48), possible risks of irreversible effects (R68). *Not contain more than 5% by weight of volatile organic compounds (VOCs).

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
		<p>For phtalates: no use is allowed of phtalates that at the time of application fulfil the classification criteria of any of the following risk phrases (or combinations thereof):</p> <p>R60, R61, R62, in accordance with Directive 67/548/EEC and its amendments.</p> <p>*Not contain aziridine *Not contain Chromium (VI) compounds"</p>
	Furniture adhesives and glues	VOC contain of adhesives shall not exceed 10% by weight.
	Furniture packaging materials	Packaging must consist of readily recycled material, and/or materials taken from renewable resources, or be a multi-use system.
	Separation of furniture packaging materials	All packaging materials shall be easily separable by hand into recyclable parts consisting of one material (e.g. cardboard, paper, plastic, textile).
	Outdoor furniture	<p>The wood used for outdoor furniture, should be:</p> <p>a) Classified in 1st or 2nd class for resistance or durability in accordance to EN350-2 standard or equivalent and should not be coated with preservatives or biocidal products</p> <p>b) If not classified in above mentioned classes, several additional standards, risk phrases and precautionary statements referring to the law regulating chemical should be taken in consideration (R40/H351, R42/H334, R45/H350, R46/H340,</p>

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
		R49/H350i, R60/H360F, R61/H360D, R62/H361f, R63/H361d, R68/ H341.
	Share of wood and/or wood materials in furniture	At least 70% (of volume) of furniture must be made of wood or wood materials, the exception may be chairs and furniture where wood and wood materials are not permitted.
	Furniture textile	For products made from cotton or other natural cellulosic fibers, the final product shall not contain more than 0.05 ppm (parts per million) of specific substances.

3.5 Toilets & Urinals

The following “green” criteria categories were identified:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Flushing toilet equipment	Water efficiency	Up to 3 lt/flush
	Product performance	<ul style="list-style-type: none"> • Comply with the standards EN 14055, EN 12541, EN 15091, EN 997. • At least, 10 years’ warranty. • Provision by the installer with installation instructions containing info on specific operating pressures, how to adjust flushing volumes, how rational use can minimize environmental impact, recommendations on the proper use, etc.
Urinal equipment	Water efficiency	Up to 2 lt/flush
	Product performance	<ul style="list-style-type: none"> • Comply with the standards EN 14055, EN 12541, EN 15091,

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
		EN 13407, Commission Decision 2013/641/EU. <ul style="list-style-type: none"> • At least, 10 years' warranty. • Use of a biodegradable fluid or operation completely without fluid. • Provision by the installer with installation instructions containing info on specific operating pressures, how to adjust flushing volumes, how rational use can minimize environmental impact, recommendations on the proper use, etc.

3.6 Wall panels

In this category, the following criteria categories were identified:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Gypsum Plasterboard Wall panels	Panel recycling materials	Panel made from 100% recycled wood/paper.
	Wood paper panels	Paper made of wood, wood fibres or wood particles stemming from legally harvested forests.
	Gypsum content	At least 2% by weight
Wood-Based Wall panels	Virgin wood panels	Virgin wood material shall come from legal sources
	Formaldehyde emission	Up to 0.13 mg/m ³

3.7 Water-based Heaters

The identified criteria category is:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Water-Based Heaters	Heaters' Energy Efficiency	<ul style="list-style-type: none"> • (hs) $\geq 90\%$ • (hs) $\geq 75\%$ • 220 g CO₂ – equivalent/kWh heating output • 170 g CO₂ – equivalent/kWh heating output • At least, 4 years warranty • Provision by the installer with installation instructions containing info on appropriate dimensions of heaters for each building, info on energy consumption, operating instructions, recommendations on appropriate disposal at product's end-of-life

3.8 Sanitary Tapware

Regarding Sanitary Tapware, the identified criteria categories, are:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Sanitary Tapware	Sanitary Tapware water consumption/Energy saving	<ul style="list-style-type: none"> • Lowest max. 2 lt/min flow • Up to 35 seconds' time control system. • Sanitary tapware shall allow thermostatic adjustment. • Sanitary tapware shall be designed with a cold-water supply in middle position.
	Sanitary Tapware Product Quality/Longevity	<ul style="list-style-type: none"> • Should comply with the EN248 standard. • The product shall be designed in such a way that its

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
		<p>exchangeable components can be replaced easily by the end-user or a professional service engineer.</p> <ul style="list-style-type: none"> • At least, 4 years' warranty. • The product shall be supplied with installation instructions, proper use recommendations, advice on maintenance, advice on cleaning sanitary tapware, instructions for replacement, etc.

3.9 Air conditioning

The following criteria categories were identified:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Air conditioning machines	Air conditioning general "green" characteristics	<ul style="list-style-type: none"> • INVERTER • At least A++ cooling energy efficiency • A+++ heating energy efficiency • At least 6.10 Seasonal Energy Efficiency Ratio (Reg.206 / 2012: min 3,60, Reg.626 / 2011 for class A++: $6,10 \leq SEER < 8,50$) • at least 5.10 based on warm heating season. (Reg.206 / 2012: min 3,60, Reg.626 / 2011 for class A+++ : $SCOP \geq 5,10$ for the average zone) • $L_w : \leq 60$ dB (A) re 1pW (Indoor noise level) • $L_w : \leq 65$ dB (A) re 1 pW (outdoor noise level) • R410A or other hydro-fluorocarbon refrigerant, the use of which has not been prohibited (Coolant)
	Air-condition machine functions	Existence of ECO MODE and HOT START functions

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
	Air-condition supplier/manufacturer certifications	ISO 14001 or equivalent
	Installation of air-conditioning machines	<ul style="list-style-type: none"> The supplier must participate in an approved alternative waste management of electrical and electronic equipment (WEEE) (N.2939 / 2001, JMD 23615/651 / E.103, Directive 2002/96 / E.C.) Before the installation of the new air conditioner, the contractor has to uninstall the withdrawn replacing air conditioner The works of placing and installation of the new machine, the works of uninstall of withdrawn replacing machine, its transfer to the Public Authority's recycling place

3.10 Thermal insulation

The following thermal insulation criteria categories was identified:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
External/Roof thermal insulation	Insulation material	<ul style="list-style-type: none"> Kenaf Sheep wool Corn grain fiber
	Thermal conductivity (λ)	<ul style="list-style-type: none"> $\lambda \leq 0,025$ (class A) $0,025 < \lambda \leq 0,035$ (class B) $0,035 < \lambda \leq 0,045$ (class C) $0,045 < \lambda \leq 0,050$ (class D) $0,050 < \lambda$ (class E)
	Primary energy content	<ul style="list-style-type: none"> primary energy content ≤ 30 (class A) $30 < \text{primary energy content} \leq 60$ (class B) $60 < \text{primary energy content} \leq 100$ (Class C)

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
		<ul style="list-style-type: none"> • 100<primary energy content≤150 (Class D) • 150<primary energy content≤200 (Class E)
	Weighted sound absorption coefficient	<ul style="list-style-type: none"> • 0.90, 0.95 & 1.00 (Class A) • 0.80 & 0.85 (Class B) • 0.60, 0.65, 0.70 & 0.75 (Class C) • 0.30, 0.35, 0.40, 0.45, 0.50 & 0.55 (Class D) • 0.15, 0.20 & 0.25 (Class E)
	Thermal transmittance coefficient (roofs, exposed floors and wall insulation)	Max. 0,4 W/m ² K
	Thermal transmittance coefficient (Openings)	Max. 2,9 W/m ² K

3.11 Electrical static autotransformers

The electrical static autotransformers criteria category includes:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Electrical Static autotransformer	Static autotransformer electricity saving	Min. 12%

3.12 Energy self-sufficiency

The respective “green” criteria categories, are the following:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
Energy Self Efficiency	Biomass co-generation (gasification)	70%
	Fotovoltaic plant introduction	40%

3.13 IT Equipment

The identified main “green” criteria categories for IT equipment (i.e. PCs, Laptops, printers, monitors, etc.) are the following:

Product/Service	Basic Criterion Category	Basic Criterion Technical Spec
IT Equipment	Power Consumption	<ul style="list-style-type: none"> EPA EnergyStar certification or equivalent. For servers: SPECPOWER Benchmark test compliance. Monitors in sleep mode \leq 0,5 Watt.
	Equipment substances	Accordance with REACH regulation / Ecodeclaration / TCO 5.0 certification for monitors.
	Noise/Electromagnetic waves emissions	Accordance with Ecodeclaration
	Waste management	Equipment and single boards disposal, TCO 5.0 certification for monitors, recyclability of all materials.

4 eGPP legal requirements

In this chapter, there is a brief description of the current Green Public Procurement legal requirements and legal framework that is in force for the GRASPINNO project partners' countries/regions. In the following subsections, there is a brief description for each participating country/region.

4.1 Greece

4.1.1 General Description

Currently, in Greece, there is no specialized eGPP system available yet, due to the fact that there is no final official legal framework and policies regarding Green Public Procurement. By now, Green Public Procurement falls under the legislation governing Public Procurement, however steps towards the formation of a National Action Plan for Green Public Procurement were made. Nevertheless, there is a transposition in the national law and application of European Directives concerning energy-related products, energy labeling, eco-design, energy consumption and waste electrical and electronic equipment (WEEE) (e.g. Directives 2012/27/EE, 2010/30/EE, 2009/125/EE, Directive 2003/108/EC).

Moreover, there is an application of European Regulations concerning eco-design requirements of energy-related products, energy labeling and eco-design of lighting [e.g. Regulations (EU)206/2012, (EC)244/2009, (EC)859/2009, (EU)874/2012, (EU)518/2014].

Measures for the improvement of energy efficiency and energy saving in the public sector, were included in common Ministerial Decisions (e.g. CMD D6/B/14826, Governmental Gazette 1122/B/17-6-2008). These measures include the replacing of existing internal lamps in public

buildings with LED lighting. In addition, the Ministerial Decision (DEPEA/G/185496/21-12-2015) refers to a National Energy Efficiency Action Plan (NEEAP), which sets and analyses the national energy efficiency goal in energy consumption in 2020, which should be consistent to the European goals on this subject.

According to Law 4412/2016, there is a transposition in the national law and application of Public Procurement European Directives (2014/23, 2014/24 and 2014/25), which encourage the implementation in terms of environmental management systems (EMAS or other standard), Life Cycle Cost and the best price-to quality ratio as award criterion, in public procurement documents.

Additionally, according the Law 3855/2010 an Interministerial Committee (including Ministry of Environment and Energy as coordinator) on Green Public Procurement was formed in order to implement a National Policy and draft a National Action Plan for the promotion of Green Procurement. The Commission should support the timely updating of the public sector's suppliers and the market in general, creating a framework for cooperation by setting up working groups and coordinating the necessary actions for the preparation of environmental criteria as well as selecting categories of goods and services where the environmental criteria will be applied.

Finally, Law 4342/2015 refers, also, to a National Action Plan for Green Public Procurements, to be implemented by an Interministerial Committee including general Directorate of Public Procurement as coordinator.

Public procurement in Greece is centrally organized. The legislation that governs Public Procurements is divided in two major fields:

a) Legislation governing the supply of goods and the provision of services:

- I. Presidential Decree 118/2007 regarding "Regulation of Procurements to the State" governs the procurements to the State and the legal entities of public law, except for the following:
- II. The procurements that fall within the thresholds of Presidential Decree 60/2007 (incorporating Directive 2004/18/EC) are governed by that presidential decree. In case of the application of Presidential Decree 60/2007, the provisions of Presidential Decree 118/2007 apply complementarily.
- III. The procurements of goods that are specifically governed by articles 79 through 85 of Law 2362/1995. In this case the provisions of Presidential Decree 118/2007 also apply complementarily.
- IV. The procurements of goods for the Municipalities and the Regions are governed by Law 3463/2006 (article 209) and Presidential Decree 30/1996 (article 100).

b) Legislation governing the construction of public works:

The legislation in relation to the construction of public works has been codified by Law 3669/2008, which includes the provisions of the following main laws:

- I. Law 1418/1984, which governs the assignment and construction of public works; and

II. Law 3263/2004, which governs the system of awarding the public works based on the lowest offer.

In addition to the above, the award of public contracts in relation to the sectors of water, energy, transport and postal services are governed by Presidential Decree 59/2007, through which Directive 2004/17/EC, was incorporated. Furthermore, public contracts for the assignment of studies and the provision of related services in the public sector are governed by Law 3316/2005 and the provisions of articles 58-66 of Presidential Decree 60/2007. It should also be mentioned that Public Private Partnerships (PPPs) are governed by Law 3389/2005.

All public administration and agencies are requested once a year to notify their needs to the General Directorate of Public Procurement (GDPP) of the Ministry of Development, which operates as a central procurement authority. These requests are then included in the Unified Procurement Programme forming a legal document agreed by:

- The Minister of Economy and Finance, who is responsible for the approval of financial resources in the national budget and
- The Minister of Development, supervising GDPP.

The GDPP then implements the procurement programme organizing and managing the purchasing process. The selection of suppliers is typically a responsibility of the GDPP, however, sometimes (for low budgets or upon request) the Ministry authorizes interested ministries or executive agencies of the public sector to implement the process. The same process applies for the regional authorities (prefectures, municipalities and other local services), which normally organize their procurement through the GDPP. The following chart indicates the public procurement system in Greece:

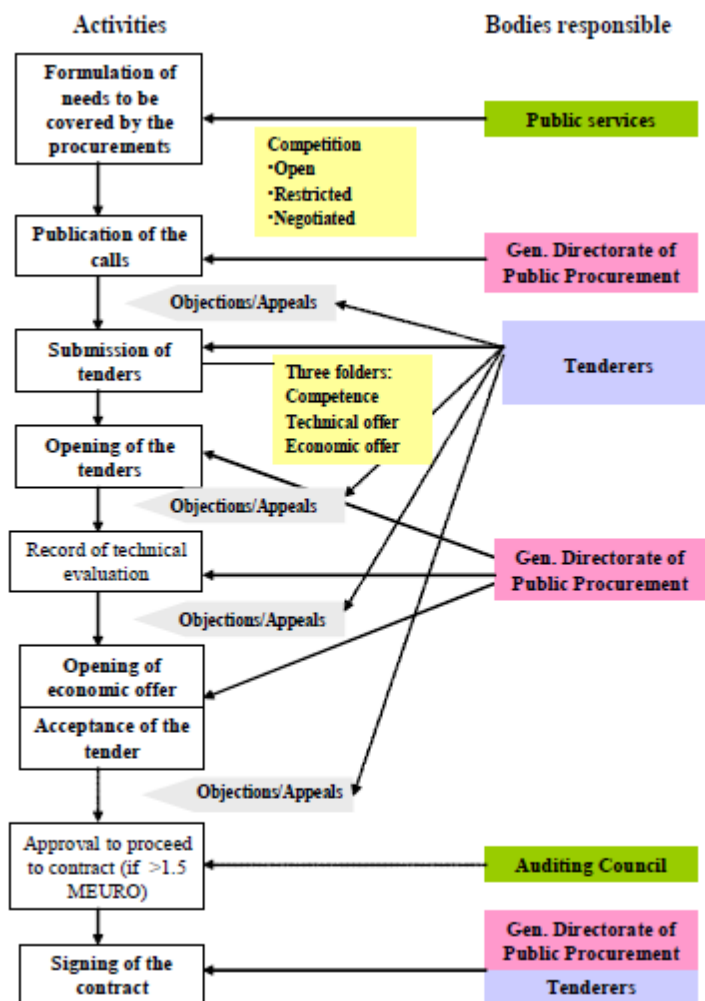


Chart 1: Activity chart of the central government procurement system

Regarding electronic Public Procurement, in the beginning of 2013, the Greek government launched the Central Electronic Registry for Public Contracts (CERPC- <http://www.eprocurement.gov.gr>). It records all tendering procedures of public procurements with a budget over 1000 €. It has been set up in order to control state expenditure on public contracts, to facilitate and encourage the participation and competition of companies in accordance with the principles of transparency and equal opportunities and to comply with the rules of European and national legislation. Therefore, all sorts of public sector organizations

are obliged to publish their tender notices as well as the resulting contracts and follow-up payments on CERPC.

The legal framework for electronic Public Procurement is formed by the following laws and Ministerial decisions:

- Law 4155/2013 regarding “National Public Procurement System”.
- Law 4205/2013 regarding “Offenders electronic surveillance and other provisions”.
- Ministerial Decision P1/2390/16-102013 regarding “Technical details and operating procedures of the National Public Electronic Procurement System”.

4.1.2 Procurement Procedures

Article 22 of Presidential Decree 60/2007 provides for the following procedures that can be followed with regards to public procurements:

- a) open procedures, where any interested party may submit a bid;
- b) restricted procedures, where any interested party may request to participate in but only the candidates that have been chosen by the contracting authority are invited to submit a bid;
- c) procedures by means of a competitive dialogue with regard to contracts for the supply of goods or the provision of services, under the circumstances mentioned in article 23 of the said decree, where any interested party may request to participate and the contracting authority conducts a dialogue with the candidates admitted to that procedure, with the aim of developing one or more suitable alternatives capable of meeting its requirements, and on the basis of which the candidates chosen are invited to submit a bid; and

d) negotiated procedures, with or without the publication of a contract notice, in the specific cases and circumstances referred to expressly in articles 24 and 25 of the said decree.

Article 25 of Presidential Decree 59/2007 provides for the following procedures with regard to public procurements that fall within the scope of that decree:

- a) open procedures, where any interested party may submit a bid;
- b) restricted procedures, where any interested party may express an interest for participating in the procedure but only the candidates that have been chosen by the contracting authority may submit a bid; and
- c) negotiated procedures, where the contracting authority addresses the parties of its choice and negotiates with them the terms of the contract.

The choice between the above-mentioned procedures is made by the contracting authority and it is known to the candidates who wish to participate in the procedure beforehand.

4.2 Slovenia

Main Green procurement legal requirements in Slovenia are:

- 2006: Public Procurement Act – ZJN-2
- 2009: National action plan on green public procurement 2009 – 2012
- 2011: Decree on Green Public Procurement
- 2016: Public Procurement Act – ZJN-3

Decree on Green Public Procurement

- Mandatory minimum environmental requirements (basic environmental requirements).
- Recommendations for achieving higher environmental standards (additional environmental requirements).
- Integration of environmental requirements in public procurement procedures.
- Proofing means available to providers (goods-services-construction offered must comply with environmental requirements).

The 11 product and service groups, are the:

- Electricity
- Food and catering services
- Office paper and hygiene paper products
- Electronic office equipment
- TV
- Refrigerators, freezers and their combinations, washing machines, dishwashers, air conditioners
- Furniture
- Buildings, including design, construction, regular and major/investment maintenance of buildings, installation and assembly of devices and appliances in the building
- Cleaners, cleaning services and laundry services
- Personal and freight vehicles, bus transport services
- Tires

„.....service provider must assure knowledge/experts in the field of energy efficiency (EE) and renewable energy sources (RES), water efficiency and healthy living and working conditions...."

„..... the project should include, for example EE and RES solutions, efficient water use, waste management and similar to be provided in form of declaration/statement..."

„..... mandatory minimum 30% share of wood or wood materials installed in a building (without interior fittings), calculated from the volume of the materials...."

„..... EN standards on allowable emissions of volatile organic compounds in construction products must be respected, plumbing to be equipped with water saving devices..."

Decree is currently under revision.

The Guidelines for the procurement of architectural and engineering services 2016, are the following:

- Investment project management, public procurement of architectural and engineering services, preparation of documentation for public procurement.
- Green procurement: *„Environmental requirements to be incorporated into terms of the procurement and not among the criteria"*.

4.3 Italy

4.3.1 Brief description

The use of the GPP instrument has been encouraged over some years by the European Union, which speaks of this extensively, in the "Green Paper on Integrated Product Policy" in 1996, and in the Sixth Environmental Action Programme and developed in the Integrated Policy Product (IPP - Integrated Product Policy). However, Directive 2004/18/EC of 31 March 2004 on the "coordination of procedures for the award of public contracts for the supply of services and works" recognizes the possibility of incorporating the environmental variable as a criterion for strengthening an offer.

In Italy, e-GPP legal requirements are ruled by the legislative decree n.50 – 2016 which implement the EU directives 23/2014- 24/2014- 25/2014 on Public Procurement. The decree foresees that only accredited Central purchasing bodies can manage dynamic purchasing systems and electronic markets and related national criteria of qualification. The e-GPP is about the most economically advantageous offer by using minimum environmental criteria defined by the Italian Ministry of Environment by European regulations (for ex. By ERP Directive - Energy Related Products).

Moreover, the Green Public Procurement was initially optional, but there were certain rules that favoured its application, establishing the specific requirements or goals for the purchase and/ or use of certain products or services. In particular, these included the Ronchi Decree (Legislative Decree. 22/97 art. 19), as amended by L.448 / 01, which establishes the purchase of at least 40% of recycled paper demand; and the DM of 03.27.98, in which it is stated that a portion of the cars should consist of electric vehicles, hybrids or powered by natural gas with the emission

reduction devices. Also to be mentioned is the Budget of 2002 (Law 448/01, ART.52), which establishes the obligation to reserve at least 20% of the total purchase of tires as "re-treaded". Finally, the DM 203 8/5/2003 asks the regions to establish rules in accordance with the local communities; the communities should cover their annual needs of manufactured goods and goods "as such" with a share of products made from recycled material in not less than 30%. The decree also provides that recipients adopt within the formulation of tenders for the supply and installation of manufactured products and goods, and in the formulation of public works specifications, criteria to be fulfilled in compliance with the quotas laid down by decree.

In Italy the law is summed up in the so-called National Action Plan for Green Public Procurement, called "Action Plan for sustainable consumption in the field of Public Administration (PAN GPP)", dated with D.M. April 10, 2013 published in the Official Gazette no. 102 of 3 May 2013. Since that plan, the documents have been containing the minimum environmental criteria (CAM) for different sectors or services. These documents are issued by ministerial decree in gazettes.

The above-mentioned Decree provides two annexes. Here we discuss the first annex, which is relevant to our project relating to public buildings. The first Annex relates to an umbrella contract that falls under the category "Construction" provided for by the GPP NAP, and contains:

- Signs of a general nature, aimed at rationalization of purchases for that category, environmental and social legislation of reference, suggestions for contracting authorities in relation to the completion of the tender;

- Separate technical specifications: Buildings in groups; Building; Building components; Construction site;
- The specific reward;
- The conditions of implementation (contract terms).

The inclusion of CAM in the tender documents became mandatory following the enactment of the new procurement code, Legislative Decree n. 50 of 18 April 2016, which provides the CAM in public procurement, through the application of art.34.

For the Italian public administration it becomes obligatory to buy green, for products and services for which they have been issued their CAM by the Ministry, by inserting in the tender documentation at least the technical specifications and the contractual clauses contained in the CAM. The same Article 34 of the new code suggests also use the award criteria.

In practice, the public contracting authority intervenes in 5 phases of the procurement rules:

- 1) Definition of the subject: the public procurement directives do not contain any limitation as to the characteristics of the purchases, they are therefore "neutral". The institutions have full authority to decide what is and what and how to buy. The institutions thus have a wide scope for taking account of environmental considerations in the selection;
- 2) Definition of technical specifications (Art. 68, 69 and 82 of Legislative Decree 50/16): the specification can contain information in terms of technical standards (features, quality levels, production processes and methods etc.) contained in laws or industry technical standards. Annex VI of the Code contains a list of examples of such technical standards, among which there

may be also "levels of environmental performance." In the contract, specifications in terms of performance and functional requirements may also be included, and these may also include environmental characteristics.

- 3) Selection of candidates (art. 83 and 172 of Legislative Decree 50/16): the public body can justifiably exclude from the participation in the competition those who have been convicted by a final judgment, for crimes affecting the professional morality or who has done a serious and found mistake, in professional matters.
- 4) Award of the contract (Art. 95 and 96 of Legislative Decree 50/16): the contract award can be made with the lowest or most economically advantageous bid price criterion, the latter being preferred, and expecting it as exclusive in some cases. In the latter case, the notice sets out the bid evaluation criteria, appropriate to the nature, object and characteristics of the contract, such as, but not limited to: price, quality, environmental characteristics.
- 5) Execution of the contract (Art. 100 Legislative Decree 50/16): contracting authorities may require particular conditions for the execution, as long as they provide for equal treatment, such as "that information relates in particular to environmental and social needs".

4.3.2 Italian GPP programs

The National Public Purchasing Office, Consip SpA has activated since 2008 and now operates the largest GPP program in Italy. Other relevant GPP programs are implemented by the Territorial Public Purchasing centers, called ARCA in the Lombardy region, and called INTERCENTER in the Emilia-Romagna region. Starting in 2010, the Region of Sardinia

has activated the Ecosportelli GPP, information and support doors for publics on provincial territories of Sardinia, aimed at the promotion and dissemination of policies and green purchasing practices in Public Administration.

4.3.3 Specificities of certain regions - Veneto Region

The Three-Year Action Plan of the Veneto Region for the implementation of the GREEN PUBLIC PROCUREMENT PLAN (PAR GPP) period 2016-18 was adopted in the execution of the Regional Council Resolution no. 520 of 21/04/2015. The above-mentioned document of the Veneto Region:

- 1) Adopts the "Guidelines for the introduction of environmental sustainability criteria in Public Procurement (Guidelines for Green Public Procurement), in implementation of Legislative Decree 163/2006 art. 2 c. 2, Art. 44, art. 68 c. 4 and the National Action Plan for GPP approved beyond interministerial decree. 135 of 11/4/2008 and updated by a Decree of 04.10.2013 ";
- 2) Provides for the adoption of a "Regional Plan for Green Public Procurement" for the regional Departments, the Regional Purchasing Office for the Veneto (C.R.A.V. Region) and the contracting authorities of the territory.

The PAR GPP lasts three years 2016-2018, and in this period:

- promotes the introduction of environmental and social sustainability criteria in procurement of goods and services;
- introduces a monitoring of the purchasing system, aimed at checking on an annual basis, the achievement of objectives in the Plan;

- facilitates the communication of the contents of the Plan, in order to promote environmentally sustainable consumer behavior and stimulate the exchange of good green practices in the territory.

PAR GPP in the Veneto Region has capitalized knowledge from the participation in projects that have addressed the issue GPP such as:

CESBA (Common European Sustainable Environment Assessment) which is a founding member and which deals with the harmonization of the European systems for assessing the sustainability of buildings (http://wiki.cesba.eu/wiki/Main_Page). CESBA Alps, Sustainable Territories: The project started in 2016 will end in June 2018 and will have as its focus the definition of common European indicators for assessing the sustainability of the built environment. The Region will have a role of responsibility in the definition of territorial strategies and sustainability policies.

MAYORS IN ACTION: This is aimed at strengthening the capacity of the Coordinators and Supporters of the Covenant of Mayors in assisting their Municipalities, transferring good practices from one country through training, coaching and peer-to-peer support between coordinators and Supporters at European level.

4.4 Bosnia-Herzegovina

All public procurements are regulated by the National Law on Public Procurement. The Law regulates the public procurement system in Bosnia and Herzegovina, defines the rules for public procurement procedures, the rights, obligations, responsibilities, and legal protection of participants in public procurement procedures, as well as competencies of the Public Procurement Agency and the Procurement

Review Body of Bosnia and Herzegovina. The law does not distinguish “green” procurements from any other public procurement.

Verification of the bidders’ qualifications is performed solely according to the criteria already fixed in the bidding documentation. All requested criteria (“green” and any other) equally have to be included in the bidding documentation and provided to the economic operators. Thus, the green evaluation system (within the procurement procedure itself) is not mandatory.

Regarding the “electronic” requirements, the bidding documentation, beside the direct provision, has to be available to the candidates/bidders through the Public Procurement Portal.

The Law on Public Procurement defines the main types of public procurement procedures. They are:

- **Open procedure** (the procedure whereby any interested bidder may submit a bid) is the basic, regular public procurement procedure, usually used by contracting authorities in procurement of goods, services and works.

In conducting an open procedure the contracting authority is under obligation to:

- a) prepare bidding documentation;
- b) publish a procurement notice;
- c) provide the economic operators with bidding documentation;
- d) carry out the public opening of bids received in due time;

- e) perform the verification of the bidders' qualifications according to the participation criteria fixed in the bidding documentation and evaluate the bids according to contract award criteria;
- f) inform the bidders about the outcome of the public procurement procedure;
- g) offer the contract to the most successful bidder;
- h) publish the notice and submit a report to the Public Procurement Agency.

- **Restricted procedure** is the procedure in which an economic operator may request participation and in which, following the publication of qualification, the contracting authority invites all qualified candidates to submit bids.

Restricted procedure is conducted in the following manner:

- a) publishing the procurement notice in which the contracting authority invites all interested candidates to request the documentation for pre-qualification phase;
- b) providing or rendering accessible the documentation for pre-qualification phase to the candidates;
- c) performing the verification of the candidates' qualifications;
- d) informing the candidates that have not qualified;
- e) providing the qualified candidates simultaneously with the bidding documentation together with the invitation to submit bids;
- f) carrying out the public opening of bids received in due time;

- g) evaluating the bids according to the contract award criteria fixed in the bidding documentation;
- h) informing the bidders about the outcome of the public procurement procedure;
- i) offering the contract to the most successful bidder;
- j) publishing the notice and submitting the report to the Public Procurement Agency.

- **Negotiated procedure** is the procedure whereby the contracting authority negotiates the contract terms with one or several invited bidders. This procedure may be conducted with or without prior publication of a procurement notice, exclusively under the conditions set out in the Law.

- **Competitive dialogue** is the procedure whereby any interested economic operator may request participation in procedure and the contracting authority leads a dialogue with participants invited to the procedure with the purpose of developing one or more adequate solutions that may satisfy the needs of the contracting authority, and based on which the selected bidders will be invited to submit bids.

- **Small value contracts:**

- a) Competitive request for quotations is a procedure in which the contracting authority sends a request for bid submission for procurement of supplies, services, or works to a certain number of bidders, where that number cannot be lower than three, and it is under obligation to publish an additional procurement notice on the public procurement portal;

b) Direct agreement is the procedure in which the contracting authority, following market analysis, requires a written proposal of price or bid from one or more bidders and negotiates or accepts that price, as the condition for final agreement.

The contracting authority applies the open or restricted procedure for the public procurement contract award, as the basic and regular procedures. Negotiated procedure with or without publication of notice and competitive dialogue may be applied exceptionally, provided the legal conditions for that stipulated by the Law are met.

4.5 France

In France, eGPP does not exist in the Public Procurement Code. Thus there is no provision for the green criteria introduction. Regional legal provisions regarding public procurement are strictly forbidden.

Self-evidently, French legislation is compliant with European provisions. For instance, with Directive 2004/18/EC which lays down European Union (EU) rules for awarding contracts for public works, supplies and services and ensures that the public procurement process is fair and open to bidders from anywhere in the EU. Thus, for instance, contracts are awarded on the basis of:

- the most economically advantageous tender (based on criteria such as quality, price, technical merit, after-sales service); or
- the lowest price.

Order n°2015-899 of July 23 2015, which repeals the former Public Procurement Code from April 1st 2016, allows a better taking into account of social and environmental concerns. Thus, buyers can insert social and environmental criteria clauses in public procurement or

concession contracts, with for example the possibility to set aside their contracts for economic operators employing at least 50% of people with disabilities or disadvantaged.

But things are difficult when it comes to green criteria, due to the difficulty to soundly define and implement them. For instance, in 2013, the Council of State overturned the results of a tender from the city of Colombes. The city had taken the initiative to implement a sub-criterion "Carbon footprint" for the selection of the companies involved in the tender of the household waste collection. The Council of State ruled that "the contracting authority had required the production of a Carbon footprint without specifying the content and defining the assessing rules [...] as such the contracting authority had defaulted advertising and competition".

Published in October 2016 by the Ministry of Economic and Finance, the "Guide for Public Procurement – Public procurement: an answer for climate issues" remind that if the legal framework secures the possibility to integrate climate change considerations into public procurement, it must be in compliance with the fundamental principles of public procurement:

- Get the best value for money
- Ensure fair treatment

The Ministry emphasizes the importance of **sourcing** in the preparation phase of public procurement. Article 4 of Decree 2016-360 specifies opportunities upstream the call for tenders' procedure: "To prepare a public procurement, the buyer can perform consultations and market studies, seek advice, or inform the economic operators of its project and its requirements. The results of these studies and preliminary exchanges can be used by the buyer, provided that they do not have

the effect of distorting competition and do not cause a violation of the principles of freedom of access to the public order, of equal treatment of candidates and transparent procedures".

4.6 Spain-Catalonia

In Spain, and subsequently in Catalonia, Directive 2014/23/EU of 26 February 2014 on public procurement is directly applicable. The 2014 Directive consolidates possibilities for including environmental criteria, reinforces the role of eco-labels as evidence of compliance with technical specifications and introduces consideration of the life cycle of goods and services.

The process of public procurement is regulated by the law, considering 3 important points:

1. Equality for all potential bidders;
2. Transparency in all process;
3. About technical characteristics of the products and services the process have (always) a technical specification that determine the technical aspects of the object to hire.

Best quality/price ratio: the "winner" apply the principle of the economically more advantageous offer, valuing (shot of the case of procedure for auction) not only the economic offer of the bidders, but also those aspects that represent an improvement regarding the basic description of the object to acquire.

The Green Public Procurement is the process that takes under consideration not only the economic and technical aspects, but also environmental behavior.

Specifically, for the region of Catalonia there are 2 types of Green Public Procurement:

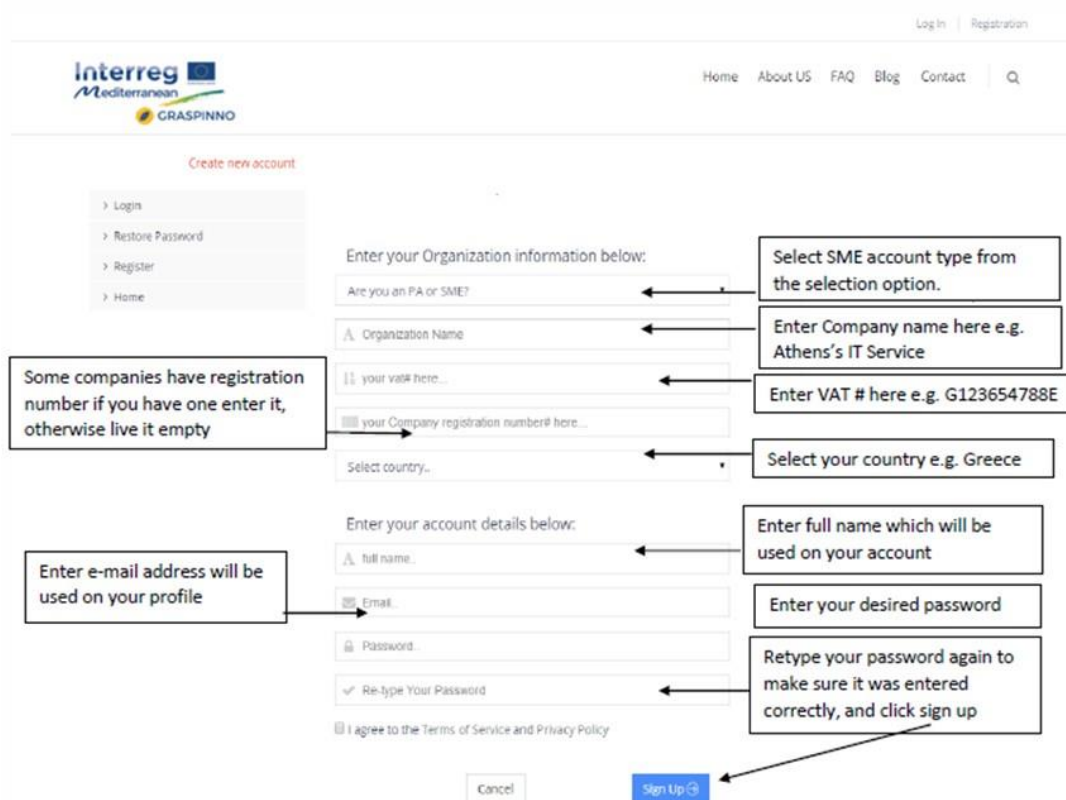
- **Centralised process:** The “Direction of Environmental Quality” Department works closely with “Central Department of Supply”, in order to include in “biddings” the environmental aspects. This process includes:
 - Electricity
 - Paper
 - Office Furniture
 - Office Material
 - Service of cleaning buildings
 - Postal / Mail
 - Vehicles
 - Digital Equipment
- **NO Centralized process:** There are guidelines for each category of products or services that allow for each administration to establish environmental criteria adapted to their needs.

5 GRASPINNO eGPP tool How-to Guide for SMEs

This section provides a comprehensive How-to guide for SMEs so as to be able to use the GRASPINNO eGPP tool. In particular, this guide will help the interested SMEs to use the eGPP tool and its provided functionalities (i.e. SME registration, introduction of products, assignment of “green” criteria to the products, etc.).

5.1 SME registration

To sign up for a GRASPINNO account is a very simple procedure. Click registration or sign up on the menu and follow the instructions below.



The screenshot shows the 'Create new account' page of the GRASPINNO eGPP tool. The page is divided into two main sections: 'Enter your Organization information below:' and 'Enter your account details below:'. The 'Organization information' section includes fields for 'Are you an PA or SME?', 'Organization Name', 'your vat# here...', 'your Company registration number# here...', and 'Select country..'. The 'Account details' section includes fields for 'full name', 'email', 'Password', and 'Re-type Your Password'. A 'Sign Up' button is at the bottom right. Annotations with arrows point to various fields and buttons, providing instructions and examples.

Annotations:

- Some companies have registration number if you have one enter it, otherwise live it empty (points to 'your Company registration number# here...')
- Enter e-mail address will be used on your profile (points to 'email')
- Are you an PA or SME? (points to 'Are you an PA or SME?')
- Select SME account type from the selection option. (points to 'Are you an PA or SME?')
- Enter Company name here e.g. Athens's IT Service (points to 'Organization Name')
- Enter VAT # here e.g. G123654788E (points to 'your vat# here...')
- Select your country e.g. Greece (points to 'Select country..')
- Enter full name which will be used on your account (points to 'full name')
- Enter your desired password (points to 'Password')
- Retype your password again to make sure it was entered correctly, and click sign up (points to 'Re-type Your Password')
- Sign Up (points to the 'Sign Up' button)

5.2 Product list page

On the Product List page you can **edit**, **delete** or **view** product details. You can also **Print**, **export to pdf**, **excel** or **csv** the table of the

products. You can use the live search at the top of the table where you can search by any word in the products table. On the product list page you can search only for product entered by you. If you want to search more product details you should use **Search for products page**.

5.3 Add product page

To add a product, you have to fill in all the fields listed on the page. You have to select the **product category** first and the **product type** will be filtered automatically if it exists. If there is no type to select related to the product you are inserting, you have to add that type by clicking the **blue button** on the right of the type select option.

In the **Short description** field you may enter 3 to 4 sentences that summarizes the product. In the **Tender description** field you have to enter the **Green criteria** of the product and eco labels.

In the **Product full description** field you can enter product full description by including as much information related to that product as you can.

After you fill in all the required fields, you will be shown **add green criteria** form. You can attach related green criteria by clicking the corresponding button.

Interreg
Mediterranean
GRASPINNO

Dashboard
Database Data
Category
Type
Key Element
Products
Add Product
Test Practice
Download / Backup
Manage PA
Manage SME
Config Settings
HELP
Profile
Logout

Add Product Save and Add another Product

Add Product form

Product Name
enter product name here... Product name, e.g. WD Caviar Blue 500GB

Category
Select category... Product category, e.g. Portable Computer

Type
Select type... Product type, e.g. HDD (Hard Disk Drive) 500GB

Product Brand name
enter product brand name here... Product brand name, e.g. Western Digital

Product model number
enter product model number here... Product model #, e.g. Scorpio Black

Product full description
enter product most common/known - technical specs and general description... Product full description, e.g. The Western Digital Scorpio Black hard drive has a spacious storage capacity that can store all your important data. With a spindle speed of 7200 RPM, provides improved connectivity with other devices.

Product units measurement
Pieces Product measurement #, e.g. pieces

Product quantity per unit
enter product model number here... Product price, e.g. 45 (currency is euro)

Product Price
enter product price here... If you want your product to be visible

Visible to other SME
No

Cancel Continue @ After you filled all required information click continue

30. Profile
Logout

Product full description
The Western Digital Scorpio Black hard drive has a spacious storage capacity that can store all your important data. With a spindle speed of 7200 RPM, this notebook hard drive reads and writes data from the system at a great speed. The 3 GBps interface in this Western Digital HDD provides improved connectivity with other devices. This notebook hard drive speedily transfers files at the rate of 180 MB/s. The Western Digital Scorpio Black hard drive ensures noise-free operation due to its seek acoustics of 28 dBA. So keep all your softwares, games, digital media, and more organized in one place once you fit your laptop with this Western Digital HDD.

Product units measurement
Pieces

Product quantity per unit
1

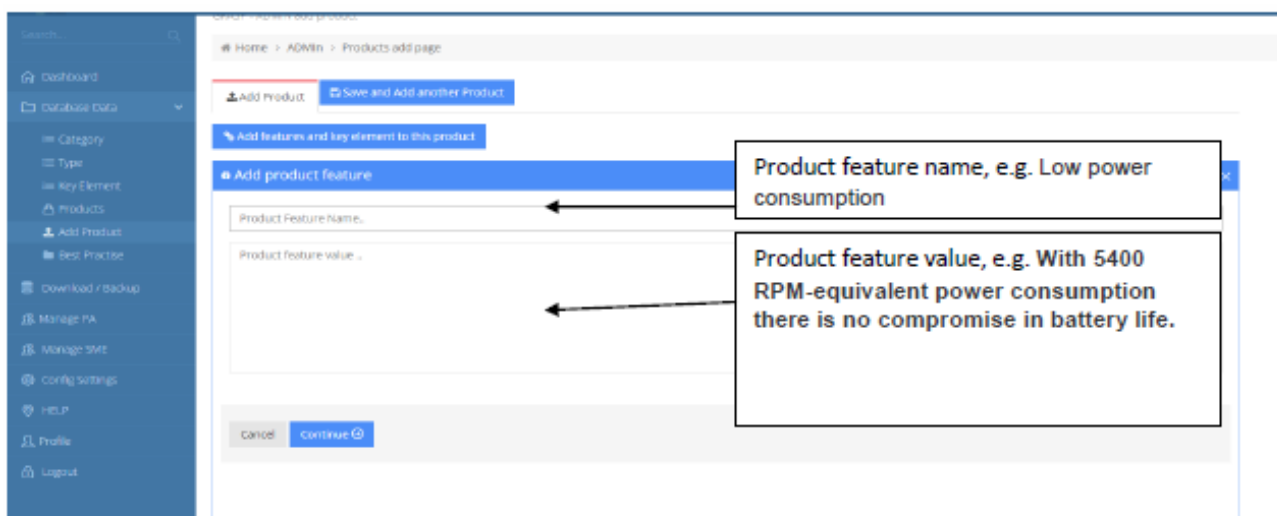
Product Price
45

Visible to other SME
No

Cancel Continue @

Add features and key element to this product

After confirming, click Add features and key element to this product button



5.4 Add product type

First you have to select a **category** and then have a look at the type selection options, if your type is shown than there is no need to enter it, otherwise click the blue button next to the type select options and fill in the required fields on the modal window.

You are required to enter **type name**, **type description** (a summary of the type), **type tender description** (green elements of the type, eco labels). If the type you are entering is **subtype** of an existing type than you have to select the recursive select option filed, if not do not select anything and then click submit to save the details.

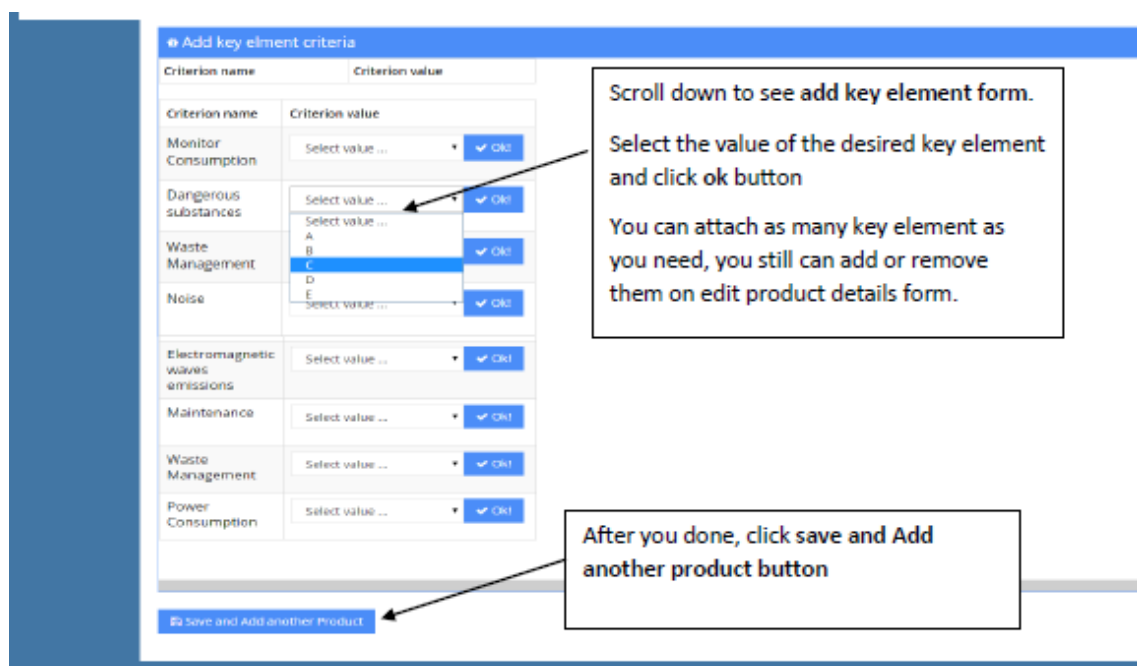
5.5 Product type page use

On this page are listed all **product types** entered by you. To **edit** a type, click the **edit button** on the right of the selected type. You can also **delete** a type here as long as it is not attached to any product.

If a type is attached to a product you should **delete the product** first and then you can delete the type.

5.6 Add “green” criteria to a product

You can add **“green” criteria** to a product after you **insert** a product or when you **edit** a product. First you specify a value for the “green” criteria you want to attach and then click **“ok”** button.



The screenshot shows a web form titled "Add key element criteria". It contains a table with two columns: "Criterion name" and "Criterion value". The table lists several criteria: Monitor Consumption, Dangerous substances, Waste Management, Noise, Electromagnetic waves emissions, Maintenance, Waste Management, and Power Consumption. Each criterion has a dropdown menu for selecting a value and an "OK" button. An annotation box points to the "Dangerous substances" dropdown, stating: "Scroll down to see add key element form. Select the value of the desired key element and click ok button. You can attach as many key element as you need, you still can add or remove them on edit product details form." Another annotation box points to the "Save and Add another Product" button at the bottom, stating: "After you done, click save and Add another product button".

You can also delete a “green” criterion by clicking **delete** button next to each criterion.

5.7 Search for product

To search for products is very simple and easy. You can type any words related to **product name** or product green description, as you type any products that contain that word will be shown below the search box.

Click the desired product name to see its details and its “green” criteria. On this page, you can search for any product that exists in the GRASPINNO database.

5.8 Search for tenders

You can search for any tenders by using search for tender’s page. Type any word in the **search box** and if there are any tenders matching your search criteria will be shown below the search box.

Click the tender name to see its details, like opening and closing date, organization and tender details.

5.9 Environmental answers

You can answer environmental questions by using this section. Click the **edit** icon on the left of the question, below the question will be shown the form where to enter your answer. Write your **comment** on the text area provided and select **yes** or **no** and then click “**ok**” button.

You can **delete** your answer if there is anything wrong and add it again later.

5.10 SME account management

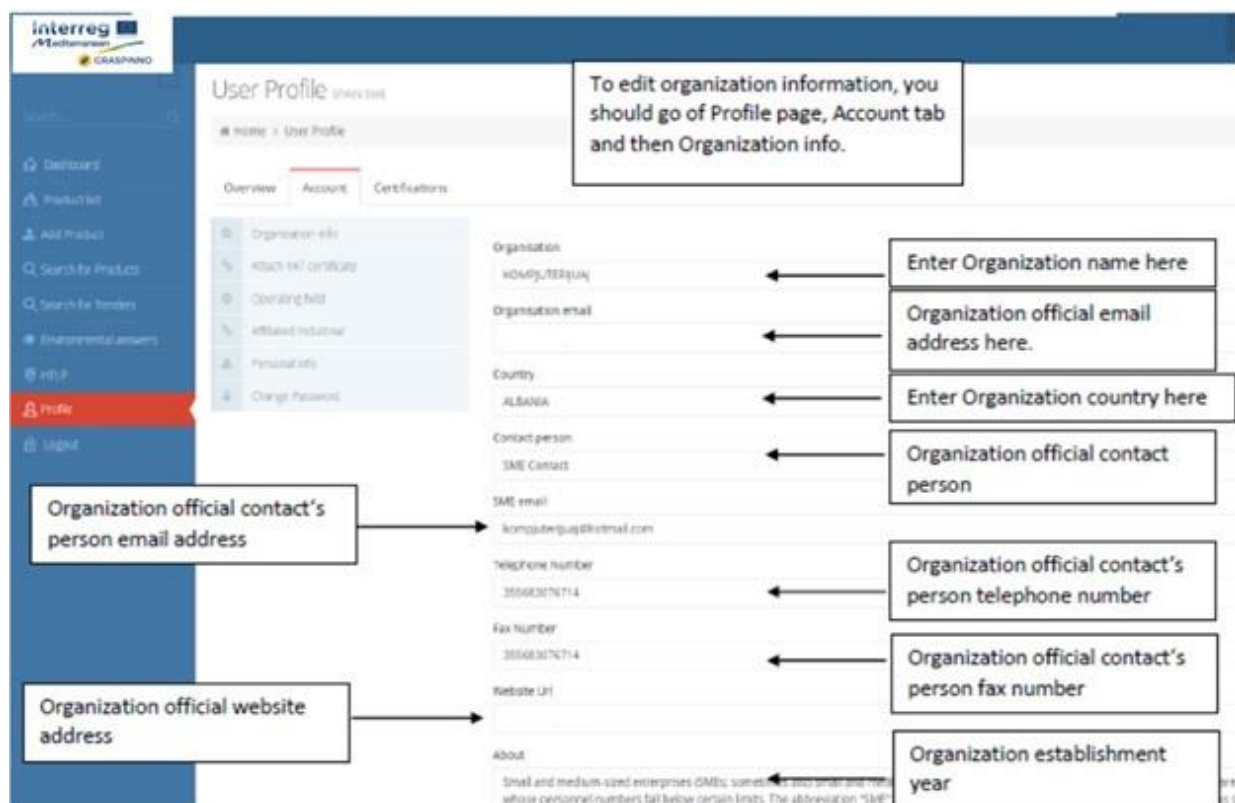
5.10.1 Organization info

You are required to enter your **organization information** as required on the profile page, organization information section. You should enter Organization name, official contact email address, and official contact person, on this section you can provide also a different e-mail address to be contacted.

This information is vital for your organization as it will be shown to the interested PA for selecting potential SME. You should enter contact

details on this section too, also a short description of your organizations activity.

Very important is to enter the **VAT registration certificate** as it is vital for the GRASPINNO administrator, in order to activate your account.



User Profile users:2016

Home > User Profile

Overview **Account** Certifications

Organization info

- Organization name
- Organization email
- Operating field
- Affiliated industrial
- Personal info
- Change Password

Organization

Organization name: KOMA/TEQUA

Organization email: [empty]

Country: ALBANIA

Contact person: SME Contact

SME email: komatequa@gmail.com

Telephone number: 003683076714

Fax number: 003683076714

Website URL: [empty]

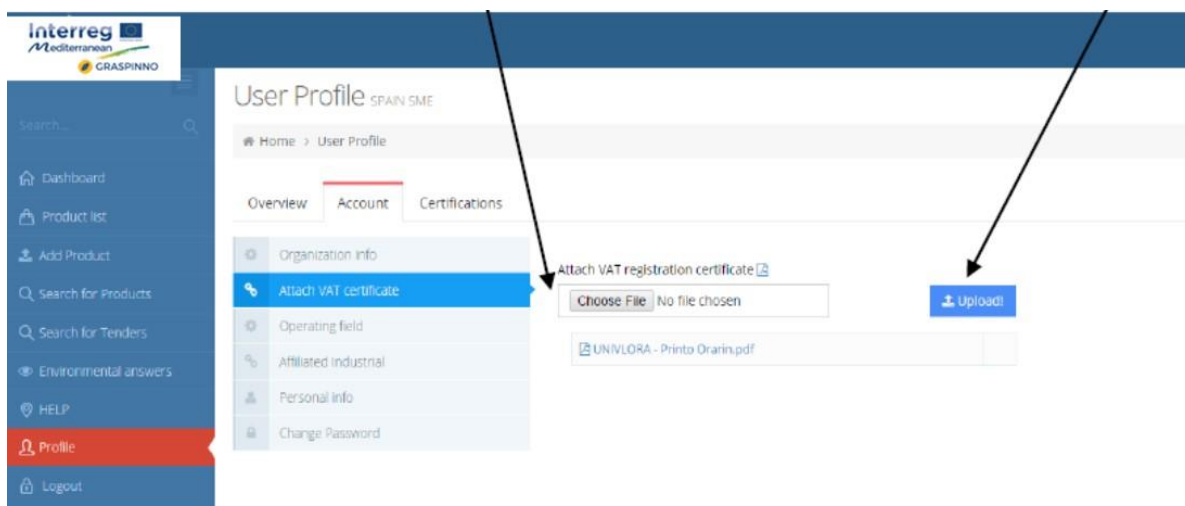
About: Small and medium-sized enterprises (SMEs) sometimes also order and have whose personnel numbers fall below certain limits. The abbreviation "SME"

Callout boxes:

- To edit organization information, you should go of Profile page, Account tab and then Organization info.
- Enter Organization name here
- Organization official email address here.
- Enter Organization country here
- Organization official contact person
- Organization official contact's person telephone number
- Organization official contact's person fax number
- Organization establishment year
- Organization official contact's person email address
- Organization official website address

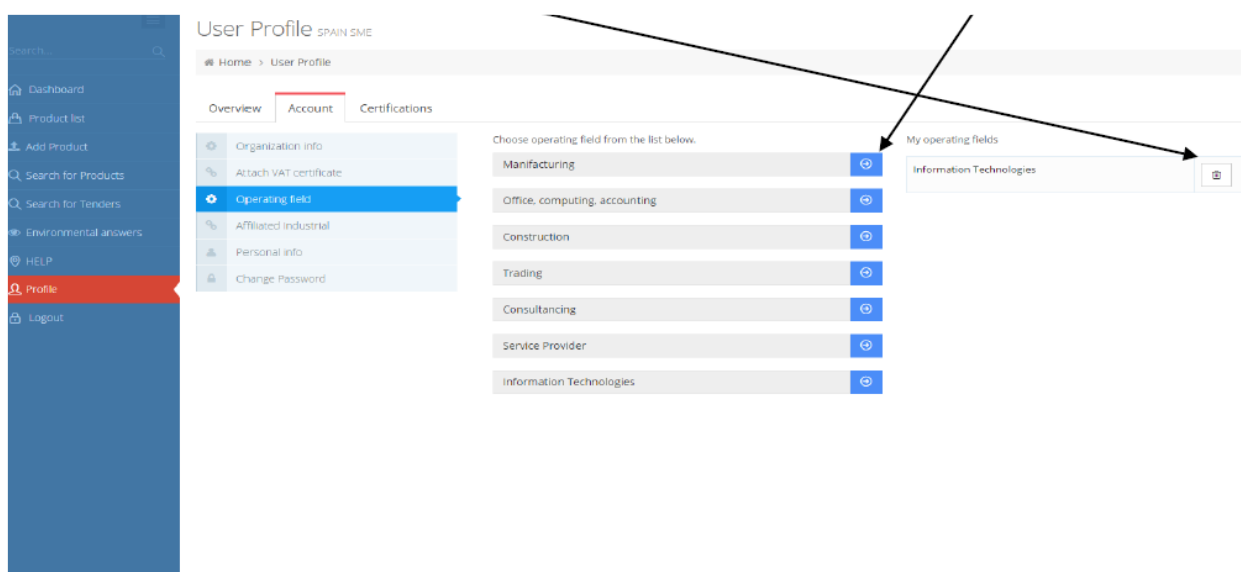
5.10.2 Attach VAT Certificate

You can attach a VAT certificate on the profile page, on the account section. Certificate should be in .pdf format. **"Select"** the certificate from your computer and click **"Upload"** to upload it to the server. You can change it any time if the certificate expires or is renewed. To replace your certificate, delete the existing one and then upload a new one.



5.10.3 Add operating field

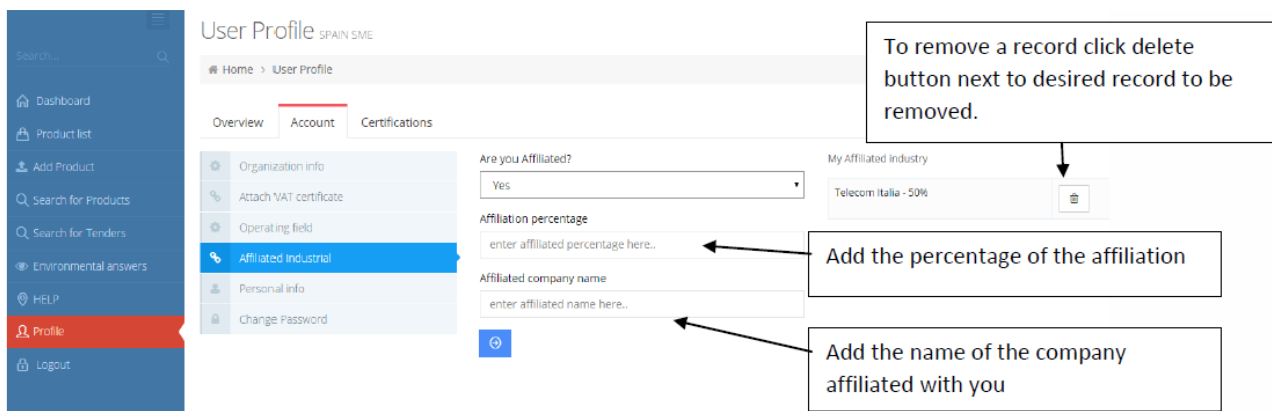
To add operating field, you should be on the profile page, add operating field section. Click the blue button next to the desired operating field and it will be added. You can delete them by clicking "**Delete**" button next to it, if you change operating field and add new one.



5.10.4 Industrial affiliate

You can add as many affiliations you have. Available affiliation will be listed on your profile page on the account section. To add an affiliation

profile to your account, Select **"Yes"** from list and enter details on the form shown.



User Profile SPAIN SME

Home > User Profile

Overview **Account** Certifications

Organization info
Attach VAT certificate
Operating field
Affiliated Industrial
Personal info
Change Password

Are you Affiliated?
Yes

My Affiliated Industry
Telecom Italia - 50%

Affiliation percentage
enter affiliated percentage here..

Affiliated company name
enter affiliated name here..

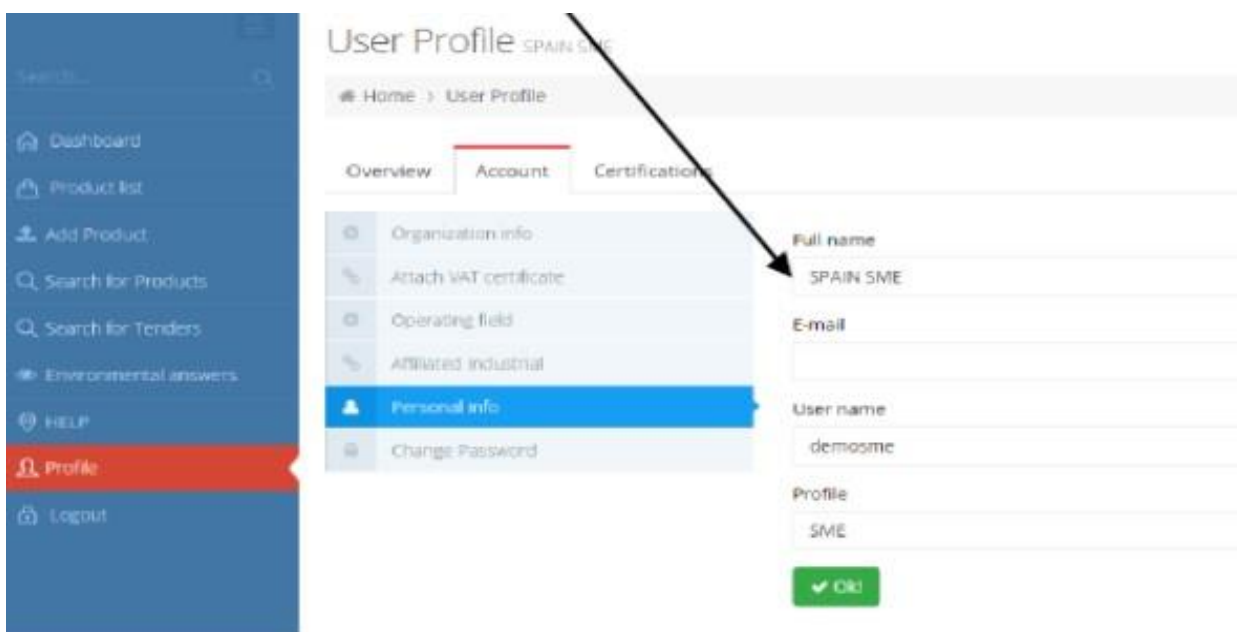
To remove a record click delete button next to desired record to be removed.

Add the percentage of the affiliation

Add the name of the company affiliated with you

5.10.5 Personal Information

You can edit only full name from personal information. You cannot edit user-name or e-mail address as this identifies your account. If you do not want to use your user profile e-mail you can add a different e-mail address on the organization section on the SME email field.



User Profile SPAIN SME

Home > User Profile

Overview **Account** Certifications

Organization info
Attach VAT certificate
Operating field
Affiliated Industrial
Personal info
Change Password

Full name
SPAIN SME

E-mail

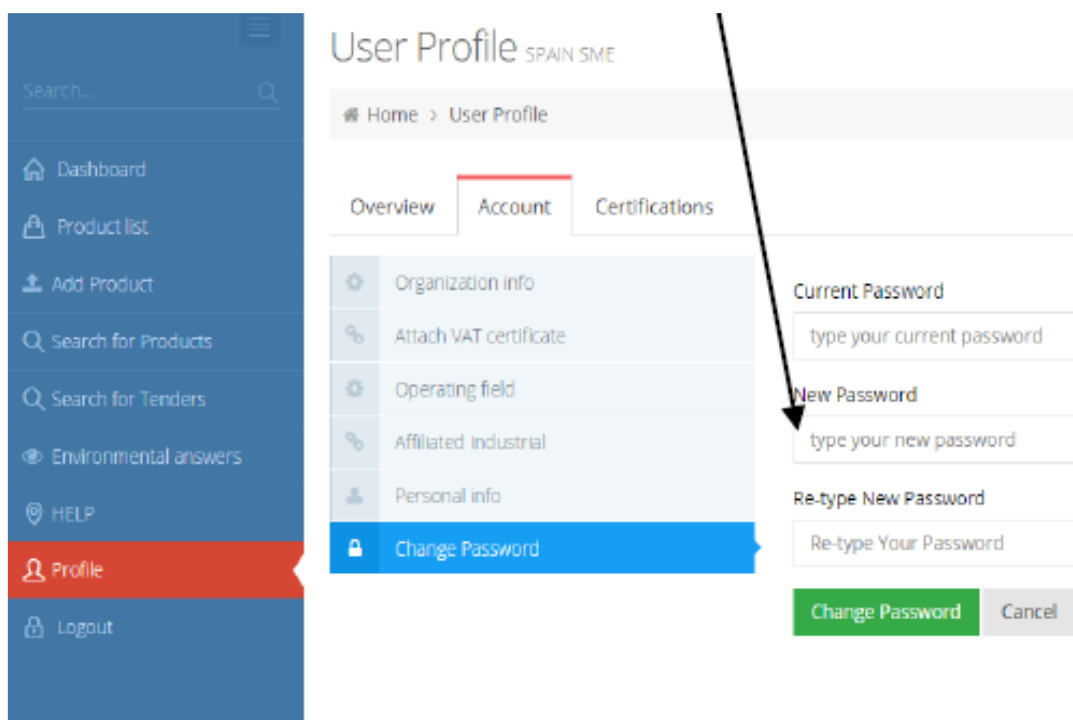
User name
demosme

Profile
SME

✔ OK

5.10.6 Password Management

You can change or update your password any time you like. You have to provide the old password and enter the new password on the new password field and click change password button.



5.10.7 Certifications' Management

If you own certifications you can upload them on the profile page, **"Certifications"** section. Click **"Add a new certification"** button. In the form provided enter **"Certificate code"** (e.g. ISO123654), **"Certificate description"** (e.g. 4-5 sentences summarizing your certification) and attach certification document. The Attached document should be on .pdf file format. You can add as many certifications as you have.

User Profile

Home > User Profile

Overview Account **Certifications**

GRASP TEAM [Add a new certification](#)

Certificate Code

Certificate Description

Attach certificate
 No file chosen

[Add Certificate](#)

To add a GREEN CERTIFICATION, click Add a new certification button, the form below will appear

Enter GREEN CERTIFICATION code here e.g. ISO-965478

Enter GREEN CERTIFICATION short description, 3-4 sentences

Attach a copy of GREEN CERTIFICATION here. The file should be on pdf format in order to be uploaded into the system.

Click Add certificate

To remove a certification from your account, click **"Manage"** button and confirm the removal.

User Profile

Home > User Profile

Overview Account **Certifications**

[Add a new certification](#)

ISO-1689	Certificate Description	Certificate Description	Certificate Description	Certificate Description

[Manage](#)

To delete a GREEN CERTIFICATE click manage and then delete button

6 Funding Opportunities

This section provides a brief description/analysis of the funding resources, in which the clusters' members can have access in order to finance their business. The analysis of the funding resources is based on the following suggested categories:

- Subsidies in capital and/or in investment from public funds.
- Capital and/or investment support from private funds.
- Venture capital and other forms of alternative investment.
- Crowdfunding.
- EU funds.

In the following subsections, each of these categories will be analyzed, in order to define the financial tools and income sources, which could provide funding support to the clusters' SMEs.

6.1 Investments/Funding from public funds

SMEs and/or Clusters could apply for funding/financing from public institutions through competitive projects. Each SME/Cluster, should apply for public funds in its country, significantly increasing the opportunities to secure funds. For the Clusters, this type of funds, should be very interesting, useful and affordable, but need at the same time, a serious commitment from their members.

Regarding possible funds to distribute to new business ideas, clusters could help SMEs' business ideas to participate in public calls for public grants.

6.2 Investments/Funding from private funds

The Clusters' SMEs may attract investments from private funds, in case their function is successful and profitable. Thanks to the experience of the SMEs and the cluster built by each individual SME, there could be several agreements with different actors and associations in order to promote their activities (for example with various Business Angels Networks). These agreements could guarantee economic sources for not only the clusters/SMEs, but, also, for potential new business ideas.

6.3 Venture capital and other forms of alternative investment

Venture capital (VC) is a type of high risk financing mechanism. It is private equity capital provided as seed funding to early-stage, high-potential, growth companies (startup companies) or more often it is after the seed funding round as a growth funding capital (also referred to as series A round). It is provided in the interest of generating a return on investment through an eventual realization event such as an IPO or trade sale of a company.

The number of venture capital available in each country is quite different. On this type of investment, risk cannot be decreased by companies and investors expect higher interest rates. VCs could be a great source of financing for the business ideas, with the only issue that VCs usually invest in existing organizations.

6.4 Crowdfunding

Crowdfunding is the practice of funding a project by raising monetary contributions from a large number of people, today often performed via internet-mediated registries, but the concept can also be executed through mail-order subscriptions, benefit events, and other methods.

Crowdfunding is a form of alternative finance, which has emerged outside of the traditional financial system.

The crowdfunding model is based on three types of actors: the project initiator who proposes the idea and/or project to be funded; individuals or groups who support the idea; and a moderating organization (the "platform") that brings the parties together to launch the idea. The different business models that are used by crowdfunding platforms can be grouped under the following broad categories:

- Investment-based crowdfunding: Companies issue equity or debt instruments to crowd investors through a platform.
- Lending-based crowdfunding (also known as crowd lending, peer-to-peer or marketplace lending): Companies or individuals seek to obtain funds from the public through platforms in the form of a loan agreement.
- Invoice trading crowdfunding: a form of asset-based financing whereby businesses sell unpaid invoices or receivables, individually or in a bundle, to a pool of investors through an online platform.
- Reward-based crowdfunding: Individuals donate to a project or business with expectations of receiving in return a non-financial reward, such as goods or services, at a later stage in exchange of their contribution.
- Donation-based crowdfunding: Individuals donate amounts to meet the larger funding aim of a specific charitable project while receiving no financial or material return.
- Hybrid models of crowdfunding: those that combine elements of the other types of crowdfunding.

Crowdfunding has been developing rapidly in some EU Member States. It is estimated that EUR 4.2 billion were successfully raised through crowdfunding platforms in 2015 across the EU, of which EUR 4.1 billion were raised through crowdfunding models entailing a financial return¹⁴. In EU, there were 510 live platforms active in 2014. Of these, 502 platforms were located in 22 Member States, while 8 platforms were located in other countries (Australia, Canada, China, New Zealand and United States). Most platforms were located in the United Kingdom (143), followed by France (77) and Germany (65). The majority of platforms were involved in reward-based crowdfunding (30%), followed by platforms involved in equity crowdfunding (23%) and loan-based crowdfunding (21%).

6.5 EU funds

Regarding Public EU funds, Clusters and their members are legally suitable to receive EU funding. The Clusters can apply, through its Members, for different projects to open public calls at Local, Regional, National and EU level. There are many calls for proposals which are suitable for SMEs, with the most popular programmes being H2020 SME Instrument (Phases 1 & 2) and COSME programme.

The dedicated **H2020 SME Instrument** supports close-to-market activities, with the aim to give a strong boost to breakthrough innovation. Highly innovative SMEs with a clear commercial ambition and a potential for high growth and internationalization are the prime target.

The SME Instrument offers small and medium-sized businesses the following:

- Business innovation grants for feasibility assessment purposes (Phase I): EUR 50,000 (lump sum) per project;
- Business innovation grants for innovation development & demonstration purposes (Phase II): an amount in the indicative range of EUR 500,000 and 2,5 million;
- Free-of-charge business coaching in order to support and enhance the firm's innovation capacity and help align the project to strategic business needs;
- Access to a wide range of innovation support services and facilitated access to risk finance, to facilitate the commercial exploitation of the innovation.

COSME is the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs). In general, COSME supports:

- better access to finance for SMEs;
- access to markets for SMEs;
- entrepreneurship;
- more favorable conditions for business creation and growth.

More specifically, COSME aims to make it easier for small and medium-sized enterprises (SMEs) to access finance in all phases of their lifecycle – creation, expansion, or business transfer. Thanks to EU support, businesses have easier access to guarantees, loans and equity capital. EU 'financial instruments' are channeled through local financial institutions in EU countries.