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D.3.1: List of Focus Groups

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1. Scope and mission of this document

Deliverable D3.1 has the main objective of stating which kind of public buildings the project focuses on and to list the replication possibilities and the different types of end users that could be interested in the Eco Public Platform for Smart Green Citizens Living Labs (EPLACE) platform.

The EPLACE project is the joint work of government agencies, energy agencies and centres, local authorities, associations, general public bodies, ESCOs, construction and infrastructure companies, utilities, advisers, energy companies, and, building managers and their users, project promoters, providers and suppliers. Therefore, in order to best create a list of areas where the project experiences can be repeated or to identify those that can benefit from the knowledge of EPLACE, all possible actors or “groups of focus” must be considered.

These groups of focus exist at all levels from policy makers to home owners. **Figure 1** illustrates these levels and serves as a starting point to this document. The following levels are considered: Policy makers; financial bodies; institutions of R&D; energy producers, energy distributors; energy transporters; energy providers; home owners; commercial users; industrial energy users; and local and regional governments. This document has separated these groups into two separate areas: Energy efficiency stake holders and other actors (section 3), and Areas for replication and different end users (section 4).

On the other hand the building’s manager supervises the different types of energy services to ensure that the energy supply and consumption, security, safety and maintenance of these buildings are satisfactory. The managers of buildings also are responsible for the management of Energy Efficiency and RES projects implemented in the building facilities and the monitoring of the expected energy savings.

During the implementation of varying energy conservation measures the role of the manager of building ensures compliance with the current EU and national standards and norms.

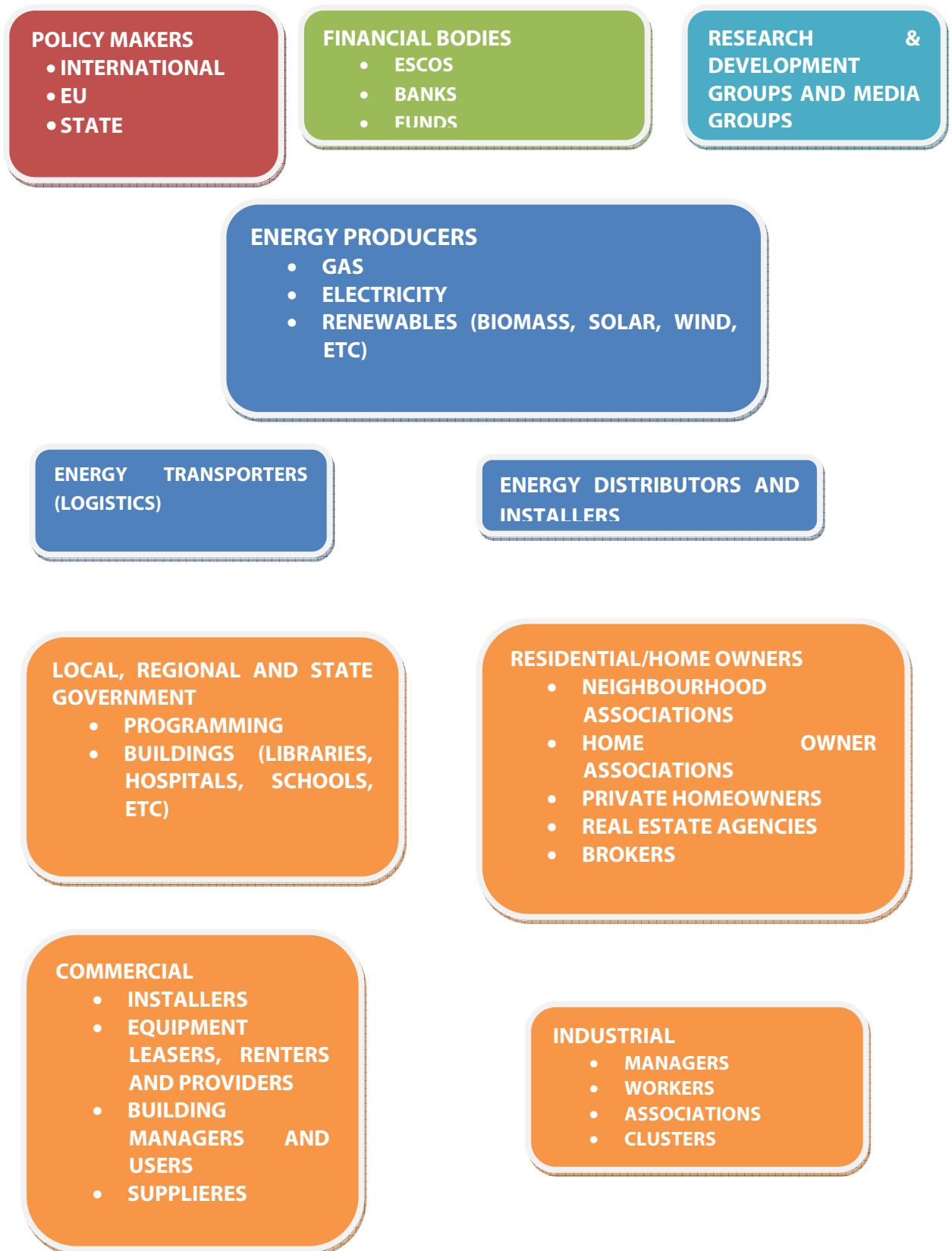


Figure 1. Diagram of potential end users and stakeholders in the EPLACE platform

2. Project building types and the parameters considered

2.1. Building types according to benchmark categories

The project contemplates the various building types: a city council building, a cultural centre, an administrative building, a medical centre, a library and a leisure centre.

These buildings have defined more in depth in the deliverable D2.4.

The buildings have been summarised in the following table:

Building name	Building type (according to benchmark categories in D2.3)	Location
City Council of Cartaya	S2: Public building with light usage	Cartaya, Huelva
Cultural Centre of Cartaya	H4: Cultural activities	Cartaya, Huelva
Administrative Building of Septmevri, Bulgaria	S2: Public building with light usage	Septmevri, Bulgaria
Medical Centre of Septmevri	S4: Clinic	Septmevri, Bulgaria
Finglas Leisure Centre	H8: Dry sports and leisure facility	North Dublin, Ireland
Library South of Dublin	S2: Public building with light usage	South Dublin, Ireland
Guadalinfo Social Room	H4: Cultural activities	Cartaya, Huelva

Table 1. Project buildings and type

Category	Name	Brief description
C1	General office	General office and commercial working areas
C2	High street agency	High street agency
C3	General retail	General street retail and services
C4	Large non-food shop	Retail warehouse or other large non-food store
C5	Small food store	Small food store
C6	Large food store	Supermarket or other large food store
H1	Restaurant	Restaurant
H2	Bar, pub or licensed club	Bar, pub or club
H3	Hotel	Hotel or boarding house
H4	Cultural activities	Museum, art gallery or other public building with normal occupancy
H5	Entertainment halls	Entertainment halls
H6	Swimming pool centre	Swimming pool hall, changing and ancillaries
H7	Fitness and health centre	Fitness centre
H8	Dry sports & leisure facility	Dry sports and leisure facility
S1	Covered car park	Car park with roof and side walls
S2	Public buildings with light usage	Light use public and institutional buildings
S3	Schools & seasonal public building	Public buildings nominally used for part of the year
S6	University campus	University campus
S4	Clinic	Health centres, clinics and surgeries
S5	Hospital -clinical & research	Clinical and research hospital
S7	Long term residential	Long term residential accommodation
S8	General accommodation	General accommodation
S9	Emergency services	Emergency services
S10	Laboratory / operating theatre	Laboratory or operating theatre
W1	Station	Bus or train station
W2	Terminal	Regional transport terminal with concourse
W3	Workshop	Workshop or open working area (not office)
W4	Storage facility	Storage warehouse or depot
W5	Cold storage	Refrigerated warehouse

(See Deliverable 2.3)

Categories of EPLACE buildings

Table 2. Benchmark categories

2.2. Energy performance indicators

The Energy Performance Indicators (EnPIs) used to characterize the buildings are described in the deliverable D2.3.

According to the ISO 50001, Energy Performance Indicators (EnPIs) can be a simple parameter, a simple ratio or a complex model. Examples of EnPIs can include energy consumption per time, energy consumption per unit of production and multi-variable models. The organization can choose EnPIs that inform the energy performance of their building and can update the EnPIs when business activities or baselines change that affect the relevance of the EnPI, as applicable.

Energy Performance Indicators (EnPIs) for the EPLACE project were identified as part of the survey and data collection for the Pilot Buildings Energy Assessment report (D2.4). Indicators may be on an annual basis or may vary over time (eg kWh/month defined for each month of the year). Similarly EnPIs may relate to total energy consumption or energy consumption for a particular end use such as lighting.

The availability of energy usage data is key for the establishment of useful and accurate EnPIs and the usage data collected from the measurement components of the EPLACE solution (WeSave and WeLight) will allow the identification and refinement of Energy Performance Indicators.

However; the most important indicators used to define and compare buildings in the EPLACE project are the following:

EnPIs
Overall specific energy use – kWh/m ² /year
Electricity use (excluding electricity for heating) – kWh/m ² /yr
Energy use for heating – kWh/m ² /yr
Energy use for heating – kWh/m ² /HDD
Overall specific energy use – kWh/m ² /week or month (this will allow ongoing monitoring of performance but will require adjustment for independent variables such as weather – heating degree days)
Electricity use for lighting kWh/m ² /year-week-day
Energy use for cooling – kWh/m ² /CDD
Electricity use for engineering services kWh/m ² /year-week-day

3. Energy efficiency stake holders and other actors.

This section identifies actors that could have an interest in the EPLACE platform for commercial or non lucrative purposes. These include policy makers, financial bodies, investigation and research groups, and producers, transporters, distributors of energy and media groups.

3.1. Policy makers

Policy is the framework used to make improvements to social, economic, environmental or political issues. It also establishes the roles of the players within the political system. Policy is important because it has a direct and indirect affect our society. Policy also is the drivers for incentives that favor certain societal behaviors improve our communities, the way we live and our environment.

For policy to be effective, it is important that it makes its people that it serves its priority and be well informed of the current situation. In order for this to happen citizens, like those in EPLACE, must inform policy makers.

Since policy makers are busy and it is near impossible for them to be experts on all topics. EPLACE participants have the responsibility to communicate to policy makers and their intermediaries the current situation and the outcome of the project. This will help to bridge the gap between everyday life and government. The connection will ensure that the most effective energy projects are funded in the future.

As for now, we can see that the European Commission is currently aware of *“the importance of energy policy”* and it’s *“well reflected in the multi-year EU budget for 2014-20. Funding priorities over this period will be infrastructure, technology, energy efficiency and renewables, and improving nuclear safety and decommissioning”*.

The table below lists the groups of international, national, regional and local policy makers that should be taken into account:

International	National	Province, state, regional	District, local
<ul style="list-style-type: none"> ✓ Government Ministers ✓ Ministers and senior civil servants in other governments ✓ Government representatives and civil servants in international negotiations. 	<ul style="list-style-type: none"> ✓ President, prime minister ✓ Minister of energy and other government ministers ✓ National politicians, ✓ Member of parliament ✓ Civil servants in the Ministry for Energy and other ministries ✓ Planning commission, advisory bodies ✓ Energy specialist groups and organisations. 	<ul style="list-style-type: none"> ✓ Provincial commissioner, state governor ✓ State representative ✓ Regional members of national parliament ✓ State-level civil servants 	<ul style="list-style-type: none"> ✓ Mayor, district council leader ✓ Local politicians, ✓ District councilors ✓ District Agency heads

Table 3. Policy makers

The three most important policy maker groups for the EU are the following:

- ✓ Committee on Industry, External Trade, Research and Energy (ITRE)
- ✓ CoR - Committee of the Regions
- ✓ MEPs - Members of the European Parliament

Policy makers are not alone when making decisions and often rely on the assistance of intermediary groups that help to advise them on different issues.

Some sources and examples of intermediaries that assist policy makers are compiled in the following table:

Information source	Examples
Statistical and analytical organizations	<ul style="list-style-type: none"> ✓ Census authority ✓ Statistics agency ✓ Energy markets ✓ Parliamentary research organization
Specialist research institutes	<ul style="list-style-type: none"> ✓ Energy research institute ✓ Universities ✓ Government researchers and technical specialists ✓ NGO ✓ Think tank ✓ Public opinion polls
Mass media	<ul style="list-style-type: none"> ✓ Radio and TV stations (news, current affairs, documentary and energy programs) ✓ Newspapers, magazines ✓ Bloggers
Individuals	<ul style="list-style-type: none"> ✓ Political advisors ✓ Research teams ✓ Academics and professionals ✓ Newspaper columnists
Lobbyists/ Economic interest groups	<ul style="list-style-type: none"> ✓ Workers unions ✓ Industrial associations ✓ Individual firms ✓ Energy and renewable energy lobby groups
International organisations and NGOs	<ul style="list-style-type: none"> ✓ International Energy Agency ✓ International Partnership for Energy Efficiency Cooperation (IPEEC) ✓ Energy Technology Data Exchange (ETDE) ✓ Energy Community of South East Europe (ECSEE) and European Energy Community (EEC) ✓ Council of European Energy Regulators (CEER)

Table 4. Policy maker intermediaries

Some tips to keep in mind when communicating with policy makers and intermediaries:

- ✓ Present the information in a short easy to read document.
- ✓ Use layman’s terms.
- ✓ Communicate objectives and needs clearly.
- ✓ Select form of communication (brochure, new story, tours of buildings)

Policy makers' interest in EPLACE:

EPLACE could offer policy makers a unique tool to understand the current situation of energy savings. The EPLACE platform can show policy makers where changes are being made, those changes that are having the highest success rates, and who is carrying out these changes. With this information, policy makers can modify policies to further support the efforts being made as well as create policies that incorporate changes that are known to function in real life situations.

3.2. Financial bodies (ESCOS, banks and lenders)

Energy efficiency begins with a committed company and well-informed building managers, however without funding this team often find themselves with their hands tied.

The current European financial market presents an opportunity for sustainable development, environmental policy, and to increase the standard of living through a wider range of policy and investment tools and mechanisms.

There are many financial bodies with funds for supporting many kinds of energy efficiency projects. It is important that they are made aware of the financial needs of companies and administrations that are willing to take that step towards energy efficiency.

These financial bodies include banks, Ministries of energy, government agencies, energy partnerships, community foundations, funding groups, institutions and Energy Service Companies (ESCO).

(See deliverable D3.7: First Guide to Financial Services)

The following table includes a list of financial bodies and types of funding:

Provider	Types of funding	Observations
<ul style="list-style-type: none"> ✓ Banks ✓ (IFI) International Financial Institutions ✓ (EIB) European Investment Bank ✓ ESCOs 	<ul style="list-style-type: none"> ✓ Loans, Energy efficiency loans ✓ Grants (subsidies, incentives) ✓ Credit lines ✓ Match funding 	<p>http://www.eib.org/epec/</p>
<ul style="list-style-type: none"> ✓ EBRD (European Bank for Reconstruction and Development) ✓ Government agencies/entities 	<ul style="list-style-type: none"> ✓ Regional loan funds ✓ Regional programmes funding ✓ Match funding 	
<ul style="list-style-type: none"> ✓ Ministries of Energy and government funding 	<ul style="list-style-type: none"> ✓ Technical assistance funds ✓ Regional programmes funding ✓ Match funding 	<p>Aimed at supporting governments and in particular Ministries of Energy and Environment (are not individual borrowers)</p>
<ul style="list-style-type: none"> ✓ European funding groups 	<ul style="list-style-type: none"> ✓ Joint funding: JESSICA y JEREMIE ✓ Cohesion funds ✓ Structural funds and operational programmes ✓ Technical Assistance ✓ European Social Fund ✓ European Regional Development Fund ✓ Match funding 	
<ul style="list-style-type: none"> ✓ Public Private Partnership for energy efficiency 	<ul style="list-style-type: none"> ✓ Grants and loans 	<p>http://www.eib.org/epec/</p>
<ul style="list-style-type: none"> ✓ Community foundations 	<ul style="list-style-type: none"> ✓ Grants and loans 	<p>These are instruments of civil society designed to pool donations into a coordinated investment and grant making facility dedicated primarily to the social improvement of a given place.</p>
<ul style="list-style-type: none"> ✓ Crowd funding 	<ul style="list-style-type: none"> ✓ Grants and loans 	

Table 5. Financial bodies

The main finance, funding entities and banks of Europe include the following:

- ✓ EIB - European Investment Bank
- ✓ EBRD – European Bank for Reconstruction and Development
- ✓ EIF - European Investment Fund
- ✓ European Energy Service Companies
- ✓ Info-Region Structural Funds Managing Authorities

Financial bodies interest in EPLACE:

Financial bodies can benefit from the EPLACE Platform by using the information as a tool to understand payback periods on certain projects and measure risks in certain investments. The platform can also aid in understanding where financial aid should be focused, using the most frequent building upgrades as a guide.

In the case of ESCOs, there can exist other benefits as they can include the EPLACE platform as an extra in their portfolio, giving added value to their clients and making more transparent for them how the investment in energy projects is working.

3.3. Research and development groups

Research and development groups are the motors for growth however society is the catalyst (the spark that ignites the motor). It is important to bridge the gap between these groups. Researchers must be aware of the needs for improvements and project managers should be knowledgeable of innovations.

R&D groups have a significant role the diffusion of new scientific and technological knowledge, know-how and innovative approaches for strategic development of new products, processes and services.

The table below lists all of the most prominent national and international energy research and development groups:

National development groups	
✓	AEIDL - European Association for Information on Local Development
✓	Associations of Local and Regional Energy Management Agencies
✓	CEMR - Council of European Municipalities and Regions
✓	enerCEE - Energy in Central and Eastern Europe (CEE)
✓	FEDARENE - European Federation of Regional Energy and Environment Agencies
✓	Intelligent Energy - Europe: National Contacts
International development groups	
✓	European Committee for Standardization (CEN)
✓	Energy Cities
✓	EnR - European Energy Network
✓	EURADA - European Association of Development Agencies
✓	REVES - European Network of Cities and Regions for the Social Economy
✓	European Biomass Association (AEBIOM)
✓	European Bioethanol Fuel Association (eBio)
✓	European Geothermal Energy council (EGEC)
✓	European Photovoltaic Industry Association (EPIA)
✓	European Small Hydropower Association (ESHA)
✓	European Renewable Energy Federation (EREF)
✓	European Solar Thermal Industry Federation (ESTIF)
✓	European Biomass Industry Association (EUBIA)
✓	European Renewable Energy Research Centres (EUREC)
✓	European Wind Energy Association (EWEA)
✓	Global Wind Energy Council (GWEC)
✓	International Energy Agency (IEA)
✓	International Renewable Energy Agency IRENA
✓	International Solar Energy Society (ISES)
✓	The Renewable Energy and Energy Efficiency Partnership (REEEP)
✓	Renewable Energy Policy Network for the 21st Century (REN21)

European research groups.	
✓	ABS Energy Research - Offers energy market research, analysis, databases, forecasts and energy market consulting.
✓	BRE - Building Research and Consultancy - providing techniques and technologies for the effective management of energy and the integration of new and renewable energy systems in buildings.
✓	Cambridge Energy Research Associates - CERA delivers critical knowledge and independent analysis on energy markets, geopolitics, industry trends, and strategy.
✓	Energy Institute - The Energy Institute (EI) is the leading professional body for the energy industries.
✓	Energy Research Centre ECN - Energy research Centre of the Netherlands (ECN), the largest research centre in the Netherlands on the field of energy.
✓	Energy research in Sweden and Europe - European Fusion Research Programme is the joint creation of a safe, environmentally-sound prototype reactor.
✓	Energy Research Unit (ERU) - The Department runs several facilities, designs and builds the latest high technology hardware, and undertakes research.
✓	Energy Systems Research Unit (ESRU) - courseware and software for students and practitioners interested in design tools for energy efficiency and new and renewable energy deployment appraisal.
✓	Europa - Research at the European Commission - The gateway to news and information about Scientific Research and Technological Development in the European Union.
✓	Fusion Power - Fusion research - UKAEA Fusion at Culham - home of UK research into fusion energy.
✓	Heat Mining Pilotproject Soultz - European research programme for heat and electrical power generation from a deep enhanced geothermal system.
✓	IFP - Research and Development - IFP is a scientific research and industrial development, training, and information services center active in the fields of oil & natural gas.
✓	Prospex Research - Prospex Research - Information, analysis and consulting for the European electricity business.
✓	RAND Corporation - helping to improve policy and decision making through objective research and analysis.
✓	Science and Technology Facilities Council - Central Laboratory of the Research Councils (CCLRC) is a research organisation supporting scientists and engineers world-wide.
✓	UK Energy Research Council - Offers energy research and contribute to the research and postgraduate training needs of energy-related businesses.
✓	UKERC - UK Energy Research Centre - The Centre provides a focus for energy research in the UK, and for co-operation between the UK and researchers from other countries.

Table 6. Research and Development Groups¹

¹ www.ezilon.com

Research and development groups' interest in EPLACE:

Research and development groups can benefit from the EPLACE Platform by using the information as a tool to understand where more research should be invested. For example if companies are not seeing satisfactory results in one specific area, more development should be focused on this aspect. Furthermore, the energy adviser tools require the research and analysis of the energy models for the different types of buildings, the climate, use... and several universities and research groups are interested in improve these tools.

In the technical aspect, nowadays, it is one of the first objectives to create and improve energy technologies to reduce the energy consumption what makes research centers to be continuously involved in this kind of activities. All the different "products" can be used by ESCOs/public bodies and citizens to start energy projects in their buildings or private houses, and also can be promoted in the EPLACE platform to make end users more concern about the energy efficiency and the opportunities offered to contribute with it.

3.4. Media groups and councils

The media and council groups are the ones to get the word out. A project can be fabulous but if it is not made known, it reduces the possibilities of it having any great affect.

There many types of media. Since different kinds of people use different types of media to keep informed, multiple forms should be used to reach different audiences and, ultimately, maximize diffusion.

For example, a stand at a trade show can inform energy technicians whereas a radio announcement can reach families with increased energy bills.

These forms include: Television, internet (blogs, social networks, and web pages), radio, news papers, magazines, journals, pamphlets, presentations at congresses and, stands at fairs and conferences.

The following groups are the most important in Europe and can serve as potential resources in locating other media:

- ✓ FEDRE - European Foundation for the Development of the Regions
- ✓ BICs - Business & Innovation Centres
- ✓ EREC - European Renewable Energy Council

The use of LinkedIn and Knowledge Transfer Networks (KTN) has become increasingly helpful and powerful tool to connect professionals in the last decade.

The table below includes some of the more important groups:

Special Interest Groups (SIG) and Knowledge Transfer Networks (KTN)	<ul style="list-style-type: none"> ✓ Energy Generation & Supply (KTN) ✓ Low Carbon Societies Network ✓ The Bits to Energy Lab ✓ BACnet Interest Group Europe (BIG-EU) ✓ Energy efficient computing (SIG) ✓ Environmental sustainability (KTN)
LinkedIn groups	<ul style="list-style-type: none"> ✓ Energy (Energy industry expertise) ✓ Clean energy connections ✓ Energy Efficiency Buisness Network ✓ Energium ✓ LinkedIn:Energy ✓ SmartGids ✓ Energy Professionals Energy Efficiency Lighting ✓ MARIE - Building Energy Efficiency

Table 7. SIG and KTN

Media and special interests groups' interest in EPLACE:

These groups can benefit from the EPLACE platform by using its forum. The more groups that are linked and working together towards the common goal of reduction and efficient use of energy, the closer we are as a society to improving our environment, economy and level of sustainability.

3.5. Energy producers, transporters and distributors

It is in the best interest of producers, transporters and distributors to help energy consumer customers reduce their energy consumption so that these companies can increase the number of customers they can serve. Helping these energy companies to help their customers is a win-win situation.

The energy supply chain plays a role in the sustainable development of producers of energy, its transport and logistics as well as its distribution.

Energy producers, transporter and distributors vary from country to country and creating a list can prove to be quite lengthy.

Therefore, the following list represents organizations and associations that represent the interests of these players.

Organizations/associations	Description
CEDEC (European Federation of Local Energy Companies)	CEDEC represents the interests of local utilities in the energy sector at European level. It gathers around 2,000 companies (predominantly small and medium-sized companies) which have developed activities in electricity and heat production sectors; operation of electricity and gas distribution systems; and supply of electricity, gas and energy services.
EDSO for smart grids (European Distribution System Operators' Association for Smart Grids)	EDSO for Smart Grids is gathering 30 Distribution System Operators from 17 EU countries (covering 70% of the EU points of electricity supply). The association is committed to promote the reliability, the optimal management and the technical development of the electricity distribution grids while reaching the European targets of energy efficiency, reduction of greenhouse gas emissions, and higher share of renewable energy sources.
ENTSO-E (European Network of Transmission System Operators for Electricity)	ENTSO-E represents all electric TSOs in the EU and others connected to their networks, for all regions, and for all their technical and market issues. ENTSO-E was established by European legislation in order to promote the completion and functioning of the internal market in electricity and cross-border trade and to ensure the optimal management, coordinated operation and sound technical evolution of the European electricity transmission network.
ENTSOG (European Network of Transmission System Operators for Gas)	ENTSOG represents 40 TSOs and 2 Associated Partners from 24 European countries and 3 Observers from EU affiliate countries to ensure early progress towards the single market. ENTSOG was established by European legislation in order to promote the completion and functioning of the internal market and cross-border trade for gas and to ensure the optimal management, coordinated operation and sound technical evolution of the European natural gas transmission network.

ESMIG (European Smart Metering Industry Group)	ESMIG has a number of objectives including: the pan-European introduction and roll out of Smart Metering through harmonisation and interoperability; the creation and implementation of consistent standards for metering and communications; the identification and promotion of best practice solutions for smart multi-utility metering.
Eurelectric	Eurelectric represents the common interests of the whole electricity industry at pan-European level, plus its affiliates and associates on several other continents. Eurelectric has over 30 full members which represent the electricity industry in 32 European countries. Eurelectric's three major objectives are delivering carbon-neutral electricity in Europe by 2050; ensuring a cost-efficient, reliable supply through an integrated market; developing energy efficiency and the electrification of the demand-side to mitigate climate change.
Eurogas	Eurogas is the association representing the European gas wholesale, retail and distribution sectors. Its members are some 50 companies and associations from 27 countries. Eurogas represents the sector towards the EU institutions. The objectives of the organisation are to promote the interests of its members (involved in the supply, trading and distribution of natural gas and related activities such as storage and liquefied natural gas); to promote the development of natural gas in Europe particularly in the legal economic technical and scientific areas to prepare studies and to promote cooperation within the gas industry; to promote the smooth functioning of the European internal gas market and to take stance on issues of interest to the European natural gas industry.
GEODE (European Group of Energy Distribution Companies and Organizations)	GEODE is the voice of European independent distribution companies of gas and electricity across Europe. The association represents more than 900 companies in 14 countries - both private & public owned. GEODE defends the interest of the local distributors in front of energy authorities on national and international level and allows the exchange of expertise, the share of data and competence.
IGU (International Gas Union)	IGU, founded in 1931, is a worldwide non-profit organisation promoting the political, technical and economic progress of the gas industry with the mission to advocate for gas as an integral part of a sustainable global energy system. IGU has more than 120 members worldwide and represents more than 95% of the world's gas market. The members are national associations and corporations of the gas industry. The working organization of IGU covers the complete value chain of the gas industry from upstream to downstream.
NEON (National Energy Ombudsmen Network)	NEON is a European association whose members operate as independent national ombudsman in the energy sector.
SEDC (Smart Energy Demand Coalition)	SEDC is a representative industry group dedicated to promoting the requirements of demand side programs in the European electricity markets to making the demand side a smart, interactive part of the energy value chain in order to ensure the long-term goals of the Smart Grid.

Table 8. Energy producer, transporter and distributor organizations²

² www.beuc.org

Energy producers, transporters and distributors interest in EPLACE:

An educated consumer is the best customer. The improvements in energy use by clients can help producers, transporters and distributors provide better service. If energy consumers for example understand the importance of balancing their energy use throughout the day and night, these stakeholders can provide a more stable source of energy, minimising peaks of use. Energy conservation also means that these stakeholders can serve more clients and therefore increase financial benefit.

3.6. Commercial providers (Installers, equipment leasers and providers)

Energy efficiency creates jobs opportunities by changing or replacement of light bulbs, HVAC systems including boilers, burners, heat insulation, windows frameworks and pumps as well as in the installation of smart meters, integrated energy monitoring systems, etc.

The technical and high efficient solutions presented by the installers, providers and equipment leasers key in achieving the foreseen cost energy savings and greenhouse gas emissions reduction.

Here is a list of the types of installers, equipment leasers, manufacturers and providers that are positively affected economically by energy efficiency.

Providers	
Types of installers	<ul style="list-style-type: none">✓ HVAC✓ Internal and external lighting/ electrical✓ Window and doors✓ Insulation✓ Hot water heaters✓ District heating✓ Solar thermal panels✓ PV modules✓ Wind power✓ Gas installation✓ Boilers and burners

	<ul style="list-style-type: none"> ✓ Biomass heating systems ✓ Smart meters ✓ Energy monitoring system
Products providers/leasers and manufacturers	<ul style="list-style-type: none"> ✓ Heater and air conditioning units ✓ Light bulbs and lamps ✓ Efficient doors and windows ✓ Insulation ✓ Hot water heaters ✓ Solar thermal panels and solar energy systems ✓ PV systems ✓ Wind Turbines and systems ✓ Pumps, boilers and burners ✓ Biofuels (solid biomass, liquid gas etc.) ✓ Smart meters and system products (IT)

Table 9. Commercial providers

Commercial providers’ interest in EPLACE:

Once EPLACE participants understand the importance of energy savings, the project will open new markets for commercial providers of energy saving equipment. The platform also helps consumer’s visual the benefits that new installations can provide. A happy consumer returns and a happy consumer tells their friend.

3.7. Utilities

A public utility (usually just utility) is an organization that maintains the infrastructure for a public service (often also providing a service using that infrastructure). Public utilities are subject to forms of public control and regulation ranging from local community-based groups to state-wide government monopolies.

Public utilities can be privately or publicly owned. Publicly owned utilities include cooperative and municipal utilities. Municipal utilities may actually include territories outside of city limits or may not even serve the entire city. Cooperative utilities are owned by the customers they serve. They are usually found in rural areas. Private utilities, also called investor-owned utilities, are owned by shareholders.

Public utilities provide services at the consumer level, be it residential, commercial, or industrial consumer.

The maintenance of the infrastructure for a public service or utility demands a set of sound practices to enable Quality of Service (QoS). Uniform construction procedures especially must be followed by all parties. In particular, the recent boom in new

architectures/services in telecommunications demands a whole new set of rules to maintain uninterrupted service.

With new construction in public utility areas, the basic considerations and requirements relative to the construction practices and procedures are critical in a company operating area.

It is important that any construction should minimize the possibility of creating conditions that:

- Are hazardous to the general public and to any personnel working on, in, or around supporting structures
- Could impair service or the restoration of service to customers of all parties using the supporting structures.

Utilities interest in EPLACE:

The public and private utilities (especially in energy, gas and water) could be interested in the EPLACE platform and the technologies associated as they will promote a better use of the infrastructure they have to maintain. These actions will ensure the correct functioning of the services provided by the utilities and also their improvements, reducing the maintenance requirements and allowing a better quality of the services (QoS).

4. Areas for replication and different end users

Now that we have all the behind the scene players identified, we can begin to list the areas where EPLACE can ultimately be replicated: public buildings, residential homes and block of flats, commercial buildings, and industrial facilities.

It is important to note that energy projects begin with committed companies and therefore special interest must be taken in contacting CEOs, company presidents, directors, etc. Once they are committed they can pass the enthusiasm on to building managers, building users (employees, visitors, general users).

4.1. Public buildings

Energy efficiency projects in public buildings are essential to changing societal behaviour since citizens often take their cues from their leaders. Energy savings in public buildings over time also saves tax payers money that can be reinvested into more important projects.

The saved and avoided expenses after the implementation of energy conservation measures in public buildings are also reflected in the benefits to the community such as health and education.

The table below lists the types of buildings along with the audience that should be addressed:

Type of building	Audience
✓ Office and administrative buildings	<ul style="list-style-type: none"> ✓ Administrators and assistants ✓ Public workers ✓ Maintenance workers ✓ Visitors
✓ Libraries	<ul style="list-style-type: none"> ✓ Librarians ✓ Administrators ✓ Maintenance workers ✓ IT workers ✓ Users of the library
✓ Cultural buildings	<ul style="list-style-type: none"> ✓ Administrators and assistants ✓ Building users ✓ Maintenance workers
✓ Sports and leisure buildings	<ul style="list-style-type: none"> ✓ Administrators and assistants ✓ Building users ✓ Maintenance workers
✓ Fitness and health centres	<ul style="list-style-type: none"> ✓ Administrators and assistants ✓ Building users ✓ Maintenance workers
✓ Schools www.u4energy.eu	<ul style="list-style-type: none"> ✓ Teachers ✓ School children and parents ✓ Administrators and assistants ✓ Maintenance workers
✓ Universities	<ul style="list-style-type: none"> ✓ Professors ✓ Students ✓ Administrators and assistants ✓ Maintenance workers
✓ Hospitals and clinics	<ul style="list-style-type: none"> ✓ Medical specialists ✓ Administrators and assistants ✓ Maintenance workers
✓ Transportation stations	<ul style="list-style-type: none"> ✓ Administrators and assistants ✓ Maintenance workers ✓ Technicians ✓ Workers ✓ System users
✓ Kindergartens	<ul style="list-style-type: none"> ✓ Teachers ✓ Youngsters children and parents ✓ Administrators, assistants and psychologists ✓ Maintenance workers
✓ Care homes	<ul style="list-style-type: none"> ✓ Disadvantaged and disabled people ✓ Teachers ✓ Administrators, assistants, and psychologists ✓ Maintenance workers

Table 10. Public buildings

Public buildings’ interest in EPLACE:

Public bodies should have a special interest in EPLACE as a marketing tool for their campaign, energy reduction, as a public leader and as a compliance instrument. Public buildings that are participating in the project transmit to the public it serves

that they are doing what they can for the environment, to reduce energy use and minimise costs. They also serve as leaders for the entire community to follow. EPLACE will also help public buildings comply with the directives and laws on energy reduction.

4.2. Residential and home owner associations, construction companies and realtors

The area for replication of homeowners and residential associations, construction companies and realtors is characterized by the following features:

- ✓ Create opportunity to promote domestic or regional contractors and provide ESCOs support by regional or national providers and suppliers;
- ✓ Acquiring of specific knowledge and education of home and residential owners about the benefits of the potential energy savings project implementation in their buildings;
- ✓ The high demonstrative value of completed project in energy savings in the facilities;
- ✓ Partnership with local authority or government, associations;
- ✓ Establishment of the local/regional centre provides high effective solutions to energy saving equipment and services.

The saying states, sweep your own doorstep first. This starts with education of those who build our homes, those who sell us our homes and “us”, we who live in them. Here is a list of companies and groups that play important roles in the roofs over our heads:

Types of groups	Examples
Home owner associations	<ul style="list-style-type: none"> ✓ International Union of Property Owners ✓ Confederation of Urban Property Chambers of Spain ✓ Irish Property Owners Association (IPOA) ✓ Bulgarian Property Rights and Management Association (NOPUS) ✓ Germany - Zentralverband Haus und Grund Deutschland

Construction Companies	<ul style="list-style-type: none"> ✓ European Network of Construction Companies for Research and Development ✓ Acciona ✓ Balfour Beatty ✓ Ballast Nedam ✓ Bam ✓ Bilfinger Berger ✓ COnsolis ✓ Dragados ✓ FCC ✓ Ferrovial ✓ Hochtief ✓ OHL ✓ Zublin
Realtors	<ul style="list-style-type: none"> ✓ European Real Estate Society (ERES) ✓ European Council for Real Estate Professionals ✓ Asociación Empresarial de Gestión Inmobiliaria (AEGI) ✓ Irish Property and Facility Management Association (IPFMA)

Table 11. Residential and homeowner associations, construction companies and realtors.

Residential and homeowners associations, construction companies and realtors interest in EPLACE

An educated consumer is the best customer. When a potential client sees the participation in EPLACE it transmits trust along with specific data in energy savings. The small consumers are very interested in the reduction of their energy bills, so they are potential focus group to promote the EPLACE platform and the benefits provided. In addition, energy savings and economic savings can be achieved with the use of the EPLACE product.

4.3. Commercial end users

To state the obvious, businesses must save to decrease their overhead and increase their profits. The commercial end-users are also consumers of energy and RES services. Most of them are small and medium enterprises – the backbone of the EU economy. The implementation of energy efficiency projects in the commercial end-users facilities will lead to an increase of the GDP and the standard of living.

Energy efficient businesses help to do this. Here are a list of possible types of commercial end-users.

Examples of commercial end-users
Retail stores
Non-food shops
Food stores
Restaurants
Bars, pubs or clubs
Hotels
Cultural buildings
Entertainment halls
Theatres
Fitness centres
Car parks
Laboratories
Workshops
Storage facilities
Business parks
Logistic centres
Shopping malls
Farms and Greenhouses
Resorts

Table 12. Commercial end users

Some European associations and groups include:

- ✓ Euro Commerce (www.eurocommerce.be)
- ✓ European commission for Trade(<http://trade.ec.europa.eu>)
- ✓ Hot Rec (www.hotrec.eu)
- ✓ IHRA (<http://www.ih-ra.com/>)
- ✓ EFTA (<http://www.efta.int/>)

Commercial end-users' interest in EPLACE:

Energy savings and economic savings can be achieved with the use of the EPLACE product. In addition, consumers that use these businesses will see the commitment that the company has in saving energy. This can increase the client's trust in the company.

4.4. Industrial end users.

EPLACE does not contemplate industrial energy efficiency. However, many of the actions taken in the pilot buildings can be considered in many areas of an industrial facility, especially, in the offices and common areas.

Industrial end users include any producer of consumer goods or industrial products.

Industrial end users interest in EPLACE:

Although it is not the immediate goal of EPLACE to incorporate industry into the platform, industries can benefit from the platform by measuring their consumption and making modifications in their systems and behaviors.

5. Focus on marketing and dissemination

5.1. Description of service.

EPLACE combines and integrates existing partial solutions including monitoring consumption, control systems, collaborative platforms and best practices recommendations in an all in one Platform. Individuals, public building managers and companies can create an on-line energy account that aids in identifying where energy is being used and how its use can be decreased. With the installation of energy meters in these buildings, energy managers are able to further track their energy use. Understanding where energy is being used will help define what needs to be changed (behaviours, equipment) in order to decrease energy spending.

By the end of the EPLACE project the integrated system will have been tested in the 7 pilot public buildings. This trial will allow for other public building managers and public administrations in the Ireland, Spain and Bulgaria to have first hand examples of its function and its ability to save energy and money over time.

5.2. Target market

This document has identified many target audiences to be considered for the dissemination of project results. However, to maximise dissemination efficiency and its success three questions must be taken into account.

- Where can the results best be applied with the highest success of its replication?
- Is there a starting point that could lead to additional groups being informed on the outcome?
- How will this be funded?

Since the EPLACE focuses on 7 public pilot buildings it is most logical to continue to extend the EPLACE tools to other similar public buildings in the immediate areas and within the province. This will ensure the highest possible success rates since other public buildings in those areas will be similar to those in the pilots (ENPis, cultural, legislative, etc) allowing for easy replication and will allow pilot building managers to simply share experiences with those starting.

Once a solid area is created of public buildings that are using the EPLACE system, further efforts can be made to disseminate success stories.

Since the public sector has contact with citizens, local companies and government agencies, it becomes an important launching pad for disseminating energy savings. It is the hope that once these secondary bodies are informed they will eventually put pressure on government, manufacturers, transporters and legislation.

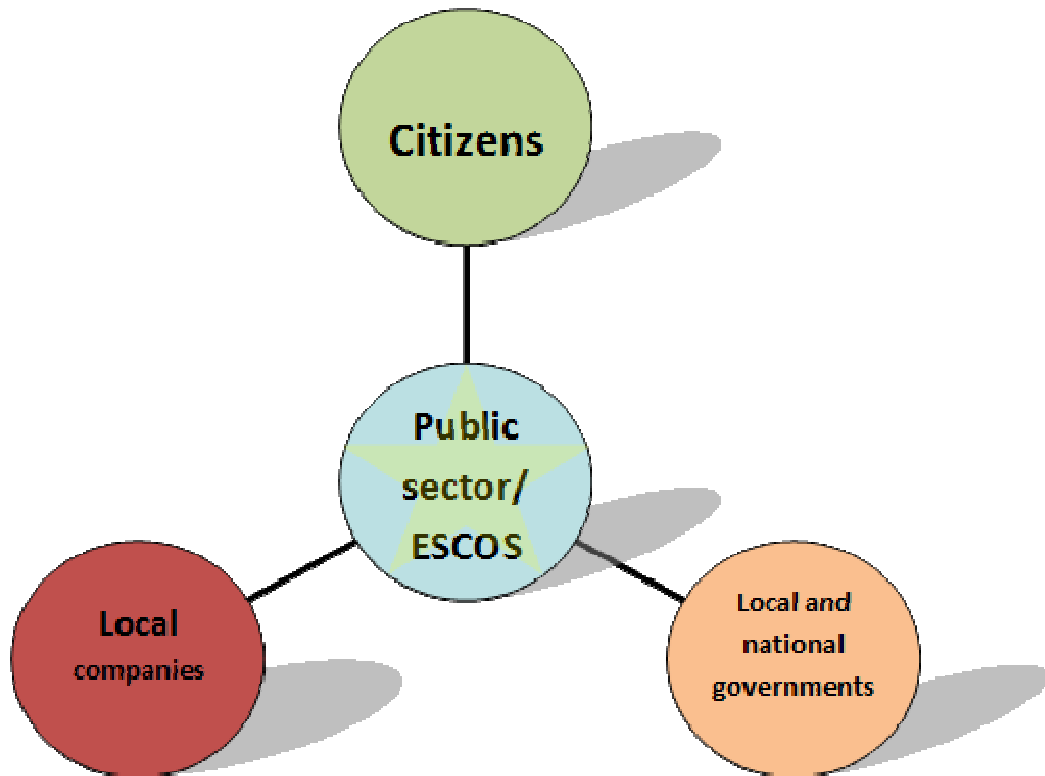


Figure 2: Diagram for dissemination

To determine those public authorities that are already interested and putting forth an effort to improve the sustainability of their towns, the municipalities and towns inscribed in the initiatives such as the Covenant of Mayors and Agenda 21 will be the first entities to be addressed. Partners from each EPLACE country (Ireland, Spain and Bulgaria) will determine the public administrations that could have interest.

An important point that must be noted is the one of funding. Although there is interest in the public sector, there is often little to know funding to start projects that would in the long run save money. This is a vicious cycle that can be aided by the help of ESCOs. With the help of ESCOs, the public sector can take on the projects, meet requirement from new directives and local and regional laws.

EPLACE results and products must be simultaneously diffused in the public sector and to ESCOs.

5.3. Methods of marketing

Once the most environmentally active administrations are identified, marketing strategies or “diffusion strategies” can be established and carried out.

The usual strategies for diffusion will be used such as newspapers, television, radio, internet as mentioned in 3.4 of this document.

However, there should also be face to face information meetings and events that invite building managers and top management of public buildings (types listed in 4.1) in order to explain the EPLACE technology, its installation and use, as well as, the results of the pilot projects. Ideally, this would be done with the presence of the energy manager from the pilot buildings however it could be accomplished by any EPLACE partner.

These public buildings will then become a launching point to continue diffusion as described in the diagram above. Therefore, a special focus should be made in the ability and the how to further disseminate the results of pilot and non-pilot buildings to citizens, governments and local companies. In the length of the EPLACE project research will be done determine how to best reach out to other non-public entities, local governments with public buildings that use EPLACE. This can begin encouraging entities to publish on their websites the reduction of their energy use and create posters so that building users/visitors will become more aware of the efforts.

The publishing of energy reduction results of a public building is increasingly important due to an elevated number of cases of corruption. A government that is transparent about its spending and savings will be more trusted by the public it serves.

5.4. Benchmarking success

Although not addressed in this project’s timeline, schemes of benchmarking the success of the dissemination over a longer period of time should be addressed and a methodology created to measure overtime, after the project’s termination, the diffusion of the project.

6. Conclusions

This document has set out to define all possible areas for replication and diffusion of the results of EPLACE. Project building types (section 2) have been defined and all possible stakeholders (section 3) have been identified. After careful thought, it has become evident that the most affective starting point for replication and diffusion of EPLACE must begin with similar public buildings located in municipalities and towns that are committed to energy efficiency as well as at ESCOs that can provide support. The success of replicated initiatives in these towns and municipalities will be an important launching board for further educating and diffusion of results to citizens, lawmakers, and the entire private sector.

The following table shows the different stakeholders and their ranking of importance in regards to diffusing the project results and its ability to be replicated in these areas. One (1) is most important and seven (7) the least. Some of these stakeholders have been identified with the same level of importance since they often must work together in order to achieve benefit. This table can serve as a guide for T6.3:

Level of importance	Stakeholder
1	ESCOS and Financial Bodies
1	Public buildings
2	Commercial providers
2	Residential & home owners associations, construction companies and realtors.
3	Energy producers, transporters and distributors
4	Research & development groups
5	Policy Makers
6	Media groups and councils
7	Industrial end users

Table 13. Level of importance of stakeholders for diffusion and replication

7. References

[1] Communicating with policy makers. Corporate Document Repository. Food and Agriculture Organization of the United Nations.

[2] Intelligent Energy - Europe (IEE) Programme of the European Commission webpage http://www.managenergy.net/links_d.html

[3] Policy and Strategy discussions Financial support facilities available for energy efficiency and renewable energy in the Western Balkans. WBIF. November 2011.

[4] Funds and financing for energy efficiency. Core Theme Series Report CA ESDI/CTSR/5.1. June 2012.

[5] Financing Energy Efficiency: Forging The Link Between Financing And Project Implementation Report Prepared By The Joint Research Centre of the European Commission .Silvia Rezessy And Paolo Bertoldi

[6] A 2020 Vision for Europe's energy customers Joint Statement. CEER and BEUC. 13 November 2012