



Personal Energy Administration Kiosk application:
an ICT-ecosystem for Energy Savings
through Behavioural Change, Flexible Tariffs and Fun
Contract No 695945

Deliverable D.6.1

Dissemination, Exploitation and Communication Plan



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1 Purpose

The purpose of **the DEC Plan** is to serve as a consensus finding, information and control instrument on all Dissemination, Exploitation and Communication (DEC) activities among all partners in the PEAKapp project. This deliverable is to publically communicate the project and overview to the targeted stakeholders.

The DEC Plan describes the strategy taken to ensure integrated communication, dissemination and exploitation activities inside and outside the consortium, during project life-time and in preparation for post-project use of results. This document is an elaboration of, and implements the dissemination, exploitation and communication activities as described in the Description of Action (DoA), Annex 1 of the EC Grant Agreement.

As the project proceeds, the DEC plan will be refined: stakeholder analysis and the macro-economic and market situation will be better described; key-messages towards stakeholders, audiences and target groups will be refined and turned into clear consumer benefit statements; the selection of tools, channels and measures will be adapted; and finally the management of exploitation will have the focus on different aspects in the several phases of the project lifetime. This initial DEC plan (D6.1, M4) will be formally updated to a new version according to the following schedule:

- D6.2 DEC Plan Update 1 (M12)
- D6.4 DEC Plan Update 1 (M24)

Information concerning stakeholder events and project progress can be found on the project website www.peakapp.eu which will soon be complemented by relevant social media accounts.

2 Status

The status description and SWOT analysis refers mainly to dissemination and communication issues, with only some insights into exploitation status and plans. It is not a general project status analysis and therefore excludes technical, organisational or other aspects, which are not related to the DEC tasks.

2.1 Exploitation Status

An existing ICT ecosystem from the partner company Greenpocket will be further developed in the PEAKapp project. It is a white label B2B2C product consisting of a dynamic accountancy system (B2B) and an app (B2C) for the consumers.

A major part of the further development will include incorporation of a Serious Game from the Dutch partner Ijsfontein. Details on product integration and exploitation strategy are still being defined.

Business Structure	Model	Business Model: B2B	Business Model: B2C
Product		PEAKapp ecosystem	PEAKapp (frontend app)
Suppliers		ICT developer (GreenPocket)	Energy retailers (4 beneficiaries)
Customers / Users		Energy Retailers	Households (Social Housing)
Value Proposition			
Core Value		Dynamic accountancy system + app	Free app to save energy and money
Added Value		- First mover advantage (comp. adv.) - Fulfilment of directive - Strengthening corporate brand & CSR strategy - Customer loyalty	- Serious Game and Facebook deliver fun, friends, feedback - General change in behaviour
Value Chain (Product/Market)		Modified Products in growing markets (high potential mass markets) and geographical expansion.	New products in existing market.
Revenue Model		- Collaboration Contracts including: - Licensing Agreements - Trade mark Licensing	- Energy Supply Contracts

The ICT ecosystem from Greenpocket will be further developed in the PEAKapp, in particular the B2C related app receives additional functions, such as a Serious Game (SG) as mentioned above. These improvements aim at larger consumer acceptance, a subsequent increase in commercialisation opportunities and wide-spread implementation of PEAKapp under current European regulation. This will primarily be developed by partners Ijsfontein, GreenPocket & Tecnalía with other partners actively and passively contributing. Ownership clarifications among contributing partners are under discussion and will be developed further as the project proceeds.

2.2 Communication and Dissemination Status

This white label product addressing the B2B2C energy provider market is known in the B2B market - under the name "Greenpocket XY" – but not yet in the subsequent B2C market, which are the energy consuming households. Households are generally under-informed on the functionalities of smart meters and how they can benefit from this technology. In addition, not all end-customers fully trust the idea of smart housing / metering for a range of reasons, starting with confidentiality / privacy issues. For this reason, data security is a crucial issue which needs to be prepared well. The communication activities concerning the field tests, as described in the proposal / DoA will be challenging. Field test customers need to be convinced to participate. The competition among regional and national energy providers might also raise conflicts of interest in communicating – even promoting – the project outcomes towards defined stakeholders.

2.3 Dissemination, Exploitation and Communication SWOT

Strengths (inside project) • Simple, clear business model already in proposal phase • Business management partners on board to develop, communicate and launch ecosystem products & services • Expertise in / deep understanding of targeted markets available • Access to customers of the ecosystem and end-users of the app given - strong networks existing • Clear competitive advantage for energy retailers through support sales activities • Clear consumer benefit message supports the information campaign aiming at behavioural change • Field tests will validate consumer acceptance and deliver valuable data for the market entry	Weaknesses (inside project) • ICT solution cannot be easily protected, but knowledge, customer closeness given • Unforeseen transparent web solution gaps could also evoke criticism on behalf of customers and consumer associations • Diverse / conflicting interests between internal commercial partners (owners vs. co-owners, licensees vs. licensors) • White label marketing does not support the branding (development of the brand) in end user markets
Opportunities (outside project) • Supporting technologies in the market (e.g. smart appliances) lead to further developments of the app (e.g. remote solutions) for additional markets • 80% smart meter rollout target by the EC until 2020, targeted 95% smart meter rollout planned in Austria supports the entry into the EC markets • Increasing energy prices and recession increases the demand • Affordable/cheaper smart meter installations to existing houses • Understanding consumer behaviour & acceptance and new needs for further R&D (=exploitation) • A strong USP, first mover advantage • Standards may evolve and promote market uptake • Renewable energy policies and favourable tariff & / subsidy / financing programmes > enhance motivation • Change of consumer behaviour, which leads to energy savings and emission impacts • Energy cost saving by consumers strengthens consumer confidence and buying power • In the long run limited fossil resources are likely to increase consumer acceptance and demand for PEAKapp • Energy saving is a significant positive PR issue	Threats (outside project) • Threat of reversed engineering / copies • Incompatibility with new players in supply chain (hardware, software) • Competing solutions (direct competition) emerge • Foreign (cheaper) suppliers (copiers, substitutes, surrogates) • A tricky market exit strategy is more likely than market entry barriers • Lack of consumer acceptance • Medium to long term fossil energy prices increase due to limited resource • Avoid infringing anti-competition law • Consumer behaviour tests are negative • Issues emerge in the media (e.g. data security issues) • Changes in the European Regulatory Framework incl. administrative and regulatory hurdles

3 Impacts and Objectives

3.1 Impacts as described in the DoA

The expected Impacts are to be achieved by the PEAKapp project listed below. To achieve these Impacts, a set of DEC objectives described in section 3.2 are derived from these overall objectives listed in chapter 3.2.

Impact 1: Systemic energy consumption and production and emissions reduction between 15% and 30%.

- Savings from behavioral change and minor investments - at least 20% as expected by the European Commission, PEAKapp provides more functionalities than the EC scenario – therefore 20% may be exceeded.
- Consumption reductions from flexible tariffs – additional to load shifting, at least 2.5% savings of baseline energy consumption are triggered through the PEAKapp tariff-incentive system by reducing the catch-up effect of load shifting.
- Savings from synergies with Smart Homes – a further 2% increase in savings when PEAKapp successfully motivates Smart Home owners to engage more intensively with their system.

Impact 2: Accelerate wide deployment of innovative ICT solutions for energy efficiency

Project life-time:

- Main obstacle for wide deployment of existing ICT is high investment costs: ICT deployment acceleration through PEAKapp as first zero-investment solution.
- Wider ICT Deployment by improved accessibility: PEAKapp requires from the household only the download of an App, no installation / construction work (wiring etc.) needed.
- During the field tests in the 2,500 households in 4 countries that will be reached. These spread PEAKapp's capabilities via its Facebook functionalities to 10th of thousands of their friends¹.
- Investments of energy utilities in ICT for efficiency are hampered by the lack of a business model: PEAKapp delivers the technology as well as it provides clear rationale for the investment decisions to CEOs.
- Wide deployment hampered by insecurity among energy companies about legal issues related to household data collection and exploitation: PEAKapp clarifies all related obligations and drafts data protection clauses for contracts.

Post-project:

- Year 1: exploitation starts in markets currently applying 1.0 solutions: Germany, Austria and Scandinavia. The smart meter roll out is advanced in these countries, where Austria even aims to cover 95%. Strategic cooperation with manufacturers of Smart Home Systems is explored to mutually strengthen capacities for growth.
- Year 2: as soon as PEAKapp's field tests have started, and first results can be used for demonstration, PEAKapp goes international. Information Package for EU and non-EU markets is prepared and spread through MUAB (Market Uptake Advisory Board) members primarily in the EU, USA and Turkey through partners and MUAB members.
- Year 3: energy utilities in the consortium and the MUAB are made ready-to-sign to roll out the PEAKapp system. Full deployment of Pull-Push strategy to achieve further signed contracts already during the project phase. Supported by Social Housing Europe (MUAB) with 41 national partner organisations.
- Post-project: GreenPocket expects that the PEAKapp system will increase their annual revenue by 15% above the baseline scenario per annum. Further market and technologies are the smart home market including automated and distanced use of appliances.

¹ Wolfram Research, <http://blog.stephenwolfram.com/2013/04/data-science-of-the-facebook-world/>

Impact 3: Greater consumer understanding and engagement in energy efficiency.

- The functionalities of the PEAKapp ecosystem are tailored to foster greater consumer understanding and to trigger lasting engagement in energy efficiency, by actively approaching the consumer and not awaiting her or his request to the system as in previous approaches. This is ensured by:
 - o energy savings tips that will approach the consumer, partly tailored to her or his consumption patterns, by
 - o spontaneous savings opportunities for consuming electricity during times of high production from renewable sources, by
 - o making the use of PEAKapp entertaining while still being highly educative through serious gaming, by
 - o competitive elements and peer pressure through social networking functionalities, and by
 - o providing consumers' with deep insights in their own consumption patterns, while supporting them to draw the right conclusions thereof.
- We aim to have > 60% of the test households embrace PEAK App and sustain behavioural change by end of project. This percentage seems realistic with respect to experiences from other disciplines, such as sports apps.

4 Stakeholders, Benefits and Key Messages

Utility companies are highly interested in offering the innovative PEAKapp solution because they:

- are obliged by the Energy Efficiency Directive (2012/27/EC) to trigger quantifiable energy savings,
- are looking for new unique selling points as the European energy market is increasingly competitive for retail companies,
- acknowledge social housing blocks as promising future bulk customers, and
- need to motivate their household consumers to shift loads towards times of clean and lower priced energy.

Thus, PEAKapp pays a double dividend by supporting residents of social housing to increase their energy efficiency and reduce their energy bill, while energy companies are supported in complying with Directive 2012/27/EC, earn customer loyalty, reduce their costs for buying electricity on the spot market and are on their way to becoming energy service providers instead of their current role as retail companies – as also envisaged by Directive 2012/27/EC. The European Commission has repeatedly highlighted the importance of making use of ICT, most notably in its recommendation of 09.10.2009 on mobilising Information and Communications Technologies to facilitate the transition to an energy-efficient, low-carbon economy in which the Commission states “Concerted action by Member States to set minimum functional specifications for smart meters would help avoid technical barriers, ensure interoperability and enable the introduction of innovative ICT-based applications for managing energy end-use. (Art. 22)” Previous research projects and in particular respective ICT-solutions 1.0 have suffered from a steady decline of customer interest, which can be attributed to a number of reasons such as: one-dimensional communication, lack of usability and support, unidirectional interaction systems, and no confirmation of immediate effects. But there are more stakeholders to be considered:

Target Groups	Key Messages
Customers (buying deciders and buyers): Energy retailers and traders, Smart Home System Operators, Utility operators <u>Examples:</u> European (incl. Turkish) Energy Retailers, US Retailers as accessible through Electric Power Research Institute (EPRI)	PEAKapp is an effective tool to engage customers in energy saving and load shifting. Easy-to-use software app. No additional hardware required. All-in-one solution for consumption monitoring and customer engagement. Fits perfectly into the EC directions on Corporate Social Responsibility.
End-users: Electricity Customers and general public <u>Examples:</u> Austria, Germany, Switzerland and EU country users first, international afterwards	PEAKapp is an easy and fun way to save energy and money, data security is included. Arise awareness that besides the personal benefit (cost saving) their behaviour has impact on environment.

Stakeholders and Audiences	Key Messages
Scientific Community: Smart grid, smart home, smart meter science, Applied Research Institutes and other EU Projects researching on energy efficiency and users behavioural change. Dissemination collaboration partners from related EASME projects.	Expected impact of motivational mechanism for consumer engagement on energy consumption is thoroughly verified in PEAKapp's multi-country validations, important step for behavioural sciences and energy efficiency research.
Policy Makers, Lobbying Institutions, Politicians: <i>Examples:</i> DG Research Energy, ICT, Energy Market Regulatory Authorities, Ministries of Energy, ICT Regulatory Authorities, Energy Market Operators, National Funding Agencies, Technology Platforms to lobby further research funding in this direction, energy and ICT clusters and networks. European Federation of Public, Cooperative & Social Housing (CECODHAS), Austrian Forum for Household Appliances.	Feasibility of significant load shifting by changing consumer behaviour, using dynamic tariff tool PEAKapp. The PEAKapp system is designed especially to cater for residents in social housing associations. Adjustments in (tariff) regulation. Elimination of obstacles, in particular additional costs, in use of ICT solutions. Initiate further incentives for consumer empowerment
Investors & Strategic Partners: <i>Examples:</i> European Federation of Public, Cooperative & Social Housing (CECODHAS), federal or regional social housing associations, Start-up technology funds, Energy Market Regulatory Authorities. (Manufacturers of Smart Home Systems will be explored to mutually strengthen capacities for growth.)	PEAKapp develops an ICT-based ecosystem for residents of social housing and other housing sectors not requiring any investments or in-house installations at the consumer side because it exploits the smart metering infrastructure which is either already existing or soon to be built. The system works, is economically attractive, demand side management.
Suppliers: Game developers, Software Developer, Distribution System Operators, Incumbent Suppliers, Mobile Network Operators, metering point operators, measurement services providers, utilities, meter manufacturers	All-in-one solution for consumption monitoring and customer engagement. Easy-to-implement and customizable white label software.
Competitors: In particular US ICT companies are trying to enter the European market, Europe's smart metering infrastructure attractive also for competitors from Eastern countries in the mid-term future.	Proof of well-functioning, high impact, European solution required to have a stable position on the market before competitors are entering.
Press & Media, General Public, Public-, environmental- and social-oriented Interest Groups: e.g. CSO's, associations <i>Examples:</i> National and regional press, Social community, Consumer Associations	Consumer empowerment, Social benefits/savings, Reducing carbon footprint, Technical dissemination of project results