Personal Energy Administration Kiosk application:
An ICT-ecosystem for Energy Savings
Through Behavioral Change, Flexible Tariffs and Fun
Grant Agreement No 695945

Deliverable D.6.6
Ready-to-sign-agreements & business /market launch plans

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Executive Summary

In compliance to the obligations to exploit and disseminate the project results (established in the Grant Agreement), partners have defined in this document the strategies aiming to ensure the use of results after the project ends. The exploitation plans focus in two main routes, namely, the commercial exploitation of the app functionalities (D1.2) developed in the project and further research and development activities. Also, partners have disseminated the project results to demonstrate the effects of the PEAKapp ICT solutions in energy consumption behaviors.

Partners GreenPocket aim to consolidate its market position as pioneers in the roll-out of their ICT solutions for the European energy market. IjsFontein aims to earn attention among energy utilities to exploit its gamification approaches. 220Energia has released its app developed in the project to its customers and to explore new ways to improve it as a customer engagement tool. While, Partner ENAMO (Energie AG) is committed to improve its existing e-service platform through the development of their owned system features based on the findings of the PEAKapp project. In general terms, all the post-project exploitation strategy aims to ensure the use ICT solutions to influence energy consumption behaviors, allowing end-users to interact with the utilities and benefit from lower electricity prices and obtain information on how they can make a more efficient use of energy.

The exploitation plans contained in this document also show the commitment of the partners in maximizing the impact of the project after it ends. In fact, the project results are not just the validated app-features influencing electricity consumption behaviors but also concrete strategies from SMEs and energy utilities to provide European citizens with more innovative ICT tools, incentives and information to improve their energy savings and better interaction systems between utilities and end-users. The more people use energy management systems, the greater the project impact will be. Particularly, in terms of significant reduction of electricity consumption while contributing to the EU App economy which has already generated 1.89 million jobs and the EU Digital Single Market which is expected to grow up to €739 billion by 2020, representing 4% of the overall EU GDP[1].

[1] https://ec.europa.eu/digital-single-market/en/policies/building-european-data-economy

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1. Exploitation planning

The exploitation plans described in this document were developed through several discussions, held individually and collectively with the partners during different stages of the project. Particularly, to address specific aspects of the exploitation plans, (i.e. the clarification of ownership rights, protection of intellectual property and the assessments of business perspectives regarding the project results). The deliverable D6.3 (Report on business model development) provides a summary of the discussions regarding the development of exploitation plans for the key commercially exploitable results (i.e. the app functionalities integrated in the GreenPocket's Energy Management System and 220Energia's Baltic App System and the Serious).

The publications and public presentations of the lessons learned through the analysis of the data collected in the field tests provide the partners with reliable scientific evidence on the effects of the PEAKapp functionalities to make more efficient/reduce the use electricity. Consequently, the lesson learned will be also used by the partners to promote and trigger investments in the further development/optimization of e-services platform and to encourage other utilities, energy retailers and stakeholders to facilitate the roll-out of smart grids to simplify the interaction with the end-users.

The dissemination and communication activities implemented during the project also contributed to spread the message of the ICT-Human Ecosystems or so called "PEAKapp Spirit", represented in the possibility to "positively" influence the behavior of end-users regarding their energy consumption habits. In return, the project has been invited to participate in several EU contests and it has obtained significant awards that will be also use to promote the project achievements after it ends.

Nevertheless, the development and implementation of the exploitation plans is a responsibility of the partners that generated exploitable results according to the Grant Agreement.

> ***28.1 Obligation to exploit the results***
>
> *Each beneficiary must — up to four years after the period set out in Article 3 — take measures aiming*
>
> *to ensure 'exploitation' of its results (either directly or indirectly, in particular through transfer or*
>
> *licensing; see Article 30) by:*
>
> *a) using them in further research activities (outside the action);*
> *b) developing, creating or marketing a product or process;*
> *c) creating and providing a service, or*
> *d) using them in standardisation activities.*

In consequence, each partner identified the possibilities to use the project results under their current business models and possible R&D activities post-project. An initial business model canvas was developed during the consortium meeting in Amsterdam the 3rd – 4th July 2017, to discuss the commercialization potential of the project results. That session aimed to integrate the business perspectives from all the consortium partners under an overall/single common vision in order to avoid potential conflict of interests among the partners (See Deliverable D6.3 Report on business model development).

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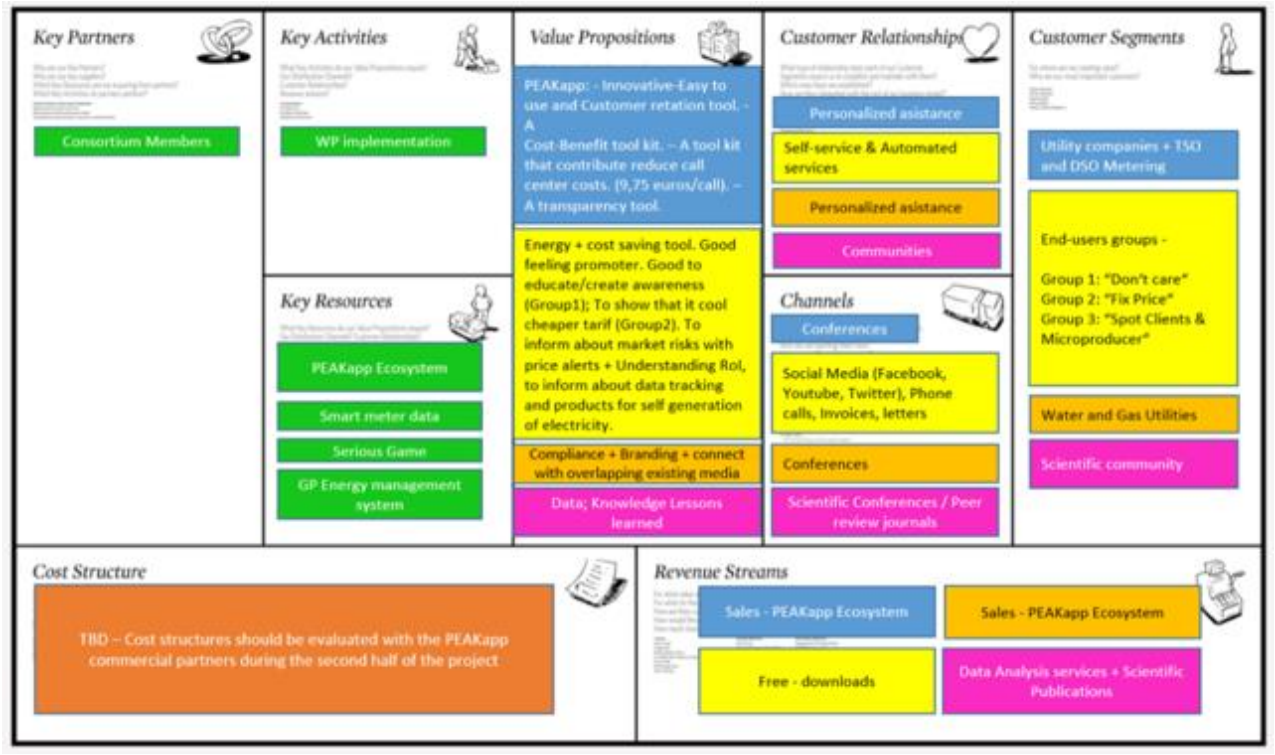

Figure 1. Overview of PEAKapp Business Model Canvas

The business model canvas resulting from the brainstorming exercise contributed to define the scope of the exploitation interests of each partner. Furthermore, the partners agreed on the need to focus in two ways to exploit project results. 1) the development and marketing of products and services based on the project achievements and 2) the need for research and development activities to generate innovative ICT solutions to facilitate the interaction between energy providers and end-users in order to influence their electricity consumption habits.

Therefore, two main commercialization concepts were elaborated by partners GreenPocket and 220 Energia. Which could also integrate the exploitation of the serious game developed by Ijsfontein in collaboration with GreenPocket by the negotiation of a license.

Additionally, all project partners have identified additional funding opportunities for further R&D activities to exploit the data collected during the tests trial combined with the possibility to integrate new technological applications to the existing app systems employed in the project (e.g. Internet of Things IoT, Artificial Intelligence, etc.).

2. Commercialization Concepts

The commercialization concepts for the new functionalities of GreenPocket's app (D2.2) and the Baltic App System (D2.4) were drafted initially in WP6 previous deliverable D6.5 (Draft Commercialization Concepts) following the methodology for Business Model Generation of Osterwalder & Pigneur (2010)[2]. Such concepts were discussed and validated with the members of the Market Uptake Acceleration Board (MUAB). Which was established in the project in order to collect feedback from external experts, as well as to provide them with first-hand information about the project results.

[2] (Osterwalder & Pigneur, 2010) Business Model Generation, pp 28-29, Wiley.

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Despite that the features of both apps aim to encourage end-users to control their electricity consumption, the commercialization concepts of both companies are slightly different from each other. 220Energia aims to use its app as customer engagement tool for its energy consumers. While GreenPocket aims to commercialize the functionalities developed in PEAKapp as part of their many tailored-made software solutions and related services.

The deliverable D6.5 Draft commercialization concepts was a confidential working document aiming to provide the consortium partners with a first sketch of the commercialization plans defined by GreenPocket and 220Energia as the main developers of the apps. The partners had the opportunity to improve such concepts after the presentation of the project results in conferences and trade-fairs (i.e. InnoGrid2020+ 2018, European Sustainable Energy Week 2018 and European Utility Week 2018) and to the members of the Market Acceleration Board (MUAB).

▪ GreenPocket's Commercialization Concept

Company description and Customer segments

GreenPocket is a pioneer in the market for smart energy software developments specialized in energy management and visualization. GreenPocket contributes to the energy transition and digitalization process of the European energy market. In this sense, GreenPockect supports its customers in realizing added value from smart meter data through the development of new software solutions for utilities and their business and residential customers.

GreenPocket has grown continuously within the last years. Especially the energy management software for business customers - with an average growth of 40% within the last 6 years - attracted numerous well-known customers from retail chains, the housing industry, municipalities and the industry sector.

GreenPocket is clearly market leader in Germany. With the Smart Meter Rollout within the next 5 years, 13 million of intelligent Metering Systems are expected to be installed. Our clear goal is to increase significantly the revenues with increasing number of installed intelligent metering systems.

Greenpocket's main customers segments are energy utilities. Within energy utilities groups, there are primary energy suppliers and distributed grid operators (DSO) as well as metering operators. Particularly, from Germany and other German speaking countries. Also, GreenPocket has several customers on 4 continents (in Japan, in Chile etc.). GreenPocket plans to extend the sales activities to the USA and further countries worldwide.

GreenPocket main competitors are other providers of energy management software solutions. Particularly, there are seven companies with similar software solutions in the market, namely, companies like Oracle (bought Opower), Ben Energy, Bidgely, Beegy, Discovergy, ITC, Onzo and further more. This, raises the need to improve the existing solutions through new research and development projects, focused on innovative technologies, such as, artificial intelligence, machine learning, data science.

GreenPocket's result in PEAKapp is the development of a PEAKapp features set within the existing energy management solution EnergyCockpit for residentials. This feature set enables tests and measures the project main objectives. This energy management software is developed completely within GreenPocket.

External software engineer services are not employed during the development phase. However, Technical support from energy utilities was required in order to develop the necessary interfaces to their upstream Energy Data Management and Meter Data Management systems. GreenPockect queries master and meter's data for all users through such interfaces.

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Finally, the game "PEAKpoker" (i.e. a PEAKapp result) was developed in cooperation with the project partner Ijsfontein, as the specialist in development of serious games.

Value proposition

In PEAKapp, GreenPocket has further developed its existing energy management software "EnergyCockpit", an energy management software tool that was expanded with new features (See Deliverable D6.3 – The Smart Phone/Tablet app). These new features are designed to enhance the customer engagement through gamification, social media and benchmarking features.

Particularly, the new features result in following benefits for the users:

- ***Optimize energy consumption****: all relevant key data at a glance, compare to your own average or previous period and get detailed analysis and forecasts*
- ***Saving costs****: get informed in case of expected debit in annual payment period*
- ***Save energy****: get informed in case of exceeding your consumption limit*
- ***Compare to other households****: see how efficient your household is compared to other households in your surrounding environment*
- ***Serious Game****: get to know your daily consumption and learn, how much energy appliances use*
- ***Notifications****: stay informed about attractive offers and activities from your utility*
- ***Discount offers****: consume electricity if it is cheap, for instance in times of high renewable energy consumption*
- ***Illustrating energy records****; Protecting the environment: Environmental analogies helps you to better assess your energy usage, for example, the CO2 output generated by energy consumption is set in relation to the number of kilometers for a car journey.* **(See Deliverable D2.2. The Smart phone/tablet app)**

Figure 2 - Customizing-example for Energie AG (Source: PEAKapp D2.2 The smart phone/ tablet app)

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Figure 3 - Dashboard with monthly consumption, cost- and consumption-check and monthly balance (Source: PEAKapp D2.2 The smart phone/ tablet app)

Costs & Revenue streams

The revenues model of GreenPocket is based on a software-as-a-service (SaaS) focused on B2B and B2B2C schemes considering the requirements of its customer segments (i.e. Utilities companies and DSOs). In this sense, GreenPocket provides innovative energy management platforms and distributes licenses of use of software solutions as white label product to its clients. However, GreenPockect can also negotiate the transfer/selling of specific software solutions depending on the case.

Particularly, GreenPocket offers hosting, installation of the software on the client's server and technical support services at onetime fixed rate. In addition, an annual license fee has to be paid based on the number of connected meter points. Therefore, their revenue stream is based on setup fees and licenses fees for the use of the software solutions. However, the price of the license and services will depend on the effort required for installation and adaption of each software solution according to the client's requests. Other sources of income are support services, like the installation of updates and 3rd level support in general, or change requests, (e.g. the implementation of individually desired functions).

The only costs regarding the commercialization of the energy management software refer to sales, marketing and product development. Which are covered by the revenue model of GreenPockect already described.

The roll-out of the PEAKapp ecosystem is subject to an investment from the energy supplier considering the customization process and installation of such ecosystem as customer engagement tool. It is important to understand that each energy provider might have different characteristics and requirements. Therefore, such investment will be determined by the efforts required on the installation of the system offered by GreenPocket. The installation process and the required investment can only be established through negotiation between the energy providers and GreenPockect.

Consequently, a roll-out planning toolkit has been developed in the project to support energy suppliers to assess the costs and benefits of implementing the system in their customer engagement strategy (See Deliverable 5.4 Roll-out planning toolkit).

The negotiation between GreenPocket and each energy provider will establish the terms and conditions of an agreement regarding the installation and further development of the PEAKapp ecosystem. Such

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agreements may refer either to a licensing agreement or transfer agreement depending on the characteristics and requirements of each utility company negotiating with GreenPockect.

GreenPocket provides the access to their energy management platform and software licenses for many flexible solutions and features as white label products that can be customized according to the requirements of each energy provider. GreenPockect can also negotiate transfer/selling of specific software solutions depending on the case.

As a White Label SaaS Model, the license/transfer agreement might establish One-time fees for the setting-up/deployment and/or customization as well as annual fees for the licenses granted by the number of connected meter points, cloud hosting and fees for additional services, such as, support on the installation of updates and 3rd level support in general, or change requests, (e.g. the implementation of individually desired functions).

"Ready-to-sign" agreements

Currently, GreenPocket is approaching utilities for the commercialization of their software solutions (integrating PEAKapp functionalities). The "ready-to-sign" agreements refer to the outcome of the negotiations between GreenPockect and utility/energy supplier. However, the negotiations with each utility/energy supplier might refer to a different bundle of the software solutions and services offered by GreenPocket. Consequently, the price of such license will vary depending on the number of end-user and other customers' requirements (e.g. customization). GreenPockect is already in negotiations with many utilities. The outcome of such negotiations cannot be disclosed in this "public" deliverable. However, it can be mentioned that GreenPockect has already negotiated with Netz OÖ (Upper Austrian grid provider) to test how monetary incentives can stimulate electricity consumption during hours with high levels of photovoltaic (PV) energy production.

Further research & development potential

The further R&D plans regarding the functionalities developed in PEAKapp, aim to develop and improve innovative Data Analytics applications on customers' consumption profiles in order to segment all different customer behaviors to develop trigger-based campaigns. As it was publicly announced by GreenPockect's CEO Dr. Thomas Goette at the ECOSUMMIT Conference in Berlin in May 2018.

GreenPockect is looking for new research projects to further develop their energy management ICT solutions. According to GreenPocket's estimations, the digital infrastructure in Germany and Europe will be greatly expanded. This generates enormous amounts of data instead of the one-meter reading per year previously supplied by analogue meters. With the new digital infrastructure, more than 35,000 quarter-hourly values per metering point will be available. This treasure of data unfolds great opportunities for further development of software solutions for utilities and end users. Particularly, through the access to new data sets, artificial intelligence tools and data science technologies can be applied.

GreenPocket is also looking forward to further develop their software solution on pattern recognition to process optimization. By using intelligent and self-learning-algorithms, patterns and previously unknown correlations can be identified. This will provide more accurate forecasts and automations that facilitate the user's work and optimize processes.

Additionally, a team of data science experts is already developing new technologies; considering the various use cases given years of practical experience from projects such as the NILM project funded by

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the German Federal Ministry of Economics and Energy as well as from direct cooperation with the Fraunhofer IIS/EAS within the framework of the Start-up TechConnection.

▪ 220E (220 Energia) Commercialization Concept

Company description and Customer segments.

220E is an internet-based electricity retailer electricity and gas retailer, founded in 2012 and operating in the Nordics and the Baltics States. It delivers electricity to more than 50,000 customers in Estonia, Finland, Latvia and Sweden. Recently the 220 Energia was bought by Alexela – a bigger energy supplier in the Baltic States.

As an internet-based company, its clients are used to internet or mobile channels. Therefore, 220E aim to use the Baltic App System as customer engagement tool for marketing purposes, as well as to create awareness energy usage and environmental footprint.

The Baltic App System aims to be a voluntary communication channel. At the moment no standardization strategy is planned regarding the use of this app. However, 220E aims to improve the app, so the majority of their customers find it useful and benefit from it. Consequently, the Baltic App System shall be the main go-to service and communication channel with their clients.

Currently the energy retail market is divided in 3 main client groups:

- ***"Don't care group":*** *80% of utility clients do not have any particular interest in changing their current energy service plan.*
- ***"Fix price group":*** *about 10% of utility clients have a fix price contract for energy supply.*
- ***"Spot clients, energy micro-producers & enthusiasts":*** *this group comprises those clients aiming to save energy and to reduce it costs.*

The main customer segment of 220E are households with electric heating and spot priced contracts. The company aims to attract more customers to use its dynamic day-ahead spot priced contracts in order to help them to reduce their energy consumption and increase their overall satisfaction with their energy provider.

As described in the Deliverable D6.3, the key customer relationship to engage with end-users will be focused on automated services (self-service). Under this approach, 220E aims to reduce the direct relationship with its customers in order to cut call-center related costs and maximize its income by attracting more clients by using their app as marketing tool, which simplifies the report of household electricity consumption.

Being an online-based company, E220's key channels refer to a very dynamic activity in social media, namely, Facebook, Twitter, YouTube and LinkedIn. Particularly considering the possibility to create communities of costumers so they can compare their reports to other similar customers. Also, the company websites and social media channel will contribute to create awareness on through a playful, committed and informative way to save energy cost and contribute to tackle climate change.

The main obstacle is that there are no differences between the electricity provided by several energy retailers. (i.e. the electricity will be always the same). This raises the need to develop additional products, services and tools to engage more efficiently with the customers, such as the Baltic App System.

The Baltic App System developed is currently available in Estonia, Latvia, Sweden and more recently Austria. The number of customers is growing in Sweden and Austria. The number of users in Estonia is

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declining as Alexela is moving clients to its portfolio in Estonia. Unique users in Estonia over 2200, Latvia 300 and Sweden 150. However, the user numbers in Estonia and Latvia are declining.

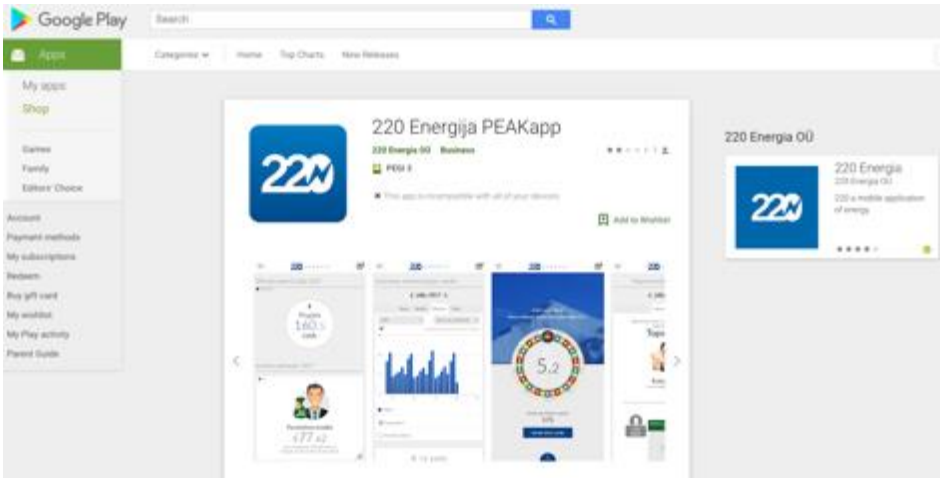

Figure 4. – Screenshot of the Google Appstore - The Baltic App (Source: Google[3])

Value proposition

In PEAKapp, 220E has developed additional features to their basic mobile self-service app in order to make it a more intuitive and useful mobile application for their clients. The app and its functionalities have been extensively described in the deliverable D2.4 (The Baltic App System). The main benefits of this app are indeed costs reduction through the simplification of customer services (e.g. call centers) but also higher customer satisfaction. Furthermore, the app had little effect on the merger with Alexela. However, the whole integrated CRM system made the transition seamless for customers and personnel of both companies.

With the Baltic App System, 220E aims to satisfy the market demand for faster information channels concerning the report of electricity consumption. The app provides its clients with a user-friendly solution for a better understanding of their energy usage and the possibility to compare the electricity consumption with similar costumers. The Baltic App has been developed to match several interaction levels with the customers, taking into consideration their level of interest on energy saving under a spot priced contract.

[3] Available at: https://play.google.com/store/apps/details?id=lv.energija.peakapp&hl=en

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Interaction layer	Energy-saving effort
• customers who receive a marketing email	• awareness of the investments related to EU energy-saving projects
• customers who download the application	• Information of today's spot price, SmartTip for appliances etc.
• customers who are inclined to use invoicing and simple services	• Short term pricing, consumption and production information, billing status, invoices, option to send feedback etc
• customers who are interested in in-depth analysis	• Granular data analysis graphs

Figure 5. – Four layers of interaction bringing energy-saving efforts to the customer. (Deliverable D2.4. The Baltic App System)

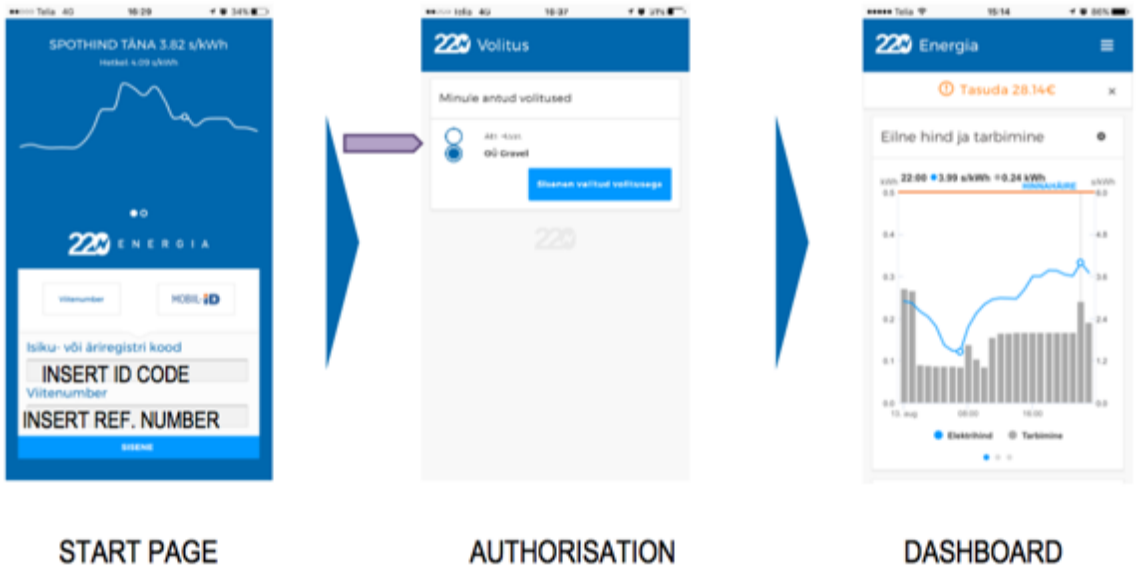

Figure 6. – Front-end Baltic-App System Estonia (Deliverable D2.4. The Baltic App System)

Cost and Revenue Streams

The end-to-end user experience (UX) of a mobile application depends on the marketing efforts, front-end framework capabilities, existing back-end services, available software platforms and telecommunications infrastructure. In this sense, the main costs refer to the server/infrastructure, the required software licenses, the qualified technical support. The app simplifies the interaction with the customers, which should contribute to a reduction of the costs associated to the call center. The saving approach is also considered a Revenue Stream besides the main company income generated via power retailing.

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Further research & development potential

220E is also looking forward to develop a new version of the Baltic App System that connects to TSO datahub in Estonia so end-users could have access to it regardless from their energy provider. Furthermore, 220E is implementing the connections with heat-pumps and smart floor-heating connections. Additionally, 220E aim to improve its peer-to-peer energy sharing platform GreenPool. Which is essentially linked to the Baltic App System.

In Austria, 220E is working in collaboration with Technische Universität Wien, to assess the demand flexibility and develop energy communities. Additionally, is currently following the developments of blockchain closely to identify further R&D opportunities.

3. Other Key Exploitable Results

▪ The Serious Game (Ijsfontein and GreenPocket)

Ijsfontein aims to use the Serious Game in PEAKapp to promote their experience in the development of software solutions for playful learning concerning education, training and behavioral changes. However, the game created in the project could also be licensed to utility companies that would like to improve their existing customer relationship management system. The aforementioned agreement between GreenPockect aims to facilitate two contact points for the commercialization of the such functionality or to design other similar games. Consequently, both companies are already promoting the gamification functionality as an efficient way to engage end-users (Figures 7 and 8). Deliverable 5.2 Report on market transformation through dynamic electricity prices, provides detailed information on the effects of the gamification functionality on end-users regarding the electricity consumption behavior. The Deliverable 5.2 is a public deliverable which is be accessible through the PEAKapp project website (www.peakapp.eu). This report will support Ijsfontein to approach to a new customer segment, such as utility companies.

Figure 7. – PEAKapp gamification functionality (Source: Ijsfontein's website)

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Figure 8. – PEAKapp gamification functionality (Source: GreenPocket's website)

- **The Roll-out planning toolkit (TECNALIA)**

Deliverable D5.4 Roll-out planning toolkit provides the guidelines and calculation template to facilitate the assessment of social acceptance, commercial viability and system/environmental impact for utility companies regarding the implementation of the functionalities comprising the ICT-to-Human ecosystem developed in PEAKapp. This is not a commercially exploitable result. However, it aims to provides utility companies with guidelines and tool to simplify the decision-making process regarding the required investment to implement an ICT-to-Human ecosystem like the one that has been developed in the project.

The guidelines described in the public deliverable, as well as the Excel Macros (template) will be accessible through the project website. Post-project dissemination activities (e.g. peer-reviewed articles, blog-posts and press release) will also facilitate access of the utility companies to the roll-out planning toolkit. The planning toolkit D5.4 and the aforementioned D5.2 (Report on market transformation through dynamic electricity prices) aim to trigger the investment from utility companies for the development/implementation ICT-to-Human ecosystem.

4. Barriers regarding the investments / plans to upgrade E-services tools based on PEAKapp results

During the consortium meeting the 29th May 2019 partners express their concerns regarding existing barriers that might discourage future investments in the development / implementation of ICT-to-Human ecosystem. For instance, the slower roll-out of smart meters in Europe is considered a very legit barrier given. Particularly, after countries like Germany like Croatia, Cyprus, the Czech Republic, Greece and Ireland decided not to have a national smart meter roll-out plan[4]. The lack of Smart Meter challenges the creation of dynamic price contract and therefore the development and implemention of ICT-to-Human ecosystems such as PEAKapp.

A major concern refers to data management regulations which impose severe penalties for the lack of control in the access / misuse of personal data. The development and implementation of ICT-to-Human ecosystem requires the handling of data through all the different players involved in the development

[4] EURACTIV.com: (Jan 2019) news taken from: https://www.euractiv.com/section/energy/news/smart-meter-woes-hold-back-digitalisation-of-eu-power-sector/

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and implementation of the system. Accordingly, the severe penalties established in the EU General Data Protection Regulation (GDPR) may discourage the handling of data collected by the utility companies to software developers as well as for further research. Accordingly, utility companies must improve their controls concerning data management and enhance their Data Protection Policies with all the permission authorization required for further development of the e-platforms and improvement of dynamic pricing plans.

Additionally, the complex interoperability conditions between grid administrators, utilities, energy retailers and billing systems was also identified as a barrier by the partners during the last consortium meeting. However, GreenPockets explained that they can provide their customers with software solutions that simplify interoperability conditions.

The high implementation costs and resistance to replace communication strategies of the utilities (e.g. from paper to e-platforms) was another barrier identified by partners as a recurring barrier to the wide spread of ICT-to-Human ecosystems. Currently utility companies are obliged to provide paper-based information their customers regarding their electricity consumption) in Austria. Such obligation might challenge the implementation of e-platforms considering the costs of implementing both systems (e.g. paper-based and online CRM platforms) at the same time. Nevertheless, the PEAKapp functionalities represent a viable cost-efficient solution for utility companies. A flexibilization of the aforementioned obligation in terms of allowing the consumers to choose their preferred information system, could simplify the transition process and reduce the implementation costs of the PEAKapp ICT-to-Human ecosystem. Additionally, the flexibilization of such obligation and the implementation of the PEAKapp based ICT-to-Human ecosystems could be the initial steps to discuss possible standards in the customer relationship between energy providers and end-users.

5. Non-commercial achievements

▪ EU Sustainable Energy Awards 2018 (Award)

The PEAKapp project received a Finalist Certificate award at the EU Sustainable Energy Awards 2018 in the category Consumers. Which aims to recognize outstanding innovation in energy efficiency and use of renewable energy.

Figure 9. – Finalist Certificate (EU Sustainable Energy Week 2018)

▪ Energy Globe 2019 (Award)

The PEAKapp project received the Honorable Mention of the Jury and a certificate at the Energy Globe Award 2019. The ENERGY GLOBE Certificate is an internationally recognized hallmark for

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sustainability. Such award aims to recognize the creative drive of energy innovators for the preservation of the environment.

Figure 10. – Dr. Johannes Reichl (Project Coordinator) receiving ENERGY GLOBE Certificate 2019

Both distinctions show level of interest of policy makers and the international scientific and industrial community in innovative cost-efficient solutions like the PEAKapp ICT-Human ecosystem to reduce electricity consumption and promote the use of renewable energy sources. Both awards will also contribute to the better exploitation of the results since they certify the creativity and innovative effort of the solutions developed under the project. For instance, partner GreenPockect may also exploit their participation in the project and the message behind such awards by including them in its list of awards See https://www.greenpocket.com/company/awards.

6. Post-project R&D potential

- ## Fast-Track to Innovation program (FTI) and H2020 Energy call EE13:

In addition to the aforementioned further development plans described by partners GreenPockect and 220 Energia regarding the two app systems, all consortium partners identified additional research and innovation opportunities during the last project meeting. During the meeting, RTDS and EI-JKU presented two pre-selected funding opportunities established under the H2020 programs, namely, the Fast-Track to Innovation program (FTI) and the H2020 Energy call EE13 (Enabling next-generation of smart energy services valorizing energy efficiency and flexibility at demand-side as energy resource).

The aim of the Fast-Track to Innovation program is to promote close-to-market innovation. The FTI might provide partners like GreenPockect and ENAMO with the opportunity to further improve its energy management software solution and services with the support of other project partners through interdisciplinary and cross-sectoral cooperation to revolutionize their existing or create entirely new markets. A “confidential” working document has been initially drafted describing the potential innovation concepts for an FTI project proposal. Currently, the scope of such project proposal still under negotiation as well as the required background. Nevertheless, the aim of the partners involved in proposal is to ensure the continuity of post-project innovation activities regarding the functionalities of the ICT-Human ecosystem. (e.g. by exploring the combination with other new ICT solutions).

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- **Improvement of the existing CRM e-platform of ENAMO (Linz AG)**

In addition, during the last consortium meeting, partner ENAMO informed the consortium partners about their intention to improve its existing CRM e-platform based on the results of the analysis conducted in WP5 regarding the transformation of the energy market through dynamic pricing strategy. Accordingly, ENAMO (Linz AG) aims to add the system functionalities described in the project to enhance their ICT-Human ecosystem.

7. Conclusion

This document comprised an overview of the Key Exploitable Results (KERs) developed in the project, the market entry barriers as well as the plans to ensure the post-project use of such results. The system functionalities developed in the project were successfully tested during the project implementation in order to verify the effects of dynamic pricing strategies in the behavior of end user. Therefore, such functionalities are now available for the commercial purposes as explained in this document.

The owners of results are aware of their obligations on exploitation and dissemination of their results established in the Grant Agreement. They are committed to exploit the value of their project results as well as to continue enhancing such value through new innovation activities.

Both app systems are already in the market and their owner have access to the communication material developed in the project to promote their results. Other results such as the roll-out planning toolkit and the dissemination material will remain available in the project website so that the partners can use them to better promote their KERs.

The post-project innovation activities mentioned in this document are also part of the exploitation plans to ensure post-project use of results. The application to any of the funding opportunities described in this document reflects the intention of the partners to continue the collaboration approach to innovate on project results. An eventual research or innovation project is expected to use results from the PEAKapp project as background.

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