

Project BaltCityPrevention WP4

GoA 4.2. Needs and requirement analysis of SMEs - Evaluation of the results

Introduction

To gather information about SMEs needs and requirements related to public-private cooperation a questionnaire was developed and sent to health IT SMEs in Finland, Estonia, Latvia, Lithuania, Poland, Germany, Denmark and Sweden.

First draft of questions for the questionnaire was discussed, commented and changed together in WP 4 Workshop of project kick-off meeting, in November 2018. Updated version of the questionnaire was sent to all project partners for final comments. After receiving input from project partners, the final questionnaire was tested by EPTEK sending it to 2 companies in Finland and by asking for their comments/feedback. When the final version of the questionnaire was finished and tested, a link to the questionnaire and a short introduction for the questionnaire in national language was sent to health IT SMEs in each country.

In Finland link to the questionnaire was sent by project partner EPTEK. Questionnaire was sent to 21 IT Health SMEs. EPTEK has had some kind of cooperation with the most of the companies earlier through different projects. 1-3 companies were called or contacted per email beforehand since they gave feedback on the questionnaire before it was send out.

In Estonia link to the questionnaire was sent in cooperation by two project partners the Society of the Family Doctors of Estonia and by Tallinn University of Technology Questionnaire was sent to 41 IT Health SMEs. Questionnaire was sent using the help of Estonian Connected Health cluster. Connected Health is a country-wide partnership between health-related stakeholders in Estonia, who are committed to accelerating the adoption of connected health solutions, on an international scale and on commercial terms. The questionnaire was sent to health IT and health start-up members. Excluded were biotech, business support companies, healthcare providers and universities.

In Latvia link to the questionnaire was sent by project partner Telemedica. Questionnaire was sent to 12 IT Health SMEs. There had been cooperation between Telemedica and most of the companies the questionnaire was sent therefore most of the companies were contacted directly firstly by phone. Additional SMEs were found via online search.

In Lithuania link to the questionnaire was sent by project partner Center for Health Education and Disease Prevention. Questionnaire was sent to 9 IT SMEs engaged in the development of mobile or web applications, social networking. Only one IT health SME was found therefore other enterprises were included that create mobile applications, web applications, as their results are applicable also in health care and can be useful for the project. Before sending letters with links to the questionnaire a telephone conversation was conducted with company's representatives.

In Poland link to the questionnaire was sent by project partner City of Poznan. Questionnaire was sent to 32 IT Health SMEs. For City of Poznan this was the first contact with companies. Previously City of Poznan has had no direct cooperation with SMEs.

In Germany link to the questionnaire was sent by project partner Flensburg University of Applied Sciences. Questionnaire was sent to 24 IT Health SMEs in the three federal states Schleswig-Holstein, Hamburg and Mecklenburg-Vorpommern, including also Berlin as the German capital and

Brandenburg. Only few SMEs were already known before contacting them. Most of the SMEs were found via online search.

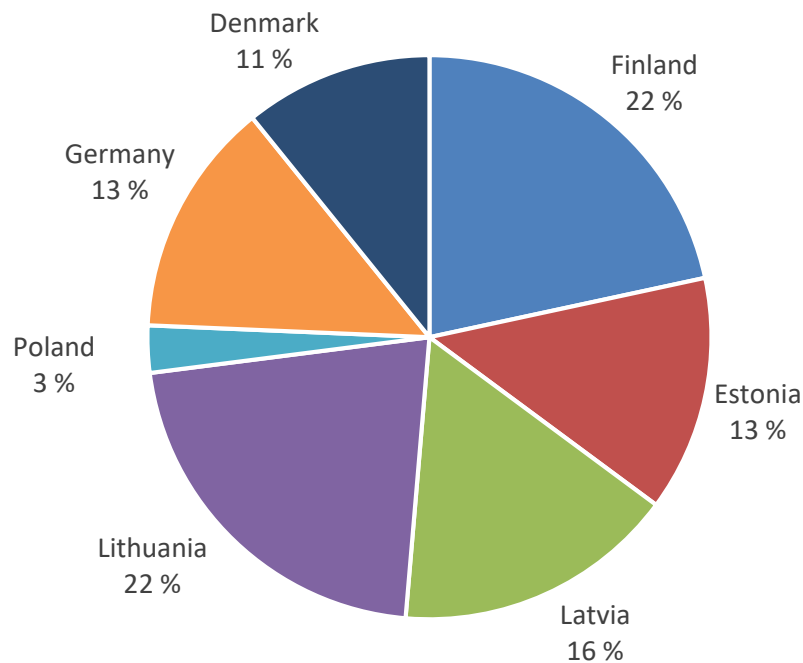
In Denmark link to the questionnaire was sent by project partner ScanBalt. Questionnaire was sent to IT Health SMEs with potential interest in market access outside Denmark and sufficient web information, with potential collaboration with PHA's, known from a pitching event 2017 where ScanBalt was in the award committee. 4 out of 10 SMEs were known in advance.

In Sweden link to the questionnaire was sent by project partners EPTEK and ScanBalt. Questionnaire was sent to IT Health SMEs in Västerbotten County region, Business Region Goteborg and 10 additional SMEs.

Invitation to fill out the questionnaire was also published in ScanBalt, Northern Europe's Leading Accelerator for Inter-regional Cooperation, newsletter and sent to 10 253 subscribers.

Responses were gathered centralized. In total responses were received from 37 companies (Picture 1).

Picture 1. Company distribution by countries



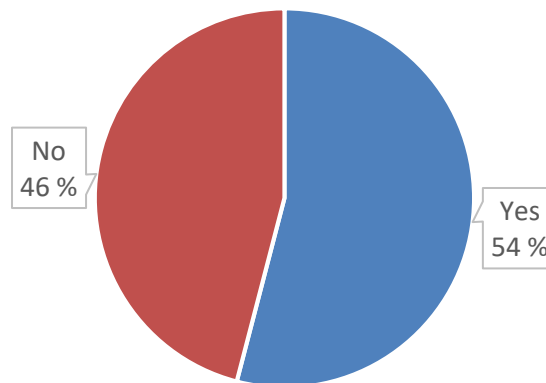
Responses from 8 Finnish, 5 Estonian, 6 Latvian, 8 Lithuanian, 1 Polish, 5 German and 4 Danish companies were received. No responses from Swedish companies were received.

Results

Companies were asked 9-10 questions about their experience, products and expectations (Attachment 1).

Firstly, companies were asked if they have had any cooperation with Public Health Authorities – PHAs before (Picture 2).

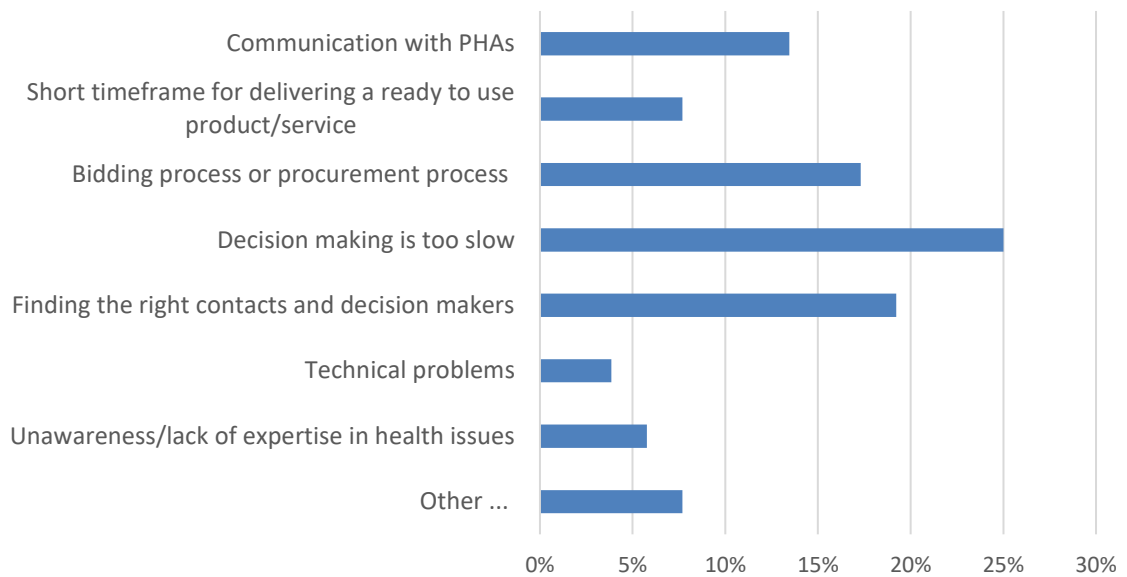
Picture 2. Q1 Have you had any cooperation in regard to eHealth-issues/products with public health authorities (PHAs)?



Most of the companies (54%) have had cooperation with PHAs in regard to eHealth-issues/products. 13% have delivered a ready-made product/service, but 41% have developed, changed or altered a service/product for a PHA. Which means 41% of companies have had experience in working together with a PHA and developing or altering a product or service to fit PHA's needs. Most companies from Finland, Estonia, Latvia, Poland and Denmark have had experience in cooperation with PHAs, however most companies from Lithuania and Germany have not previously worked with PHAs.

For companies that have had experience in cooperation with PHAs two additional questions were asked about their greatest challenges and difficulties working together with PHAs (Picture 3).

Picture 3. Q2 If you have cooperated with PHAs, what have been your greatest challenges, difficulties?



As the most important challenge 25% of companies have noted the slow decision making of PHAs. The slow decision making was noted also as the greatest challenge between Finnish, Latvian and Danish companies. For Danish companies equally challenging is also finding the right contacts and decision makers. Lithuanian companies have noted the short timeframe for delivering a ready to use product/service most difficult. Estonian companies pointed out 3 equally most challenging factors - communication with PHAs, short timeframe for delivering a ready to use product/service and bidding process or procurement process. Also, German companies pointed out 3 equally most challenging factors – bidding process or procurement process, slow decision making of PHAs and finding the right contacts and decision makers. 4 equally challenging factors for Polish companies are - communication with PHAs, bidding process or procurement process, slow decision making of PHAs and finding the right contacts and decision makers.

In the additional question asking for suggestions to solve previously mentioned problems companies suggest basically two main solutions. First, need for improving communication, for example:

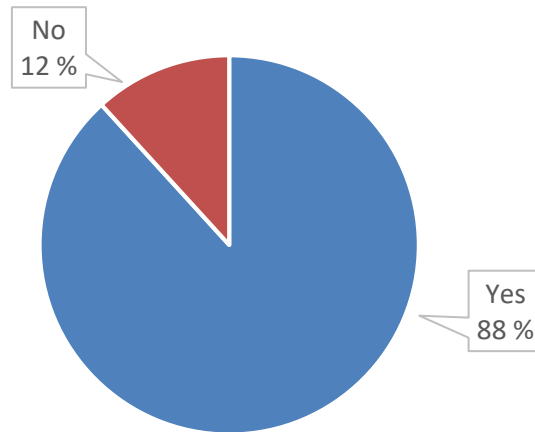
- Open dialog with PHA's and IT companies
- Empower the middle/lower management to make decisions on their own
- More open communication between bidders as well as inside and between municipalities
- Cooperation guidelines from PHAs
- Much closer collaboration and mutual case study groups

Secondly, more preparatory work before projects, for example:

- Pre-negotiations before procurement process
- Clear standards for procedures
- Better analysis and pre-planning for communication and technical background
- Timely implementation of new processes related to transition to new digital services
- Deeper analysis

For companies that have not had experience in cooperation with PHAs one additional question were asked if they are interested in cooperation with a PHA (Picture 4).

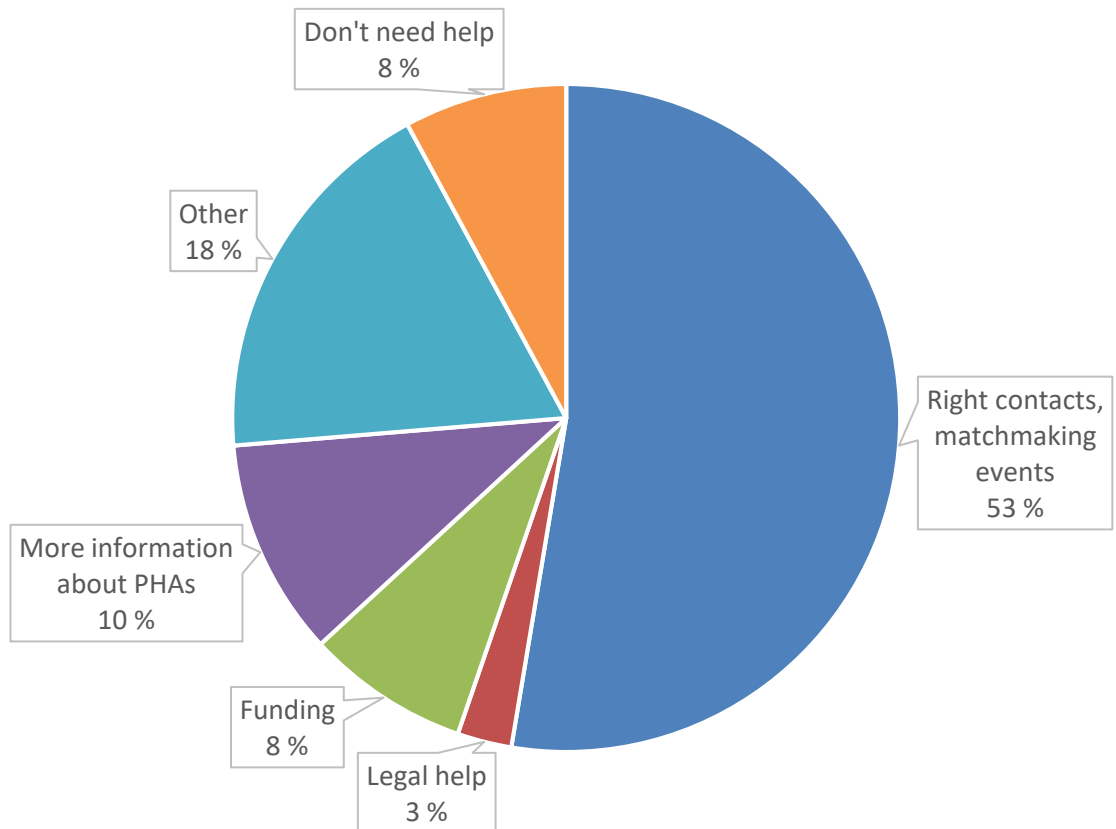
Picture 4. Q4 If you have not cooperated with a PHA, are you interested in cooperation with a PHA?



88% of companies that have not had any experience in cooperation with PHAs are interested in cooperation with a PHA. Also, most companies from each country individually pointed out interest to cooperate with PHAs. Companies that are not interested in cooperation with PHAs pointed out reasons like, for instance, cooperation with PHAs are not relevant for the company and there has been no situation that required PHA cooperation.

Further companies were asked to indicate what kind of help would they need to reach PHAs (Picture 5).

Picture 5. Q5 What kind of help would you need to reach PHAs?



Answers to this question indicate the importance of project WP4 aim to initiate networking and matchmaking among PHAs and health IT SMEs. 53% companies pointed out that the right contacts and matchmaking events are essential for them to reach PHAs. For example:

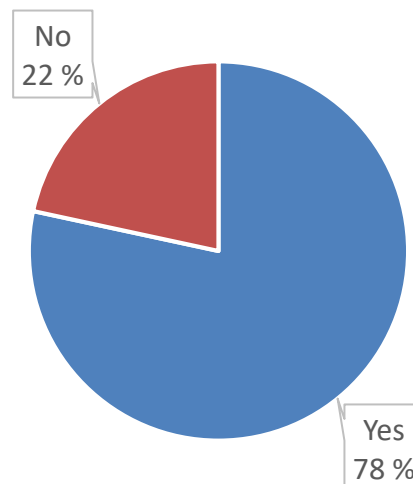
- Contacts with decision makers
- Participation in local and international events where companies will be able to meet representatives of other similar companies (SMEs) and public health institutions (PHA)
- Matchmaking events, exhibitions with participation of PHA
- Neutral regional operators to arrange workshops, seminars, info sharing, exhibitions
- More opportunities to communicate

As other help was noted that PHA competence to work with SMEs should be improved, one entry point and technical, IT support needed.

PHA’s answers to project WP2 GoA 2.1 “Needs and requirements analysis of PHA” questionnaire question no.5 - Who are the key collaborative partners for your intervention(s)? - indicate that SMEs are marked as key collaborative partners for interventions only in 3% cases. This situation can be a cause to poor or lack of connections between SMEs and PHAs. Answers to question no.6 - What kind of help would you need from SMEs (for planning and implementation of the interventions)? – of PHA’s questionnaire show that PHAs would like to receive different kind of help from SMEs, including technical, educational and also financial support. This means that PHAs are willing to communicate and cooperate but, as SME’s miss the right contacts and information. It is important to foster cooperation between SMEs and PHAs, it would benefit both sides.

In question no.6 companies were asked if they have done needs assessment for their products/services (Picture 6).

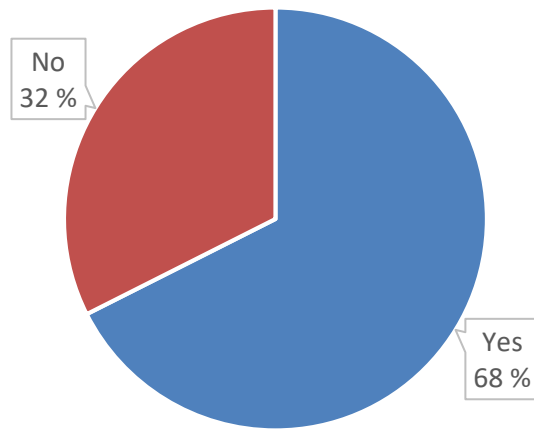
Picture 6. Q6 Have you done needs assessment for your products/services?



Most of the companies (78%) have done needs assessment for their products/services. Also, most companies from each country individually have done needs assessment for their products/services.

In question no.7 companies were asked if they have done market research (Picture 7).

Picture 7. Q7 Have you done market research?



Most of the companies (68%) have done market research. 44% of companies have done market research only in their country, however 35% of companies have done market research in EU and 21% - outside EU. This indicates that a significant part of SMEs are willing and prepared to cooperate transnationally. Most companies from Estonia and Denmark have done market research outside their own country.

In question no.8 companies were asked to evaluate the potential threats – to what extent are they relevant for their company, products/services: not relevant, hard to say, relevant or very relevant (Picture 8).

Picture 8. Q8 Please, evaluate the potential threats – to what extent are they relevant for your company, products/services?

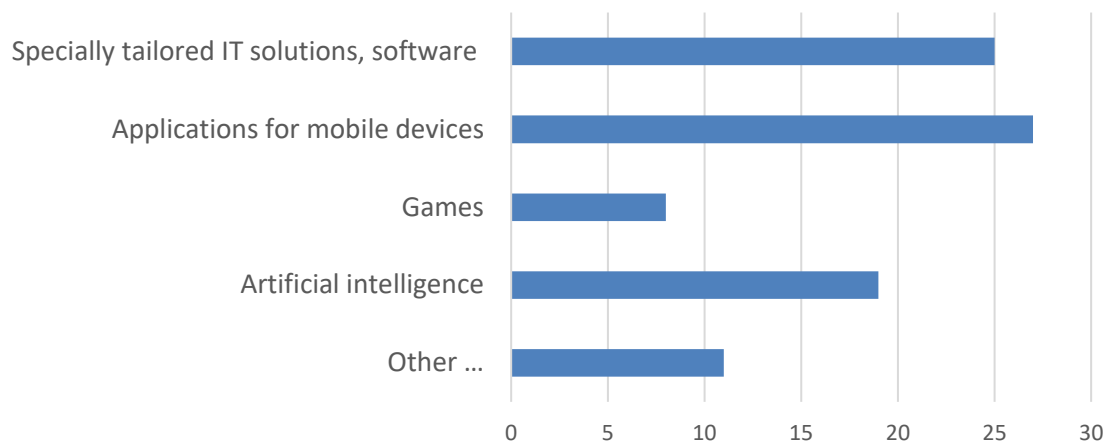


Evaluation was measured with points by adding 0 points for the potential threats that are marked as not relevant, 1 point for hard to say, 2 points for relevant and 3 points for very relevant. Responses indicate that most companies find difficult to acquire investment for the development of new products/services as the most important threat for their company, products/services. The

difficulty to acquire investment was marked also as the most relevant threat to Finnish, Estonian and German companies. For Lithuanian companies equally relevant threat is the small market and frequent changes in government policy, tax changes. Latvian companies have marked the small market as the most relevant threat. Polish companies have marked lack of qualified workforce as the most relevant threat and Danish companies have marked lack of information about customers needs as the most relevant threat.

In question no.9 companies were asked in which of Health IT niches do they see opportunities in the future (Picture 9).

Picture 9. Q9 In which of the following Health IT niches do you see opportunities in the future?

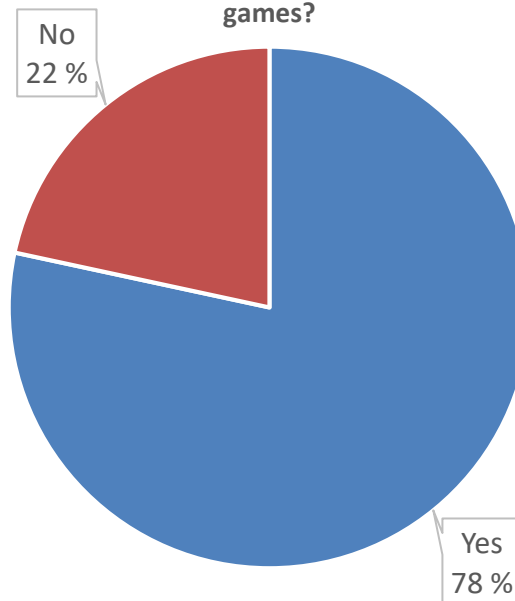


Most companies see opportunities in applications for mobile devices and also in specially tailored IT solutions, software. Opinions between countries differ regarding this question. Most companies from Finland, Latvia and Lithuania marked applications for mobile devices as niche with the most potential in the future while most Danish companies see opportunities in specially tailored IT solutions, software, but most Estonian and German companies see opportunities in artificial intelligence. Polish companies find applications for mobile devices and specially tailored IT solutions, software equally potential.

As other help was mentioned telehealth, telecare, self-serving clients zones, technical solutions for independent living.

Finally companies were asked if they think PHAs should be more involved in the development process of new Health IT solutions/ products / apps / games (Picture 10).

Picture 10. Q10 Do you think PHAs should be more involved in the development process of new Health IT solutions/ products / apps / games?



Most companies (78%) believe PHAs should be more involved in the development process. Also, most companies from each country individually, except Finland, pointed out that PHAs should be more involved in the development process. 50% Finnish companies believe PHAs should be more involved in the development process, 50% suggest they should not. Both sides have noteworthy arguments for their opinions. Companies who think PHAs should be involved in the development process believe that collaboration is the key to a successful product/service. It's always in the interest of the future customer if companies/institutions work together. PHAs know the end users way better, so they could help understanding their needs. Also, there could be more discussions between PHAs and IT sector. PHAs could indicate current issues whereas IT sector would provide possible solutions/technologies for those problems. For example:

- By generating ideas
- By providing information about needs, suggestions
- PHAs could be more involved also in testing of new products and feedback

However, companies who don't want to involve PHAs in the development process mention various arguments. For example, problems with decision making, which was pointed out also in question 2 that simply decision making is too slow. PHAs often lack the needed creativity and openness for novel solutions. PHA are needed as supporters/sponsors but not as part of technical innovations. Then another reason also is PHAs lack of competence when it comes to technical issues that could also negatively influence the development process. Additionally, some companies think that involving certain companies in the development process wouldn't be fair to other competitors.

Conclusions

Survey results emphasize the need for contacts and matchmaking events from SME’s point of view. Although there are slight differences between Baltic Sea Region countries in regard to previous experience collaborating with PHAs, evaluation of potential threats and future opportunities, the differences are not significant and most likely would not create obstacles for trans-national cooperation between SMEs and PHAs. Sharing the differences and different experiences would be a useful learning experience for SMEs. Therefore, matchmaking events and networking between SMEs and PHAs are essential. Activities of project BaltCityPrevention WP4 GoA 4.3. “Matchmaking and networking of SME among themselves” and GoA 4.4. “Matchmaking and networking of SMEs and PHAs” will foster cross-border collaboration between health IT SMEs and PHAs.

Based on survey results a SWOT analysis for the Baltic Sea Region health IT SMEs was prepared (Table 1).

Table 1. SWOT analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Needs assessment for products/services • Market research 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Difficulties to acquire investment for the development of new products/services • Lack of qualified workforce
<p>Opportunities</p> <ul style="list-style-type: none"> • Potential IT niches • Improved cooperation with PHA 	<p>Threats</p> <ul style="list-style-type: none"> • Too small market • Decision making of PHAs too slow • Frequent changes in government policy, tax changes • Too much competition in the market

Attachment 1 to project WP4 – GoA 4.2. Needs and requirement analysis of SMEs

SME questionnaire

<p>Q1 Have you had any cooperation in regard to eHealth-issues/products with public health authorities (PHAs)? <i>(one answer possible)</i></p> <ul style="list-style-type: none"> <input type="radio"/> Yes, we have developed a service/product for a PHA <i>(company and PHA have worked together to develop a unique product/service for the PHA)</i> <input type="radio"/> Yes, we have delivered a ready-made product/service <i>(company has sold its service/product to a PHA without making any special adjustment to it)</i> <input type="radio"/> No
<p>Q2 If you have cooperated with PHAs, what have been your greatest challenges, difficulties? <i>(multiple answers possible)</i></p> <ul style="list-style-type: none"> <input type="radio"/> Communication with PHAs <input type="radio"/> Short timeframe for delivering a ready to use product/service <input type="radio"/> Bidding process or procurement process <input type="radio"/> Decision making is too slow <input type="radio"/> Finding the right contacts and decision makers <input type="radio"/> Technical problems <input type="radio"/> Unawareness/lack of expertise in health issues <input type="radio"/> Other _____ <p>Q3 What are your suggestions to solve previously mentioned problems? <i>(open question)</i></p> <ul style="list-style-type: none"> <input type="radio"/> _____ <p>Q4 If you have not cooperated with a PHA, are you interested in cooperation with a PHA? <i>(one answer possible)</i></p> <ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No, why? _____
<p>Q5 What kind of help would you need to reach PHAs? <i>(open question)</i></p> <ul style="list-style-type: none"> <input type="radio"/> _____
<p>Q6 Have you done needs assessment for your products/services? <i>(one answer possible)</i></p> <ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No
<p>Q7 Have you done market research? <i>(multiple answers possible)</i></p> <ul style="list-style-type: none"> <input type="radio"/> Yes, only in my country <input type="radio"/> Yes, in EU <input type="radio"/> Yes, outside EU <input type="radio"/> No
<p>Q8 Please, evaluate the potential threats – to what extent are they relevant for your company, products/services? <i>(Very relevant / relevant / hard to say / not relevant)</i></p> <ul style="list-style-type: none"> <input type="radio"/> Lack of qualified workforce <input type="radio"/> Too small market <input type="radio"/> Difficult to acquire investment for the development of new products/services <input type="radio"/> Frequent changes in government policy, tax changes <input type="radio"/> Not enough information about customers needs <input type="radio"/> Too rapid advances in technology <input type="radio"/> Too rapid changes in client interests/needs <input type="radio"/> Too much competition in the market

Q9 In which of the following Health IT niches do you see opportunities in the future? (*multiple answers possible*)

- Specially tailored IT solutions, software*
- Applications for mobile devices*
- Games*
- Artificial intelligence*
- Other* _____

Q10 Do you think PHAs should be more involved in the development process of new Health IT solutions/ products / apps / games? (*one answer possible*)

- Yes, how?* _____
- No, why?* _____

Q11 Do you have anything you would like to add? (*open question*)

- _____

Q12 Company details

Name of the company: _____

Country: _____

Number of employees: _____

What products/services does your company offer? _____

Contact person: _____

E-mail: _____

Website: _____