



## STOPandGO

Sustainable Technology for Older People – Get Organised  
CIP-ICT-PSP – 2013 - 621013

# Overview Open Market Consultation

[In response to recommendations of the second year review]

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# 1. Introduction

Following the review of the STOPandGO project held in Brussels on 26 May 2016 the Commission has given the consortium several immediate recommended actions. Recommendation 2 is “*Compile and document the participation in the Open Market Consultation, specifically the feedback resulting from questionnaires. Provide a summary report of supplier feedback.*” This report provides the feedback from the consortium in relation to this recommendation.

Each of the procurers participating in STOPandGO adapted an approach to the Open Market Consultation (OMC) that fitted the local context and national regulations. This had led to a variety in approaches and is in line with the advice given by the Procurement of Innovation platform: “*Consider using a questionnaire or survey, written submissions, face-to-face, phone or web-based meetings, open days and supplier demonstrations.*”<sup>1</sup>

In the specific case of the STOPandGO project the focus isn't on technology itself but on services enabled by technology. This fact has a direct impact on the open market consultation in the sense that besides the importance of knowing what products are available on the market it is equally important to focus attention on consortia building. Furthermore in the STOPandGO project the focus is on organisational changes needed to be able to offer services enabled by technology. This most often requires an internal change and support that is complementary to the open market consultation and is a key element to 'knowing the market'. When focussing on organizational aspects it not only paves the way for a single procurement but creates the favourable landscape for other innovations to flourish.

The aspect of involving the supply chain in the open market consultation is also acknowledged by the Procurement of Innovation platform: “*Know the market – perhaps the single most important lesson from successful PPI examples. A thorough understanding of the potential supply chain for an innovative product or service is indispensable, and this may go beyond the existing knowledge of category managers. This is because PPI will often involve new market players or groupings, require specialist materials or services to be sourced, and structure contracts or payment in new ways. To understand the scope and willingness for this on the supply side, detailed research and pre-procurement market engagement may be needed.*”<sup>1</sup>

According to our current experience, increasing engagement by involvement of all stakeholders is a critical success factor. In this sense, the OMC is a very valuable instrument which also needs further refinement.

Some positive lessons learnt from our experiences are:

- East Cheshire CCG has experienced that the more organisations involved and signed up to the project, the more the service will naturally integrate across the care system.
- East Cheshire CCG also quoted that the clinical Leadership from Specialist and Generalist is key and should be employed early in the project, from scoping through to implementation and evaluation.
- A success factor in Cheshire has been the co-design of the model of care for integrated diabetes through: involvement of colleagues and partners from the NHS, Local Authority, Public Health and Third Sector organisations, including people who have diabetes and people with an interest in diabetes, such as families and carers.
- Sant Pau also addressed the need to create a multidisciplinary team, led by clinicians aware of the potentialities and feasibility of innovation with the support of experts in innovation, project management, procurement process and value-based procurement. The hospital board needs to be involved and support the initiative to overcome the shortcomings that may come up in innovations' setting up.

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<sup>1</sup> Semple, A (2014) *Guidance for public authorities on Public Procurement of Innovation*, Procurement of Innovation Platform, Druckerei Kesselring GmbH, Emmendingen.



- Sant Pau faced strong initial opposition from the medical device manufacturing sector. The engagement with the supply side, evidencing the win-win opportunities, and the efforts to clarify the new approach, including views from the suppliers side, was crucial to the tender success.
- ASL RMD and ASP CZ in the absence of clear regulation decided to adopt the more frequent used procedures based on the collection of proposals and suggestions through questionnaires. This has resulted in detailed feedback on proposed functionalities, payment models, performance indicators, and standards and service requirements. The collected information has been used to shape the tender text.
- The city of Helmond used a variety of networks that consist of a divers network of stakeholders at a national as well as European level to continuously be updated on the latest status of technology enabled services for people with dementia.
- Liverpool held two events, one focussing on the role of technology in domiciliary care and one matchmaking event between domiciliary care suppliers and technical companies. Feedback from the matchmaking event was overwhelmingly positive in terms of the learning and networking opportunities.
- So.Re.Sa has just relaunched their OMC after the closure of ARSan at the beginning of 2016 and the resulting period of uncertainty. The Open Market Consultation is conducted first and foremost, to acquire useful information by the economic operators, in order to achieve a clear definition of the requirements, the results and outcomes expected from the launch of the tendering procedure in question.
- In Tuscany respondents have suggested different models and solutions for different challenges such as modelling, organization, pricing and interoperability.
- For Aragon the most important aspect of the open market consultation was that companies and the public administrations have contacted them so that they could explain to them this new way of acquiring services.

Procurers see an open market consultation as a valuable instrument to verify market readiness, to create engagement, to develop consortia and to increase acceptance and awareness. The details of each of the OMC's are presented in the following chapters.

## 2. ASL RMD and ASP CZ

### 2.1. The Open Market Consultation at local level

In line with the aims of STOPandGO project, and more in general with the PPI instrument, ASL RMD and ASP CZ in the summer 2015 published the Prior Information Notice on the OJEU to launch their Open Market Consultation<sup>2</sup>. The purposes of the OMCs are:

- to inform about the tender process, in order to achieve the widest participation of interested parties;
- to learn about quality and technical characteristics of the proposed solutions on the market;
- to allow interested parties to provide comments and suggestions considered useful for the contracting authority in preparation of the tender.

Both ASL RMD and ASP CZ have launched the OMC through the publication on the own institutional website of a semi-structured questionnaire. The Italian law on procurement, still in force in 2015 (the new directive 24/2015 has been transposed in the national regulation in April 2016), didn't explicitly regulate the market consultation and the only experiences of procedure to launch a OMC were provided by the centralized bodies of purchasing (e.g. Consip). Because the more frequent procedure adopted is based on the collection of proposals and suggestions through questionnaires, both the procurers decided to adopt the same approach.

Notices about OMCs have been published on the STOPandGO website, on the STOPandGO LinkedIn Group but also on Italian web journals ([www.quotidianosanita.it](http://www.quotidianosanita.it)), on the Inspire platform and on the PPI platform. Moreover, the OMC of ASL RMD has been presented at the yearly AAL forum in September 2015.

#### 2.1.1. Characteristics of respondents

A total of 10 completed questionnaires were returned to ASL RMD and 11 to ASP CZ.

|                             | ASL RMD   | ASP CZ    |
|-----------------------------|-----------|-----------|
| ICT providers               | 7         | 8         |
| Homecare services providers | 3         | 1         |
| Others                      | 0         | 2         |
| <b>TOTAL</b>                | <b>10</b> | <b>11</b> |

*Table 1. Completed questionnaires*

For both procurers most of the questionnaires were submitted by ICT providers. 6 ICT providers have submitted filled questionnaires for both OMCs. The others participants are homecare services providers or newcomers in the homecare sector. One of questionnaires, in particular, has been submitted by a consortium composed by an ICT provider and a company that manages a resort. This consortium aims to realize an elderly center in which value added services are provided to promote healthy and active ageing, enhanced by telemedicine, domotics and ICT.

The homecare services providers are all Italian companies while four ICT providers, that have participated in both OMCs, are Spanish companies. The result is in line with expectations: while the labor intensive nature of homecare service as well as the need to work at the patients' home create significant barriers to enter on the local market by non-Italian firms, the nature of the activities, associated to a stronger inclination to internationalization, makes easier for foreign ICT provider to access to the Italian markets.

<sup>2</sup> <http://ted.europa.eu/udl?uri=TED:NOTICE:277322-2015:TEXT:EN:HTML>  
<http://ted.europa.eu/udl?uri=TED:NOTICE:232911-2015:TEXT:EN:HTML>



The high relative presence of foreign respondents allowed to target the objective to gain interest towards the OMC of the European market, although the respondents are geographically concentrated. Only two respondents are start-up (one for procurer) while most part of the companies are on the market for a long time.

The degree of experience of health organizations as a supplier is relatively heterogeneous: there are respondents that declare to have recently decided to enter in the homecare market, service providers that operate exclusively in the private sector, ICT providers strongly involved in EU projects, and companies with a great expertise in the provision of ICT services or homecare services.

### The SMEs involvement

A further objective of STOPandGO project is to create conditions to increase the involvement of SMEs in PPI. It was not possible to carry out an assessment of the degree of participation in the OMC of SMEs because most part of respondents have not provided information about their size. Nevertheless we have detected the presence among ICT providers of small businesses with fewer than 50 employees. The lack of SMEs among the homecare providers that have participated to the OMC is justified by the labor-intensive nature of their activity.

## **2.2. The offered services**

The questionnaires were analyzed paying attention primarily on the type of service / functionality offered and not on the technological and operational solution proposed.

The services/functionalities proposed can be classified into five different classes:

- Integrated homecare services,
- Services to support the management of the homecare program,
- Remote monitoring services (tele-monitoring),
- Patient-oriented services,
- Services for the change management.

### Integrated homecare services

The first category concerns the traditional services provided by qualified personnel at the patient's home (nursing, rehabilitation and social care).

### Services to support the management of the homecare program

The second class includes digital services to support the activities of each player but also the management and the monitoring of all the phases of the Homecare program. In this case digital technologies trigger innovation in the process and not in the service or product.

These services can bring at least two important advantages to the procurers. A first direct advantage is linked to the fact that the computerized management of the information flow related to the execution and management of the ADI program helps to make the activities performed by the provider more transparent and therefore increases the possibility to control the correct execution of the contract.

The second benefit is indirect: a computerized management of the homecare process can contribute to a better coordination of the service provided by the supplier and a consequent greater efficiency. These aspects can enable on a higher quality of overall service for the benefit of patients.

### Telemonitoring services

The third category concerns telemonitoring services. The variety of proposals received allows us to highlight three different "objects" of remote monitoring: biometrics, cognitive abilities and daily routines. The last two are particularly important in the management of frailty, and in the prevention and early diagnosis of dementia. In addition, the monitoring of daily routines through a set of sensors (eg. position/movement sensors) can contribute to preserving the autonomy of the elderly people at home while providing the opportunity for formal or informal caregivers to intervene promptly in cases of need.

The analysis of remote monitoring solutions proposed by the respondents allows to identify more in detail the relevant functionalities for an effective remote monitoring. In particular, some key functionalities are:

- for the general practitioner:
  - o to plan the monitoring activities,
  - o to define thresholds and alarms,
  - o to collect the monitoring results,
  - o to receive alarm signals (depending on the nature of the alarm, this functionality, could be relevant for other professionals, primarily the nurse or the social care professional).
- for the operator of the control center:
  - o to timely detect the data out of range,
  - o to activate the procedures in order to manage the alarms.

Some vendors also offer additional functionalities such as to allow to the General Practitioner to develop questionnaires for the patients in order to collect more specific information in addition to the monitored parameters.

### Patient oriented services

The heterogeneity of services included in this class suggested the identification of some sub-classes.

The first sub-class is described as "**empowerment**" as it brings together all the functionalities that make the patient an active player in the home care process by enabling the self-management of some activities. These functionalities are: to periodically send data about the own health through questionnaires and/or devices, to transmit images, to visualize the care plan, to receive of practical instructions and to send questionnaires for patient-satisfaction that contribute to the assessment of the quality of services provided.

A second sub-class of services is the one that concerns "**patient-physician interaction by remote**" through solutions of video-conferencing and teleconsultation. Such a service can contribute to optimizing the use of resources by allowing to a single operator to handle more patients and reduce travel time and, at the same time, can allow to increase the frequency of interactions with the patient. Video-conferencing can be particularly effective in support of rehabilitation, allowing operators to monitor the compliance to the rehabilitation procedures by the patient and / or his/her caregiver.

A third sub-class has been defined "**coaching**" and it brings together two types of services described by the ICT providers oriented to help the patient to accept her/his active role in the care process and to carry it out. The focus here is on providing support for the management of daily activities and on the activation of a series of reminders to carry out specific tasks related to the management of their own health (adherence to drug therapy, detection of biometric data, adoption of certain behaviors ...). Two companies also offer services aimed at the cognitive stimulation in order to delay dementia.



The fourth sub-class is the one that brings together services aimed at fostering greater **"patient socialization"** both with their families and with other patients.

The last sub-class brings together the services not directly in line with the purposes of the homecare program but that provide added value in the management of frailty and preserving autonomy of elderly people. The class includes **"home automation services"** aimed at facilitating the interaction of elderly people with its home environment and "telecare" services, which allow to timely report the requests for help.

#### Services for the change management

Only one respondent has emphasized the importance to include in the offer training services designed to promote greater confidence and familiarity of all the actors involved (professionals, patients and administrators) with the innovative proposed tools and solutions. The training is in fact one of the key means not only for the acquisition of specific skills but also to mitigate the resistances of professionals and patients in the presence of changes in the way of delivering homecare services.

### 2.3. Degree of completeness of the offer

The table below depicts the distribution of proposed functionalities by respondents.

Table 2. Proposed functionalities

| Functionalities   | ASP CZ |     |     |     |     |     |     |     |     | ASL RMD |     |     |     |     |     |
|---|--------|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|
|   | AD1    | OT1 | OT2 | IT1 | IT2 | IT3 | IT4 | IT5 | IT6 | IT7     | IT8 | IT9 | AD2 | AD3 | AD4 |
| <b>Homecare services</b>  |        |     |     |     |     |     |     |     |     |         |     |     |     |     |     |
| Provision of care and cure services at home                                   | XX     |     | X   |     |     |     |     |     |     |         |     |     | XX  | XX  | X   |
| <b>Management of homecare program</b>   |        |     |     |     |     |     |     |     |     |         |     |     |     |     |     |
| Multidimensional assessment of the patient                                    | XX     | XX  |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| Registration of the care plan   | XX     |     |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| Scheduling of the treatments at home  | XX     | XX  |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| Management of the professionals' agenda                                       | XX     |     |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| Registration of contacts (at home or by remote)                               | XX     |     |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| Support to the communication among professionals involved in the care process | XX     |     |     | XX  |     |     |     |     | X   |         |     |     |     | XX  |     |
| Accounting and reporting activities   | XX     |     |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| Visualization of the care plan by patient                                     |        |     |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| Detection of patient satisfaction   |        |     |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| Elaboration of services' KPI  | XX     |     |     |     |     |     |     |     |     |         |     |     |     | XX  |     |
| <b>Remote monitoring</b>  |        |     |     |     |     |     |     |     |     |         |     |     |     |     |     |
| Object of the monitoring  |        |     |     |     |     |     |     |     |     |         |     |     |     |     |     |
| Daily routines  |        |     |     |     |     | XX  |     | XX  |     |         |     |     |     |     |     |
| Cognitive capabilities  |        |     |     |     |     |     | XX  |     |     |         |     |     |     |     |     |
| Biometrical data  | XX     |     | X   | X   | XX  |     |     |     |     | XX      | XX  | XX  |     | XX  | XX  |
| Planning remote monitoring for each patient                                   | XX     |     |     | X   | XX  | X   | X   | X   |     | XX      | XX  | XX  |     | X   |     |
| Definition of thresholds and alarms   | XX     |     | XX  | X   | XX  | X   | X   | X   |     | XX      | XX  | XX  |     | X   |     |
| Production of (clinical) questionnaires for patients                          | XX     |     |     |     | XX  |     |     |     |     | XX      |     | XX  |     |     |     |



|  |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
|--|----|----|----|---|----|---|----|----|----|----|----|----|--|----|--|
| Sharing information among players involved in the care process                   | x  |    |    | x | xx |   |    |    | x  | xx | xx | xx |  |    |  |
| Detection and management of alarms   | xx |    |    | x | xx | x | x  | x  |    | xx | xx | xx |  | x  |  |
| tracking activities of operators at patient's home                               |    |    |    |   |    |   | x  |    |    |    |    |    |  |    |  |
| <b>Patients oriented services</b>  |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
| <b>Empowerment</b>   |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
| Manage questionnaires (about health status)                                      |    |    |    |   |    |   |    |    |    | xx |    |    |  |    |  |
| Transmission of images   |    |    |    |   |    |   |    |    |    | xx |    |    |  |    |  |
| Receipt of practical instructions  |    |    |    |   |    |   |    |    |    | xx |    |    |  |    |  |
| Visualization of care plan   |    |    |    |   |    |   |    |    |    |    |    |    |  | xx |  |
| Manage questionnaires for patient satisfaction                                   |    |    |    |   |    |   |    |    |    |    | xx |    |  | xx |  |
| <b>Interaction patient-clinician</b>   |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
| Tele-consulting with clinicians  | xx |    |    |   |    |   |    | xx |    |    | xx |    |  |    |  |
| Remote messaging with professionals  |    |    |    |   |    |   |    |    |    | xx |    |    |  |    |  |
| <b>Coaching</b>  |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
| Persuasive technologies (Receive reminders / alerts to perform specific actions) |    |    |    |   |    |   |    | xx |    |    |    |    |  |    |  |
| Cognitive stimulation  |    |    |    |   |    |   |    | xx |    |    |    |    |  |    |  |
| <b>Support to the socialization</b>  |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
| Networking with other patients to share own experience                           |    | xx |    |   |    |   |    |    |    |    |    |    |  | xx |  |
| Support the relationship between patient and his/her family                      |    | xx |    |   |    |   |    | xx |    |    |    |    |  |    |  |
| <b>Support the IADL</b>  |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
| Domotics   |    |    | xx |   |    |   |    |    | xx |    |    |    |  |    |  |
| telecare   |    |    | xx |   |    |   |    |    | xx |    |    |    |  |    |  |
| <b>Services for the informal caregiver</b>                                       |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
| Remote monitoring of daily routines through the use of sensors at home           |    |    |    |   |    |   | xx |    |    |    |    |    |  |    |  |
| <b>Services for change management</b>  |    |    |    |   |    |   |    |    |    |    |    |    |  |    |  |
| Training   |    |    |    |   |    |   |    |    |    | xx |    |    |  |    |  |

Note: respondents are anonymous. The "IT" prefix indicates IT provider, while "AD" means a homecare service provider. The two "X" indicate that the service or functionality is clearly explained in the filled questionnaire. The single "X" indicates that the service or functionality is not explicit or can be inferred from the text.

As the table shows, the remote monitoring category appears to be markedly predominant: planning of monitoring activities, the definition of thresholds for alarms, data collection and the management of alarms are the services common to most offers. However, all companies that focus on services related to remote monitoring, offer functionalities developed to facilitate the work of the professionals, while only in one case the patient is recognized as an active subject of the monitoring process and then target for specific functionalities.

A second interesting aspect is that most part of respondents is specialized in specific functionalities. This aspect implies that the provision of a systemic service that includes all the key functionalities related with the homecare requires cooperation between several firms.

A specific question on the questionnaire aims to verify the readiness of enterprises to the cooperation. 11 respondents declare to have partnerships with other companies to provide services to healthcare organizations, otherwise explicitly manifest a propensity to develop forms of consortia for the purpose of a possible participation in tenders.

## 2.4. Payment models

One of the questions of the questionnaire aims to investigate the payment models preferred by providers for homecare services enhanced by digital technologies. Analysis of the results shows a strong orientation towards the traditional payment models, i.e. licenses and fees per patient.

The questionnaires moreover highlight that focusing on tele-monitoring services the value of the fee per patient is very heterogeneous ranging from 4 euro/day to 1 euro/day per patient. The difference may be attributable to a different use of the devices. This aspect requires a reflection on the appropriateness of the use of devices or the possibility of using less expensive alternatives.

## 2.5. Performance indicators

A further objective of the survey was to collect suggestions by the market with respect to the definition of performance indicators to monitor the work of the supplier and, more generally, the quality of the offered service.

Not all the respondents provided information about this aspect. The predominant attention to the remote monitoring service is reflected also on the nature of the proposed indicators. These are summarized in the following table.

*Table 3 Performance indicators*

| <b>Indicators</b>  |
|--|
| time to patient enrollment   |
| time to read the measurements sent by patient                          |
| time of reaction in case of data out threshold                         |
| time for the nursing access in case of need                            |
| measure of patient compliance with the treatment indications per month |
| number of patients who abandon the program per month                   |
| number of patients' calls for difficulty of use of the system          |
| number of alarms managed per month                                     |
| average time (maximum) to take charge of a ticket (maintenance)        |
| average time (maximum) of a ticket resolution(maintenance)             |

|   |
|---|
| average time (maximum) to replace a kit                 |
| number of kits with technical problems per month        |
| number of communication problems per month              |
| Average number of measurements taken weekly by patients |
| number of enrolled patients per month                   |

For all, or part, of the proposed indicators some operators provide the threshold values. The heterogeneity of indicators and the lack of information regarding the algorithms used to measure them makes it difficult to compare similar indicators.

## 2.6. Standards and services requirements

### Standards

Three companies have emphasized the importance to assure the compliance of the software platform and all the proposed devices with the requirements of Directive 93/42 / EEC as a medical device of Class IIa. Other qualifying standards appear to be, in addition to the more generic ISO 9001, specific provisions for the technology sector (such as 1999/5 / EC - Radio & Telecommunications Terminal Equipment directive; 73/23 / EEG and 93/68 / EEG - Low voltage directive; 89 / 336 (EEG), 92/31 / EEG, 93/68 / EEG - Electromagnetic compatibility (EMC-directive)).

### Requirements

In terms of requirements the respondents have focused on issues related to technical aspects and the usability by professionals and patients/informal caregivers.

#### *Usability requirements*

- possibility to easily adjust the thresholds applied to the individual patient's measures to manage the alarms;
- possibility to define thresholds complex and articulated on several measures that allow to express a trend over time rather than send an alert over a single measurement;
- ease of use of software components;
- devices minimally invasive in the patient's daily life;
- high level of configurability;
- use of multimedia communication tools;
- software system with bi-directional transmission channel to allow customization and maintenance, even at a distance;
- multilingual availability.

#### *Technical requirements*

- maturity,
- stability of software components (reliability),
- affordability,
- accuracy of the information,
- simplicity of installation,
- fast answer,
- robustness of the technology,
- guarantee of data transmission,
- high connectivity of the operative central.

## 3. Hospital Sant Pau

### 3.1. Methods

The purpose of the OMC was:

- to inform about the tender process, in order to achieve the widest participation of interested parties;
- to learn about quality and technical characteristics of the proposed solutions on the market;
- to allow interested parties to provide comments and suggestions considered useful for the contracting authority in preparation of the tender.

The targeted potential respondents were requested to contribute to the initiative of procurement of “Comprehensive treatment, enhanced by digital technologies, of patients with automated implantable cardioverter defibrillator (AICD) including cardiac re-synchronization” by filling out the questionnaire before 28/12/2015<sup>3</sup>. The questionnaire has been distributed among the medical devices associations to reach out all the potential bidders that are currently operating in the medical devices market.

Additional technical documentation from respondents was requested –e.g. in a brochure format—in order to provide the commissioning authority with information on the latest innovations and technologies on the market and possible innovative service models for patients with AICD with a comprehensive approach. That information is supposed to complement the evaluation framework of the initiative.

### 3.2. Questionnaire

1. Give a brief description of Your Company/Cooperative, specifying in particular the main market sectors in which it is specialized, and the main activities performed.
2. Your Company/Cooperative would be interested in participating (alone or in partnership) in a tender procedure for integrated approach for the management of care for patients with ICD / CRT-D devices’?
3. If to the previous question you have answered
  - a. YES, please specify in which aspect(s) would you be directly interested
  - b. NO, please specify what are the main reasons for the lack of interest
4. With reference to the provision of services similar to those that should be covered by the tender, please describe
  - a. Your experience
  - b. The form in which You participated (alone, Consortium ...)
  - c. The nature of the business conducted by Your partners (if any)
5. With reference to the provision of services similar to those that should be covered by the tender, please describe any project implemented and the type of technological solutions used/developed
6. By assuming to manage Tele-health services - that are included in the topic of this consultation - through the use of an operations centre, which can be the metrics for measuring service levels (Service Level Agreement - SLA) and the delivery models for each service that you could offer?
7. By assuming to manage Tele-health services - that are included in the topic of this consultation - through the use of an operations centre, which can be the pricing methods for each service?

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<sup>3</sup> <http://ted.europa.eu/udl?uri=TED:NOTICE:418211-2015:TEXT:EN:HTML>

8. Please describe your experience / approach to the management of Tele-health - including the subject of consultations - via a remote monitoring centre / operations support including a hospital network with different types of centres and care levels
9. Please indicate the requirements and / or the quality standards which you consider most qualifying for the types of products and services covered by this investigation.
10. Regarding the type of service and / or products covered by this initiative, currently your organization is already supplier of health organizations at regional, national or EU level?
11. If you have answered YES to the previous question, please point out the supplied healthcare organization, by detailing the products/services provided
12. Please add some brief observations or suggestions that you consider useful for this procurement process

### 3.3. Summary of responses

5 companies provided answers to the questionnaire. Those companies represented 100% of the defibrillators devices providers market in Spain. By answering the questions, the respondents had the chance to describe their activity, experience and niche in medical devices market.

- All respondents are identified as international companies that operate in Europe
- The respondents are manufacturers of implantable devices with experience in supplying devices to public/private service providers as well as in projects related to AICD/CRT devices' remote monitoring implementation
- Information systems are one of the main areas of expertise in development of the companies.

Since one of the purposes of the OMC is to collect information that can be substantial for call for tenders' specifications, a summary of the most relevant responses in regard to different aspects is provided here below:

#### *Areas of interest*

A non-exhaustive list of aspects of the care process has been proposed to respondents to indicate their major interest in the tender, and all its items have been identified as companies' areas of interest:

- Material provision and management;
- Technical assistance in the care procedure of patients;
- Management of incidences and complications related to the AICD;
- Home monitoring services;
- Change management including training for professionals (nursing staff and doctors), patients and relatives;
- ICT solution as support to monitor patient in hospital settings and remotely.

In addition to the above items, respondents pointed out the following areas of interest:

- Clinical-based and population-based statistical data management
- Holistic Patient Education program
- Permanent update of clinical and scientific progress.
- Contribution to Value-based Healthcare.
- Reimbursement by Health Outcomes.

### *Service delivery models of metrics*

Given the nature of the contract—Service-Level Agreement or SLA— metrics of the standards that need to be met for process evaluation purposes need to be defined. Respondents propose a list of possible metrics:

- All respondents state that the metrics need to be defined according to the service delivery and a set of measures is proposed for each respondent's model:
- Delivery/installation/withdrawal monitor
- Monitoring technical issues:
  - Individual assessment for every case:
    - Solving remotely with phone troubleshooting.
    - Substitution of the monitor when breakdown
- Issues solved via website.
- Periodicity of transmissions' revision.
- # of successful transmissions
- # of daily/weekly/monthly remote follow-up visits.
- # of parameters analysed in each follow-up visit.
- # of alerts in events early detection.
- Delay in notifying alerts.
- Clinical team informed about the transmissions.
  - E.g. all transmissions analysed by a specialised technician or
  - E.g. only yellow and red alerts will be analysed.
- Remote Patient Monitoring:
  - System uptime
  - # trouble tickets
  - MTTR (mean time to resolution)
- Data Integration
- Remote Helpdesk
  - # patient Service requests
    - hardware troubleshooting
    - patient comfort/training
    - health related
  - Avg. call answer time
  - % calls answered within service level (e.g. 75% answered within 30s)
  - Dropped call rate
- Patient Education program
  - Patient education sessions performed vs planned
  - Home transmitter activation rate
  - Avg. activation time (enrolment → 1st transmission)

### *Pricing/invoicing methods for the service*

Respondents clarified that the invoicing methods should be aligned with the service terms, nevertheless, different options are explored in the following list:

- To Include the service price within every implanted device's price hence the service dimension would be tailored to the number of devices managed by the hospital.
- To set a list of services included in the contract to be paid when used to cover their costs.
- To define one annual fixed price for an integral service and setting a variable payment bound to quality of the delivered service.

- Invoicing according the achievement of the objectives set.
- And several aspects should be taken into account:
  - Type of device to supply
  - Type of remote control device provided to patient.
- Annual service bundle charge (tiered flat rate)
- Annual software license fees
- Specific consulting fees on “time & material” basis
- Double-pledged invoicing method:
  - A single payment per patient/year including the remote support for all devices.
  - Information System and its implementation would be invoiced separately.

### *Interoperability*

The respondents' questionnaires were expected to provide information on the main interoperability aspects that need to be taken into account in such a technology-based market.

- Standards of Quality
  - 90/385/EEC implantable healthcare products
  - 93/42/ECC: healthcare products
  - ISO13485.2003: health products
- Standards of Interoperability in communications
  - HL7
    - ADT: demographic data
    - ORU: Clinical observations
    - MDM: reporting integration
  - HL7/CDA (clinical document architecture)
  - IHE integration profiles
    - IDCO: Implantable device cardiac observation)
    - XDS (Exchange document sharing).
- Standards in semantic interoperability: SNOMED
- Safety measures
- Remote Patient monitoring system
  - supports wireless interrogation of pacemaker, (S-ICD and CRT devices
  - offers multiple connectivity options catering to patient's lifestyle
  - offer multi-site setup options
- Data Management
  - adequate data protection framework and data security measures (ISO 27001)
  - interoperability – use of IEEE standards (HL7/IDCO), absence of proprietary interfaces
  - ability to merge remote and in-clinic device follow-up data



### 3.4. Conclusions

The questionnaires responses provided plenty of relevant information that complemented the specifications' definition process. In particular, the OMC results fed the specifications definition by introducing or complementing the following aspects of the tender:

- Definition of the interoperability requirements that should be taken into account for a multi-branded devices' service.
- KPIs measured for outcome-based payment and evaluation purposes.
- Invoicing method tailored to a comprehensive service: buyer and supplier share the risk of fluctuation of service activity.
- Payment models and estimation of costs.
- Use of technology in stock management.
- Permanent update of clinical and scientific progress for new technologies and applications uptake.

Therefore, the objectives set when the OMC was planned are considered fully achieved:

1. Main operators in the market have been informed and involved in the process;
2. The commissioning unit has been provided with detailed information on the available solutions in the market in devices, remote monitoring settings and telecommunications.
3. Respondents have suggested different models and solutions for different challenges such as pricing, invoicing, interoperability and metrics.

## 4. Eastern Cheshire Clinical Commissioning Group

### 4.1. Introduction

Eastern Cheshire Clinical Commissioning Group (EC CCG) completed 3 Open Market Consultation (OMC) events. The first 2 events were organised pre-tender publication by Eastern Cheshire CCG and STOPandGO Consortia Partners. The last event was organised post-tender publication, as a brokerage event between Knowledge Transfer Network (KTN) and North Coast Academic health and Science Network.

A total of 229 people attended the networking events for EC CCG Integrated Diabetes Care and each event had representation from the following organisations:

- Technology Companies
- NHS Providers (service managers, care professionals, Fire and Ambulance Services)
- Third Sector Organisations (charities, housing associations)
- Members of the public.

The purpose of this report is to give an overview of the questions, feedback and learning gained from suppliers and providers who attended the (OMC) events. The communication plan to share the responses through post event reports is also captured in this summary report.

### 4.2. Summary of Open Market Events

#### *Pre tender publication:*

- **Venue:** Alderley Science Park, Cheshire on 12.6.15  
**Title:** Caring Together to transform health and wellbeing delivered through Technology Enabled Care  
**Organisers:** EC CCG, Telecare Services Organisation (TSA), North West Coast Academic Health and Science Network (NWC AHSN)  
**Attendees:** 170 delegates
- **Venue:** Mart Hall, Cheshire on 10.11.15  
**Title:** Integrated Diabetes Care Provider and Supplier Networking Event  
**Organisers:** EC CCG  
**Attendees:** 27 delegates

#### *Post tender publication:*

- **Venue:** Mercure Manchester Piccadilly on 07.01.15  
**Title:** Procurers Brokerage Workshop  
**Organisers:** KTN and NWC AHSN  
**Attendees:** 32 delegates

### 4.3. Objectives of the networking and brokerage events

- To support suppliers and providers of diabetes specialist services, technology enabled care and Diabetes Education to understand Integrated Diabetes Care model and the opportunity a new service provides.
- To bring innovation through integrating care services and technology enabled care, to improve a person's experience of care services and empower people to manage their own health and wellbeing.
- To support suppliers and providers in understanding how to respond to the specification and intention to tender documents.
- To support organisations to form partnerships and collaborate to respond to all 3 components of the tender.

### 4.4. Summary of feedback from networking and brokerage events

#### 4.4.1. Logistics of the event

- Organiser to share delegate lists prior to the event, so people know who is attending and can make contact easily at the event
- To include in the agenda; governance, interoperability of systems and data sharing agreements.
- The first network events would benefit having 2 separate events; a dedicated technology supplier's event and dedicated providers of care services, potentially smaller round table discussions. Once a clear understanding of the specification and collaborative approach has been developed, to bring the interested organisations together as small round table meetings. The output of the meeting to co design and develop a menu of care for technology that is integrated into diabetes integrated care model.
- To increase care provider engagement, commissioner organisation to arrange 1:1 appointments with key stakeholder's pre networking events to develop relationships and interest in the tender.
- Develop a wide reaching communication and engagement plan to raise awareness of networking events and future tender. Follow up organisations who attended earlier OMC events but have not re registered interest in subsequent event.

#### 4.4.2. Content of event

- Need to outline at the beginning of the OMC event, the outcomes that are required and expectations of the delegates, next steps to be covered when closing the meeting.
- To share case studies relating to how technology enabled care has improved communication, patient experience of care and outcomes
- Technology suppliers to include in presentations (pitches) governance, functionality (equitable and accessible technology service re easy to use, easy to train technology, including older people, people with learning disabilities, people with less experience of technology)and outcomes of the system
- Post event communication and engagement plan to feed back to organisations that did not attend events the outcomes of the event.
- Follow up 1:1 with NHS Providers and Technology Suppliers post event for additional feedback, in order to keep organisations engaged and reduce drop-out rates between events.

## 4.5. Cultural Transformation

- Cultural Transformation needs to happen first, to change behaviours and get people working together to understand benefits of integration and technology.
- Too many technology suppliers in the market, telling the NHS providers, clinicians, what they need. Technology procurement has historically failed.
- There is a need to have some kind of accredited technology services or formulary of approved techs with outcomes data.
- Need a portfolio of technology options to support people in selecting technology that will support their individual needs, one size or system does not fit all.
- Need to move away from buying boxes of individual technologies to a wider selection with good terms. Prescribing technology enabled care on a patient by patient basis.
- Technology suppliers are reluctant to work together or enable their systems to integrate with other technology suppliers.
- Many technology companies and Care Providers did not believe the budget was enough to provide technology enabled care, larger organisations disengaged from the process.
- Earlier brokerage and short listing of technology. Technology suppliers outnumbered NHS providers about 10 to 1; this was overwhelming for NHS providers who disengaged.
- Technology companies are developing skills and knowledge to engage appropriately and add value with NHS Providers – value propositions.

## 4.6. Feedback on Successes

- General comments regarding content; very good enthusiastic speakers, informative and useful day
- To expand this sort of event to other areas not just Eastern Cheshire.
- Good insights into how the NHS works for technology suppliers.
- Seeing the NHS and CCGs having the conversation with Telehealth Companies is refreshing
- This is the right approach to get care professionals and providers of technology together to work up solutions.

## 4.7. Procurement questions received during the tender process.

- Clarification questions relating to submitting bids for less than all 3 components regarding:
  - Specialist Diabetes Service
  - Technology Enabled Care
  - Education

*Responses where consistent that bids would not be considered that did not include all 3 components.*
- Requests for the networking event attendee list, with contact details of delegates  
*Consent to share contact information was received from all attendees of the networking events and those who consented had their contact details shared on request.*
- Requests for names and contact of NHS providers  
*As above all contact details of organisations or people who consented where shared on request.*

- Information on TUPE details of eligible staff  
*TUPE information was shared on request*
- Requests for a breakdown of the budget, including budget for technology enabled care and quantities required.  
*Responses were consistent that the total budget envelope had not been broken down in the ITT document and providers were asked to work collaboratively together to respond to the tender including financial breakdown of the 3 components.*
- Feedback from companies regarding the difficulty in establishing partnerships with technology companies or NHS providers, short time frame to complete this work.  
*This request was considered by the project team and an extension of 3 weeks was agreed.*
- Feedback from companies expressing that a quality service or any innovations can be achieved within the financial envelope available.  
*Organisations were encouraged to respond to the bid outlining costs associated with the 3 components.*
- Information on how other Technology providers engaging with this process  
*Responses suggested contacting other technology companies and contact information shared with the consent of the individual or organisation*
- Requests for extension of the submission deadline to complete a response  
*This request was considered by the project team and an extension of 3 weeks was agreed.*
- The decision by the CCG to move from 3 individual Lots to 1 lot with 3 components and being unable to for fill all 3 components, was one of the reasons given for organisations pulling out of the bid.
- Request for the link to the procurement documentation on NHS Sourcing and Contracting Websites  
*This information was shared on request and posted on CCG, STOPandGO Websites.*
- Requests for information on how to register for the networking events  
*This information was shared on request and posted on CCG, STOPandGO Websites.*

#### 4.8. Key Themes

- The number of technology companies was overwhelming to the CCG and to NHS providers, how to short list technology without knowledge and experience in telehealth/ telecare was challenging.
- Technology companies experience and approach in working with NHS providers, in some cases disengaged NHS Providers
- Brokerage of relationships between technology companies and care providers through a third party, who has established relationships and knowledge of the technology enabled care industry, is recommended.
- Commissioner engagement with care providers through identifying and contacting key stakeholders, prior to and/or after networking events, to increase the number of care providers submitting bids.
- This innovative procurement was a learning curve for the CCG, NHS providers, 3<sup>rd</sup> sector organisations and technology companies, it is necessary to plan in additional time to develop relationships and complete co-design work.
- The CCG wanted a menu of technology enabled care that could be tailored to individuals needs re complexity of health, activation and personal preference, this took a lot of work to develop even with brokerage and technical support from



consortia partners. The recommendation is to plan additional time to complete innovative design of services.

## **4.9. Communication and Engagement**

Eastern Cheshire CCG shared network invitations and post event reports on the CCG, STOPandGO websites and through social media (Facebook and LinkedIn) and through diabetes networks.

Feedback from the events was collected at the event through feedback forms and burning questions cards (see 4.10) and post the event through on line surveys.

Further engagement was through attending Patient Groups such as Diabetes UK and Eastern Cheshire Health Voice.

Information relating to the tender was also shared at various Technology and Health Care Conferences. Attending General Practice Peer Group and Locality Meetings and 1:1 meetings with individual NHS Acute Hospital Trusts in the pre tender publication phase.

#### 4.10. Comments And Questions Captured From Burning Question Cards

**Q.** How is the transfer of care between organisations of the patient managed in terms of clinical responsibility and indemnity?

**A.** ECCCCG has sought external advice relating to clinical responsibility and indemnity and look forward to providers approach to this

**Q.** Is there a need for 'one stop shop' patient management with rapid near patient point of care diagnostics e.g. HbA1c?

**A.** The specification describes 'one stop shop' outpatient type clinic in the community setting

**Q.** What about other co-morbidities?

**A.** Level 3 of the Integrated Diabetes Care Model relates to complex care which includes people with multiple co-morbidities and Long Term conditions

Comment: Technology enabled living not Technology Enabled care

It's not about care if you are advocating self-care. It's about living

**Q.** Successfully managing diabetes currently, why not look at other LTC's?

**A.** Re-design of Diabetes was identified as a key priority on EC CCG Plan on a page 2015/16.  
**A.** The Integrated Diabetes Model of Care is transferrable to other LTC

**Q.** What about endocrine services and other interdependent services?

**A.** The specification is focused on Diabetes; endocrine services will continue to be commissioned by ECCCCG.

**Q.** Who is responsible for Integrated Care Record?

**Q.** Will family risk factors be shared?

**A.** Cheshire Pioneer is leading on Cheshire Care Record which is the integrated care record for Cheshire

**A.** Family Risk Factors would be shared if recorded in the persons GP record and consent is given to share data

**Q.** How do 3 or 5 year procurement contracts support, sustain and enable integrated care?

**A.** Enable review of current service and development of the service over the longer term

**Q.** How will you ensure your health care professionals who deliver diabetes care to patients are competent and up to date?

**A.** Providers shall ensure that health care professionals hold the relevant qualifications and complete PDPs to maintain high standards.

**A.** There is a diabetes peer support network in Eastern Cheshire and some health care professionals have advanced qualifications in Diabetes. The specification outlines opportunity for Diabetes Specialists to provide support at community MDTs re virtual clinics, case reviews

**Q.** Are you interested in up and coming research which is person centred involving personal trainers in gyms to deliver behavioural changes?

**A.** Procurement evaluation should include evidence base of innovative interventions or solutions

## 5. Liverpool City Council

The purpose of the new strategy of Liverpool City Council (LCC) is to recommission personal care services for adults and older people across Liverpool and also to recommission community support services and day opportunities for Older People across the city. The aim is to bring all of these services together under one contractual arrangement called “Liverpool’s Help to Live at Home Service.” In that context an innovation event was held on 13-7-2016. This was prior to the involvement in the STOPandGO project but the topic of the meeting was highly relevant for the procurement that will be part of the STOPandGO project. Based on the experiences of STOPandGO partner Eastern Cheshire a brokerage event was held in April 2016. Below a summary of these events is given.

### 5.1. Personal Care Innovation Event

RLK Partnerships arranged and facilitated an engagement event for providers of personal care on 13 July 2015. The aim of the event was to explore the role of technology within the future of Personal Care Services, and facilitate an open discussion between providers, commissioners and any other interested parties.

The session started with introductions around the table – most participants were from domiciliary care organisations, with around half currently delivering under contract for LCC, and several also contracted to deliver other services. Other participants were from the Adult Social Care department at LCC.

Answering “*Why is technology important to the future of Domiciliary Care services in the city?*” the majority of participant answers fell into the following areas:

- To improve quality, both of the care offered and the services in general
- To improve individuals’ life, health and wellbeing, giving them control and assistance with everyday living
- To increase, improve and promote service user independence, promoting self-help, reducing reliance on services and helping people to remain in their own homes longer
- Ensuring services are safer, more cost effective and efficient, with better use of resources
- To meet the increased pressure on services as the demand for social care increases, and help address the pressure on LCC funded services to reduce costs, making less funds go further
- Other reasons included:
  - Assisting with the preventative agenda
  - Helping with the integration of health and social care
  - Improving communication amongst service delivery partners
  - Increasing expectations of service users of technological solutions
  - Making services more accessible to service users

Part of the event was a discussion on the drivers and resistors that were acting on organisations’ implementing technology solutions, these are summarised below.

#### Resistors:

- Not knowing what technology’s out there, and what’s useful/well reviewed
- Not knowing what’s available from NHS and RSLs
- Not knowing what services are available
- Lack of co-ordinated approach

- System clogged up with requests
- Care providers don't know what's available
- Need for training for frontline staff on telehealth systems
- Service users not being able to use/understand instructions – BME groups particularly, with language problems
- Helping service users with technology – where is the help?

#### Drivers:

- Efficiency – costs, cost effective
- Quality improvements
- Can react quicker – better monitoring
- Growth of self-care – CCG priority/prevention
- Wider requirement for community support
- Staff e-learning (smart phones)
- Enable people to stay in homes longer
- Independence for service users– retain and promote
- Promoting choice for service users
- Helps to monitor trends
- Need for co-ordination of service and tech
- (Younger) service users expect it – the norm
- Self-care is a key LCCG priority

#### Possible results of more technology use:

- Technology gives quicker responses
- Might increase isolation
- Issues of reducing exercise by people not needing to get out/move from couch
- Can be stepping stone to a service user taking (back) control
- Some staff do e-learning (most)
- People will be demanding tech and council/NHS need to be ready

## **5.2. 'Help to Live at Home' Domiciliary Care/TECS brokerage**

On 19 April 2016 the STOPandGO partners held a brokerage event at Anfield, the home of Liverpool FC, to brief domiciliary care suppliers on Liverpool City Council's 'Help to Live at Home' procurement – and introduce them to a wide range of Technology Enabled Care Services (TECS) providers with a view to getting some TECS into domcare services for the benefit of carers and the people they care for.

The day commenced with presentations on the Help to Live at Home service by Natalie Markham, Divisional Manager at Liverpool City Council; an overview of the STOPandGO project by Bryan Griffiths, Innovation Agency NWC AHSN; The Help to Live at Home Service by Karen Caffery, Domiciliary Care Providers Group; and the potential for TECS in Domiciliary Care by Richard Harding, Innovation Agency NWC AHSN.



Liverpool Home Care Providers set out a clear question to the technology providers that participated at the event. How could they help:

- Develop shared digital records /assessments across multi-disciplinary team;
- Replace MARS sheets with electronic records EMAR;
- Medication alerts to prompt service users to take own medication;
- Easy access medication dispensers (sensory impairment physical impairment);
- Improve access to service users homes;
- Replace key safes with /digital code or swipe card entry system;
- Develop apps for common medical conditions.

The remainder of the day was taken up with Speed Networking facilitated by the Knowledge Transfer Network between the 20 Dom Care and 50 TECS companies present. Each TECS vendor had a 5 minute meeting with each of the Dom Care companies with 2 minutes to make their pitch followed by 3 minutes Q&A. At the end of each timeslot, the TECS people rotated to the next. It resembled organised chaos at times but proved an effective way of making around 1,000 business introductions. Contact details were shared between consenting attendees to enable follow-up discussions.





Feedback from the event was overwhelmingly positive in terms of the learning and networking opportunities. One commented “A really bloody effective format! More of this pls!” – although (note well, please) some of the Dom Care people wondered how some of the TECS people expected to impress, with dirty fingernails!

Presentations and short videos from and of the event can be accessed at <http://bit.ly/29VGHDa>

## 6. City of Helmond

The City of Helmond has focused their Open Market Consultation on the involvement in several networks concerning innovation and dementia, dementia being the topic of their procurement. The most relevant of these networks are listed below, including a description of the network, its goals, partners, and reach:

- Health@Home (2015-present)
- SlimmerLeven 2020 (2012-present)
- Dementia-friendly Municipalities (2014-present)
- DementiaDeal (2016)

Relevant information for our STOPandGO project has been gathered over the past years through reports, events, collaboration, and concrete activities in and from these networks.

### 6.1. Health@Home

Today's society demands smart, affordable care solutions that can partially be found in new products and services. For instance improved medicines or new applications that enable people to stay living in their own homes more comfortably and for longer.

The province of Noord-Brabant therefore stimulates cooperation, knowledge sharing and the development of such new services and products. Policy focuses primarily on the business community, education and social organisations. This is effected through two approaches: Health@Home and LifeTec. Furthermore, the provincial government is developing the Brabant, Region of Smart Health network that focuses on familiarisation with the new world of care and the exchange of knowledge and experiences.

Through Health@Home the province works on themes such as dementia, informal care, self-management and eHealth in multiple local learning networks. These enable companies and social organisations together with the elderly, patients and caregivers to find suitable new and/or technological solutions to enable people to continue living at home in a healthier way. Through the provincial government, Health@Home also collaborates with the European Coral and Engaged networks.

- CORAL (Community of Regions for Assisted Living) is an European network of regions collaborating in the field of Ambient Assisted Living and Active and Healthy Ageing. Through a process of open innovation to solve the barriers implementing AAL and AHA solutions and services. CORAL focuses on 'regional policies about Active and Healthy Ageing' and 'Ambient Assisted Living'.
- ENGAGED is a Thematic Network that will build a learning community of stakeholders, from different backgrounds and from across different European countries, to nurture the emergence of innovative and sustainable active and healthy ageing (AHA) services that make best use of technology. Stakeholders of the whole value chain will participate. It is a network of networks with 15 partners that come from two backgrounds: they are either specialist EU-level networks active in the field of active and healthy ageing or they are key regional, research and knowledge partners. Each partner brings access either directly or through its members to front-line experience, or they offer key skill sets related to community building, digital engagement, research and analysis.

*The City of Helmond has been a part of the Health@Home network since it was founded in early 2015.*

## 6.2. Slimmer Leven 2020

In the region Brainport – the heart of South-east Netherlands – the members of the cooperative Slimmer Leven 2020 work on a joint ambition: realizing significant breakthroughs in care, living and welfare by using innovative technology and eHealth applications. Applications related to domotics, care on distance, and apps and services for self-management.

Within the cooperation care organisations, professional networks, housing associations, care insurers, companies, knowledge institutions, governmental agencies and end-users join hands. Currently 80 organisations are part of the cooperation. The power of the cooperation lies in the cross-over cooperation. Jointly the partners want to achieve:

- Awareness on the possibilities of eHealth at all the involved stakeholders
- Initiating projects that facilitate or speed-up the uptake of eHealth applications in practice
- Creating knowledge networks and the digital infrastructure that make eHealth applications possible
- Making sure that themes surrounding eHealth are high on the political agenda

Slimmer Leven 2020 strives for strengthening self-management for citizens in relation to their own health. By using eHealth applications that assist people in this self-management and to stimulate a behavioural change for citizens as well as health professionals. Ultimate goal is upscaling of successful eHealth applications within the care sector and in people's home.

One of the initiatives that Slimmer Leven 2020 participates in is 'Innovate Dementia'. Innovate Dementia develops and tests innovations in the home environment for people with dementia. The outcomes are aids which help people function better and give family care givers a helping hand. For example, a lamp that simulates sunlight during the day, which in turn is good for a deep and calm sleep at night. Or the GoLivePhone for senior citizens: which is a telephone with GPS that shows family care givers via the internet where the users are located.

Participating patients and family care givers in Eindhoven form a so-called 'living lab'. "They feel helped and included, because everything revolves around their input. What we have noticed, is that the project has a social function. Family care givers get in contact with each other. This was obvious when we organized an informal meeting where the people clearly already knew each other. It's really a lively 'living lab'!" Brainport Development is definitely the 'linking pin' between business and project partners from government, healthcare, and research. Innovate Dementia also has 'living labs' in Liverpool (England), Krefeld (Germany), and Antwerpen-Geel (Belgium). Brainport Development initiated and coordinated Innovate Dementia in a European, INTERREG-context. The ultimate goal is to make proven solutions available to people who can actually benefit from them. Innovate Dementia also helps give substance to the Living Lab Dementia of the province 'Noord-Brabant'.

*The City of Helmond is currently setting up its own Living Lab which will collaborate a.o. with the Slimmer Leven 2020 cooperative, and has been a member of the cooperative since 2012.*

## 6.3. Dementia-friendly Municipalities

The dementia friendly community is a positive movement, initiated by the province of Noord-Brabant and a task force of the 'Programme Council Psychogeriatrics'. Key objective is

making life at home easier for people with dementia. The ambition is a society where people with dementia can still function.

The 10 goals of the movement are:

1. Towards a different image – *get rid of the taboo*
2. Towards more knowledge – *insight offers prospect*
3. Towards better integration – *people with dementia matter*
4. Towards more encounters – *together we make it bearable*
5. Towards a better contact between generations – *for young and old*
6. Towards more welfare – *warm care*
7. Towards more autonomy – *citizens like you and me*
8. Lowering the threshold – *everybody is welcome*
9. Towards a safe society – *safety in and around the house*
10. Mobilising the entire community – *across the whole neighbourhood*

The City of Helmond is working on becoming a dementia-friendly municipality and has signed a partnership through a letter of intent with several leading local organisations: LEVgroep, Savant Zorg, de Zorgboog, de Seniorenraad, stichting De Reikende Hand, de Programmaraad en Quartz.

It is expected that by 2020 there will be over 1150 citizens diagnosed (!) with dementia in the City of Helmond. It is crucial that the City of Helmond is well prepared. The needs of people with dementia are being captured, there is an ongoing inventory of current initiatives, and additional possibilities to enhance the quality of life for people with dementia will be investigated. Our STOPandGO tender is based on needs and objectives that were brought forward by the project team Dementia-friendly Municipality, which will also be involved in the resulting processes and solutions.

Some of the results of the needs analyses are displayed below<sup>4</sup>.

Number of people with dementia in the city of Helmond.

| Population*                   | 2015  | 2020  | 2030  |
|-------------------------------|-------|-------|-------|
| Total group                   | 1.140 | 1.312 | 1.715 |
| 40 till 64                    | 122   | 131   | 139   |
| Over 65                       | 1.018 | 1.182 | 1.576 |
| <b>Index compared to 2015</b> | 100   | 115   | 131   |

\* Total population of the City of Helmond is 90.106 (1-1-2016)

Estimate of the number of informal carers of people with dementia.

| Informal carers | 2015  | 2020  | 2030  |
|-----------------|-------|-------|-------|
|                 | 3.420 | 3.937 | 5.145 |

<sup>4</sup> Gemeente Helmond, Facts & Figures Dementie 2015

Needs of people with dementia and their informal carers:

- Information and education
- Participation: education, meeting each other, self-help groups to share experiences, social day-care and supervision
- Looking after your interests
- Living independently in a home or sheltered housing, adapted forms of living, adapted living environment
- Physical adaptations in the home environment, safety in the home environment
- (nursing) Aids
- Advice and administrative support, financial compensation, support of income
- Client support
- Indication and assignment of individual WMO-provisions
- Indication and assignment of Wlz-functions
- Indications to acquire material and financial assistance
- Individual aids for transport, inside as well as outside the home environment
- Pick-up and delivery services, services at home and other services
- Support in preparing a meal, meal delivery at home and places to go to jointly eat
- Screening and diagnostics, treatment and crisis intervention
- Guidance and support for informal carers, temporarily relieving the informal carer of the burden of care, relief of care tasks
- Supporting guidance, surveillance at home
- Domestic help
- Personal care
- Nursing care
- Activating care, structure of the day, keeping people active
- Small scale living facilities
- Temporary stay
- Long term care facilities

*The Dementia-friendly Municipality project in the City of Helmond has started in 2014 and is ongoing till end of 2017.*

## 6.4. Dementia Deal

Brabant Region of Smart Health signed the national initiative DementiaDeal on 6 June 2016 together with the Gooi en Vechtstreek area and the City of Amsterdam. They did so in the presence of the Secretary of State Martin van Rijn (Ministry of Health, Welfare and Sport).

The 'dea'l aims to create a breakthrough in the use of eHealth for and by people with dementia. EHealth is no pipe dream, it is readily available. It improves the lives of people who need care today. However, eHealth is underutilised. Four regional deals are set to change that. "It's great to see innovative regions showing us what they can do," said Secretary of State Van Rijn at the signing of the deals at the Europahuis in Amsterdam. "They will provide care innovation."

### Core values of Brabant's approach

In Brabant's DementiaDeal all the stakeholders from Brabant working on dementia and eHealth collaborate closely, creating a learning ecosystem. Eight core values typify Brabant's approach: meeting and inspiration, form and variation, learning and innovation, daring and doing. The officials involved indicated which role they saw for their organisation in the implementation of the DementiaDeal.

### Local customisation is essential

“The provincial government can set up meetings between local cooperation initiatives so that knowledge and experience can be shared,” says member of the provincial executive Henri Swinkels. “By highlighting initiatives all over Brabant we can also inspire others to start working with partners in their own, local network.” This approach deserves national emulation which is why Brabant is collaborating with Gooi en Vechtstreek and Amsterdam.

Caroline Hummels of TU/e Industrial Design indicated that researchers and product designers contribute by finding eHealth solutions that are properly aligned with people in their own situations by working and learning in local practice. Local customisation is an essential factor.

### Providing space and doing

Stimulating the use of eHealth demands social innovation and mutual learning in communities of practice as is the case at the Brabant Testing Ground for Dementia (Proeftuin Dementie). Willem Kieboom of De Wever, partner in this testbed, is convinced this approach works. He wants to advocate sufficient space for this type of learning in his organisation. The Brabant Testing Ground for Dementia has proven nationally that this approach works. Nathalie van der Zanden a councillor from Helmond explained how municipalities can ensure that knowledge from all exemplary initiatives is used in practice in collaboration with inhabitants, care and welfare organisations. For instance by purchasing tried and tested eHealth concepts in innovative ways. This demands daring and decisiveness.

### Dementia Deal Brabant

The Brabant Dementia Deal programme works to improve access to tried and tested products and services. For example, people suffering from the early – to mid-stages of dementia can continue to live at home independently in a safe, comfortable manner. And caregivers can combine their care tasks with other daily activities better.

*The City of Helmond is one of the key partners in the DementiaDeal, and participates on political, strategic, and operational levels.*

## **6.5. Conclusion**

These networks all have a broad range of participants, and have (had) concrete (research) projects, like the ongoing Living Lab Dementia, where technological support for dementia was the focal point. The programme manager of the Living Lab Dementia – Dr. Liselore Snaphaan - is also one of the external experts involved in the STOPandGO tendering process.

All of this means that through its active participation in these networks the City of Helmond has a solid insight in the market situation, what technology is state-of-the-art, and what kind of solutions and solutions providers are out there. These networks operate on a national level but have strong links to and involvement with of European networks. To cover the goal of making people aware of the procurement plans a PIN was published in the OJEU<sup>5</sup>.

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<sup>5</sup> <http://ted.europa.eu/udl?uri=TED:NOTICE:428346-2015:TEXT:EN:HTML>

## 7. Campania Region

So.Re.Sa. S.p.A. (hereinafter also SoReSa) is a Central Purchasing Body<sup>6</sup> and a Procurer Aggregator<sup>7</sup> operating in the Campania Region. In late 2015 ARSAN, former member of the STOPandGO consortium, formally commissioned SoReSa to carry out on its behalf the Local Open Market Consultation (LOMC) and the consequent procurement procedures.

The LOMC about “Telemonitoring of elderly people with multiple conditions in the home and on the move”, carried out through two meetings, was launched in mid-November of 2015. Interested economic operators were invited to express their interest in participating to the meetings by the end of November; and overall 22 application forms were received.

Unfortunately, in early December, before the meetings for the LOMC could actually take place, the Regional Council of Campania approved a law<sup>8</sup> for the reorganization of the health sector, which also included the closure of ARSAN and the transfer of all its activities, duties and responsibilities under the control and management of the General Directorate for Health Protection and Coordination of the Regional Health System, part of the Department of Health and Natural Resources of the Campania Region (hereinafter, for the sake of brevity, referred to as DG Health); and for this reason SoReSa had to stop the procedure before its completion.

DG Health has then spent the first semester of 2016 and beyond in re-organizing the many activities, duties and responsibilities, which ARSAN was in charge of, including the operational management of the Regional Health Information System.

In that period of great changes the fate of the Campania Region activities for the STOPandGO project has been uncertain for a long time, and eventually the procurement business case changed considerably, until, in July 2016, SoReSa was commissioned to launch a new market consultation about the “Implementation and adoption of the Integrated Information System for domiciliary and residential care in Campania”

Then, on 8<sup>th</sup> August 2016, in accordance to section 66 of the Public Procurement Code (transposition of section 40 of Directive 2014/24/EU) entered into force in Italy on 19<sup>th</sup> April 2016, SoReSa announced on its website the launch of a Preliminary Market Consultation (PMC), in order to come to a complete definition of the procurement initiative by acquiring useful information from the economic operators, in order to achieve a clear definition of the requirements, the results and outcomes expected from the launch of the tendering procedure in question.

In parallel to the announcement of the PMC on the SoReSa website, also the procedures for the Prior Information Notice (PIN) publication were initiated and the request to the OJEU submitted. Nevertheless the PIN was published and made publicly available on 7<sup>th</sup> September 2016, after that some mandatory modifications requested from the OJEU officers had been applied. The recommendation was to focus the PIN on the procurement initiative in general, and not to explicitly mention the PMC. Actually with the operational entry into force of the new Directives on Public Procurements and the new forms for the PINs, those related

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<sup>6</sup> As defined in section 3, paragraph 2.3, letter. s) of the Italian legislative decree of 18<sup>th</sup> April 2016, n. 50 (“Public Procurement Code”) and pursuant to section 6, paragraph 15, of the Campania Regional Law of 24<sup>th</sup> December 2003, n. 28, as amended by the Campania Regional Law of 7<sup>th</sup> August 2014, n. 16.

<sup>7</sup> Pursuant to Article 9 of the Decree-Law of 24<sup>th</sup> April 2014, n. 66.

<sup>8</sup> Regional Law 23 December 2015, n. 20, published on the Official Bulletin of the Campania Region (Bollettino Ufficiale della Regione Campania - BURC) n. 78, issued on 23<sup>th</sup> December 2015.

to the announcement of a Preliminary Market Consultation - according to section 26(5) of the Directive - will be rejected because the PMC is expected to be published at national and local level but not at European level (via the TED).

It is important to point out here that, from a strictly procedural point of view for the PPI, this position from the OJEU is a little controversial, as it is in contrast with some of the recommendations published by the EU for the PPI pilot project<sup>9</sup>. At the time of writing this document the debate with the EU about the most correct approach to follow is still ongoing.

In the innovation strategy and business case of the Campania Region, the “Integrated Information System for domiciliary and residential care”, would be adopted in the long run by all the Healthcare Organizations operating within the Regional Health System. Actually, the Campania Region intends to reorganize, conform and streamline all the processes currently in place relating to the life cycle of the Territorial Health Care services, particularly domiciliary, residential, semi-residential and hospital at home care.

To this end, the Region intends to acquire an IT platform enabling the adoption of a region wide unified information system and digital solutions supporting telemedicine and telehealth services (according to the classification proposed in the Italian ministerial guidelines for telemedicine). The information system should support all the stages from admission, through the assessment of care needs and the definition of individual care plan, to the service delivery and reporting, as well as the monitoring and evaluation of performances in the various field of the Domiciliary and Residential Care (long-term care, palliative care, early de-hospitalization, etc.).

The information system should, therefore, support at least the following features:

- The exchange of data and information among the healthcare professionals involved in the care processes;
- The collection and processing of data for the management of the care services, for the regional and ministerial reporting requirements, as well as for performance appraisal.

The regional platform should also include digital solutions enabling the delivery of telemedicine and telecare services, as for instance the tele-consultation and the tele-monitoring, with special regards to home care and patient empowerment.

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<sup>9</sup> Guide for Applicants Instrument: PPI pilot (Public Procurement of Innovative solutions) for the CIP ICT PSP program: *"The open market dialogue (note 7) is to be announced via a PIN (note 8) published in the OJEU at least in English"* (p. 9)

E. Specific requirements for innovation procurement (PCP/PPI) supported by Horizon 2020 grants for the Horizon2020 program: *"In preparation of the PPI call for tender, an open market consultation (note5) with potential tenderers and end-users shall be held to inform the market well in advance of the upcoming PPI and broach the views of the market about the intended scope of the PPI. Information retrieved from this consultation about the gap between perceived.*

*Note5: The open dialogue should be organised in a way not to preclude or distort competition. In respect of the Treaty principles, the open dialogue shall be announced well in advance and widely via a prior information notice (PIN) in the Official Journal of the EU (OJEU) and enable potential tenderers regardless of the geographic location to participate at least in English. All information given in answers to questions from participants in the dialogue should be documented and published."* (p. 5 and note 5).

In order to participate to the PMC, the interested economic operators have been invited to provide their contributions filling out a questionnaire to be returned back via email by 30th September 2016 (For the economic operators resident in Italy with a Certified e-mail according to the Italian standard Posta Elettronica Certificata (PEC) at the address [ufficiogare@pec.soresa.it](mailto:ufficiogare@pec.soresa.it), and for the economic operators resident outside the Italian territory who have not access to the Italian PEC standard, with a standard email at the address [acquisti.centralizzazione@soresa.it](mailto:acquisti.centralizzazione@soresa.it))

Participants have been invited to include with the questionnaire also additional technical documentations as they deem appropriate, in order to allow SoReSa to gather all the relevant information and to allow it to assess the latest innovative solutions and technologies available on the market. Participants have been also informed that SoReSa might contact them for further investigation.

In the questionnaire, among others, the following topics are covered:

- A brief description of the company profile, detailing the number of employees per category (e.g. technical, sales, customer support, etc.) to be able have insight into the number of SME's that take part in the OMC.
- Suggestions in terms of quality indicators:
  - Describe the characteristics and/or requirements which define an adequate quality for each product type (or module), as well are the quality standards that are perceived as the most qualifying.
  - Describe which other services, related to provision in question, could represent, if awarded, objective quality indicators.
- A link with the organizational aspects of the healthcare system:
  - Provide a description of other additional services, which are necessary or recommended for the rapid adoption and the correct use of the Infrastructure in question, also in relation to the organizational context of the healthcare organizations of the Campania region.
  - Provide a description of particular innovations and / or recent technological developments produced by your company and already adopted by public or private healthcare organizations operating in Italy.
  - With specific reference to the Telemedicine Platform, describe what are, in your opinion, the most promising areas of application, the most effective organizational models, and the main barriers to the delivery of remote healthcare services
  - Describe what are in your opinion the greatest opportunities / criticalities, related to the adoption of such systems in complex environments such as those of the healthcare organizations.
- Applicable standards and interoperability issues:
  - Describe what are in your opinion the fundamental technical standards applicable to the system in question, either implied by existing legislation or by market standards or de facto.
- Applicable environmental sustainability criteria
  - Describe what are the environmental sustainability criteria, which, in your opinion, should be included in the present initiative, consistently with the guidelines established at European level for the Green Public Procurement (GPP).
- Applicable supply conditions
  - With particular reference to the Telemedicine Platform, describe what are, in your opinion, the most suitable procurement options for the products and services to be acquired?

## 8. ASL Tuscany Sud-Est

In line with the aims of the STOPandGO project, and more generally with the PPI instrument, ASL Tuscany Sud-Est published the Prior Information Notice on the Ted-eNotices to launch an Open Market Consultation in December 2016 (<http://ted.europa.eu/udl?uri=TED:NOTICE:447457-2016:TEXT:IT:HTML>).

The purposes of the OMCs are:

1. To inform about the tender process, in order to achieve the widest participation of interested parties;
2. To learn about the quality and technical characteristics of the proposed solutions on the market;
3. To allow interested parties to provide comments and suggestions considered useful for the contracting authority in preparation of the tender.

The OMC was launched through the publication on the institutional website <http://www.uslsudest.toscana.it/> consisting of a semi-structured questionnaire and the collection of proposals and suggestions from the answers given by companies.

Notice about the OMC has been published also on the STOPandGO website, on Italian web journals ([www.quotidianosanita.it](http://www.quotidianosanita.it)) and on the PPI platform.

### 8.1. Questionnaire

The questionnaire contained the following questions.

- 1) Please provide a short description of your company specifying, in particular, the main market sectors in which it specializes and the main activities.
- 2) Your Company would like to attend (alone or in partnership) a tendering procedure for the award of the 'Technological and organizational support for health workers in the planning, management and provision of assistance and home care services for patients with chronic diseases, enhanced by the use of digital technologies' in order to achieve the following objectives:
  - Raising, through the integration of health and social services, the quality of the services provided and therefore the well-being of the population, with particular reference to elderly citizens suffering from chronic diseases.
  - Promoting solutions that facilitate the exchange of information between the professionals involved in the care process.
  - Delivering telemedicine services to patients with chronic diseases (particularly, COPD and heart failure third and fourth grade NYHA).
  - Allowing the acquisition, management and analysis of information required for service provision and evaluation.
- 3) If the previous question you answered:
  - YES, please specify which aspects you are interested in;
  - NO, please specify why.
- 4) With reference to the provision of services similar to those that should be the subject of tender, please describe:
  - your experiences;
  - how you have participated (individual company, RTI, consortium ...);
  - main activities carried on by your partners.

- 5) With reference to the provision of services similar to those that should be the subject of tender, please describe any design solutions implemented and the type of technological solutions used/developed.
- 6) With reference to the provision of services similar to those that should be the subject of tender, please describe the design solutions you propose, explaining both technological and organizational aspects.
- 7) In case of managing telemedicine services through the use of an Operations Centre (having the functions of organizing and coordinating the activities), please describe the advantages and disadvantages that you think may be related to the following scenarios:
  - Operations Centre managed by Azienda USL Toscana Sud-Est staff;
  - Operations Centre managed by staff from other companies.
- 8) Please describe which could be the modalities of service pricing, considering that payment should be based on the achievement of performance targets/compliance with Service Level Agreements (SLA).
- 9) Please describe the requirements and the quality standards which, in your opinion, most qualify for the types of product and service covered by the market consultation.
- 10) With reference to the provision of services similar to those that should be the subject of tender, have you ever been a supplier of Health companies?
- 11) If the previous question you answered YES, please specify the company involved and the services provided.
- 12) Add any comments or suggestions that you consider useful for this initiative.

## 8.2. Characteristics of respondent

A total of seven completed questionnaires were returned to ASL Tuscany South-West. By answering the questions, the respondents had the chance to describe their activity and experiences in supporting home-care and tele-medicine services.

| Type of provider  | Country | Number of completed questionnaires received |
|---|---------|---|
| ICT providers   | ITALY   | 3   |
| ICT provider specialized in telemedicine tools and services | ITALY   | 2   |
|   | SPAIN   | 2   |
| <b>TOTAL</b>  |         | <b>7</b>                                    |

*Completed questionnaires*

Most of the companies have been in the market for a long time and the degree of experience as a supplier of tele-medicine services for health organizations is relatively heterogeneous: there are respondents with great expertise in the provision of tele-medicine tools and services and providers that are suppliers of health organization offering other ICT services.

### The involvement of SMEs

A further objective of the STOPandGO project is to create the conditions to increase the involvement of SMEs in PPI. It was not possible to carry out an assessment of the degree of participation in the OMC of SMEs because some respondents did not provide information about their size. Nevertheless, we have detected the presence among ICT providers of one small company with fewer than 50 employees.

### 8.3. Summary of responses

Since one of the purposes of the OMC is to collect information that can be used in the call for tenders specifications, a summary of the most relevant responses is provided here below.

#### Areas of Interest/ Services Offered

Companies express their overall interest in the tender for the following reasons:

- IT support for tele-medicine services;
- document management tools;
- collaboration tools;
- solutions for the integration and continuity of care;
- digital PDTA (Diagnostic Therapeutic Relief Plan);
- tele-care devices;
- tele-monitoring devices;
- tele-visiting devices;
- solution that allows data management and analysis of information.

#### Operations Centre

The majority of the respondents explained the aspects they believed are advantages and disadvantages of having the Operations Centre (with the functions of organizing and coordinating the activities) managed by ASL Tuscany South-West or the company's staff. Most believe that clinical expertise should be managed by ASL Tuscany South-West and external staff should be contracted regarding technical expertise.

#### Pricing/Invoicing Methods for the Service

Respondents proposed the following different options for pricing the service:

- to pay a fee for each patient;
- to pay a fee for each use of the service;
- to define one annual fixed price for an integral service (SaaS/PaaS...);
- invoicing according to the achievement of the target outcome;
- implementation project with a later maintenance contract.

### 8.4. Conclusions

The answers given by the companies to the questionnaire have been very useful in gaining information about the technologies and solutions available on the market and suggestions for preparing the tender.

In particular, the OMC helped to better define the requirements to be requested in the tender documentation due to the following information:

- updates on clinical and scientific progress for new technologies and software;
- interoperability requirements that should be taken into account;
- suggestions about the operation center organization;
- invoicing method, assuming that the better the service and more the provider gains.



Therefore, the objectives set when the OMC was planned are considered to be fully achieved:

1. operators in the market have been informed and involved in the process;
2. information about the proposed solutions on the market have been obtained;
3. respondents have suggested different models and solutions for different challenges such as modelling, organization, pricing and interoperability

## 9. Miguel Servet, Aragon (SAMPA)

### 9.1. Introduction

The Miguel Servet University Hospital (HUMS) is a public hospital that belongs to the Public National Healthcare System. The HUMS has more than 1,000 beds available at the hospitalization area and more than 28 operating theatres involving all the medical and surgical specialities. Its staff consists of more than 6,000 people, including 3,000 healthcare professionals. It provides direct service to more than 400,000 inhabitants and it is reference centre for more than 800,000.

The HUMS belongs to the SALUD, which is the public provider of healthcare for the whole region of Aragón. The SALUD has participated in several European Projects from the ICT-CIP-PSP program (Health Optimum, DREAMING, SUSTAINS, SMARTCARE, MASTERMIND) and it is now working at other H2020 initiatives (EMPATTICS, POLYCARE).

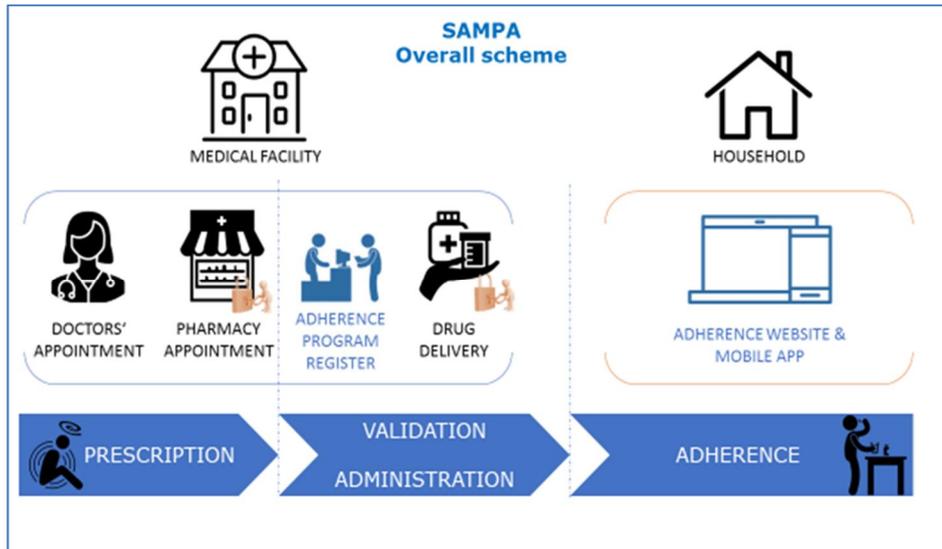
The HUMS has also collaborated in proposals of other basic research projects under evaluation within the H2020 program, in cooperation with the IIS (Instituto de Investigación Sanitaria, Healthcare Research Institute).

We received the offer to participate in the STOPandGO project in November 2016. We studied the needs and defined a project that fulfilled all the necessary needs so that the final objective was an integral service of registration and promotion of the adherence to medications in elderly patients (SAMPA) for the outpatient pharmaceutical care unit (UAF-PEX) of the Miguel Servet University Hospital of Zaragoza. The PIN was published in the OJEU on 30<sup>th</sup> December 2016.

In a short period of time we have developed the: PIN, OMC and prepared the tender documents. The OMC was published on 23 February and we left a month for the proposals of the suppliers.

The specific scope of the market consultation can be delimited around three specific objectives described in relation to the lines of action:

- SPECIFIC OBJECTIVE 1. SAFETY: The dispensing error rate will be <1%.
- SPECIFIC OBJECTIVE 2. TRACEABILITY: 75% of the medicines dispensed from the UAF-PEX will present complete traceability including registration of medication, lot and expiration per patient.
- SPECIFIC OBJECTIVE 3. ADHERENCE: The project will lead to an improvement in the management of adherence, with identification of the problem in 100% of patients monitored.



*New procedures implemented in the SAMPA innovation project*

## 9.2. Objective and Methods of the OMC

**The overall objective of the OMC was:**

- In this project the focus is not on the technology itself but on a service enabled by technology. This fact has a direct impact on the open market consultation in the sense that besides the importance of knowing what products are available on the market. It pretends to solicit market information on possible solutions to the need to improve the pharmacotherapeutic process of patients to which drugs are dispensed from the outpatient pharmaceutical care unit (UAF-PEX) of the Miguel Servet University Hospital of Zaragoza (HUMS) through the use of new technologies.
- The overall objective is to acquire a comprehensive service to improve safety in the use of medicines and ensure the adherence of chronic elderly patients (> 60 years). The beneficiaries will be: onco-hematologic patients, HIV, pulmonary arterial hypertension and chronic renal failure.
- Tried to inform about the tender process, in order to achieve the widest participation of interested parties and to learn about the quality and technical characteristics of the proposed solutions on the market.
- A thorough understanding of the potential supply chain for an innovative product or service is indispensable, and this may go beyond the existing knowledge of category managers. This is because PPI will often involve new market players or groupings, that require specialist materials or services to be sourced, and structure contracts or payment in new ways



## The method of the OMC has been:

### Previous actions

The hospital pharmacies of other centres were visited: Hospital San Pau and Oncological Institute of Catalonia (ICO) that have automated systems of dispensing of medicines.

No less important is the expectation that has generated the first PPI in Aragon to be tendered. Different departments of the Government of Aragon and also from other regions have been interested in following up the process.

### Publication

Method: We published the LOMC in the OJEU, in the web page of the Sector Zaragoza II, and in the profile of the contractor.

We published in the Public Contracting Observatory and in the web page of Aragon Government.

<http://sectorzaragozados.salud.aragon.es/pags/cpi/>

<http://www.obcp.es/index.php/mod.noticias/mem.detalle/id.1121/recategoria.1058/remenu.2/chk.a0fbc517b531be411147eae59b7bc16c>

<http://cpi.aragon.es/proyectos-estrategicos>

### Dissemination

We sent emails more than 65 local companies (a cluster) related to the project and questionnaires that the suppliers had to complete.

<http://sectorzaragozados.salud.aragon.es/es/pags/cpi/>

[http://sectorzaragozados.salud.aragon.es/uploads/documentos/documentos\\_LOMC\\_HUMS\\_SAMPA\\_EN\\_6b117732.pdf](http://sectorzaragozados.salud.aragon.es/uploads/documentos/documentos_LOMC_HUMS_SAMPA_EN_6b117732.pdf)

<https://www.linkedin.com/groups/8301840/8301840-6230339607507017731>

## 9.3. Final report OMC

The final report of the results of the open market consultation for the preparation of the bidding of the integral registry and promotion of adherence to medicines to ancient patients (SAMPA) in the outpatients of the pharmacy service of the University Miguel Servet Hospital has been published on the website of the sector Zaragoza II.

[http://sectorzaragozados.salud.aragon.es/pags/668fa\\_cpi](http://sectorzaragozados.salud.aragon.es/pags/668fa_cpi)

First, from the processing perspective, there has been no complaint about the functioning of the electronic headquarters or the forms to be submitted. Concerning certain formalities of a minor technical nature, some consultations have been submitted by the companies concerned.

Second, in relation to Open Market Consultation itself, it is reported that four companies have participated in the same, through the electronic form.

Many companies in the healthcare sector and in the technology sector have shown an interest in the LOMC and have contacted us through the forms, email and by telephone to try to



provide solutions to the project presented by Miguel Servet Hospital. We have also received extensive written proposals from various companies in the sector.

In any case, the information provided, allows validity that exists in the market capacity to respond to the need object of this Open Market Consultation. Information that, in any case, will be valued in order to be able to adapt in the best way both the object and the tender procedure.

No less important is the expectation that has generated as the first PPI in Aragon to be tendered. They have been interested in other departments of the Government of Aragon and have also called other Public Administrations.

We also presented the project at a meeting of hospitals in the north of Spain, in the city of Vitoria, where we talk about SAMPA and PPI.

There is also a group of Spanish hospitals called Oligosopnio that works and develops management systems. A group dedicated to PPI has been set up.

## 9.4. Conclusion

According to our current experience, increasing engagement by involvement of all stakeholders is a critical success factor. In this sense, the OMC is a very valuable instrument which also needs further refinement. The greatest difficulty we had in Miguel Servet Hospital has been the limited time available to formulate the OMC.

We started the OMC 23th January 2017 and ended on 23th February 2017: Only one month to make the request to the market.

The final reflection is that in Aragon this is the first time a OMC has been carried out and with this project we have opened a new way of working in public procurement, according to the principles of concurrency, participation and innovation and we wish to create a trend in organizations, especially in Public Administration.

The most interesting and important aspect of all this effort and work is that companies and the public administrations have contacted us so that we could explain to them this new way of acquiring services.

## 10. Conclusion and discussion

This report describes activities undertaken by the STOPandGO procurers in relation to the open market consultation carried out as part of the project. These activities however shouldn't be seen in isolation. They are part of an ongoing process of creating a vision towards technology enabled care and realizing the necessary pre-conditions. This process doesn't stop after the open market consultation has ended and is also not limited to the specific tender that is part of the project.

Due to the focus on the procurement of services the open market consultation is much more than 'just' being aware of technological innovations that can be purchased. It is all about awareness among all involved stakeholders (including the procuring organizations) and the readiness for cooperation. These topics remain to be important also once the tender has been published, during the negotiation process with successful bidders and during the duration of the awarded contract.

One of the goals of an open market consultation is to achieve widest participation of interested parties. For example in Italy the circulated questionnaire attracted the attention of a consortium composed by an ICT provider and a company that manages a resort. This consortium aims to realize an elderly center in which value added services are provided to promote healthy and active ageing, enhanced by telemedicine, domotics and ICT. Generally speaking participants in the OMC came from the health care sector and the technology sector as could be expected since these are the main stakeholders in the service delivery. In terms of the EU dimension it has always been clear to the consortium that it was most likely that the care providers would be local/national and that the technology providers could come from any country. In terms of SME engagement these mainly are technology companies as domiciliary care provider are mainly large companies due to the labour intense services that they provide.

Based on feedback from questionnaires and the events conducted it is clear that no organization will be capable of solely providing the entire service that is procured, collaboration is needed. Effective collaboration is always challenging, in the context of the OMC even more so, as competitors and potential partners share ideas. Technology suppliers required external support to broker relationships to enable them to work together. In this sense further involvement of SMEs would need an extra support in the consortia preparation phase. This process can start before submitting bids but can as well be facilitated after receiving bids. For example in preparation of matchmaking events as suggested by Eastern Cheshire. *"In retrospect we would spend more time with technology suppliers, supporting them through development of personalised menu of technology enabled care. Brokerage of the NHS, Technology and Education provider's relationships would have come later in the process once a technology offer had been drafted."*

By having supporting suppliers and providers of diabetes specialist services, technology enabled care and Diabetes Education to understand Integrated Diabetes Care model and the opportunity a new service provides as one of the goals of the OMC Eastern Cheshire CCG and the UK STOPandGO partners have identified that the level of knowledge and experience of technology enabled care needed to arrange negotiation with the available wide range of technologies could be challenging for health and social care providers.



Therefore besides facilitating the cooperation it is important to focus on increased awareness of the possibilities of technology. An addition to the OMC could therefore be educational events to inform health and social care organizations about the possibilities. Preferably presentations are given by fellow care organizations that share their experiences as those experiences will be easier adopted than when a supplier would come to tell how good their product is.

This awareness should also be extended within the procuring organization. Communication is key in this respect. One procurer indicated that training is the vehicle to transfer corporate values. Another procurer has a dedicated technology group in place and regular contact with clinicians takes place in order to ensure progress is made. They also have a local implementation team which ensures the right level of communication at all stages of the process.

The OMC is very useful process to promote engagement and develop consortia. However, if it is unbalanced, as happened in East Cheshire between the large number of technology suppliers and the small number of care providers, it needs to be managed adequately to be productive. Some NHS Providers who attended the engagement/networking events did not submit a bid. Feedback from these providers was their lack of confidence in delivering technology enabled care component was the deciding factor to withdraw from the tender.

A second goal of the OMC is to learn about quality and technology characteristics. Responses received are clustered according to functionalities and not on the specific technological solutions provided. This is the type of input needed for the tender specification as the text will be including performance-based or functional specifications are a way of allowing for flexibility for suppliers to propose solutions. Performance-based or functional specifications is an approach to specifying requirements in procurement which focuses on what needs to be achieved, rather than the detailed inputs.

In the OMC from ASP RMD and ASP CZ the remote monitoring category appears to be markedly predominant: planning of monitoring activities, the definition of thresholds for alarms, data collection and the management of alarms are the services common to most offers. However, all companies that focus on services related to remote monitoring, offer functionalities developed to facilitate the work of the professionals, while only in one case the patient is recognized as an active subject of the monitoring process and then target for specific functionalities. As patient empowerment is one of the key elements of STOPandGO this is a topic that needs to be additionally highlighted in the tender text. In this respect it was encouraging to notice that in the OMC of Sant Pau change management including training for professionals (nursing staff and doctors), patients and relatives was identified by the respondents as an area of interest.

A third goal of the OMC is to collect other relevant suggestions for the tender. As identified in the STOPandGO compliance checklist due to the fact that innovative services will be procured it will probably not be possible to beforehand identify all the relevant indicators. Therefore in the tender specification a request to bidders to propose a coherent set of additional indicators to measure the functionality/performance of the proposed solutions should be included. At least partly it will be the bidder that is the one who can set up the most appropriate way to measure its innovation. The responses collected during the OMC also provided input on this topic.



Bidders are not familiar with value-based procurement and outcome based payments. Companies need to evolve their own business model according to the new costs structure and distribution. In respect to payment models it is therefore not only the percentage of payment done on outcome that matters, the mere fact that outcome based payment is even part of the tender is a big step forwards. In the Sant Pau OMC some suggestions were given, one of them specifically included a reference to the quality of the service offered: *“to define one annual fixed price for an integral service and setting a variable payment bound to quality of the delivered service.”*

Several important characteristics of the services were suggested by the participants in the OMC's. This ranged from the stressing the importance of standards and suggestions for which ones to use, usability requirements, technical requirements (e.g. in terms of stability and reliability) to metrics for service delivery also focusing on education and early detection.

Overall it is clear that there is no one size fits all. The Open Market Consultation could be implemented through several communication channels, or by having the consultation via an on-line questionnaire. Best approach would iterate in the cross learning development by the combination of several initiatives, as far as the legislation in place would allow it. For STOPandGO procurers taking part in the project has led to first experiences with the instrument and shared learnings by sharing these experiences among each other. Clearly a process has been set into motion. For example in Italy the fear of the launch of procedures that could be detrimental to the principle of transparency and the protection of competition is a major barrier to the adoption of OMC and promotion of supply side engagement. However, the positive preliminary results have enabled a step further in its acceptance by the management. Its use is now planned to be extended to other tenders.

Co-design and co-creation of solutions are powerful tools to reduce resistance and increase engagement. Internally, through Multi-stakeholder workshops, working groups, etc., it allows building bridges to close communication gaps, decrease reluctance and increase engagement. The OMC is a powerful instrument in this sense, but it has to be further explored to reach all of its potential. Experiences gained by the STOPandGO provide valuable input for this process as it presents the first experiences of using the PPI instrument for procuring services.