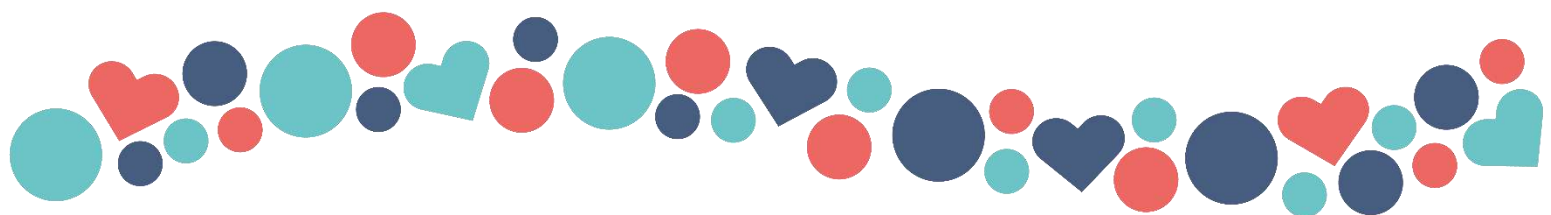




D3.1 Open market consultation information and analysis report



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement N° 965356

Disclaimer

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GRANT AGREEMENT N°:	965356
PROJECT ACRONYM:	TIQUE
FUNDING SCHEME:	PCP
PROJECT START:	1 st March
PROJECT DURATION:	60 Months

D3.1-OMC Information and Analysis Report

DOCUMENT INFORMATION	
Work Package	WP3 – PCP preparation and delivery
Leading partner	HSP
Due date	28/02/2022
Actual submission date	28/02/2022
Type	Report
Dissemination level	Public
Status	Final
Version	4.1

Deliverable description

The purpose of this deliverable is to describe the TIQUE Open Market Consultation (OMC) process. Therefore, it provides information regarding the activities realized before the starting of the OMC, such as the Prior Information Notice (PIN) publication; the objectives of the OMC; the different activities undergone during this period, such as the OMC events, the dissemination actions, the collected questions, or the matchmaking tool among others; and to describe the insights obtained from the market to help the consortium refine the TIQUE model.

This document allows registering all the information gathered during the OMC process in order to have a thorough analysis of the activities performed and the impact they had on the TIQUE project.

Versioning and contribution history

VERSION	DATE	COMMENTS	PARTNER
0.1	15/02	First draft	HSP & VALDE
1.0	21/02	Feedback from appointed reviewers	RVB & ASLAV
2.0	22/02	Revision and integration of feedback provided	HSP & VALDE
4.0	22/02	Consortium revision	All
4.1	28/02	Final revision of feedback obtained	HSP & VALDE

Deliverable process schedule

N°	PROCESS STEP	RESPONSIBLE	VERSION	COMMENTS
1	Draft	HSP	0.1	
2	Draft	VALDE	0.1	

3	Draft	RVB & ASLAV	1.0	
4	Draft	HSP & VALDE	2.0	
5	Draft	All	4.0	
6	Final	HSP & VALDE	4.1	

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Abbreviations and acronyms

AHF	Advanced Heart Failure
AI	Artificial Intelligence
ASLAV	Azienda Santiaria Locale Avellino
DSS	Decision Support System
EAFIP	European Assistance For Innovation Procurement
HF	Heart Failure
HSP	Fundació de Gestió Sanitària Hospital de la Santa Creu i Sant Pau, Sant Pau Hospital
IC	Integrated Care
IPR	Intellectual Property Right
OJEU	Official Journal of the European Union
OMC	Open Market Consultation
PCP	Pre-Commercial Procurement
PIN	Prior Information Notice
Q&A	Questions and Answers
RVB	Region Västerbotten

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Executive Summary

In preparation for the PCP call for tender, an Open Market Consultation (OMC) was launched to actively approach the market to get in-depth, targeted supplier feedback, and to facilitate consortia development. This report describes the OMC process and summarizes the main findings obtained from the market.

The main objectives of the OMC process were:

- Inform potential suppliers about the TIQUE PCP opportunities and the scope of the procurement envisaged in TIQUE, and encourage them to participate
- Open a dialogue and gather information and insights from potential market suppliers with respect to the TIQUE concept, the scope of the procurement, and the market readiness.
- Explain in detail the PCP mechanism and process
- Facilitate matchmaking among potential suppliers in need of support in the building of consortia capable of addressing the needs of the TIQUE procurers in full

Before the starting of the OMC, the Prior Information Notice (PIN) was published on July 23rd, 2021 in the OJEU, which included relevant information about the TIQUE OMC and future tender. A modification of this PIN was published on July 28th, 2021, due to a problem with the link to the TIQUE website.

During the OMC period, different actions were designed and performed in order to maximise the insights obtained by the market prior to the tendering phase. These have been:

- Four online interactive events.
- Questionnaire
- Matchmaking tool
- Q&S section in our website

TIQUE OMC was launched September 28th, 2021 and remained open until February 28th, 2022.

The OMC started with four **OMC online events**, one per each country involved in the procurement process and an international event. The events were held online due to COVID-19 pandemic restrictions. These events happened during October and beginning of November of 2021, and counted with the participation of 101 companies, previously registered for the events through the TIQUE website. A total of 28 presentations were done and 210 people attended the events.

The potential suppliers identified during the OMC were encouraged to fill in an online **questionnaire**, and to register to the **matchmaking** tool available on the TIQUE website in order to facilitate and maximise the collaboration between potential joint bidders.

As a result of the OMC process, 19 entities have completed the questionnaire. These companies are based in 10 different countries and vary in type of organizations, company size and field of expertise. The description of the participating companies, as well as the most relevant insights obtained from the consultation are included in a section 2.1.3.1 of this report and in annexes.

Specific dissemination material to promote TIQUE OMC Process was developed and shared through TIQUE social media, networking platforms and mailing, in order to maximise the engagement with the participants.

The most remarkable findings from the OMC are:

- The confirmation of non-available solutions for the TIQUE challenge and the market readiness to face it;
- The integration of the many diverse IT systems involved in TIQUE is very complex and will involve significant resources from both procurers and suppliers;
- The assessment of the prediction and prevention system should be analysed for the size of the population involved and the duration of the pilot;
- The availability of quality data for feeding data-based TIQUE services need to be addressed in advance;
- The control of medication module is considered out of scope due to its high complexity;
- During the execution phase a period of co-creation with all involved actors from procurers' side should be foreseen

The valuable information collected through the questionnaires' answers and the questions received during the OMC, allowed the TIQUE consortium to better understand the scope of the proposed solution, the difficulties encountered by the participants and the potential solutions the market can bring. All this information has been used to further refine the TIQUE model, and to provide the opportunity to design a more robust, feasible and innovative ecosystem to be integrated into the model and the tender.

1. Introduction

In Europe, 15 million people live with heart failure (HF). People with Advanced Heart Failure (AHF) tend to be elderly and frail, with multiple comorbidities. HF is the leading cause of hospitalisation in people over the age of 65 and has a mortality of 75% at 5 years of the first admission. It carries a high cost to healthcare systems and a substantial loss in quality of life for patients and also their families. The care model in place for these patients entails one specialist for each comorbidity. The medication becomes complex to manage and risky if not handled properly. Severe episodes mean costly hospitalisations and a decline in the quality of life of the patient, penalizing both the patient and the health care system.

The TIQUE Buyers Group of healthcare providers have identified a common unmet need for the transformation of health and care services for AHF patients, specifically for solutions to enable personalised, predictive, integrated care (IC) for patients with AHF, who are likely to have co-existing chronic conditions (multi-morbidity), and who may be frail or at risk of becoming frail. Three public procurers from Spain, Sweden and Italy will jointly procure the design, research, and development of TIQUE solutions and services.

The procurement aims to trigger new solutions to be developed and tested to address the following challenge: improve treatment for patients with advanced heart failure and complex care needs through technology enabled integrated care solutions. The main target improvements are: 33% increase of patient life expectancy, 40% reduction of acute hospital admissions, 20% reduction of drug-related health problems, 20% increase of home care attention and 10% increase of end-of-life care at home.

TIQUE aims to bring to the market a new generation of integrated care solutions making extensive use of edge technologies to provide novel healthcare service models which reduce hospitalisation and still preserve the health status of the patients, as well as improve their quality of life.

Smart monitoring devices at home, artificial intelligence to anticipate and prevent crises, and the implementation of new care pathways are the main components of the value-based solutions that TIQUE expects to achieve. It will include communication and integration tools for care professionals from different organisations to coordinate more efficiently. Taking a PCP approach will bridge the gap between offer and demand.

TIQUE aims to deploy a long-term sustainable solution that is able to scale-up. For this reason, it is supported by a value-based model demonstrating the added value of the solutions.

2. Open Market Consultation

An Open Market Consultation (OMC) with potential tenderers was launched at the end of September as a preparation for the PCP. In order to prepare a pre-commercial procurement, the OMC involves a thorough analysis of the available technology and provides information to the market in advance to ensure enough time for the development of fit-for-purpose proposals.

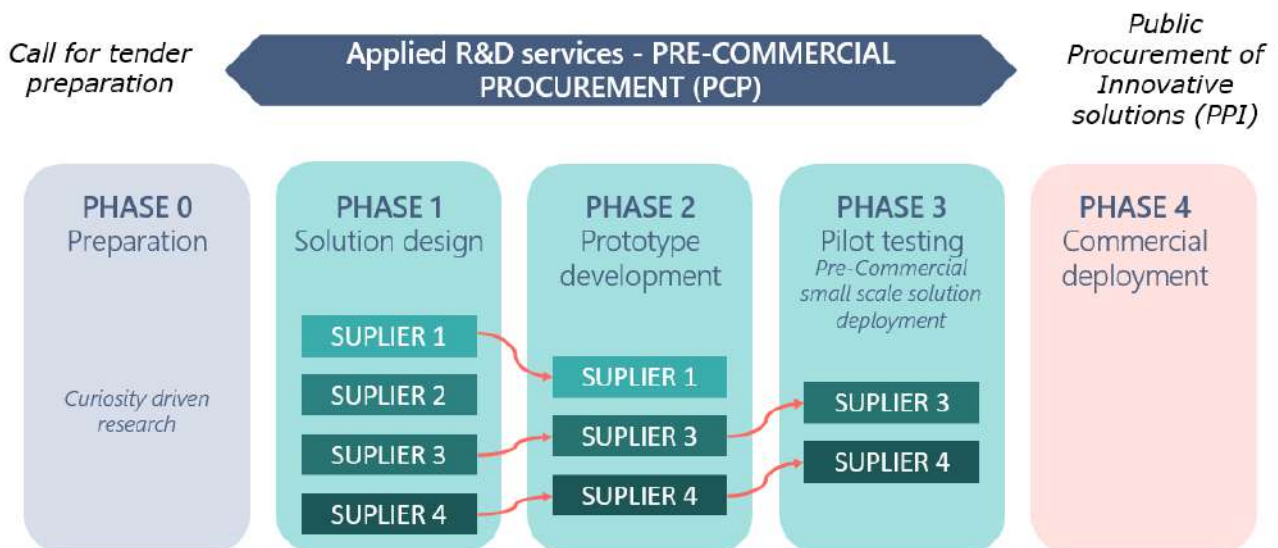


Image 1 PCP Process description

The purpose of the OMC was to inform the market about the TIQUE project needs to be covered and the PCP procurement process, but also to gather information from market suppliers regarding the TIQUE challenge, encourage possible suppliers to participate in the upcoming OMC and the tender, and facilitate consortia building. During this procedure, we aimed to open dialogue with the industry about TIQUE's PCP scope, requirements, needs, budget, and business model among others.

The goals of the Open Market Consultation, according to EAFIP toolkit, are:

- To map all companies capable of submitting responses to the tender.
- To get insight into the market: state of the art and future developments in order to develop a call for proposals with the optimal scope.
- To consult with potential suppliers on the validity of the challenge, its specifications and to gather feedback on the feasibility of response.
- To identify the most critical success factors, barriers and enablers.
- To identify remaining gaps and challenges and where R&D is still required.
- To inform the market and attract suitable stakeholders, particularly suppliers but also (future) procurers.

- To facilitate matchmaking so that interested organizations can build consortia to better be able to address the requirements of the project.

2.1. Methodology

According to the proposed guidelines from the European Assistance For Innovation Procurement (EAFIP) Toolkit, Module 2, Section 2.6, an OMC needs to follow the following points:

- The public procurer needs to proactively communicate its needs, requirements and its planned procurement set-up to all participants in the open market consultation.
- The participation of a potential bidders in the open market consultation must not affect competition in any future tender procedure.
- Any information which potential bidders received during the open market consultation must be shared also with other potentially interested bidders via publication of questions and answers ('Q&A') docs after the open market consultation that are to be referred to within the tender documentation.
- Legal assurances must be put in place that all participants' intellectual property rights (IPRs) and trade secrets will be protected, or that they will be entitled to due compensation in case of breach of confidentiality obligations by the public procurer.
- It is mandatory that potential bidders understand that the competitive phase of the public procurement procedure is conducted separately after the open market consultation and all potential bidders are treated equally; this statement should be included in any invitations to open discussions.

2.1.1. Pre-OMC Activities

2.1.1.1. PIN Publication

As a starting point for the OMC process, the Prior Information Notice (PIN) of the TIQUE PCP was published in the Official Journal of the European Union (OJEU), and also on the Catalan Procurement Platform. The PIN contains relevant information on the OMC process and the subsequent tender. Therefore, the object of this publication is to inform the market in advance of the upcoming proceedings related to TIQUE PCP.

The TIQUE PIN was launched on the OJEU on July 23rd 2021, and a modification was published on July 28th, 2021 due to a problem with the link to the TIQUE website.

2.1.2. OMC Events

As part of the OMC process, four informative events were launches, one per each country involved in the procurement and an international event. All these events were held in a virtual format due to COVID-19 pandemic restrictions. Events were open for registration through the TIQUE website

to companies, associations, social companies, and any other key players that could participate in the TIQUE solution.

These events brought the opportunity for potential tenders to interact with TIQUE procurers and partners in order to meet their challenge and needs; get a detailed overview of the tender process; meet potential partners and competitors for the PCP process; and give the procurers insights about the market and the available solutions these companies have.



Image 2 TIQUE OMC events

For the OMC events, two different formats were chosen, one for the local events in each of the procurers' site, and another for the International event:

- **Local Events:** For these events, an agenda was designed that focused on explaining and staging what TIQUE aims to do and what opportunities it offers to the industry. It was decided that local events should be hosted by the procurer from that country, to show the different points of view of the project within the consortium. The scope and content was at large similar for the different local events, still allowing each procurer to focus on aspects of particular importance related to their needs and vision with TIQUE.

All procurers participated at all local events, to listen actively to the conversation, demonstrate the joint ambitions by the TIQUE consortium and provide other procurers perspectives through short interventions.

The common agenda is shown below:

Agenda	
10:00 – 10:05	Welcome
10:05 – 10:45	TIQUE Project <ul style="list-style-type: none"> • The CONSORTIUM: Procurers and Participants • Challenges & Scope • THE PROCESS: Pre-Commercial Procurement <ul style="list-style-type: none"> ◦ Open Market Consultation ◦ Industry profiles
10:45 – 10:50	Break
10:50 – 11:20	Figures, numbers and timeline <ul style="list-style-type: none"> • Phases 1,2 and 3 • What's expected?
11:20 – 11:50	Questions and Answers
11:50 – 12:00	Wrap up and next steps
All times are given in local time	

Image 3 TIQUE OMC events common agenda

- International Event: At this event it was decided to show in more detail what the objectives of TIQUE are at European level and how we intend to involve the industry in the design and development of the TIQUE solution. To this end, companies were invited via social media and mailing to present the solution they could contribute to our TIQUE project.

The agenda is shown below:

Agenda	
10:00 – 10:05	Welcome
10:05 – 11:30	<p>THE CONSORTIUM: Procurers and Supporting Partners</p> <p>CHALLENGE & SCOPE Use cases</p> <p>THE INDUSTRY IN THE PRE-COMMERCIAL PROCUREMENT: Open Market Consultation Industry profiles TIQUE PCP: Figures, numbers and timeline Phases 1,2 and 3 What's expected? Matchmaking</p>
11:30 – 11:35	Break
11:35 – 12:35	Industry Speakers
12:35 – 12:50	Questions and Answers
12:50 – 13:00	Summary and next steps
All times are given in local time	

Image 4 TIQUE OMC international event agenda

2.1.2.1. Event 1: Hospital de Sant Pau – Catalonia

The first OMC event took place in Hospital de Sant Pau (Barcelona), on October 7th, and it was held online through the Zoom platform. The event was conducted in English and chaired by Caterina Sampol, Project Coordinator, and Innovation Manager of HSP. The TIQUE aims were presented by Dr. Xavier Borràs, Medical Director of HSP, and the TIQUE challenge was addressed by Dr. Mireia Puig, Head of Emergency Department at HSP. 26 companies were present at the event, with a total of 57 attendees.

OMC BARCELONA

TIQUE is carrying out an Open Market Consultation (OMC) events which aims to:

- **Inform** potential suppliers (industry) about TIQUE pre-commercial procurement opportunities and explain in detail the pre-commercial procurement process.
- **Open a dialogue** with potential suppliers about the scope of procurement envisaged in the project and answer any question (incl. technical specifications and financial issues).
- **Facilitate matchmaking** among potential suppliers.

Join us at our OMC events!

Date:	October 7, 2021 10:00 am
Duration:	2h
Host:	Hospital de la Santa Creu i Sant Pau
Location:	Zoom
Language:	English

Videos and presentations

TIQUE Overview
Caterina Sampol
Carla San Martín

TIQUE's Challenge
Mireia Puig

TIQUE's Scope
Jesús Berdún

PCP Process
Rossana Alessandrello

Q&A
All participants

Register now

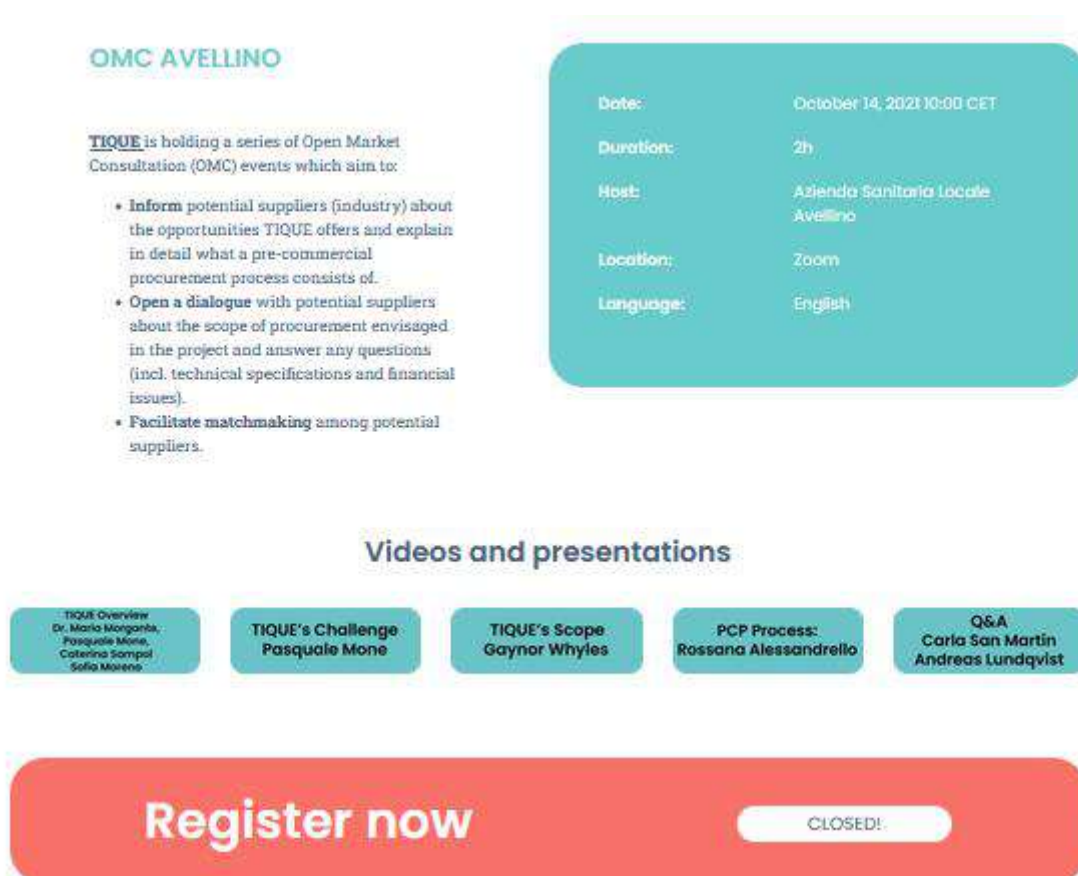
CLOSED!

Image 5 OMC Barcelona Event

A direct link to the event’s presentations can be found [here](#).

2.1.2.2. Event 2: Azienda Sanitaria Locale Avellino – Avellino

The Italian OMC event took place on the 14th of October and was held online through the Zoom platform. The event was chaired by Dr. Pasquale Mone, Geriatrician of Azienda Sanitaria Locale Avellino (ASLAV), and the TIQUE project concept was presented in Italian by Dra. Maria Morgante, General Director of ASLAV. The event brought together 41 people, including 16 companies.



OMC AVELLINO

TIQUE is holding a series of Open Market Consultation (OMC) events which aim to:

- **Inform** potential suppliers (industry) about the opportunities TIQUE offers and explain in detail what a pre-commercial procurement process consists of.
- **Open a dialogue** with potential suppliers about the scope of procurement envisaged in the project and answer any questions (incl. technical specifications and financial issues).
- **Facilitate matchmaking** among potential suppliers.

Date:	October 14, 2021 10:00 CET
Duration:	2h
Host:	Azienda Sanitaria Locale Avellino
Location:	Zoom
Language:	English

Videos and presentations

- TIQUE Overview
Dr. Maria Morgante,
Pasquale Mone,
Caterina Sampol
Sofia Molino
- TIQUE's Challenge
Pasquale Mone
- TIQUE's Scope
Gaynor Whytes
- PCP Process:
Rossana Alessandrello
- Q&A
Carla San Martin
Andreas Lundqvist

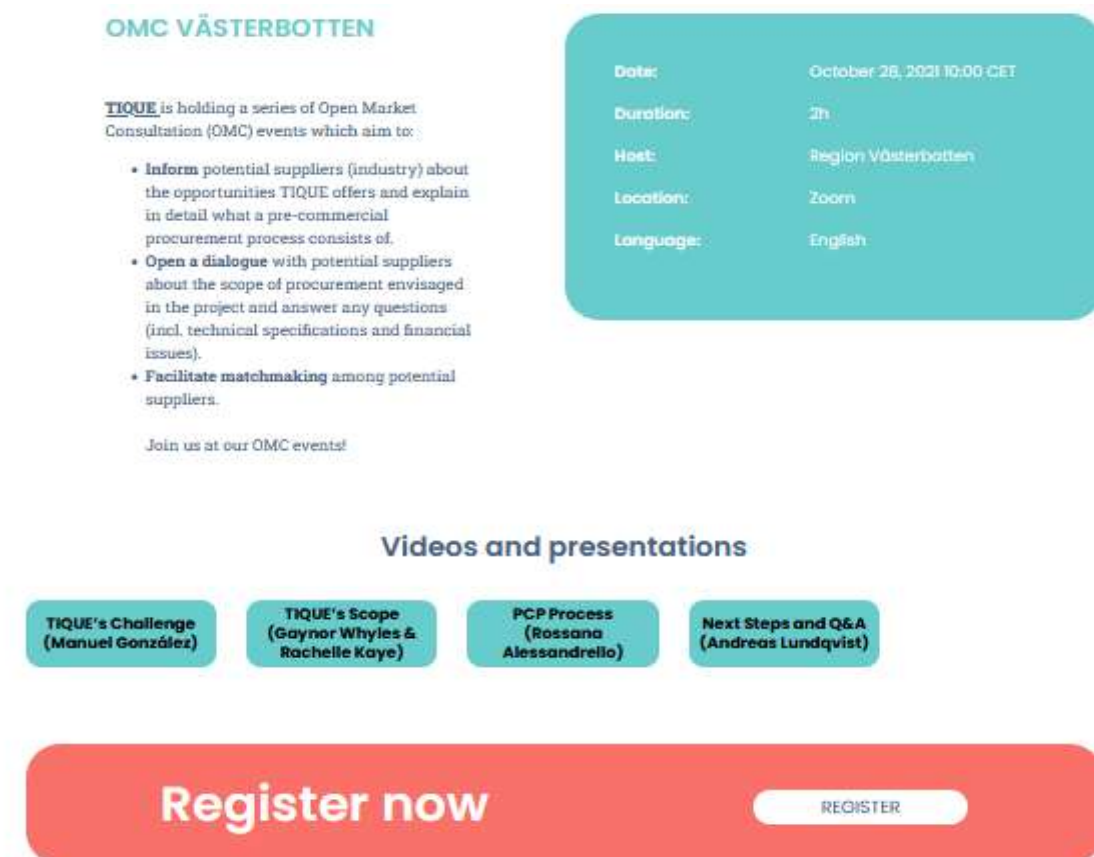
Register now CLOSED!

Image 6 OMC Avellino Event

A direct link to the event’s presentations can be found [here](#).

2.1.2.3. Event 3: Region Västerbotten – Västerbottens län

The last local event took place in Region Västerbotten (RVB) on October 28th and was held on line through the Zoom platform. The event was directed by Andreas Lundqvist, Head of Unit at the Centre for Rural Medicine in Västerbotten, and the TIQUE project was presented by Dr. Peter Berggren, district doctor at Västerbotten County Council. Moreover, Dr. Manuel Gonzalez, specialist in HF presented the TIQUE challenge. The Swedish event counted with a participation of 52 people, with a representation of 24 companies.



OMC VÄSTERBOTTEN

TIQUE is holding a series of Open Market Consultation (OMC) events which aim to:

- **Inform** potential suppliers (industry) about the opportunities TIQUE offers and explain in detail what a pre-commercial procurement process consists of.
- **Open a dialogue** with potential suppliers about the scope of procurement envisaged in the project and answer any questions (incl. technical specifications and financial issues).
- **Facilitate matchmaking** among potential suppliers.

Join us at our OMC events!

Date: October 28, 2021 10:00 CET
Duration: 2h
Host: Region Västerbotten
Location: Zoom
Language: English

Videos and presentations

TIQUE's Challenge (Manuel González) | TIQUE's Scope (Gaynor Whytes & Rachelle Kaye) | PCP Process (Rossana Alessandrello) | Next Steps and Q&A (Andreas Lundqvist)

Register now REGISTER

Image 7 OMC Västerbotten Event

A direct link to the event's presentations can be found [here](#).

2.1.2.4. Event 4: International

The International event was performed in an online format through the Zoom platform on the 4th of November. In this case, the host of the event was Caterina Sampol (HSP), and the TIQUE project was presented by Dr. Xavier Viñolas, Chief of the Cardiology Department in HSP. The event reunited a total of 70 people, and 35 companies. During the international event, 9 companies pitched to present their solutions and how these could fit the TIQUE project. These companies were: Digimevo, Eurecat, GooApps, HumanITcare, Lighthouse Dig, OMRON, Grupo Pulso, Roche and Trak.

INTERNATIONAL OMC

TIQUE is holding a series of Open Market Consultation (OMC) events which aim to:

- **Inform** potential suppliers (industry) about the opportunities TIQUE offers and explain in detail what a pre-commercial procurement process consists of.
- **Open a dialogue** with potential suppliers about the scope of procurement envisaged in the project and answer any questions (incl. technical specifications and financial issues).
- **Facilitate matchmaking** among potential suppliers.

Date:	November 4, 2021 10:00 am
Duration:	3h
Host:	Hospital de la Santa Creu i Sant Pau
Location:	Zoom
Language:	English

If you are interested in presenting your particular solution during TIQUE's OMC INTERNATIONAL event, please [send us an email](#).

You will be contacted for detailed information and instructions on how to proceed.

Registration for presenters closes on Nov 2nd

Image 8 OMC International Event

Videos and presentations

TIQUE Overview (Xavier Viñolas, Carla San Martín & Caterina Sampol)	Why TIQUE is important for Catalonia (Caterina Sampol)	Why TIQUE is important for Avelino (Maddalena Illario)	Why TIQUE is important for Västerbotten (Niclas Forsling)	TIQUE's Challenge (Mireia Puig)
TIQUE's Use Cases (Dr. Sonia Mirabet, Marta de Antonio & Mireia Puig)	PCP Process (Mireia Barroso & Farners Vila)	Industry Speaker: Digimevo	Industry Speaker: Eurecat	Industry Speaker: GooApps
Industry Speaker: HumanITcare	Industry Speaker: Lighthouse Dig	Industry Speaker: OMRON	Industry Speaker: Grupo Pulso	Industry Speaker: Roche
Industry Speaker: Trak	Wrap-up and conclusions (Sofia Moreno)	Q&A (Andreas Lundqvist)		

Register now
REGISTER

Image 9 Videos & Presentations from the International Event

A direct link to the event's presentations can be found [here](#).

Overall data from participants in the Events

	#Registered	#Attendees	#Companies
Spain	46	57	26
Avellino	27	41	16
Västerbotten	36	52	24
International	54	70	35

Table 1 TIQUE OMC events participation

2.1.3. OMC Process

2.1.3.1. TIQUE Questionnaire (Oct to Feb 10th 2022)

During the OMC period, an online questionnaire was constructed through EUSurvey to collect all relevant and detailed information on industry knowledge of existing solutions. So that we can match the unmet needs of buyers and information on the scope, budgetary constraints and phases of the PCP.

Developed with EUSurvey platform: <https://ec.europa.eu/eusurvey/runner/TIQUE-Questionnaire>

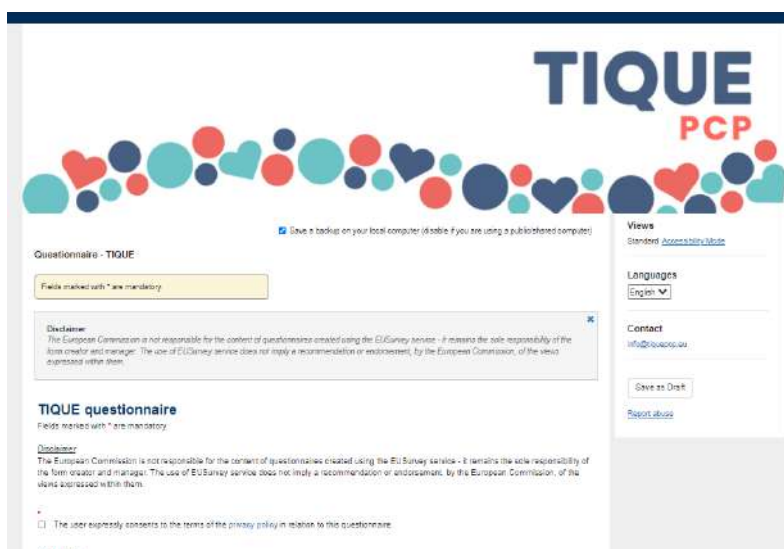


Image 10 TIQUE Questionnaire Form

19 Answers from these countries, type and size

Portugal	2
Spain	7
England	1
Germany	1
Italy	1
Switzerland	2
Denmark	1
Sweden	3
Netherlads	1

Table 2 Companies Location

Private Companies	17
Startup	8
Technological Center	2
Research Center	1
Consortium	1
Non-profit	1

Table 3 Companies organisation type 1

SME	5
Research center academia	1
Large Enterprise	4
Micro sme	9

Table 4 Companies organisation type 2

TIQUE Questionnaire will remain opened until the end of February (28/02/2022).

2.1.3.2 OMC Q&As (October 2021)

Q&As from the OMC Events

Collection of Q&A from the OMC and the PCP process asked during the OMC events and enquires received directly from the website. TIQUE has published those questions at <https://www.tiquepcp.eu/web/tique/q-as-from-the-omc-events>

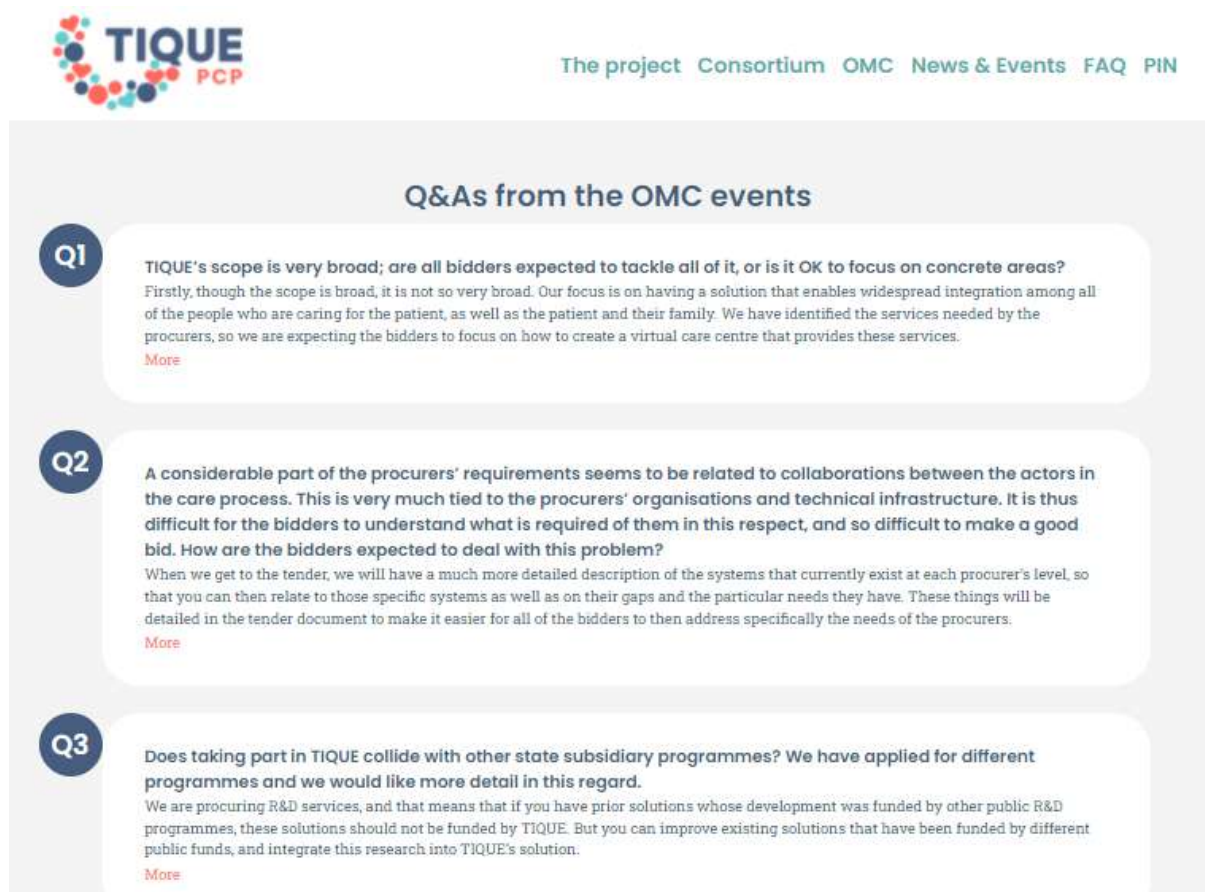


Image 11 Q&A from the OMC

Q&As during the OMC Process

In addition to collecting questions during the OMC events, we provided the public with an email account where they could ask questions about TIQUE. These questions were answered by the consortium and those questions that informed about TIQUE, without directing the interested party to the information available on our social media and website, were collected in the Q&A section of the website.

During the OMC events, the vast majority of the questions refer to the functioning of the PCP process and the future publication of the tender.

This section will be regularly updated with new interesting questions received about TIQUE that have not been explained in other sections of the website to ensure that all members of the public have access to the same information. The Q&A section will remain open until the tender is published. A list of the collected Q&As can be found in Annex.

2.1.3.3 MATCHMAKING (Oct 2021 - ongoing)

As established for the TIQUE project, the goal is to purchase a care service to deliver quick responses to complex patients with advanced heart failure through integrated care, developing a technology-enabled all-in-one service, flexible enough to adapt to a large variety of European health-care systems.

To achieve this milestone, many bidders will not be able to guarantee the development of a solution that fully meets the needs and requirements of the tender. For this reason, a matchmaking tool has been created on the TIQUE website to offer companies the possibility to form consortia with other companies and jointly bid for the tender.

This tool will remain open until the TIQUE call for tender to facilitate the formation of potential consortiums prior to the publication of the call for tender.

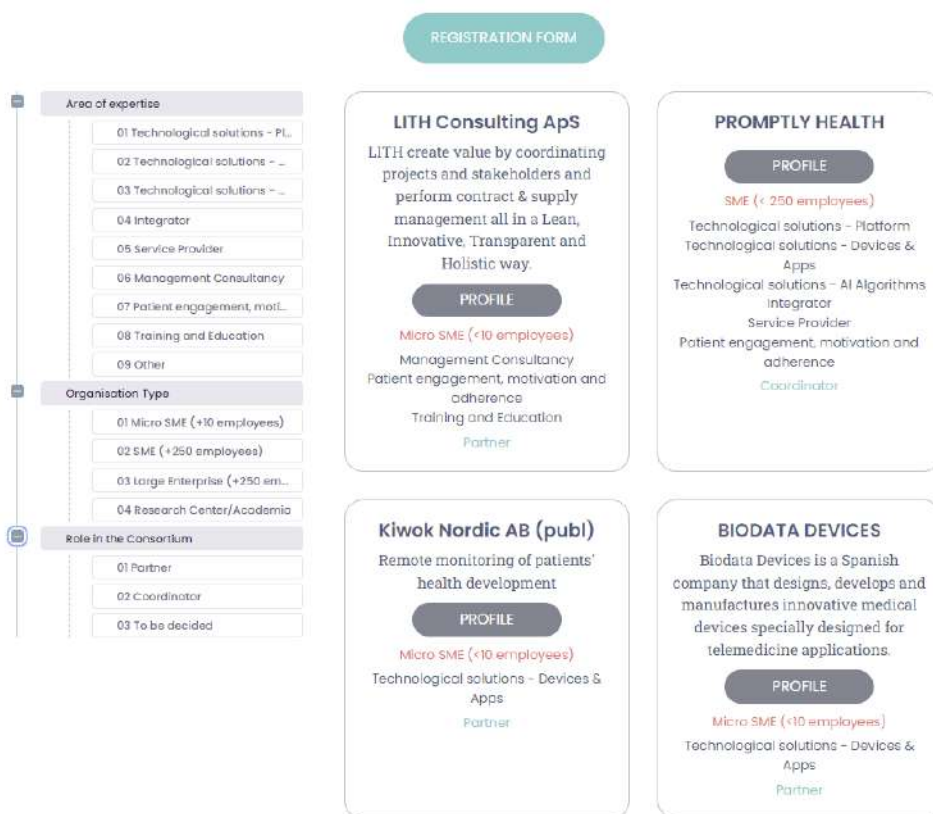


Image 12 Matchmaking Platform

Up to now (Feb 2022) 30 companies have joined the matchmaking section.

	28
SME	2
LARGE ENTERPRISE	0
RESEARCH CENTER/ACADEMIC	0
Area of Expertise	
All	30
01 Technological Solutions – Platform	29
02 Technological Solutions – Devices & App	29
03 Technological Solutions – AI Algorithms	27
04 Integrators	28
05 Service Providers	28
06 Management Consultancy	0
07 Patient engagement, motivation and adherence	27
08 Training and Education	27
09 Others	0

Table 5 Area of expertise in Matchmaking and Type of members

2.1.4 Dissemination Actions

2.1.4.1 Emailing

A total of 2.145 emails has been sent to different target DDBB informing about the Open Market Consultation activities. The average open rate has been 38%. The mail platform used is Acumbamail.

Date	Subject	Target	#emails	Open Rate	Clicks
Feb 2	TIQUE Open Market Consultation	TIQUE Attendees, Web subscriptions	404	150	56
Dec 15 2	TIQUE Matchmaking Tool	ALL	404	153	48

Nov 15	TIQUE OMC Event Press Release and Next Steps	Web subscriptions + Event Attendees	130	66	59
Oct, 29	TIQUE OMC International event (4 Nov) - Save the date		343	104	17
Oct, 27	Interested in participating in TIQUE OMC International event (Nov, 4)?		70	26	80
Oct, 25	TIQUE: Last call for Region Västerbotten OMC event - 28.10		46	21	5
Oct, 25	TIQUE: Healthcare Innovation EU Project - Save the date, OCT 28	Web subscriptions	30	15	7
Oct, 20	TIQUE: Healthcare Innovation EU Project - Save the date, OCT 28	ALL	290	88	29
Oct, 9	TIQUE: Healthcare Innovation EU Project - Save the date, OCT 14		132	49	18
Oct, 05	TIQUE: Last call for Barcelona event - 7.10		141	43	3
Sep, 30	TIQUE: Healthcare Innovation EU Project	I	155	53	36

Table 6 Messages for the OMC

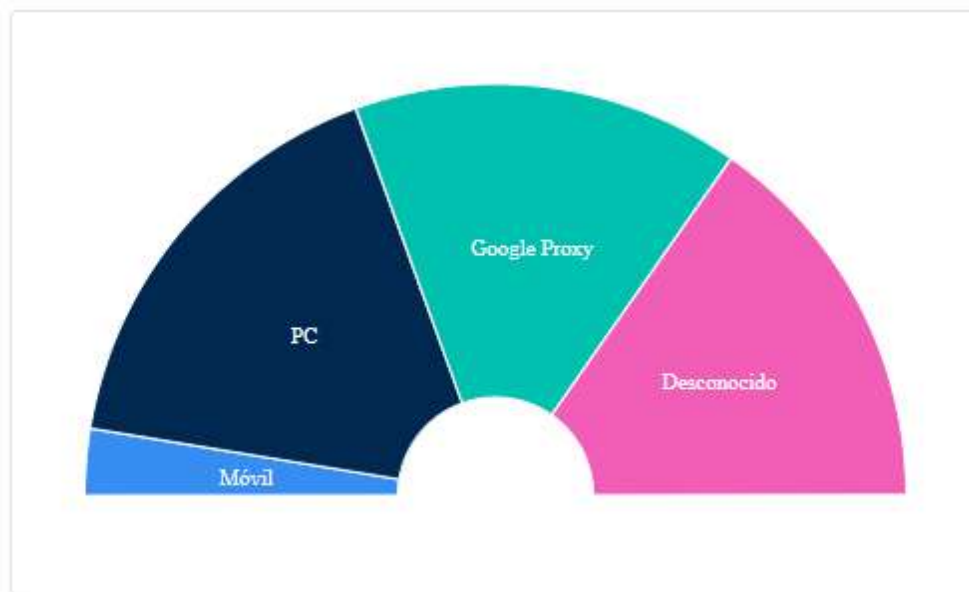


Image 13 Opened from messages

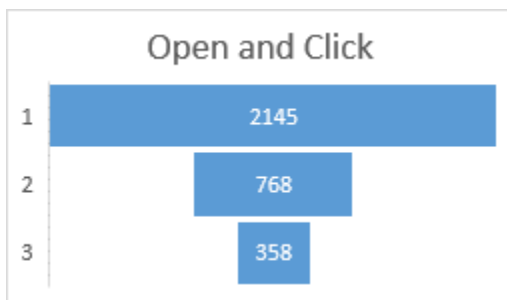


Image 14 Open rate

Apart from mass mailing activities to engage the industry in TIQUE, we also use the project's social media to raise awareness of the different phases of the OMC. In order to reach as many bidders as possible, we mention and share our publications with the accounts described in the official PCP promotion guide, specifically in the following areas


- For health/ageing: @EU_Health, @EU_eHealth, @EIP_AHA
- For H2020/research/innovation: @Horizon2020EU and @EU_H2020 and @H2020SME @ICTinnovEU and @DigitalAgendaEU with #innovation, #research, #startup, #instrumentSME

In addition to using our social media posts, we also contacted (lieve.bos@ec.europa.eu) to provide a short text explaining the scope of the PCP.

Following official guidance to promote PCP, we registered TIQUE on the European Innovation Procurement Forum (<https://procurement-forum.eu/>).

We did the same exercise on the Catalonia Open Challenges platform (<https://openchallenges.accio.gencat.cat/>) which is an official platform of the Catalonia region to publish opportunities for Catalan and international companies.

Samples of emailings:



February 2021

Step into TIQUE's Open Market Consultation!!

TIQUE, a European Pre-commercial Procurement (PCP) project, is seeking innovative solutions to support digitally enabled integrated care.

The project will be issuing a call for tenders in June 2022 with a budget of €4.4 million, co-funded by the EC's H2020 programme.


The aim of the tender is to procure innovative integrated care services to help deliver holistic and rapid care to multimorbid patients suffering from advanced heart failure.

In order to redact a call for tenders that engages the cutting-edge potential of the market, we have designed a Questionnaire to gather information from relevant players in the market. This questionnaire will be open until 10 Feb 2022

Completing this questionnaire (which takes a little over ten minutes) will help us ensure that we are tapping the full potential of the market, and that our call for tenders responds to the solutions you as a market player are in a position to offer to TIQUE's challenge.

We thank you in advance for any time you might be able to dedicate to this, and hope we also get to see you on the Matchmaking platform and submitting a tender come June.

To read this email from explorer click here



December 2021

Matchmaking Tool & OMC Questionnaire

TIQUE, a European Pre-commercial Procurement (PCP) project, is seeking innovative solutions to support digitally enabled integrated care.

TIQUE will be issuing a call for tenders in June 2022 with a budget of €4.4 million, co-funded by the EC's H2020 programme.

The aim of the tender is to procure **innovative integrated care services** to help deliver holistic and rapid care to multimorbid patients suffering from **advanced heart failure**.

The project will last for four years. Bidders, in a gradual elimination process through the development phases of a PCP, will be asked to implement their solutions in the health systems of our 3 procurers: Hospital de la Santa Creu i Sant Pau (Spain), Region Västerbotten (Sweden), and ASL Avelino (Italy).

To find out more about TIQUE's tender requirements, please visit www.tique.eu

No single company will be able to meet the scope of TIQUE's call for tenders by itself. So, we have made available a **Matchmaking platform** on our website to help companies find complementary partners to build consortia that can.

And in order to redact a call for tenders that engages the cutting-edge potential of the market, we have designed a **Questionnaire** to gather information from relevant players in the market.

Thank!
TIQUE Team



OMC Events Press Release

- Interested companies had the opportunity to present their products and proposals.
- TIQUE opens a [matchmaking platform](#) on its website to help match the array of partial solutions.
- TIQUE is disseminating a [questionnaire](#) designed to gather feedback from the sector in elaborating the specifications of its upcoming call for tenders.

More than 150 attendees from around 40 technology companies related to the health and heart disease prevention sector participated in the information sessions held by European project TIQUE last October. The four events took place virtually and included the participation of the project's public procurers: [Hospital de la Santa Creu i Sant Pau](#) (Spain), [Azienda Sanitaria Locale Avellino](#) (Italy), and [Region Västernorrland](#) (Sweden). These events provided information on the scope and challenges of TIQUE, the different phases of a PCP and the capital allocated to cover the costs of each phase. At the International event, which was held last, companies interested in participating in the tender were given the opportunity to present their products and proposals to the audience. [DiginEvo](#), [Eurecat](#), [GooApps](#), [Humanicare](#), [Lighthouse Disruptive Innovation Group](#), [Omron](#), [Pulso](#), [Roche](#) and [Trak](#) presented their companies and products.

Market consultation
In addition, over the coming months and until 31 January, a consultation will be held to ascertain the state of the technology market for services related to solutions for patients with heart

Image 15 Messages examples

2.1.4.2 YouTube

TIQUE Channel in Youtube was created for the Open Market Consultation. The channel is organized in 5 lists. A total of 37 videos have been uploaded, the channel has 4 followers and 497 reproductions.

The aim of this channel was to collect all the recordings during the events and videos presenting the TIQUE PCP project. With these recordings, we separated the different events into shorter videos where the public can consult the exact information they are interested in about TIQUE at any given moment.

Lists	5
Videos Uploaded	37
Plays	497

Table 7 Number of Videos in YouTube



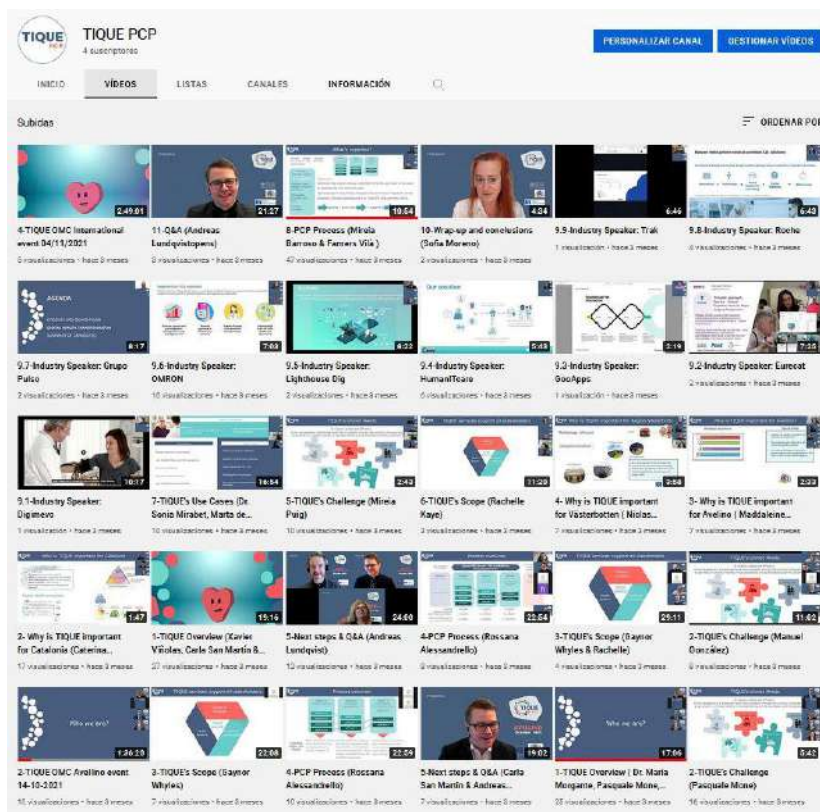


Image 16 TIQUE YouTube Channel

To raise awareness of our Youtube channel, we ran a social media campaign, posting messages with our linked Youtube videos. These links were also uploaded to the website so that anyone who wanted to find out more about TIQUE could access all the public information.

2.1.4.3 Twitter

TIQUE Twitter account has got 70 followers (37 from Sept-Dec). During September we start to promote the OMC Process about TIQUE, in October TIQUE celebrated the OMC Events, from November to December dedicated to promote the TIQUE Questionnaire and spreading key messages about TIQUE. Twitter account gained impact in followers (37), impressions (57.2K) and profile visits (10377).

	TOTAL	Sept	Oct	Nov	Dec
Tweets	95	12	51	26	6
Impressions (K)	57.2	5.8	27.4	19.3	4.7
Profile visits	10377	2553	3206	3292	1326
Mentions	14	3	5	5	1
New Followers	37	9	13	13	2

Table 8 Twitter TIQUE report

In promoting the OMC through twitter, we echoed our “save the date” and introductory *Article* and video LinkedIn posts. We also live tweeted each event, posting two to three quotes and presentation stills per speaker. Finally, once each event was over, we circulated select clips of the recordings of the events.

Your Tweets earned **51.4K impressions** over this **91 day** period

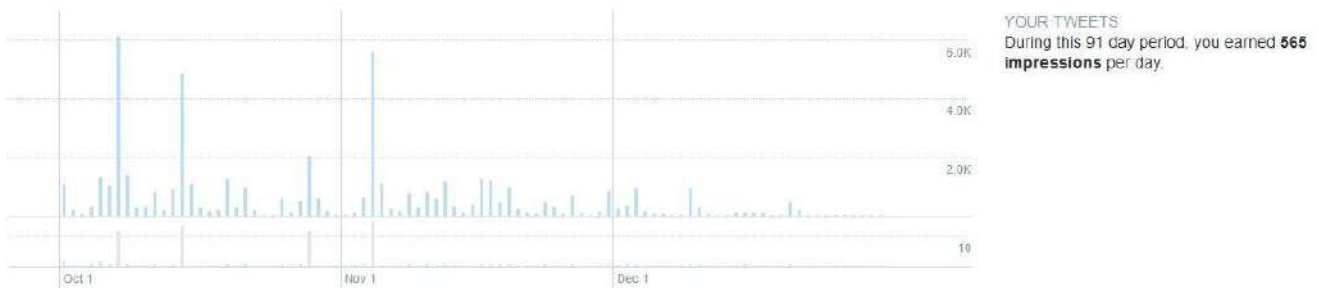


Image 17 Impressions from October to December

Below are the most outstanding tweets from our channel, as we can see, all of them refer to some of the events we held during the OMC. In these we try to convey a direct message through Twitter, along with an explanation in the form of a video to know the detail of the reference.



Impressions	1,867
Total engagements	50
Media engagements	15
Likes	13
Detail expands	9
Retweets	8
Hashtag clicks	3
Profile clicks	2



Impressions	1,660
Total engagements	37
Media engagements	13
Likes	10
Retweets	6
Detail expands	6
Hashtag clicks	1
Profile clicks	1



Impressions	1,615
Media views	299
Total engagements	61
Media engagements	18
Likes	17
Detail expands	10
Retweets	8
Profile clicks	7
Hashtag clicks	1



Impressions	1,409
Total engagements	39
Media engagements	10
Detail expands	10
Likes	9
Retweets	5
Link clicks	5

Image 18 Most Impressive Tweets

2.1.4.4 LinkedIn

An average of 2,5 posts/week to support the OMC activities from Oct to Jan reaching +6.000 impressions and 135 followers with 67 posts

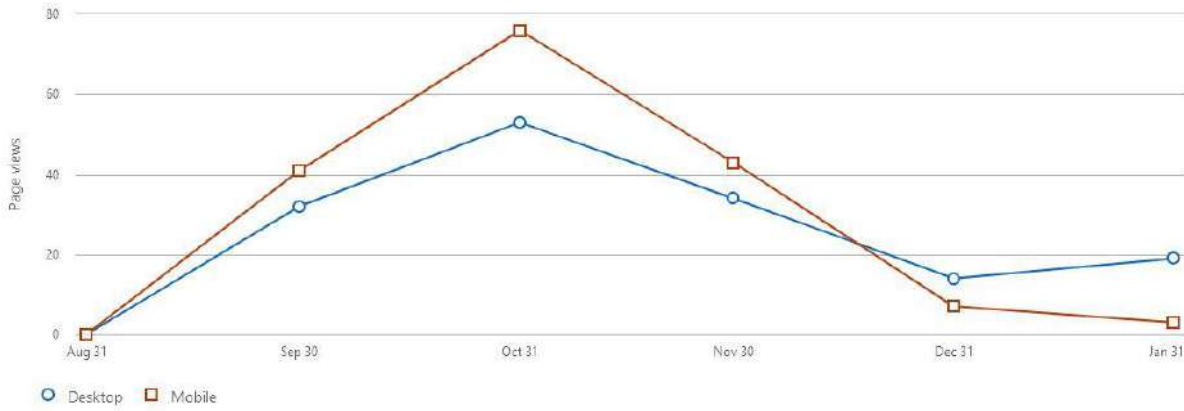


Image 19 LinkedIn statistics visitors

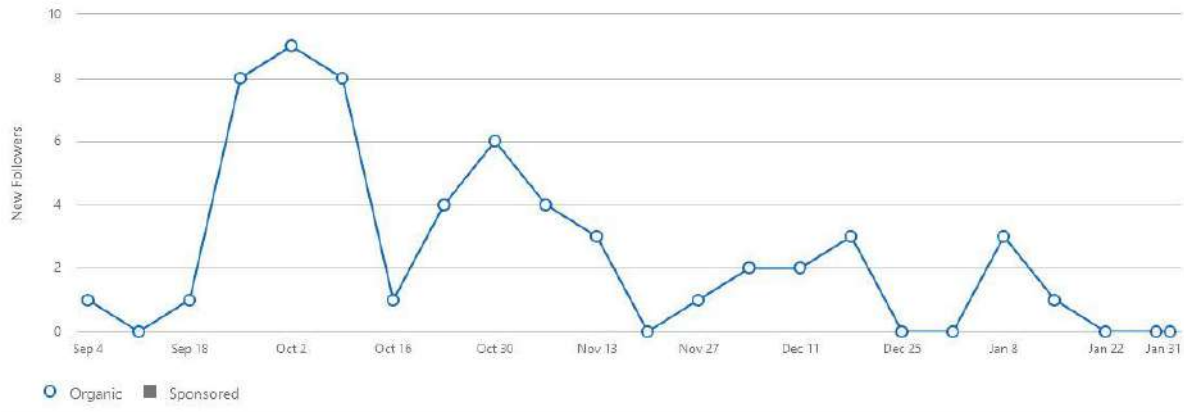


Image 20 LinkedIn statistics Followers

In promoting the OMC through LinkedIn, we mainly used the *Post* format, to make it easier to share the promotional images that accompanied the posts. The posts consisted in various versions of “save the date”, promoting the OMC events weeks and then a few days in advance. We also circulated a brief introduction to the concept of an OMC in *Article* format. An introductory video of TIQUE that included promotional material for the OMC was also circulated in *Post* format through LinkedIn at this time, as were select clips of the recordings of the OMC events once these were over.

Top company sizes

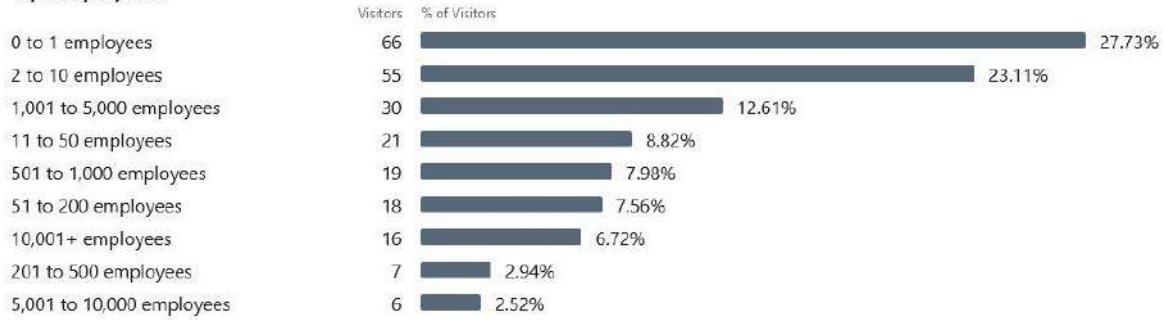


Image 21 Type of visitors in LinkedIn

Top industries

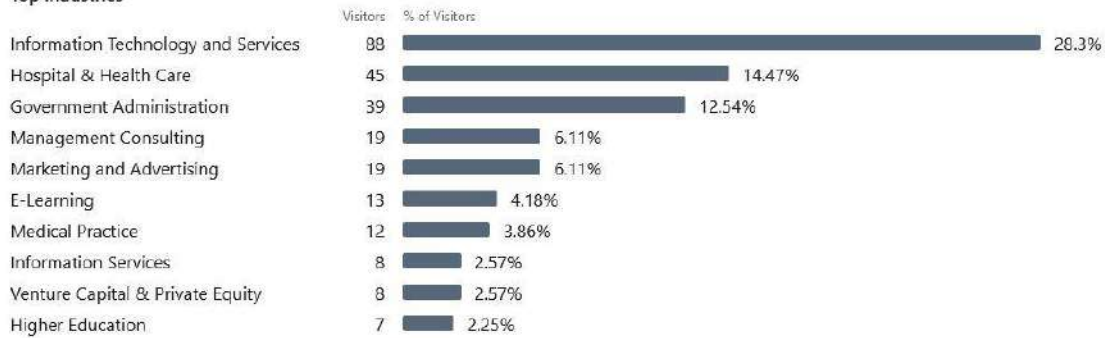


Image 22 Expertise sector from visitors in LinkedIn

Visitor demographics

Time range: Sep 1, 2021 - Jan 31, 2022 | Data for: Location

Top locations

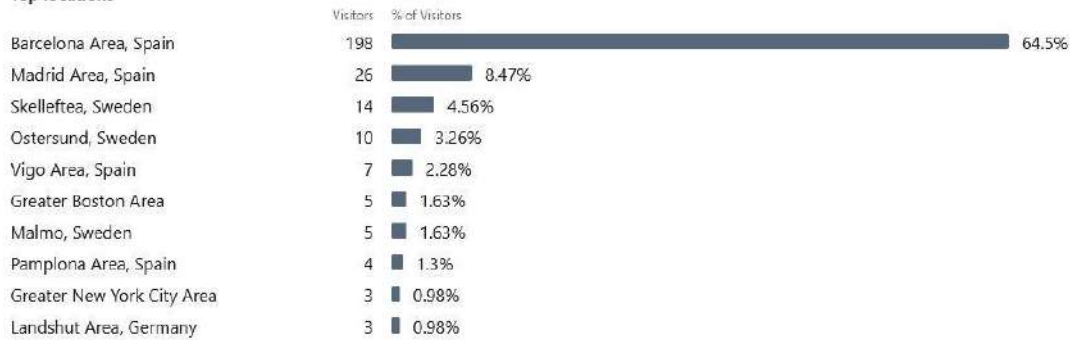


Image 23 Location from visitors in LinkedIn

Below are examples of the type of posts we have been making on our LinkedIn page:

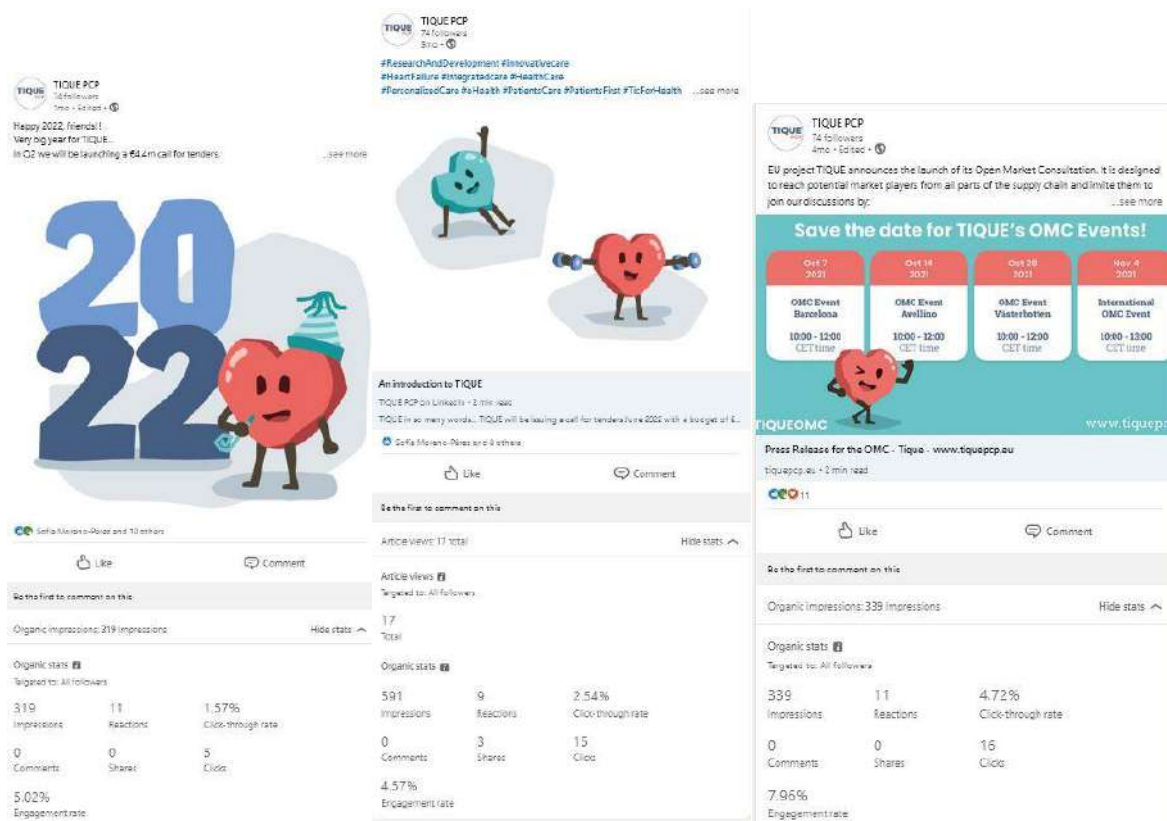


Image 24 Examples of Posts in LinkedIn

2.1.4.5 Procurement and Innovation Platforms

In order to increase the TIQUE OMC visibility, and following the official guidance to promote PCP, TIQUE was registered in the European Innovation Procurement Forum (<https://procurement-forum.eu/>). Various posts were published informing about the TIQUE project and challenge, the OMC activities and events, and the available questionnaire for the market.

The same process was followed on the Catalonia Open Challenges platform (<https://openchallenges.accio.gencat.cat/>), which is an official platform from Catalonia to publish opportunities for innovation and procurement projects for Catalan and international companies.

2.1.4.6 Other events

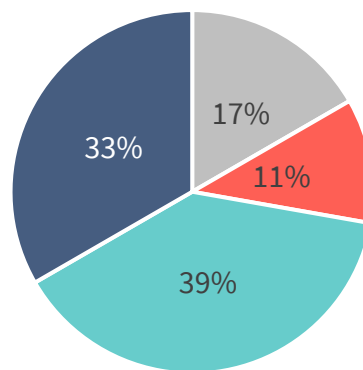
For a broader approach to potential tenderers, the TIQUE PCP project was also presented at two international events, which took place in Barcelona. The first one was the Barcelona Health Hub Summit (<https://bhhs Summit.com/>), on the 28th of October; and the second one was the Smart City Expo World Congress 2021 (<https://www.smartcityexpo.com/>), on the 17th of November. In both events the TIQUE challenge, the tender process and the envisioned model were presented, and potential bidders were encouraged to follow the TIQUE project and participate in the OMC process.

2.2 Results

2.2.1 Questionnaire answers

With the questionnaires we have been able to collect a clear answer from the market about the complexity of the services we want to implement in TIQUE. In the following tables you will find an analysis of the complexity of implementing the services defined in TIQUE from the market's point of view, by ordering them as basic (1), intermediate (2), advanced (3) and **No answer**.

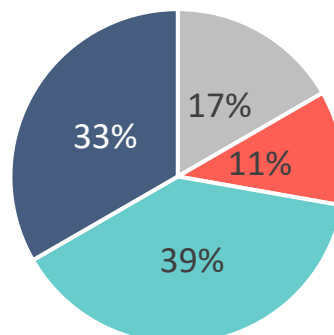
Virtual care centre platform that manages accesses to data from multiple sources, including patient records from healthcare and social services, and from remote patient monitoring.



■ No answer ■ Answer: 1 ■ Answer: 2 ■ Answer: 3

Graphic 1 Service Complexity analysis 1

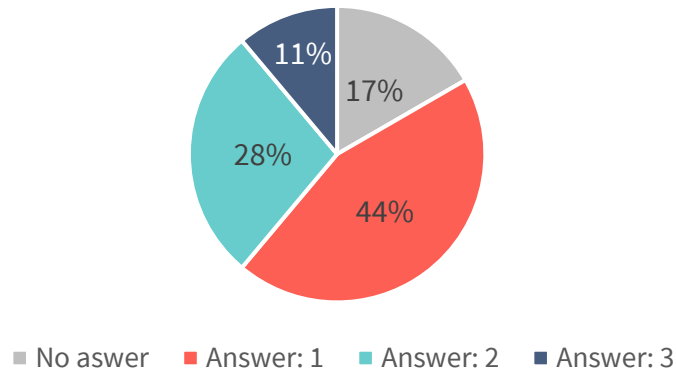
Enables the development and management of a personalised integrated patient care plan actively assigning tasks and providing tools and mechanisms to coordinate the actions, care and treatment of each patient among their multi-disciplinary Care Team.



■ No answer ■ Answer: 1 ■ Answer: 2 ■ Answer: 3

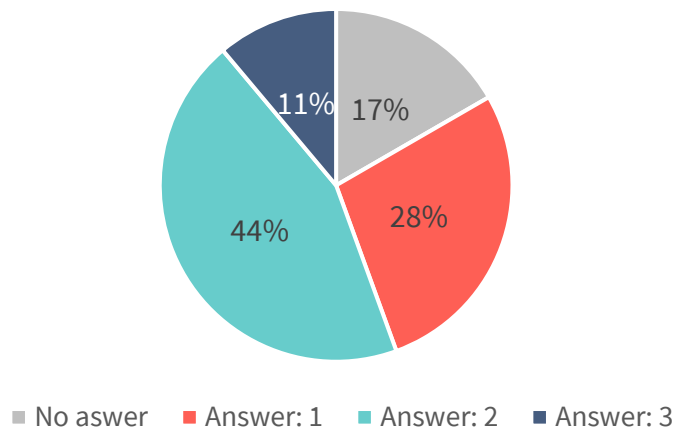
Graphic 2 Service Complexity analysis 2

Provides intuitive communication means between the Care Team and between the Care Team and the patient and family.



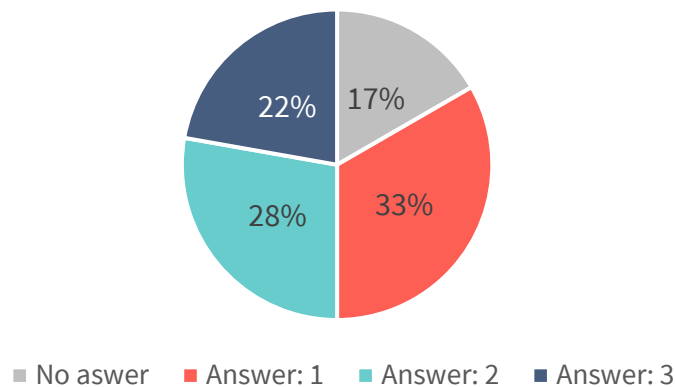
Graphic 3 Service Complexity analysis 3

Facilitates participation in decision making on the care plan by the patient.

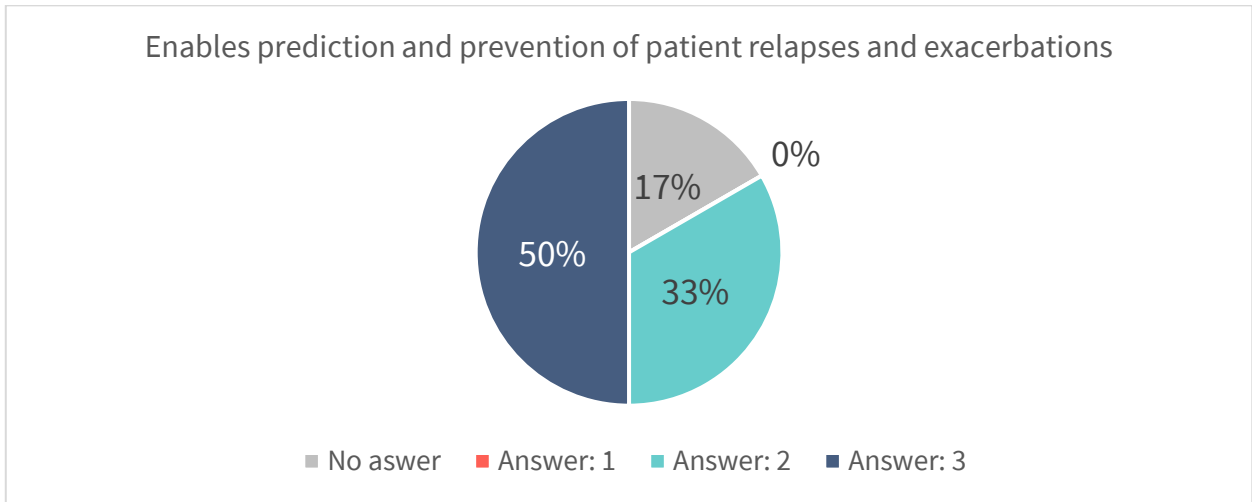


Graphic 4 Service Complexity analysis 4

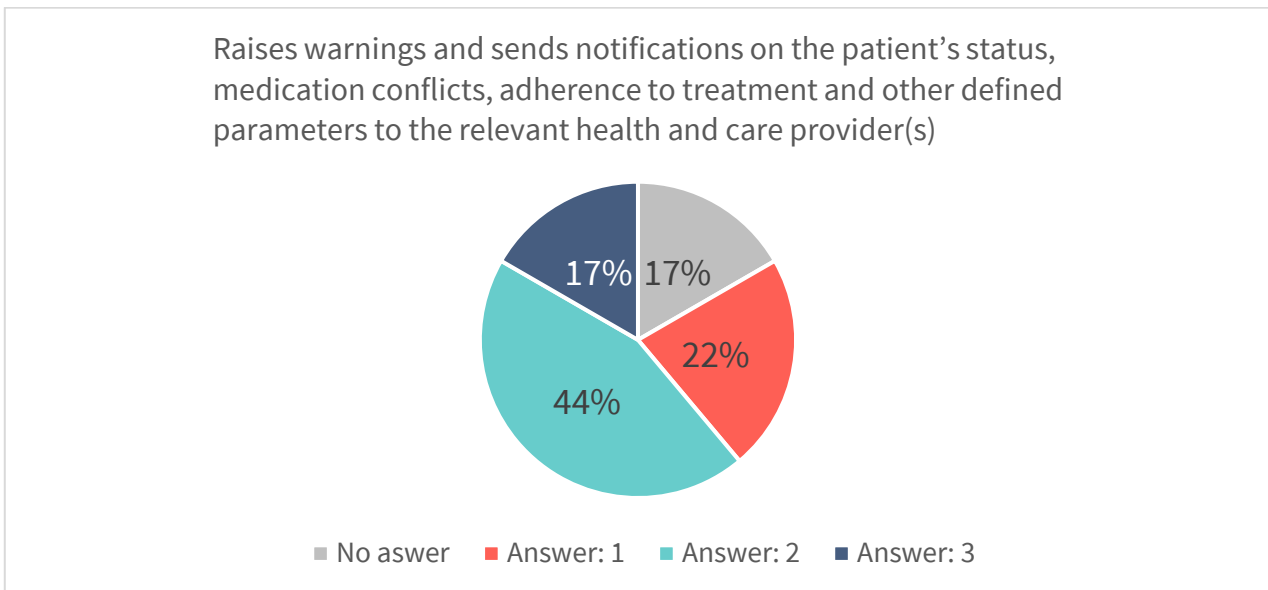
Enables remote monitoring of patients at home and in the move to record relevant vital signs and activity.



Graphic 5 Service Complexity analysis 5



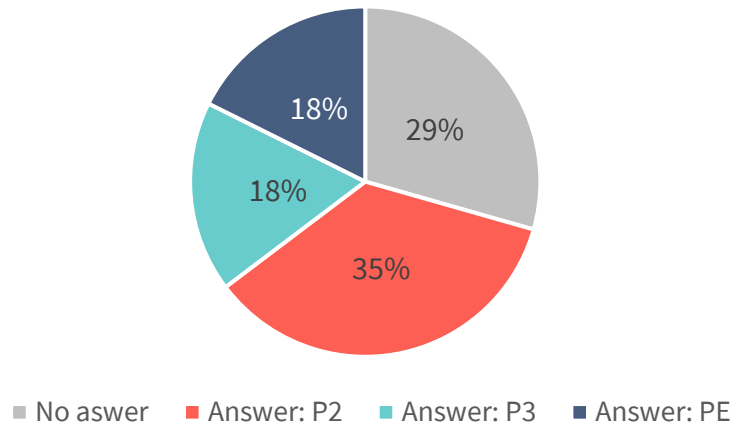
Graphic 6 Service Complexity analysis 6



Graphic 7 Service Complexity analysis 7

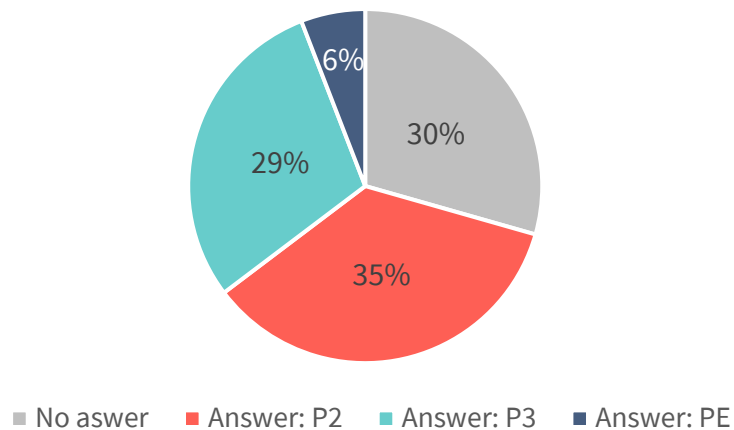
Furthermore, we wanted to know the market's opinion about when they see feasible to require each service following the PCP phases and a possible IPP. They were asked to order them in the following way: PCP Phase 2 (Prototyping, **P2**) and what can be included in Phase 3 (Validation, **P3**) and what shall be left for a PPI or later scale-up after the project ends (**PE**) and **No answer**.

Virtual care centre platform that manages accesses to data from multiple sources, including patient records from healthcare and social services, and from remote patient monitoring.



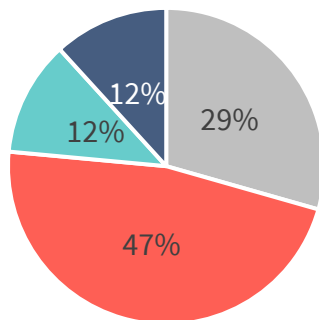
Graphic 8 Phase of service implementation analysis 1

Enables the development and management of a personalised integrated patient care plan actively assigning tasks and providing tools and mechanisms to coordinate the actions, care and treatment of each patient among their multi-disciplinary Care Team. Inclu



Graphic 9 Phase of service implementation analysis 2

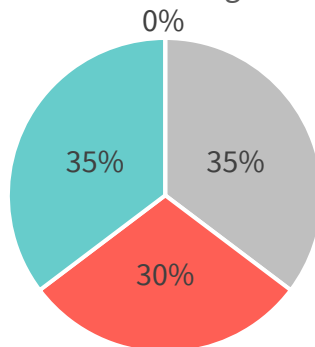
Provides intuitive communication means between the Care Team and between the Care Team and the patient and family.



■ No answer ■ Answer: P2 ■ Answer: P3 ■ Answer: PE

Graphic 10 Phase of service implementation analysis 3

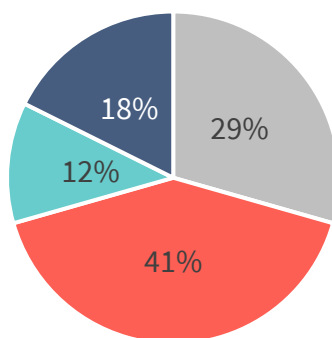
Facilitates participation in decision making on the care plan by the patient.



■ No answer ■ Answer: P2 ■ Answer: P3 ■ Answer: PE

Graphic 11 Phase of service implementation analysis 4

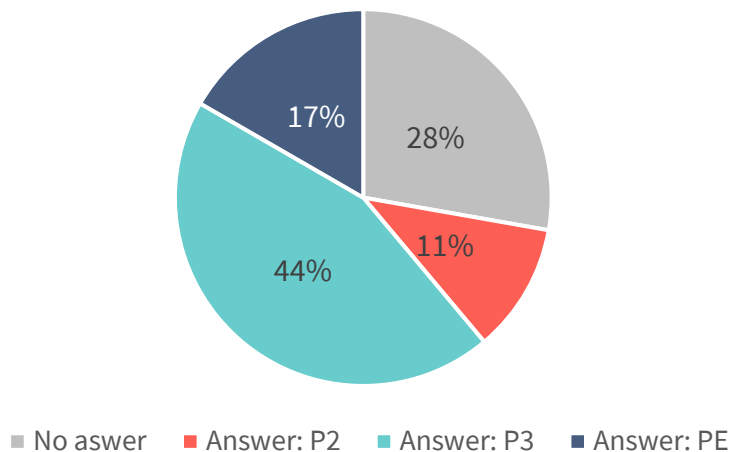
Enables remote monitoring of patients at home and in the move to record relevant vital signs and activity.



■ No answer ■ Answer: P2 ■ Answer: P3 ■ Answer: PE

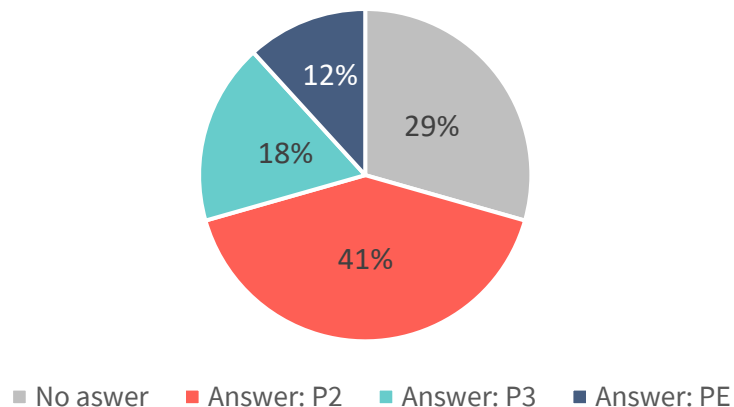
Graphic 12 Phase of service implementation analysis 5

Enables prediction and prevention of patient relapses and exacerbations



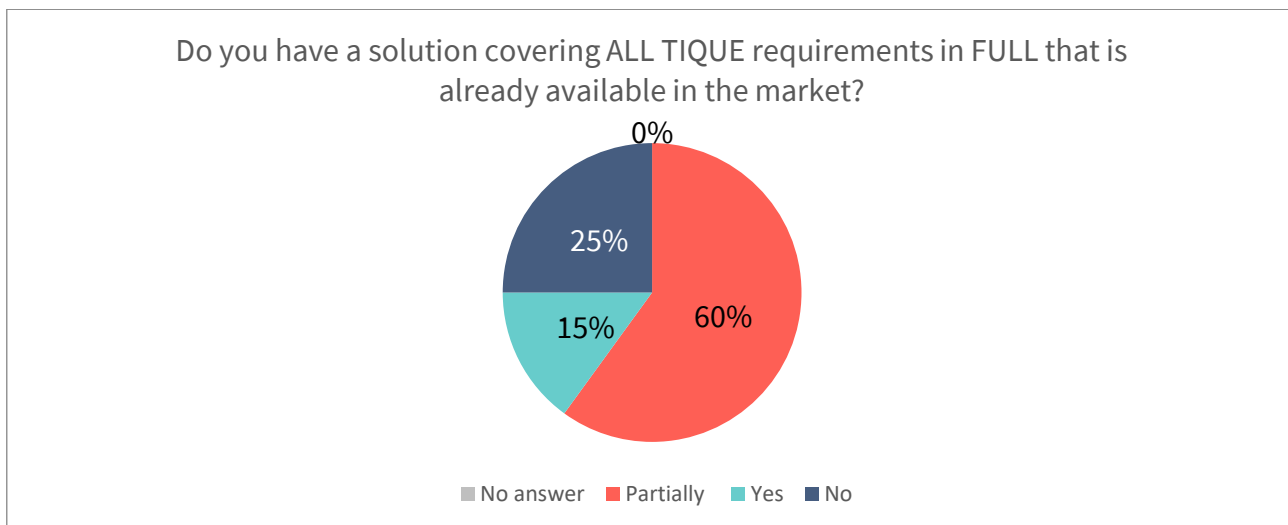
Graphic 13 Phase of service implementation analysis 6

Raises warnings and sends notifications on the patient’s status, medication conflicts, adherence to treatment and other defined parameters to the relevant health and care provider(s)

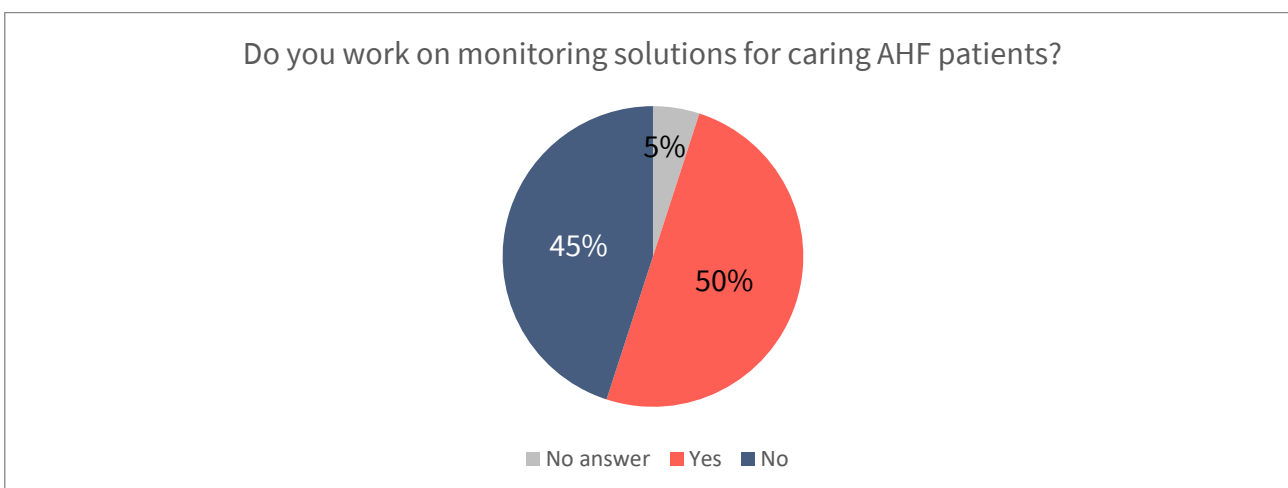


Graphic 14 Phase of service implementation analysis 7

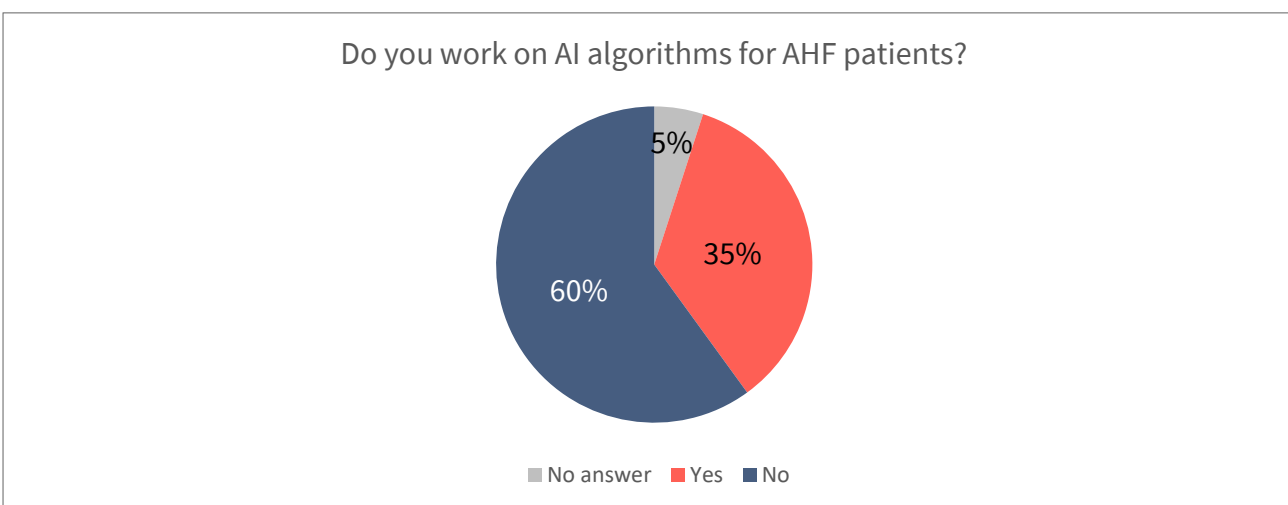
In addition, we asked the companies to help us make an assessment of existing technologies, based on the requirements defined for TIQUE:



Graphic 15 Assessment of existing technologies analysis 1

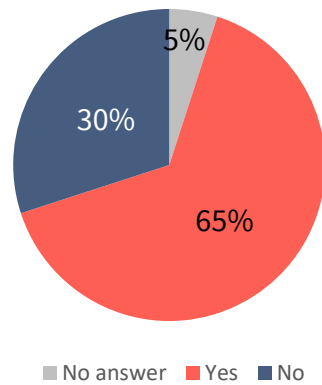


Graphic 16 Assessment of existing technologies analysis 2



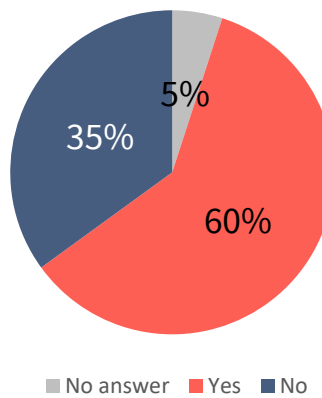
Graphic 17 Assessment of existing technologies analysis 3

Do you have a platform for data management, integration of technologies, and communication management?



Graphic 18 Assessment of existing technologies analysis 4

Do you have a platform for data management, integration of technologies, and communication management?



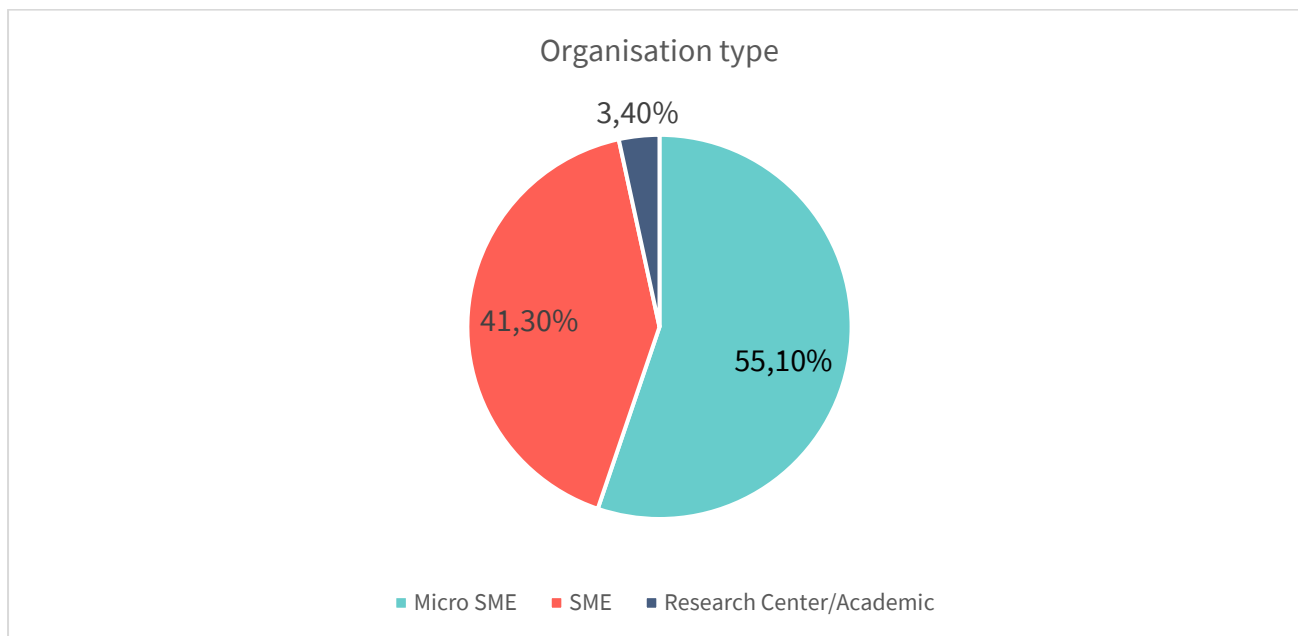
Graphic 19 Assessment of existing technologies analysis 5

2.2.2 Matchmaking analysis

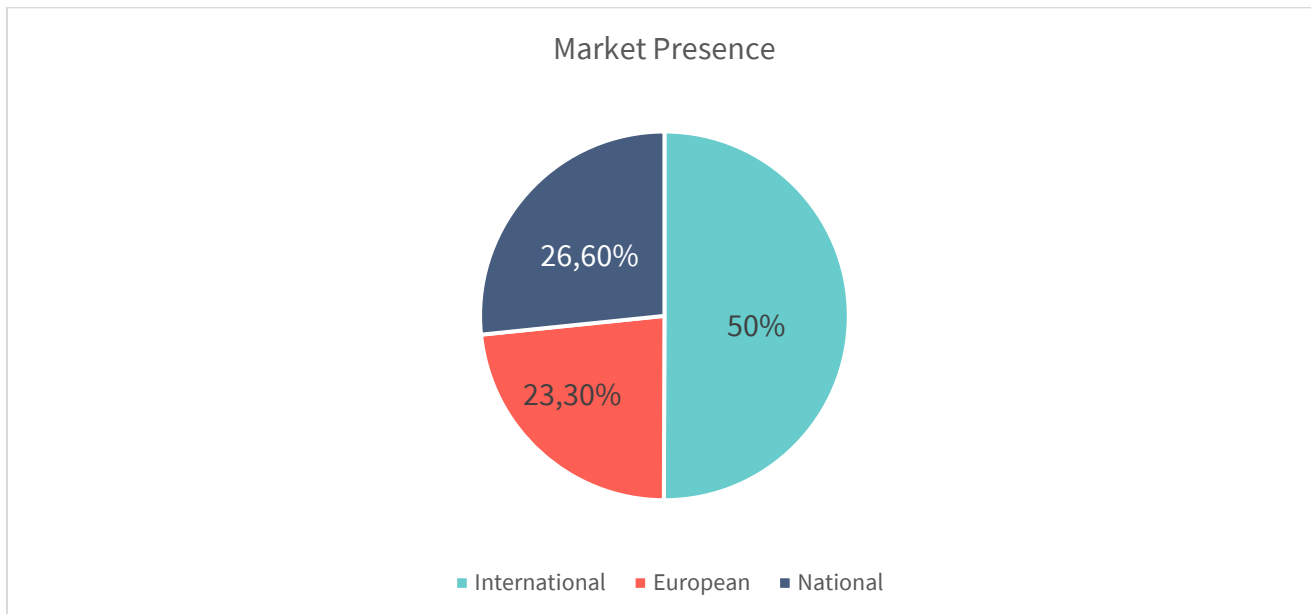
With the entries received on the Matchmaking platform we have been able to analyse the type of companies that are currently most interested in the TIQUE project, so that we can find out which areas are most lacking. We have generated the following graphics:



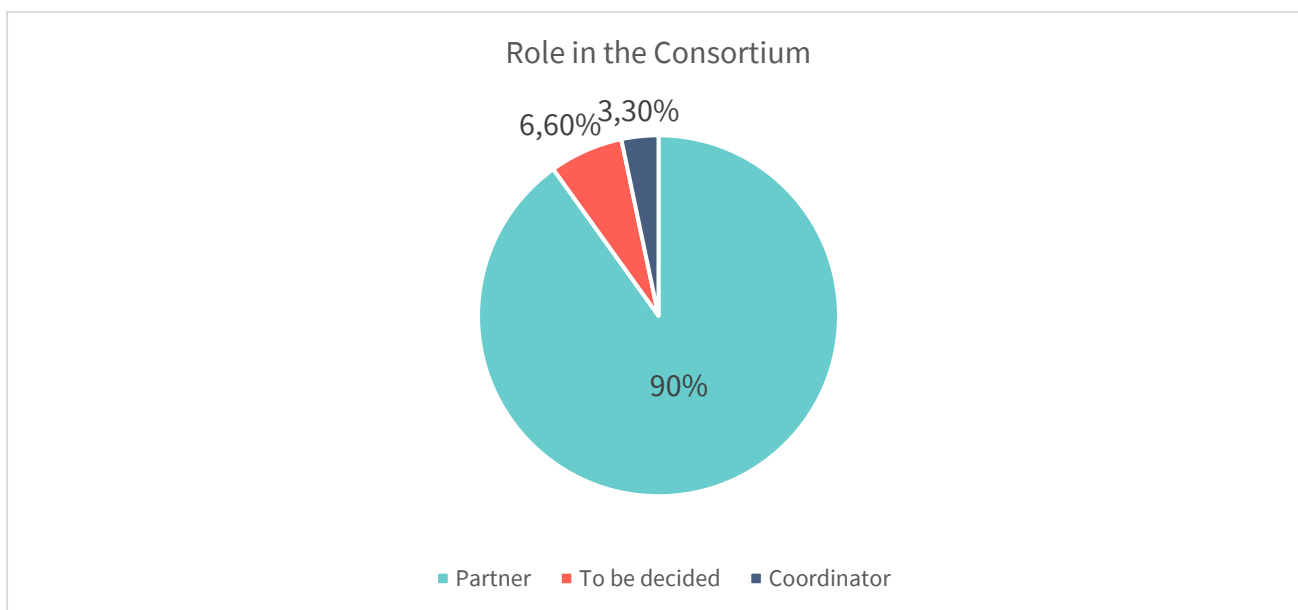
Graphic 20 Companies in the Matchmaking Platform: Area of Expertise



Graphic 21 Companies in the Matchmaking Platform: Organisation Type



Graphic 22 Companies in the Matchmaking Platform: Market Presence



Graphic 23 Companies in the Matchmaking Platform: Role in the Consortium

2.2.3 Main findings

Market readiness

- There is **no market solution** addressing the full TIQUE Challenge currently available in the market.
- **No one single company** can address the full TIQUE challenge, all bidders should create a consortium to participate.
- **All areas of knowledge** required in TIQUE has been addressed by participants in the questionnaire consultation. The market is ready to provide solutions to TIQUE challenge.

TIQUE challenge

- All companies found the **challenge clear**, although some of the answers were not aligned enough, suggesting some misunderstanding.
- Majority of companies found the proposed **time and budget per phase** adequate.
- Several companies identified as the major challenge for the project deployment the large **diversity of IT systems to be integrated with** per procurer, and the need of integrating data from so many diverse sources. The use of standards to do so is encouraged.
- The service that has been identified as more complex to implement is “**Enables prediction and prevention** of patient relapses and exacerbations”, and it should be validated in a significant time framework and/or large population to be assessed.
- **Availability of data** should be ensured in advance, as data will have an important role to feed TIQUE services and demonstrate the feasibility of the solution. Any legal, regulatory, operational, or technical issue should be foreseen and solved to ensure truly availability for piloting the data-based services (AI, DSS, etc.). Heterogeneity of data in each region is to be considered.
- Some companies highlight that **control of medication** for these complex patients is a challenge by itself and not feasible in the scope of TIQUE.

Validation Phase

- It would be helpful for bidders to have a **segmentation of the patients** that will validate TIQUE in pilots and an estimation of the number of patients involved per category. It is important defining from the very beginning the clinical, demographic, and psychosocial criteria that will determine the inclusion of patients in the program. It will facilitate the possibility to show clinical effectiveness as well as technical feasibility.
- Successful implementation of integrated care solutions goes beyond the adequate use of technology, as the current clinical practice doesn't contemplate direct communication between different care levels and changing work habits would need **leadership** and attention from procurers.

- It is important to facilitate **co-creation** with procurers' teams, including AHF specialists, nurses, IT departments, primary care and any other relevant stakeholder from the pilot sites, especially the case managers at each pilot site. It is recommended to include a systematic procedure for a multi-disciplinary collaboration should be set up, including a calendar with a planned schedule including regular meetings, a fluid communication channel, some workshops face to face. This will assure non misunderstanding about requirements from early stages and continuous validation of work (design, implementation, or production).
- Enable **additional resources** from the beginning of the project by institutionalizing a case manager resource (s) for the project that leads the virtual care center transactions with the rest of the healthcare stakeholders in order to coordinate activities across levels of care that promote monitoring and early detection of decompensations.
- Include **change management resources** as consultant services to facilitate the healthcare transformation in the tender documents.

Other remarks

- **Patient associations** could be relevant stakeholders, due to their experience when dealing with empowering and educating patients, to facilitate gaps identification in service definition.
- **Flexibility** on the carepath definition is crucial to adapt not only to the different care system but also to the wishes of different professionals and patients

2.2.4 Recommendations

- Prepare in advance the **commitment and engagement** of all care (public and private) and healthcare services integrated in TIQUE.
- Define precisely and carefully **consider the requirements in terms of integration** of the many diverse care and health services included in TIQUE along the three validation sites. Evaluate alternatives to do not jeopardize the actual added value of TIQUE by complex and resource consuming efforts in integration.
- Foresee the need of **co-creation with the procurers'** team along the three phases of the project execution. Consider defining systematic procedure, including calendar and resources needed for that, at the beginning of the execution phase. Consider planning the need of extra resources, as case managers, during project validation.
- Define the most **convenient segmentation for procurers of targeted patients** to be integrated in the system validation. Inclusion criteria and expected outcomes should be defined early in the tender docs.
- Foresee along the three phases of the procurement execution, the definition, analysis (including any regulatory, technical, or administrative barriers) and preparation, of the **data sets to be used during the validation stage** for the feeding of the data-based services.

- Carefully **analyze the expectations in terms of prediction and prevention**, and the expected outcomes and output during the execution of the validation phase for the number of involved patients.
- Consider reducing the expectations in terms of **medication analysis**, as involving patients with co-morbidities may make this challenge out of scope.
- Share beforehand what differentiation would be expected in the deployment of the healthcare model between the three procurers. Define very clearly the **scope of the care providers to be integrated**. Describe clearly in the tender documents the regulation applying in all three different pilots.
- Further efforts must be done by the consortium to guarantee **full understanding** of the TIQUE Challenge, as some of the answers in the questionnaires suggest misinterpretations.

3 Annexes

- PIN (OJEU)
- Dissemination materials
- Events materials
- TIQUE Questionnaire
- Questionnaire Analysis
- Matchmaking form

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