

REPORT OF THE PRELIMINARY CONSULTATION OF MARKET (CPM) FOR THE TENDERING OF A SYSTEM OF PHARMACY TRANSACTIONAL INFORMATION

Barcelona, June 2022

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1. INTRODUCTION

1.1. Antecedents

In 2021, the initiative related to the search and implementation of a transactional pharmacy system began, whose main objectives are to set up a lever for the achievement of the unique therapeutic plan and to improve the experience of hospitals in sending of data in the Register of Patients and Treatments of Hospital Medication of Ambulatory Dispensation. (RPT-MHDA).

The specific focus is on the outpatient environment, open to understanding the possibilities of the target system to develop in an inpatient environment, both at the hospital level and other possible care devices.

This market consultation is part of the process of gathering information and comparing possible solutions. It is part of the project of the Electronic Health History of Catalonia (HES), a project that is being developed by the Catalan Health Service (CatSalut) and which aims to have a functional and technical repository of all the relevant information of the citizen that must be registered and shared throughout the health system.

1.2. Purpose

The purpose of the market consultation is aimed at obtaining technical and functional information on what possibilities exist to supply the elements for the development of an integrated and interoperable pharmacy transactional information system at the level of the Integral Health System for Public Use. of Catalonia (SISCAT). They allow you to acquire knowledge about market prices, as well as the conditions that the market is willing to offer.

1.3. Targets

The objectives of the market consultation can be classified into three major milestones:

- Know the existing possibilities and new functionalities to find solutions that provide value and better suit the needs of the initiative.
- Analyze and evaluate the proposed products / services in order to obtain a comparison that allows to have a reference point of the current context, aligned with the strategic objectives of the initiative.
- Collect details about potential suppliers and their capabilities.

2. PLANNING

2.1. Activities performed

The defined planning, in order to achieve the objectives of the market consultation, has been conducted by the following milestones:

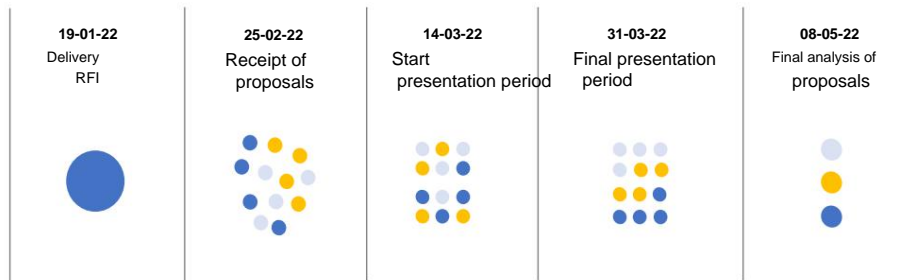


Illustration 1: Calendar of milestones Calendar of milestones

To achieve the expected results, associated with the consultation, the following activities have been considered:

- Delivery of documentation related to the market consultation.
or [[Publication of the preliminary market consultation](#)]
- Creation of the committee of experts and attendees of the calls for the defense period.

Area of Expertise	Number of attendees
Product	• 3 participants
Government Office	• 1 participant
Knowledge	• 1 participant
Systems (CTTI)	• 2 participants
Functional	Industry experts • 5 participants
	CatSalut Medicine Management and Medicine Economic Division • 5 participants

Table 1: Committee of Experts

- Receipt of proposals submitted by participating companies.
 - Planning and sending calls for presentation sessions at participating companies.

- Sending the script to the organizations submitted for the preparation of the demonstration of the solution. ○
- Internal reading and analysis of proposals.
- Sending questions to the participating entities for the preparation of the presentation of the solution.

- Execution of the proposal submission period.
 - Sessions in defense of the proposals presented
 - Analysis of proposals submitted and sending possible questions to suppliers.

3. EXECUTION

3.1. Participating entities

The deadline for submission of proposals, established between 01/18/2022 and 02/25/2022, concludes with the participation of nine organizations sharing their solutions in the consultation submitted.

Name Organization	Territorial Headquarters
NEXUS SISINF S.L.U.	Barcelona
Algorithms Processes and Designs SA	Madrid
Virtual Doctor and Medicines, S.L.	Barcelona
GPI SpA T-	Italy
Systems ITC Iberia S.A.U.	Barcelona
Dedalus DH Healthcare Provider Software Spain S.L.U AT-Biotech	Italy
Traceability Information System S.L.	Madrid
INETUM Catalunya SA	Barcelona
GRIFOLS MOVACO SA	Barcelona

Table 2: Participating entities

3.2. Defense sessions

3.2.1. Structure

The defense sessions, carried out electronically, are designed in such a way that, within the two hours stipulated by each participant, the doubts defined in the shared documentation are answered.



Illustration 2: Structure sessions

- **First block**

- **Presentation (15 minutes)**

- Aimed at making a brief presentation of the attendees, the company and a summary of the proposed solution.

- **Second block**

- **Product demonstration (90 minutes)**

- Focused on sharing the demonstration of the proposed solution, through predefined use cases in the script provided to each of the participants.

- **Third block**

Questions (15 minutes)

Round of questions to the entity. The supplier will be able to answer the questions that have been sent to him previously in both the second and third blocks. The latter may include any additional questions that attendees deem relevant.

3.2.2. Planning

Below you can see the list of calls within the presentation period of the preliminary market consultation:

Calls for Sessions					
	March 14th	March 15th	March 16th	March 17th	March 18th
08-09					
09-10					
10-11					
11-12		Algorithms Processes and Designs SA 11:30-13:30 h			T-Systems ITC Iberia S.A.U. 11:30-13:30 h
12-13					
13-14					
14-15					
	March 21st	March 22nd	March 23rd	March 24th	March 25th
08-09					
09-10					
10-11					
11-12		Dedalus DH Healthcare Provider Software Spain S.L.U 11:30-13:30 h	AT-Biotech Traceability Information System S.L 11:30-13:30 h		GPI SpA 11:30-13:30 h
12-13					
13-14					
14-15					
15-16			INETUM Catalunya SA 15:00-17:00 h		
16-17					
17-18					
18-19					
	March 28th	March 29th	March 30th	March 31st	1-abr
08-09					
09-10					
10-11					
11-12	NEXUS SISINF S.L.U. 11:30-13:30 h	GRIFOLS MOVACO SA 11:30-13:30 h		Virtual Doctor and Medicines, S.L. 11:30-13:30 h	
12-13					
13-14					
14-15					

Table 3: Calls for Market Consultation Sessions

4. ANALYSIS AND CONCLUSIONS

The Preliminary Market Consultation has helped to know the existing possibilities in the current market, analyze the products in relation to the needs defined in the initiative and collect information on potential suppliers and their capabilities.

The fundamental pillars for the analysis and collection of information of the preliminary market proposal are defined in four categories with the aim of knowing the state of the art of the existing solutions.

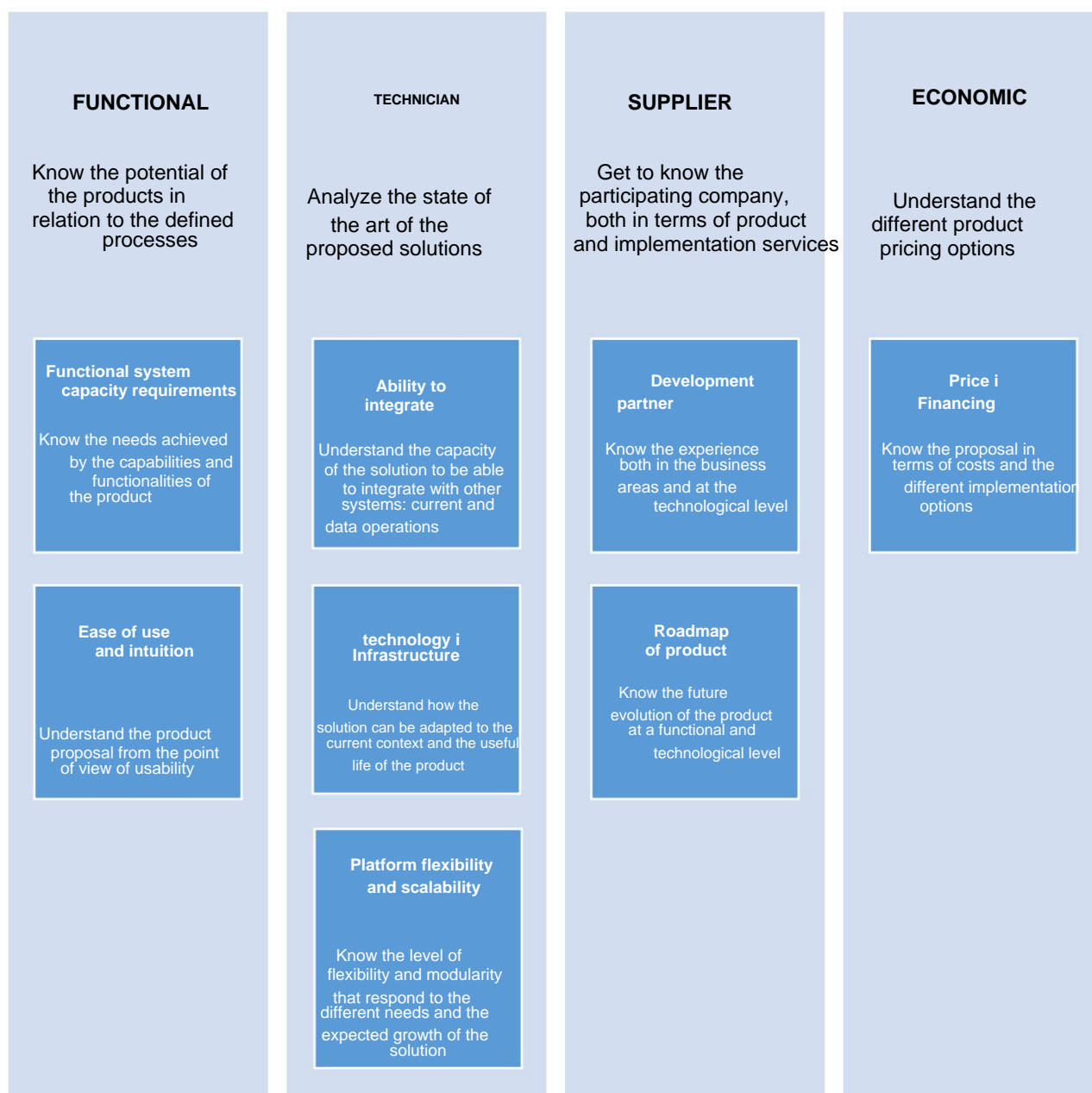


Illustration 3: Pillars of analysis

After the analysis of the nine proposals presented, although there are options that have more complete solutions for the basic functionalities of the drug (prescription, validation, preparation, dispensing and administration) and that provide more experience in the field of the MHDA, it is considered that, in general, the products presented in their current state do not fully meet the expectations and needs expressed by experts and users of the sector consulted, for example, in the field of the oncohematology day hospital. Among the solutions that have the most developed MHDA process, the degree of compliance with the requirements functional is quite similar, not representing alone a significant differential fact. The information presented on the internment area has been more limited, making it difficult to extract conclusions formal.

The vast majority of proposals offer the possibility of integration with the form tool required for the registration of the necessary variables for the RPT-MHDA in the field of CatSalut, which is valued positively as it would achieve a of the strategic objectives of the pharmacy transactional initiative. As for being able to have a single therapeutic plan, most of the solutions presented today do not have an integration with the electronic prescription system that contains the prescription medication prescribed in the field of SISCAT, being necessary. this integration in the future.

The user experience, intuition and ease of use of the system, are notable in a small percentage of solutions, coinciding with the level of business knowledge and experience of product implementation in the context demanded . However, in general, the products presented allow some freedom for the user, facilitating adjustments and configurations according to individual professional needs.

Most systems use the interoperability standard to integrate based on *HL7*. Within this group, a high percentage works with the *HL7 V.2 standard*, while a low percentage already incorporates the more advanced *HL7 FHIR standard*.

The data management system for the vast majority of participating companies is based on market standards such as *Oracle*, *Postgres* or *SQL Server*. A small percentage of solutions provide a data model based on *OpenEHR archetypes*.

Approximately half of the solutions use service- based *Openshift* architecture, differing from the rest working with more traditional architectures. The development tools used by most of the proposals presented are standard market tools, *frameworks* such as *Spring*, *Angular* or *.NET*.

As a conclusion of the analysis resulting from the Preliminary Market Consultation of a Pharmacy Transactional Information System, the complexity of finding a product that considers from the outset the total percentage of current needs is confirmed. Therefore, we consider that there is no solution that initially has all the detailed and complex functionalities that were requested in the consultation, nor that it is fully in line with the technological requirements related to the model for data management and the architecture of information systems defined in the SISCAT Information Systems Master Plan.

Finally, convey the gratitude and positive assessment of the participation of all organizations presented, as well as the information provided, as it has increased knowledge of current market options to help define the requirements of the solution.

Pol Perez Sust
Director of the Information Systems Area