EARLY DEMAND MAP H2050-IS

ID	CONCEPT	DESCRIPTION	ESTIMATED AMOUNT OF TENDER (M €)	SUB-PROJECT
01/2013	**The development of a demand control and assisted activity software in integrated sanitary structures**	Development of the Integrated Management System which provides the patient with all the information and mechanisms to monitor the process and facilitate practitioners to have information about the course of care of a patient and process medical records. The management system also permits the planning of healthcare assistance, ensuring that the various assistance services are provided in a timely and correct manner, using the best resources in terms of the efficiency of the system therefore reducing the patient movement. This tool will be the core for the planning of healthcare services.Therefore, it will be the single entry point of in the register of healthcare assistance activities that are part of the most relevant processes of the organization of regional healthcare , with specific emphasis on chronic diseases. ***It also identifies with an univocal characteristic of the insured, patients seen, the portfolio of services provided in each area, the units of production of services and professional resources, technological and physical resources available for the sanitary service.It should integrate itself with other departmental applications and be accessible through the electronic medical record.*** ***The system will have a supply manager, a manager of planning and scheduling administartor to manage care processes and a registartion manager.***	2,58	H2050-5-New HIS - Functional model of the future hospital
02/2013	**Development of a technology platform concentrated on location and events**	Development of a system for traceability to improve the quality and efficiency of services provided to patients and professionals in three application areas: • Patients: Identification, localization and control of the patient in real time. • Resources: Adequate control of inventory and location of equipment, avoiding inefficiencies in the use. • Professionals: Improved management activity, location and in physical and logical security. For this, it will be necessary to: • Identify and parameterize different care processes and events. • Integrate a system of identification, control, status, monitoring and tracking systems based Real Time Location on the healthcare network in aggreement with different scenarios that may arise. • Integrate all the events of the various subsystems into a concentrated platform, identifying and relating them to the administrators and times. • Monitor Professional Activity, integrating physical and logical security. • Piloting different wireless technologies	0,93	H2050-2-patients comprehensive traceability and resources
03/2013	**Software development in planning and management of professional activity in the health field**	The development of a system to plan and manage human resource activity. Productivity will be improved with this system, and it will modernize the activity management system and rounds, as the core of the professional system in all health centres. It will be necessary to innovate in automatic planning, developing an automatic optimal shift plan depending on historical conditions and forecast workload using artificial intelligence techniques. The system will allow the traceability of the performance of the functional activity of professionals, physical access control and will provide personalized services; will enable the calculation of excesses and deficits of staff and the negative impact on the quality of service and costs. Analyses of alternative will be carried out and the time spent on the planning will be reduced.	0,72	H2050-2-patients comprehensive traceability and resources
04/2013	**Acquisition and adaptation of a video and audio conferencing platform for telemedicine**	Development or adaptation of a videoconferencing platform , which allows the professional to professional communication in healthcare settings and patient-provider communication, with a direct integration to the electronic medical record system and the management of clinical activity. The platform will provide a telemedicine system in "real time", through audio or video, so that a professional can directly consult with other professionals in other disciplines to solve a doubt or for advice on treatment or diagnosis. Furethremore, the tests that can indicate that it can resolve or speed up the process at the time that a patient is being attented to. This system should provide a list of accessible specialists, be it in a specific health centre or with virtual units, whose staff is distributed among multiple centres with the capacity to answer calls and access patient information at the time the that the applicant is performing a consultation with a specialist. The system will register the physician and the consultee and their activity. Furthermore, all will be registered on the medical histroy system. In order to communicate with the patient, the same videoconferencing platform will offer a set of client applications on different devices without licensing costs for the patient, and in a secured coomunication mode.	0,52	IS-4-telecare products multispecialty IS-5-Digital Home. Accessibility to Health Services

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EARLY DEMAND MAP H2050-IS

ID	CONCEPT	DESCRIPTION	ESTIMATED AMOUNT OF TENDER (M €)	SUB-PROJECT
05/2013	**The development of a platform on the concentration of signs from multiple clinical sensors**	The development of a biosignal concentrator system which allows for the collecting and using of real-time connection or deferred action or biological parameters and vibrance which are monitored in different groups of patients using wireless sensors or cable connection. The system must collect information from these sensors and send them to a central server for management and treatment by healthcare professionals, who perform monitoring and control functions. The device should provide a mechanism for patient identification, robust communications which can bear the interruptions in the data connection and such as communication encryption. The system will be adaptable to various situations of use: bed headboards in patient rooms, built into the chassis of a hospital bed, mobile medical units, or in the patient's home. It must provide multiple connectivity in personal area networks based on IEEE standards under the Continua Alliance model, capable of transmitting clinical information via the internet in standard IHE format Equipment provisions which are necessary for piloting in different application scenarios.	0,93	H2050-6-Intelligent Room IS-3-Hospital at home
06/2013	**Developing a multi-technology platform in imaging**	Development of a platform for image management and distribution with diagnostic quality and devices for the development of delocalized assistance activity. The platform will enable: • Diagnostic services and informed at a distance (even from home). • Management of referrals or second opinions and situations of lack of profesionals in a particular moment or oover an extended period of time. • Request and obtainment of colaborative diagnostic services delocalized quickly. • Portfolio management of professionals who subscribe to the various types of explorations in subscription periods. Manual or automatic assignment (using algorithms) in the activity and the control of the activity. • Management and maintenance of a master index of study. • Study anonymization services. • Mobility services: to develop applications for mobile devices: Reception and assigned activity query (anonymized) to each professional. • Slight visualization and all kinds of anonymized studies assigned to professionals for evaluation or report). • Presentation of the dosage information for improving patient safety, enhancing the quality of prescribing and testing / generating radiation therapy for the patient (radiologists, TER, radiophysicians, prescribers).	1,1	IS-2-Central Medical Imaging

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EARLY DEMAND MAP H2050-IS

ID	CONCEPT	DESCRIPTION	ESTIMATED AMOUNT OF TENDER (M €)	SUB-PROJECT
07/2013	**Development of a platform for indexing and digitization of information and digitization in clinical and native forms of information from diagnostic equipment**	Development of a platform for image and paper scanning, which allows for the identification of clinical documents, scanning, indexing and integration into document management systems and native scanning, dichotomizing and clinical information from equipment diagnosis; integrating these information management systems into clinical information and imaging centres. The platform will cover: • The process of scanning the original document. • The extraction of information from paper documents. • The validation to ensure the integrity and authenticity of the document processes relying on electronic signature and document timestamp. • The indexing process. • The classification of the document and associate metadata. • The storage of electronic documents in a document management system. • The process of removing the original paper and certification in the digitalisation process . • Ensure availability and consultation (electronic medical record) • The capture and digitization of analog video sources (echoes, escopias, knife arches ...), biometric signals (ECG ...) or origin studies papers (electrographs ...) • Conversion to standard medical imaging format (DICOM) generated clinical outcomes in non-standard format for incorporation into later viewing from PACS and electronic medical records. Input formats: or Videos: MPG and AVI or Digital Images: PNG, JPG, TIFF, PDF / A. or Audio • The importation of clinical documentation and medical imaging digitally generated in external centres to the organization with the end result so that these are incorporated into corporate systems with proper reconciliation of patient data and studies. • Exporting history data to CD / DVD, USB ... with proper protection and security (encryption of information) and ensuring post-view standard formats.	1	IS-14 Integrated scanning, indexing, storage and management of clinical information
08/2013	**Development of a technology platform for knowledge management in healthcare**	Create a system to classify, disseminate and utilize knowledge generated within the organization and import externally generated knowledge that is of interest. The main objective is to build a social environment in planning and detection training of talented people engaged professionally in the Public Health System of Galicia, overcoming the weaknesses presented in different systems of existing knowledge. The system must have a platform which will connect existing and future knowledge management systems that can be developed. The proposed model is based on ... • A core around which will connect existing and future knowledge management systems that can be developed • Allows entry and exit of formal representations of knowledge in standard formats (SCORM, Tin Can, ...) • Implement a training process that is self-sustainable • Integrates formal training records to generate knowledge • It is completed with existing knowledge within the organization • All knowledge is disseminated through informal channels, both internally and externally (social networks) • It allows the generation of new knowledge in the form of derived content • Be available and accessible to people from different devices	0,73	IS-10-Professional 3.0

EARLY DEMAND MAP H2050-IS

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09/2013	**Development of an alert management software in healthcare processes**	Development of a system to generate and manage alerts based on rules and algorithms to establish the optimal communication channel in each case, as well as monitor the status and management of alerts made. A unique system that centralizes all alerts registered in the whole of existing data sources in the healthsystem using appropriate standards (EN13606, HL7, ...). The alerts will be detected by a rules engine to locate those events or series of events that are considered appropriate. Meanwhile, rules exist which allow scaling alerts, if it has not been serviced by the first set of recipients. The system will send alerts to recipients using the most appropriate form in each case (elctronica medical history, e-mail, telephone, ...) as well as recommended actions to address the alert.	0,73	IS-7-Intelligent multilevel alerts
10/2013	**Developing a technology platform in the emergency management of patients**	Development of a system to optimize the management of the emergency activity, covering the full scope of the relationship between demand and resources and workload in the department in real time, integrating processes and individual patient triage activities, location of patients, family information, systems integration testing and consultations request and access to medical records. The objectives of this system are: • Ensure continuity assistance between different levels of care in the organization. • Provide support to the activity carried out by professionals in emergency care. • Carry out comprehensive monitoring of each patient throughout urgent assistance. • To facilitate and standardize communication between professionals providing service activities. • Allow patient traceability in the emergency services area • Contribute to the system to reduce variability in clinical practice, both as intercentre and intracentre. • Provide general information to the emergency services, and on the particular situation of each patient to their families. • Get information on clinical activity performed in the ER, by classifying it and resource monitoring services. • Monitor the status of the ER services. • Provide managers with tools to assist in decision making, generating indicators that show the status of the service, offering both real-time and historical data. • Perform simulations in future on the situation of the service • Mapping of the patients and resources. • Report the status of medical centres in real time.	2,1	H2050-1-ER-intelligent management systems
11/2013	**Development of a comprehensive web portal of services tailored to the patient**	Developing a multi-device portal which would enable a unified and personalized functionality taking into account the different clinical situations and characteristics of patients / citizens. The aim will therefore be to build a new platform for personalized content and services aimed at citizens (sick and healthy), with the following main features: • unique meeting point in the "virtual" area between citizens and the health service • "Personal" services : medical history, drug history, health card .... • Defining lifestyle profile of the person providing personalized content and services based on the profile • Integrated with the digital home healthcare platform • Possibility to create virtual communities of patients • Integration with communication services • Accessible from multiple devices • High level of safety • 2.0 Services used	0,6	IS-6-Patient Expert 2.0. Innovation and information for patients active

EARLY DEMAND MAP H2050-IS

ID	CONCEPT	DESCRIPTION	ESTIMATED AMOUNT OF TENDER (M €)	SUB-PROJECT
12/2013	**Development of a technology platform to implement the Digital Home Healthcare Assistance**	The service platform in the patient's home consists of a number of devices to be deployed in the home for the measurement of physiological constants, receive / transmit audio and video ... which will generate information that will be sent through an interface that can be implemented on interactive TV, web, or mobile devices. For hospitalized patients at home, connecting devices and patient monitoring may use specific equipment that are to be provided to the patient. The aim is to provide a platform that covers common services to any Homecare telemedicine system, which in turn enables the development and integration of new services quickly, reusing existing infrastructure and software. A technological level, the overall scheme of the platform and each of the components in particular are characterized by the capabilities of: • Interoperability under standards of communication on clinical information (HL7, X73, KNX, CEN 13606, CONTINUOUS), to ensure interoperability between the diversity of devices and information systems. • Modularity: Being aware of the wide range of profiles that can be targeted by a system of these characteristics, the division into modules according to the requirements which favour a personalized service. • Open source technologies. • Usability and performance transparency to the user. • Adequate levels of security to ensure the user's privacy The platform must provide mechanisms for synchronous and asynchronous communication between components that comprise it. The system should incorporate several features that will manage clinical information generated by the devices and applications that collect information and interact with the patient: Repository of constant information gathering and clinics, control system interaction with the patient, activity monitoring of patients. At the technological level, the overall scheme of the platform and each particular component being characterized by the capabilities of integration with other modules with a direct bearing on patient care. They must design a software architecturaly integrated with SI medical record that will provide the necessary information about patients and gather information that should be received as part of incorporated integrative patient history. It is also integrated with S.I. management appointments and agendas (which provide information on work schedules of professionals) and with any patient database and professionals which are required for the search processes (Health Card, Active Directory ...). The platform must provide or integrate with a videoconferencing and telephoning system to enable direct communication with the patient, as well as an instant messaging system to allow the flow of communication between professionals and patients directly. In the direction of user interaction, this platform will also develop a systems interface with the user, taking into account the following possibilities: • Interactive Digital Television: The tele-assistance services could be accessible to the user through applications developed on the TV. • Web Channels: The PC desktop type can be another access interface to services. • mobile user devices. The implementation of these interfaces services (mobile phones, tablets ...) will provide the platform mobility and portability allowing certain services to always be available to the user regardless of location.	2,6	IS-5-Digital Home. Accessibility to Health Services

EARLY DEMAND MAP H2050-IS

ID	CONCEPT	DESCRIPTION	ESTIMATED AMOUNT OF TENDER (M €)	SUB-PROJECT
13/2013	**Development of a multispecialty advanced image processing digital medical diagnostic support platform**	Develop a platform that provides services CAD (computer aided diagnosis) on medical image access to proprietary algorithms and / or trademarks of various types with the aim of improving productivity and quality of specialist diagnostic tasks. The system will allow cases to safely receive and execute the corresponding CAD analysis, generate and return the results to the source system. Integrating the following functions: • Receiving information S.S.I.I. from clinical activity (RIS, HIS, LIS ...) • Administration of information exchange (priority, ...). • Sending modules for study in CAD modules, analyze all the necessary information associated to the study. • Management Survey analysis results of CAD modules (analysis algorithms). • Conversion of the results obtained by each CAD module to standard format (DICOM, ...) where appropriate. • Notification of availability of corporate SSII results. • Sending the results to corporate SSII initiators of the process, in standard (DICOM, ...). • Monitoring and usage of tracking, results, times, satisfaction, utility. • Integration with SS.II involved in the analysis process.	0,72	IS-9-Systems computer-aided diagnosis
14/2013	**Implementing a security laboratory specializing in health**	The development of the laboratory should include these different lines of action: • Development of applications and ethical audit services / support tools • Consulting in the development of health security methodology based on existing safety standards creating a reference model to be applied to the development of projects associated with the H2050 and other future projects • Definition / implementation of a security operation committee • Developing a safety scorecard • Independent review of safety • Periodic review of risk analysis • Develop guidelines and best practices courses on information security • Reinforcement of the safety criteria established in the application development process • Increased security of access to information • Optimized management of IT equipment.	0,52	H2050-8-digital Hospital Insurance
15/2013	**Development of a software for the management and clinical safety in the surgical process**	The solution must provide clinical safety and efficiency measures in the field of surgical process. It should inform without active intervention by the surgical staff of the patient's identity, location and provide surgical information. This information should be appropriate for each professional profile in the surgical area. The system will cover the entire surgical process from pre-anesthesia to the end of the intervention reported with log data collection and intraoperative capacity in the use of protocols. RTLS services will be used for the location and identification of patients. Integrating all the information from monitoring equipment	0,52	H2050-8-digital Hospital Insurance

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EARLY DEMAND MAP H2050-IS

ID	CONCEPT	DESCRIPTION	ESTIMATED AMOUNT OF TENDER (M €)	SUB-PROJECT
16/2013	**Developing an operating platform and management of information and clinical epidemiological data**	The building of a platform of exploitation of all available clinical information in electronic medical records, in order to facilitate clinical decision making, management and support tasks of identifying cases of epidemiology. The platform will implement the import, processing and standardization of clinical information in unstructured and semi-structured format with anonymity features and access control. The solution will also provide a search system of information and information analysis to find correlations and statistical values in the data found. The main requirements of the system are: • Security. • Access Control profile and scope. • Anonymizing information (same use case as described in the line of work of Digital Hospital Insurance) • Exploitation of information Case identification for clinical monitoring. • Identify and count cases for calculation of indicators of quality of care. • Quality audits of recorded history (registration error detection, missing fields, etc..) • Statistical reports on clinical history information for epidemiological surveillance (prevalence studies, case-control studies, tracking studies) • Search for information for research. • Integration from third systems • Access to relevant information in a patient • Search for similar cases • List of cases for clinical follow-up (for a specific medical field or other fields ...) • Support for the prescription • Helping in the classification of episodes	1	IS-12-integrated information system and management of clinical and epidemiological research
17/2013	**CAD algorithms for the development of nodules in lung cancer and melanoma**	Developing software algorithms based on multislice CT images, chest x-rays for the detection and classification of lung nodules and analysis of disease progression (computer aided diagnosis). Development of a software algorithm based on dermatological and dermoscopic images for the detection of melanoma (computer aided diagnosis). The algorithms will safely receive input data from a CAD control platform and it will generate a CAD analysis. Then, the results will be return to the CAD control platform on a well-defined interface.	0,73	IS-9-Systems computer-aided diagnosis
18/2013	**Developing a control system of patient dosage**	Development of a dosimetry management system that should cover the following aspects: • Incorporation of information from diagnostic radiology, nuclear medicine, radiation therapy and hemodynamic / interventional radiology. • Collecting data using multiple input sources: or DICOM image headers. or MPPS data. or DICOM SR. o Work and protocol analysis at each mode (configured in each mode). • information repository and processing algorithms to enable the normalization and the adding of received dosage information • Presentation layer (system analysis) for different profiles, capable of integration into end user systems. or Radiophysics (analysis system warning indicators [dashboard]). or Radiologists (display of information in the RIS). or Other clinical (EHR information display).	0,36	S-2-Central Medical Imaging
		TOTAL ESTIMATED LICITED AMOUNT (M€)	**18,4**	

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