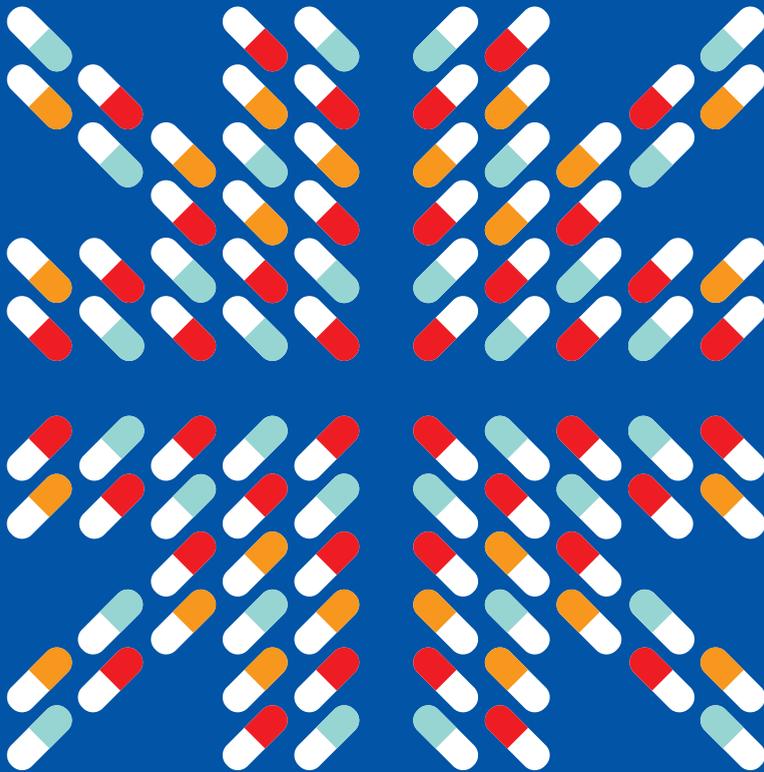


ALIAS Alpine Hospitals Networking for Improved Access to Telemedicine Service

ALIAS PROJECT FINAL BOOKLET

Real telemedicine services through a Virtual Hospitals
Network



The ALIAS Hospitals Network

Italy

- Varese Hospital
Azienda Ospedaliera - Ospedale di Cricolo e
Fondazione Macchi
- Treviglio-Caravaggio Hospital
Azienda Ospedaliera Treviglio
- Tolmezzo Hospital and Gemona Hospital
Azienda per i Servizi Sanitari Alto Friuli

France

- CHU - Centre Hospitalier Universitaire de
Grenoble
- Centre Léon - Bérard de Lyon

Germany

- Klinikum Garmisch-Partenkirchen
- Klinikum Dritter Orden München

Austria

- Villach Regional Hospital - Landeskrankenhaus
Villach

Slovenia

- The University Clinic Golnik - Bolnišica Golnik
- General Hospital of Izola - Spolsna Bolnišica
Izola

Switzerland

- HUG - Hôpitaux Universitaires de Genève



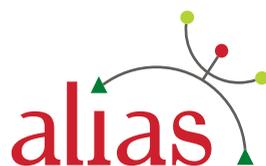


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The **ALIAS** project is a **telemedicine oriented pilot initiative** carried out at transnational level and focused on the **role of hospitals in delivering healthcare services at a distance**. The project has proved the concept of an innovative and exportable **model of cooperation** between remotely working professionals based on an **organisational and technical platform** including secure communication, safeguard of shared data, specialised clinical expertise and reliable process clinical information system enabling to **support decision making** by healthcare practitioners.

INTRODUCTION

Telemedicine is the delivery of healthcare services through the use of Information and Communication Technologies (ICT) in a situation where the actors (patients and professionals) are not at the same location. Telemedicine can be conceived in a wide spectrum of conditions and cover different kind of circumstances, for instance when it involves only health care professionals (in second opinion practice) or a healthcare professional and a patient (for instance in telemonitoring of chronic patients).

When starting to face this challenge of the “remote medicine” several limitations restricted the application of the ICT in this area because of, inter alia, **technical** reasons (infrastructure and network performance and medical devices), **organisational** difficulties (acceptance of technologies amongst healthcare professionals and need to modify daily working method in hospitals branches) and **legal** perspectives (solid regulatory framework to support the safety and privacy issues raised by the novel application of the technology in medical daily practice).

Nowadays telemedicine – proved by several pilot projects and implementations – offer solutions that are trustworthy, having been tested in real medical fields, to some of the major challenges facing our society such as:

- The **ageing of the population**, which leads to an aggravation of chronic conditions (it represent about 70% of the healthcare costs).
- The growing needs for **patients to become actors** in monitoring their own health (“empowerment” is here the concept behind).
- The necessity of **controlling healthcare costs** while improving high quality care.
- The lack of **availability of qualified personnel** in some branches of professional healthcare.



Teleconsultation, teleradiology, telemonitoring are just some particular forms of telemedicine: some of these are more developed than others; some others are still subject to dispute amongst professionals; all of them are under amelioration even through trials initiatives and projects which, at any level – regional, national, European – complement the rapid evolution of the telemedicine:

- A dedicated **legislation** contributed to mitigate a number of legal barriers.
- **Professionals** are more and more interested to understand its unexploited potential.
- ICT investments by **industry** are increasing due to the importance of the technology and devices in medicine.

Lastly, but not of less importance:

- **Political decision-makers** are aware of the implication to design robust strategies to boost the use of information and communication technologies in healthcare provisions, particularly for the implementation of telemedicine services and expand its use through organisations and professionals.

1/ALIAS TAKING UP THE CHALLENGE

Addressing telemedicine is not a single challenge. ALIAS has faced different levels of complexity (technical, organisational, legal) in designing, testing and implementing the trial services at the core of its deployment.

TECHNICAL

ALIAS has firstly identified the different options when considering telemedicine and delimited the perimeter of its action.

Healthcare delivered through “tele” systems involves the use of the tools of production, transmission, management and sharing of digitalised information. It includes applications which allow the practice of remote clinical acts (such as tele-consultation, tele-expertise, tele-monitoring and medical tele-assistance) as well as remote monitoring and data devices (televigilance). In addition these systems can involve both healthcare professionals working at hospitals (specialists) and physicians with a more direct contact between the professionals (i.e. in case of general practitioners) and the patient. Among vary alternatives ...

... ALIAS has concentrated its own activities on tele-consultation and second opinion combined with sharing of patient data through digital information systems delivered at hospitals, in a transnational context, and involving only healthcare specialists.

ORGANISATIONAL

How the provision of telemedicine services in a cross-border situation could be more effective, safely delivered and extensively accepted by patients, professionals and organisations?

Healthcare delivered through ICT is an ambitious response to the new issues of the healthcare system, more and more faced with an ageing population, a constantly-growing increase of chronic conditions and specialisation in medicine – with the consequential complexity of treatments also due to co-morbidity. The benefits that this new approach is expected to offer are multiple: improvement in remote treatment and diagnosis of patients, reinforcement of the patient role and increased patients responsibility for the treatment of their own condition, as well as the development of collaborative (net)work between professionals. Moreover, the deployment of this new tool represent an excellent mean of restructuring healthcare organisations: the local healthcare centres enable to remain operational, whilst being linked to reference centres – providing equal opportunity to patients in the smaller institutions.

ALIAS has therefore proposed to create a network of hospitals, qualified by clinical and technical expertise, bounded by legal confidence and built through pilot nodes as organisational model to better deliver medicine at distance.

LEGAL

The growth of transnational care has stimulated greater interest for its legal implication. Legal uncertainty about cross-border telemedicine could make practitioners and organisations reluctant to use services abroad and patients to accept them.

A challenging problem of the legal aspect of cross border care is the complexity of integrating different rules coming from a wide range of legalities containing elements of national and regional health law, national civil law, European law, international law, competition law, information technology law and consumer law. It was not in the intention of the ALIAS project to face the difficulty related to these aspects. Rather, ALIAS has been confronted with the necessity to address the legal domain when considering the practical circumstance of an encounter between professionals and patients acting in different countries and designing the operative rules for the operational network of hospitals*. In line with and coherently to the legislation in force in the participating regions...

**It is worthily to be considered that aspects and rules governing reimbursement of telemedicine services have been not covered by the ALIAS project.*

... ALIAS has identified upon which conditions the developed services could be delivered in terms of confidentiality, privacy, security and safety of shared information both from the healthcare professional and patient perspective; furthermore it has established an agreement model linking the networked hospitals and ensuring the appropriate compliance with the above terms.

1.1 Highlights and standpoints

The ALIAS initiative has been founded on the basis of national and regional specifications with an implementation at local level for the purposes of a transnational perspective.

Activities have been triggered starting from the current development, even in an early stage, of the telemedicine systems in the involved regions taking into consideration and in the due weight:

- The legal and regulatory framework governing the data protection and the principles safeguarding the privacy and safety of patients' information.
- The need to develop the new system within a consolidated or under evolution healthcare organisation and information system.
- The opportunity and the perspective to integrate the proposed system with the telemedicine and electronic healthcare solutions already in place or under implementation in the participating regions.

Some of the most relevant pillars on which ALIAS has been built can be listed as follow:

- **Healthcare professionals** have been involved in the service specification process and within a framework of controlled system allowing them to practice in a secure mode both for them, their organisation and patients, also supported by specifically designed learning methods and tools.
- **Industrial partners** have been associated with the definitions, testing and implementation process because their involvement has been considered essential to proper functioning of the proposed telemedicine system.
- Strong and acknowledged governance with the ability to coordinate and federate all parties and stakeholders, as well as to proceed with the operational roll-out in the region, has played a fundamental role. More specifically, the presence of committed **decision makers and piloting authorities** has been as essential for running the experimental services.
- The patient's conditions have always justified the use of telemedicine and data sharing, and healthcare quality imperatives have been complied with.
- The **patients** have been provided with the information necessary to freely giving fully-informed consent; patient confidentiality has been of course respected in compliance with deontological norms and laws, and data of a personal nature always protected.
- The trial nature of the initiative has not hampered to design a **self-sustainable strategy** for ensuring the continuity of the service and the possibility for new hospitals to become nodes of the network.

ALIAS overall achievements have been reached through the orchestration of three main lines of activities:

- The definition of the organisational model to rule the activities of the ALIAS Virtual Hospital Network.
- The study of the legal framework and the definition of the minimum set of legal requirements to be respected by all the ALIAS hospitals in the deployment of their clinical activities within the Virtual Hospital Network.
- The design and development of ALIAS technical infrastructure and its telemedicine services.

2.1 ALIAS ORGANISATIONAL paradigm

As for all new complex bodies set up and preparation to get operative, ALIAS Virtual Hospital Network has needed the design and implementation of an organizational model shaping the way all the actors involved in its operations should behave to guarantee the respect of common rules.

In this framework a number of operating procedures have been defined and shared between all participating hospitals shaping the global organization of each site being part of the ALIAS Virtual Hospital. For each hospital part of the Network, evidence has been precisely given about:

- Medical specialties offered for the second opinion service.
- Definition of the service level agreement regarding asynchronous patient data requests and second opinion requests.
- Health care professionals and administrative persons that have been authorized to access the platform and how.
- The chief responsible person for the ALIAS service that can be contacted in case of necessity.
- The staff to be contacted in case of technical problems in the usage of the ALIAS system.

ALIAS organisational paradigm has represented the first backbone on which the ALIAS Agreement and related Circle of Trust has been built on.

2.2 ALIAS LEGAL framework

Given the characteristics of the ALIAS services and the novelty of their deployment and usage in a transnational context, it has been evident the necessity of a deep and precise analysis of the legal framework in order to be compliant to National and Regional regulations.

The legal framework related to ALIAS services deployment and use has been analysed focusing on a number of specific aspects, and in particular: specialist directory, synchronous and asynchronous communication, provision of medical information on a patient, translation of information between



the ALIAS regions languages, securing sensitive data, traceability and authentication, identification, authorization and patient consent.

Those aspects have been surveyed and analysed with respect to National and Regional regulations in force in each Project Participants Country/Region and finally synthesised obtaining a number of common “minimal” rules to be respected by all the hospitals operating within the ALIAS Network. The set of rules identified as common legal constrains to be respected in the roll out of ALIAS operations have guided the ALIAS services design and specification and have represented the second backbone on which the ALIAS Agreement and related Circle of Trust has been built on.

2.3 ALIAS TECHNICAL infrastructure and its telemedicine services

From a technical point of view, the ALIAS Virtual Hospital fosters the communication among different hospital IT systems facilitating greater interoperability and collaboration among institutions and organizations of the involved territories on the topic of digital healthcare.

The ALIAS system is built around a website and core tools to allow physicians to share health documents and exchange medical advice. The ALIAS platform model can be viewed as a federation of services connected via specified contracts that define their service interfaces. The resulting system design is a Service Oriented Architecture (SOA).

Through the ALIAS platform, the hospitals part of the Network can make use of the two principal telemedicine services developed within the project:

Information provision to healthcare professionals: allowing a healthcare professional of any ALIAS hospital network to access information of a patient coming from any (other) ALIAS region, upon his/her consent, and

> **Advice querying:** allowing any healthcare professional of the ALIAS hospital network using telemedicine tools to require experts’ advice on a patient under treatment, upon his/her consent. Telecommunication tools may be implemented both in synchronous and asynchronous way.

Those main services have been enriched by the following ancillaries technical tools all conceived to ameliorate the citizens wellbeing in a cooperative process.

> **Videoconferencing tool:** an advanced videoconferencing tool available for ALIAS healthcare professionals, and particularly used to enhance the performance of the advice query tool.

> **Translation tool:** based on a “controlled dictionary”, the Document translation module offers translation of clinical documents in any of the “official” project languages (French, German, English, Italian, and Slovenian).



> **DICOM Viewer:** a tool that allow to share and view big sized clinical images, it permits ALIAS users to share DICOM archives trough Advice Query Tool.

It is possible to exchange an entire DICOM set by uploading it in a compressed file, and make it available on the ALIAS platform during the whole lasting of the consultation.

All the services and functionalities above described are coherent with and take into account national/regional regulatory and legal framework of the involved countries.

Specific mention should be given to the security topic. ALIAS platform addresses telemedicine services, that in turn require cross-border interoperability between different regions.

Because highly sensitive patient data flow across the ALIAS network, it's apparent that security issues have to be managed with special regard, according to a strict and rigorous approach.

ALIAS security policy has been defined to establish the basic security provisions that must be satisfied in order to ensure the security of data and system continuity and to prevent and minimize the impact of security incidents by implementing a stable, reliable and secure infrastructure.

The ALIAS security policy is constructed under the principle of well-proportioned answer to the incurred risk.

In compliance with the provisions of the ALIAS Security Policy, the ALIAS security audit procedure has been implemented, in respect of the following principles:

- It has been applied to the ALIAS platform and to the local/regional hospitals IT systems,
- Hospitals and regional IT system have undergo a self-assessed security auditing procedure,
- The ALIAS platform has been audited through commonly agreed auditing procedures.

The security audit of the ALIAS platform has been performed during late spring 2012 by an accredited auditing organization and has given very positive results about the level of security of the system both from the software point of view and from the physical security point of view. All the recommendations of improvements suggested by the auditing company have been immediately implemented.

ALIAS technical characteristics and ALIAS security policy have represented the third backbone on which the ALIAS Agreement and related Circle of Trust has been built on.

2.4 The three lines of activities and their convergence in the “ALIAS Trusted Domain”: set up of ALIAS Circle of Trust

In order to establish ALIAS Trusted Domain, an ALIAS Agreement has been built and formalized.

The Agreement is governing the co-operative model of data exchange and provide the documented basis for the trusted relationships between parties exchanging clinical data within the ALIAS project's scope. It aims at helping transparency, allowing patients to be reassured that their legal rights to data privacy can be maintained in the cross border care setting.

The ALIAS Agreement, signed by all the hospitals constituting the ALIAS Network and by the technical partners that are guarantying the roll out of the telemedicine services, has been perceived as an extension beyond national/regional boundaries of national/regional health system in order:

- to deliver seamlessly to patients travelling to destinations that are “federated” in the ALIAS project a quality of healthcare comparable to the one they would deserve at home;
- to deliver to patients residing in remote mountain area the same quality of care available to their urban dwelling counterparts.

Through the formalisation of the ALIAS Agreement, the ALIAS Circle of Trust (CoT) has been set up.

This Circle of Trust is enforced at two different levels:

- By technical means, for example: using server certificates, adopting TLS to secure communications, managing user's identity through SAML assertions.
- Through non-technical requirements, that is, service agreements, organizational measures and legal policies signed by each partner, in order to guarantee the overall system security, with special reference to traceability, accountability, non-repudiation, and any other means that provide patient's data security and confidentiality.

All new hospitals willing to join the ALIAS Virtual Hospital Network will have first to sign the ALIAS Agreement in order to concretely respect all the rules that are, since its creation, governing the functioning of the Network.

3/A COMPLEMENTARY PARTNERSHIP

Decision makers and public administrations, ICT and healthcare competence centres, hospitals: the ALIAS partnership has seen the combination of diverse organisations in a mix of competences each crucial for the proper execution of the project phases.

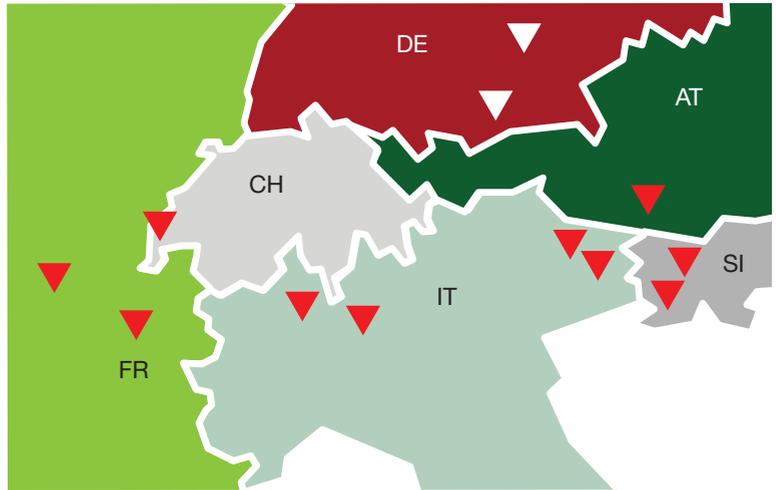
Generated from an idea of Lombardy Region and the Rhône-Alpes Regional Council, supported by the respective competence centre – Lombardia Informatica s.p.a and SISRA – the ALIAS initiative has closely associated Friuli Venezia Giulia Region, with the competence centre INSIEL s.p.a, and the Canton and Republic of Geneva. INSA, the National Institute of Applied Sciences of the University of Lyon, has contributed to the definition of the legal and functional specifications of the service while the 11 networked hospitals – with different roles and responsibilities within the consortium – have carried out the piloting actions.

In an observing positions the following organisations have monitored the project implementation:

- Rhône-Alpes Regional Council
- Bavarian State Ministry of the Environment and Public Health
- Federal State of Carinthia
- Telemedicine Coordination Group for the Austrian Health Services
- Local Health Authority “Triestina” of Friuli Venezia Giulia Region
- Province of Trento

	Partners	External Experts/ Providers	Observers
Decision makers/Public administrations	Lombardia Region Friuli Venezia Giulia Region Canton Republic of Geneva		Rhône-Alpes Regional Council Bavarian State Ministry of the Environment and Public Health Federal State of Carinthia Province of Trento
ICT and healthcare competence centres	SISRA INSA	Lombardia Informatica spa Insiel spa	Telemedicine Coordination Group for Austrian Health Services Local Health Authority “Triestina” of Friuli Venezia Giulia Region
Hospitals	Garmisch-Partenkirchen Geneva Grenoble Golnik Izola Tolmezzo Villach	Varese Gemona Klinikum Dritter Orden Munich Treviglio Centre Léon-Bérard de Lyon	

4/THE ALIAS VIRTUAL HOSPITAL NETWORK



Map of the ALIAS hospitals

The ALIAS network modelling the Virtual Hospital is finally composed by 11 centres across the Alpine regions, namely:

ITALY (*Lombardia and Friuli Venezia Giulia*)

- Varese Hospital - Azienda Ospedaliera – Ospedale di Circolo e Fondazione Macchi
- Treviglio-Caravaggio Hospital - Azienda Ospedaliera Treviglio
- Tolmezzo Hospital - Azienda per i Servizi Sanitari Alto Friuli and
- Gemona Hospital - Azienda per i Servizi Sanitari Alto Friuli

FRANCE (*Rhône-Aples*)

- CHU - Centre Hospitalier Universitaire de Grenoble
- Centre Léon-Bérard de Lyon

GERMANY (*Oberbayern*)

- Klinikum Garmisch-Partenkirchen
- Klinikum Dritter Orden München

AUSTRIA (*Kärnten*)

- Villach Regional Hospital - Landeskrankenhaus Villach

SLOVENIA

- The University Clinic Golnik - Bolnišnica Golnik
- General Hospital of Izola – Spolsna Bolnišnica Izola

SWITZERLAND (*République et Canton de Genève*)

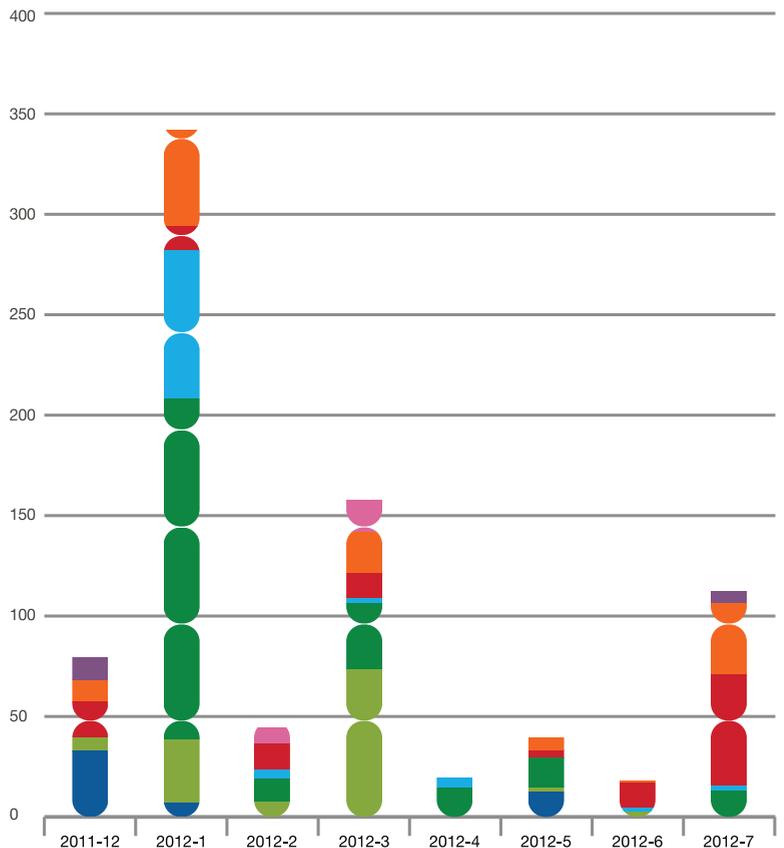
- HUG - Hôpitaux Universitaires de Genève

8 nodes have been participating to the ALIAS activities since the project start. **4 nodes** have joined the network during the project life time.

In the pilot phase, hospitals have experimented the services with a diverse rhythm and increase according to the diverse maturity of the technical deployment, the real users need – both the healthcare professionals and patients – and the readiness of the territory to access the telemedicine services.

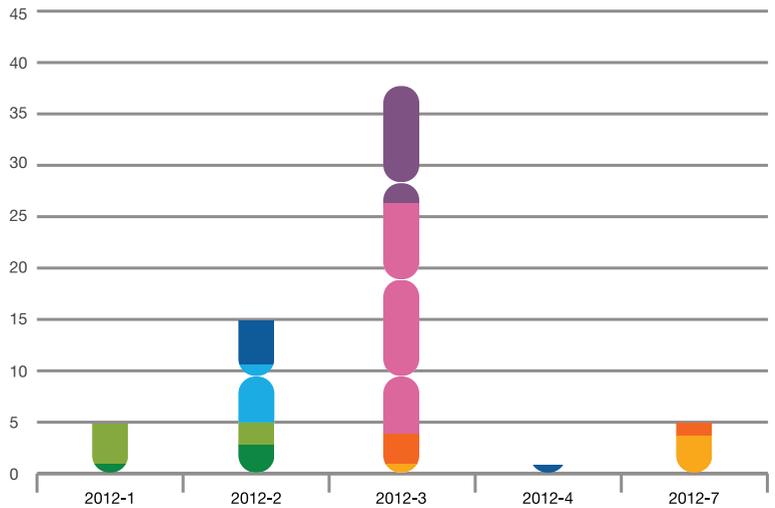
The following diagrams provides data resulting from the ALIAS services use up to July 2012.

The first figure shows the number of connections to the ALIAS central system and to the advice query tool, accounting one log (access) each time a user (professional) get connected.



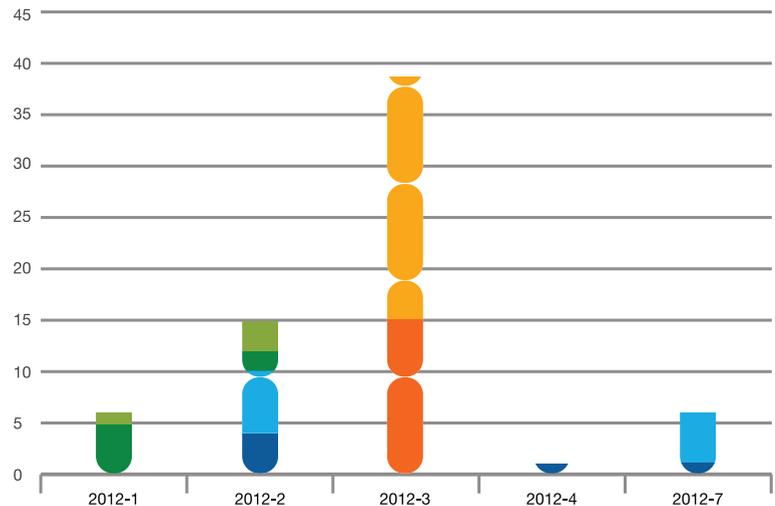
The second figure provides a graphical overview of the number of “synchronous patient” information queries raised / initiated by a healthcare professional.

- SL - Golnik - View document list of a patient record
- SL - Golnik - Visualize a document
- IT - Lombardy - View document list of a patient record
- IT - Lombardy - Visualize a document
- FR - RA - View document list of a patient record



The third figure shows the number of synchronous patient information queries replied by a healthcare professional belonging to one of the hospitals (Geneva, Varese and Grenoble) working in synchronous mode.

- IT - Lombardia - Show a document
- IT - Lombardia - Show patient record
- CH - Geneva - Show a document
- CH - Geneva - Show patient record
- FR - Rhon Alps - Show a document
- FR - Rhon Alps - Show patient record



5.1 Patients viewpoint

With the emergence of telemedicine and electronic healthcare solutions in general, the role of patients is changing from passive recipients to empowered actors progressively responsible for the daily management of their own disease. The added value of patients' involvement in "tele" system is the integration of health professionals' clinical expertise with patients' real knowledge into a mutually reinforcing partnership.

INVOLVING PATIENTS IN TELEMEDICINE IS A CHALLENGING AND COMPLEX EXERCISE BUT FAILURE TO DO SO MAY RESULT IN SIGNIFICANT DIVERGENCES BETWEEN REAL PATIENTS' NEEDS AND THE ABILITY OF THE HEALTHCARE SYSTEM TO RECOGNIZE SUCH NEEDS AND RESPOND IN AN EFFECTIVE WAY.

How and to what extent the ALIAS system can benefit to patients?

- Mainly but not exclusively to population living in remote areas ALIAS can offer faster, cheaper and better quality access to healthcare and to the required level of expertise independently by its location.
- ALIAS allows the access to a network of multidisciplinary competences combining geographical realities and clinical necessities. It is to be considered, for instance, the case of scarce medical staff in rural hospitals, shortage of physicians in certain specialities, reduction of number of hospitals for rationalisation of costs.
- Quality and security of locally-based healthcare including privacy and safety of the patient information in a transnational environment is at the core of and always ensured by the ALIAS system.

5.2 Healthcare professionals viewpoint

Telemedicine has changed traditional working methods and brought new ways of practicing medicine and delivering care. New roles for health professionals and new skills appear in the process of healthcare delivery. Implementing these changes with the support of healthcare professionals in an acceptable and coherent manner is essential to enable wider deployment of telemedicine services. Furthermore, awareness of the benefits of telemedicine and acceptance of the technology by health professionals are key elements for the success of these kind of services.

LIMITATION OF CONFIDENCE AND TRUST IN THE EFFECTIVENESS OF TELEMEDICINE BY HEALTHCARE PROFESSIONALS SHOULD BE OVERCOME THROUGH THE ADOPTION OF SOLUTION JOINTLY DEVELOPED.

LOPED WITH AND THEREFORE ACCEPTED BY THEM. THIS ASPECT TOGETHER WITH THE ADEQUACY OF THE TRAINING OF HEALTH PROFESSIONALS ON THE USE OF NOVEL TECHNOLOGIES COULD AVOID TO PERCEIVE THEM AS AN UNNECESSARY INTERFERENCE INTO THE WAY THEY ARE USED TO PRACTICING MEDICINE.

How and to what extent the ALIAS system can benefit to healthcare professionals?

- In the ALIAS project professionals competences are put to work in complementary and networked way and in a mutual aid perspective.
- Activities have been carried out by healthcare professionals for increasing confidence in relation to the patient.
- Optimisation of practices in terms of diagnostic approach, clinical indications and sharing of knowledge has driven the collaboration of professionals involved.
- On-going training, supported by e-learning tools, integrated into everyday practice is considered by ALIAS an essential vector of the new ways to deliver healthcare through telemedicine.
- ALIAS assists professionals targeting reduction in the costs of investigation, treatments and optimised duration of hospitalisation.

5.3 Decision makers viewpoint

National and regional authorities are aware of the opportunities that telemedicine solutions could offer to individuals, healthcare systems, society and the overall economy. In several regions, included those involved in the ALIAS project, electronic health and telemedicine are considered a priority. They already commit to support together the deployment of high-capacity infrastructure for health and social care information networks and services such as telemedicine. Decision makers are also aware of the barriers preventing wider deployment of telemedicine i.e. the legal uncertainty, the need to implement technical standards to ensure interoperability of the solutions and the lack of incentives (including financial incentives) for health professionals to embrace telemedicine services together with their active engagement in finding solutions.

IT IS IMPORTANT TO EMPHASISE THE IMPORTANCE OF BUILDING TRUST AND CONFIDENCE IN TELEMEDICINE APPLICATION AMONG USERS. THE ESTABLISHMENT OF A FRAMEWORK OF LEGAL CERTAINTY FOR PROCESSING HEALTH-RELATED PERSONAL DATA IN A CROSS-BORDER ENVIRONMENT IS AN AREA OF CENTRAL IMPOR-

TANCE AS WELL AS THE SET-UP OF FINANCING AND SUSTAINABILITY SCHEMES FOR THE TELEMEDICINE SERVICES.

How and to what extent the ALIAS system can benefit to decision makers?

- ALIAS creates conditions for strengthening the cooperation between healthcare stakeholders to best practice health strategies supporting telemedicine adoption in routine clinical practice.
- The integration of the ALIAS system into existing care delivery structures of the participating hospitals and regional healthcare ICT systems goes towards the direction to promote the transnational interoperability of telemedicine solutions.
- As a piloting project, ALIAS has established a sustainable economic model for telemedicine services by starting dialogues between healthcare stakeholders.
- In the framework of the initiative, telemedicine practice has been unequivocally considered as a medical act. This has entailed that it should be done by fully trained medical specialists and that a system for quality control and auditing of the telemedicine services must be in place.
- As a policy initiative ALIAS brings together Alpine regions to exchange practices, to encourage their healthcare systems to adopt innovative models with a view to enabling wider deployment of telemedicine and to facilitate sharing of experience.



6.1 Sustainability

The self-sustainability of ALIAS beyond the project completion, is a pre-condition to ensure the maintenance and the enlargement of the Virtual Hospital Network. A robust business model has been conceived in order to provide comprehensive information on the organizational and economic rationale underlining the sustainability of the ALIAS system.

This business model is the outcome of the political commitment and the agreement between all ALIAS actors (firstly hospitals and IT companies) for capturing and delivering value in terms of healthcare services in a transnational context.

6.2 Capitalising ALIAS Achievements: towards the NATHCARE project

The groundwork of the ALIAS project has resulted into a combination of technical, organisational and legal components, featuring the asset on which to verify the capitalisation of its results for building up further development.

As described in the previous chapters, the ALIAS Project was aimed to demonstrate a set of services allowing participating hospitals nodes of the Network to:

- retrieve clinical information about visiting patients from other countries;
- exchange of patient's specific clinical information in order to acquire a second opinion from experts residing in other ALIAS network's nodes.

Given the results achieved by the ALIAS operation and the positive experience gained through the deployed services, the project partners, enlarged to new actors, committed them to capitalise the work done escalating the ALIAS central platform to include new services directed towards both patients and Primary Care services.

Under the framework of the Alpine Space Programme 2007-2013, the NATHCARE project – Networking Alpine Health for Continuity of Care – may be seen therefore as the natural evolution of its «ancestor» system ALIAS. The main concept at the heart of the NATHCARE project is to provide a set of services promoting integration of Primary and Secondary care processes - a key to increase both efficiency and efficacy in the Health Care domain - while allowing patient empowerment and ensuring transnational adoption of well documented best practices, in such a way to provide availability of highly trained medical professionals even in remote areas. To do so, NATHCARE will capitalise the experiences, expanding the scope and refining the services developed within the framework of the ALIAS initiative.

The NATHCARE concept will be at first deployed targeting chronic diseases and developing tools to optimise care to them making the most out of existing limited resources. This is absolutely in line with current trends in the healthcare domain, where appropriateness and wide implementation of effective processes under both the cost and the result perspective are becoming topmost priorities.

NATHCARE aims at design, consolidate and validate an “healthcare local community” model embracing all the players of the system for securing a sustainable and improved organisational adaptation of healthcare services. The proposed model will then analyse the process for an hospital-territory integration in the perspective of continuity of care as dimension of the demographic change.

The NATHCARE model will be offered to the attention of policy makers, as an example on which get inspired to adopt orchestrated policy strategies to mitigate demographic change impact on healthcare systems.

In terms of expected outputs, the project will: promote exchanging of evidence based information about best-practice/state of art management health related condition starting from chronic diseases; support the implementation of above described best practices at NATHCARE pilot site level through the use of tools derived from development of ALIAS Advice Query Tool; empower patient profiling and identification to be shared over the whole NATHCARE consortium guaranteeing to the patient the deserved treatment regardless to his/her whereabouts.



An Interview with Luciano Bresciani, Ministry of Health – Regione Lombardia

Eleven hospitals from six countries in the Alpine region have collaborated in a large-scale interdisciplinary telemedicine project. ALIAS, “*Alpine Hospitals Networking for Improved Access to Telemedicine Services*”, subsidised by the European Union as part of the Alpine Space Programme funding programme, aimed at improving access to telemedicine services for hospitals in the Alpine region. Hereinafter, an interview with Mr. Bresciani, Minister of Health of Regione Lombardia, leading partner of the project.

1. Why does telemedicine appear to be a viable option in the Alpine region?

Limited access to healthcare and quality of care are inextricably intertwined. Improving access to care in medically rather underserved areas and better professional interactions for local providers increase HC services quality in these areas. One way to address the accessibility issue is through the “redistribution” of specialists and clinical resources available in urban HC centres to these Alpine Space areas. Telemedicine (eHealth) allows this to take place without physical relocation of providers by eliminating the significance of time and distance between patient and providers. With ALIAS we have reached substantial results in this field thanks to the active collaboration of six regions located in the Alpine Area that have been working, during the project length, in an interdependent way, with the aim of bridging the gap of healthcare services needs in remote areas through the use of eHealth. The principle that has guided the development of the ALIAS platform, both from an organizational and technical point of view, has been the enhancement of the community welfare in the Alpine Regions – this inspiring collaborations and alliances.

2. How the ALIAS achievements could be taken-up within the Lombardy Region healthcare system?

We see two main areas where the project achievements can be exploited: firstly within the regional healthcare system, more specifically among the hospitals belonging to the same Healthcare Management Unit. Here, for instance, the second opinion tool could be integrated as normal practice and used by hospital doctors working in different hospitals and hospital branches. Secondly, both the data sharing and second opinion tools could represent a major asset for reinforcing the cooperation between different regional healthcare systems: I am thinking, for example, to the cooperation between Lombardy and Rhône-Alpes in the eHealth domain and more specifically to the possible cooperation between their own hospitals.

Furthermore we should consider a deeper involvement of the industry in the take up of the ALIAS results and to drive their exploitation through an extensive use in the chronic diseases management.

3. What is acceptance from caregivers like?

Feedback from physicians has been very positive in some areas while in other areas caregivers have expressed a lower interest in this new application and organizational model. We reckon that sometimes this has been due to an information problem, such as scarce information in some areas or lack of correct ways of communicating the message. The strategy now is to transfer the ALIAS results and create awareness about the project achievements and related benefits in particular to those operators more sceptical about the ALIAS use.

4. How will patients benefit of the ALIAS services in terms of rights in cross-border healthcare?

ALIAS platform and services are aimed at bringing benefits to resident and non-resident citizens. Alpine Space touristic vocation during some periods of the year makes its healthcare structures “periodically” inadequate to face a widened request of services supply. On the other hand, a major receptivity of those structures during the rest of the year is unnecessary, due to the low density of local residents. Linking together a number of hospitals enabling the creation of a Network shaping the ALIAS Virtual Hospital for sharing medical information, adopting telemedicine service and exchanging best clinical practices, has been aimed at improving the efficiency of hospitals in Alpine Space areas. This achievements can be easily translated in advantages for the international mobility of citizens and patients and enhanced services to the population at a lower costs.

5. To what extent ALIAS has contributed to the strategic priority of the transnational dimension of the cooperation in healthcare?

The ALIAS operation is central in the overall strategy of Lombardy aimed at addressing the internationalisation of the regional healthcare system. Together with the EU CIP co-funded epSOS project (European Patient – Smart Open Services), ALIAS has contributed to strengthen the positioning of the Region in the European panorama of initiatives for cross-border health and within the most advanced regions playing a pivotal role in research and innovation for health. Public healthcare administrations are more and more faced with critical challenges such as chronic diseases management, demographic change, financial constraints: to bring this issues at transnational level can support decision makers and stakeholders to share knowledge and practice, and export/import innovative solutions taken from experience.

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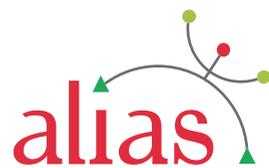
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