



ALLIANCE
pour le génie
BIOLOGIQUE
ET MÉDICAL

2008
INNOVATIVE MEDICAL
TECHNOLOGIES
Award

IgeaSat
programma salute



Creation date : 2001

Chairman and CEO of the Company: **Ing. Leopoldo Genovesi**

Legal structure: **S.p.A.**

Share capital: **1 899 384.00 €**

Turnover: **18 Million €** % dedicated to R&D: **10%**

Manpower : **70 employees**

Telbios is one of the first Italian companies to deal with Telemedicine. It started its activities in 1996 by supporting the Italian humanitarian missions abroad and cooperating with the European Space Agency. Today it's one of the most innovative companies in a forefront field that combines medicine, technology and telecommunications. Its solutions are addressed to healthcare organizations and to teleassistance and telemonitoring for elderly people and chronic patients.

Today Telbios has more than 70 employees in Milan and Rome branches.

The company shareholders are leaders in their respective market segments: Science Park Raf of Scientific University Institute San Raffaele of Milan (health care and biomedical research), Telecom Italia (fixed and mobile telecommunications), Telespazio (satellite telecommunications) and Value Partners (management advice).

IGEA-SAT specific objective is to provide high added-value services designed for individuals and to take by hand patients at all stages in the management of their illness and their state of health, using simple and familiar tools and ideas that include:

- **Patient file:** patient's clinical data are always accessible to healthcare professionals during monitoring and rehabilitation
- **Biomedical devices** for monitoring physiological parameters that are portable and wearable without creating further 'anxiety' for the patient;
- **Home television** for interaction with health service personnel and access to the latest information on the patient's own illness.

All patients are included in a "Health program" by the reference Medical Centre This is a personalized environment designed to make the use of biomedical devices familiar, motivating and attractive.

IGEA SAT includes following services:

- **Telemonitoring:** this service allows patients to measure some of their physiological parameters directly at home
- **Videoassistance:** this service establishes audio-visual communications between the patient at home and operators or doctors at the CST.
- **Edutainment:** useful information and training to prevent and manage the principal pathologies. Patients receive information and updates directly from their home televisions, to help them prevent a deterioration in their condition and recognize and deal rapidly with the symptoms of potentially critical problems.
- An **on-line guide** to using the telemonitoring equipment supplied to patients is also available.



i-Application screenshots

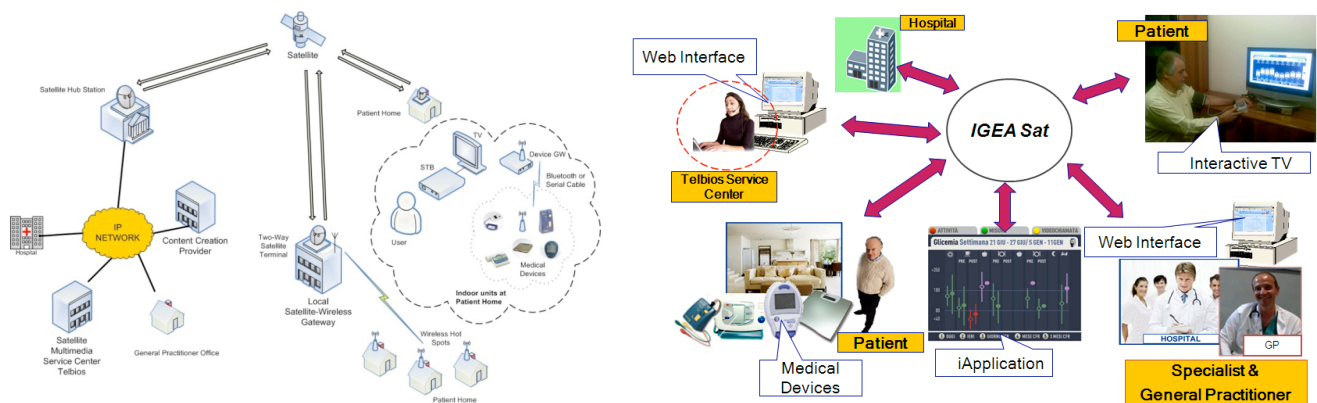
Telemonitoring, video-assistance and edutainment services will be accessed by the patients through interactive applications, the i-Application, via home-television. The i-Application is based on a daily microactivity set displayed as CARD. The card shape is used to encourage patient involvement, enthusiasm, satisfaction and peace of mind, improving relationship with health systems.

The i-Application is based on three key concepts:

- ✓ **User needs:** the i-Application satisfies patients and physicians request for a closer relationship
- ✓ **Behavior Modification:** motivating the patients to use his own cards daily. The goal is to reach his wellness. More i-Application usage leads more assistance and hence more wellness.
- ✓ **User centered design:** i-Application is based on trust, activity agenda and motivation in order to obtain a continuous contact between the patient and the physician.

IGEA Sat key features could be grouped as follow:

- Dedicated Set Top Box interfaced with IP Broadband access point (via satellite, WiFi or ADSL);
- Content and interface adapted to the specific user (agenda, medical data, content);
- High quality video communication with Telemedicine Service Centre for scheduled visits (not for emergency call!);
- Set of medical devices (blood pressure meter, weight scale, oximeter, spirometer, glucometer and ECG) connected via Bluetooth or serial cable;
- Medical data automatically routed via the service centre;
- Threshold set-up by the doctors/nurses through their PC at their offices
- Trends and threshold check by the patients through the local TV display,
- Alarm management by the operators at the service centre;
- Supporting functions to remind treatment's protocol (e.g. reminders to take medical measure, rehabilitation exercises, etc...)
- User's profiled multimedia catalogue for patient edutainment.



IGEA Sat Architecture

IGEA Sat is an innovation service direct to a traditional market. Specifically, the market is characterized by the circumstances and needs of the consumer but also by a diversity of relationships between consumer, provider and payer, and by a specific typology and variety of sales channels. The circumstances of the end user:

- Continuity of care, Early discharge, Post cure (limited in time);
- Chronic illnesses;
- General improvement of wellness through continuous and timely access to health care information and services;

Up to now, IGEA Sat is commercially available as Telbios "In Salute" product. "In Salute" customers are essentially:

1. Hospital
2. Local Public Administration
3. Insurance Companies
4. Patient's Associations
5. Specialized Centers
6. General Practitioner,
7. Public Department of Social Services and Welfare

Up to now, about two hundred patients are monitored with IN Salute services. Each patient, need about 10-20 minutes daily to perform his actions.

Patient profiles belong to the most frequent chronic diseases as: chronic heart failure, diabetes and Chronic Obstructive Pulmonary Disease. These absorb the largest part of health expenditure for chronic conditions.

Several benefits are expected from this approach: from an optimal health and disease management, to early detection of trends that indicate an impending worsening and exacerbations event, to reduced Emergency Department utilization and hospital admissions. The target is improving the overall quality of life for patients and their families by increasing active life and out-of-hospital intervals. Last but not least improves psychological well-being and the feeling of isolation both in remote communities and in large "convulsive" cities.

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