WoundViewer

Heal faster, live better

Omnidermal

You.

our mission is your well-being

Our Mission is to use our knowledge in artificial intelligence and development of medical devices to reduce the distance between patients and healthcare professionals, making patient's care more effective, more sustainable economically, better organized and the healing quicker, with maximum quality even at home.

With us.

intelligence for your health

About Us.

Omnidermal Biomedics was founded in 2017 by three members of the research group for the development of Artificial Intelligence-based medical devices of the Politecnico di Torino; the three founders have put their skills, expertise and experience in the development of devices that support healthcare professionals in the diagnosis and care, paying particular attention to the collection and documentation of accurate and objective data. **WoundViewer** is the first technology developed, able to automatically provide the operator with all clinical parameters essential to assess and monitor the pathological condition of skin ulcers, returning objective results for tissue segmentation, ulcer classification, and precise values of area, volume and depth of the wound.

Franco and **Marco Serventi** are entrepreneurs who believed in Omnidermal and it is thanks to their economic and managerial contribution and the technical experience of **Filippo Begarani** that the Omnidermal project became a reality capable of creating medical devices of high technological and innovative value.

Our **Board of Advisors** is composed of university professors, engineers, doctors and managers who contribute to the development of the strategic plannings of Omnidermal making a valuable contribution of experience and knowledge hardly comparable. Omnidermal has assembled a Board of advisors, composed of specialists and professionals in various fields that range from the development and implementation of algorithms of artificial intelligence to business planning.

Jason Sakamoto
Founder and Owner of "Minus Nine" Consulting firm; Former Chairman of the Nanomedicine Department Houston Methodist Research Institute.

Ubaldo Uberti
President of Federmanager Novara-Vercelli; Former Chief Technology Officer of Gruppo De Agostini.

Elia Ricci, M.D.
Surgeon, Key Opinion Leader of the wound healing field; Co-founder of Italian Wound Care Association (AIUC); Secretary General of the World Union of Wound Healing Societies (WUWHS).

Emilio Paolucci
Full Professor and Former Vice-Rector for technology transfer at Politecnico di Torino; Co – founder of Electra Power Systems (EPS), a company listed on the Paris Stock Exchange

Ronald Tetzlaff
Full professor at Technische Universität Dresden and Dean of the Faculty of Electronic engineering at Technische Universität Dresden.

Andrea Consonni
Degree in electronic engineering from the Politecnico di Milano, active for over thirty years in prestigious multinational organizations of information technology and consulting, he has enabled successful projects in the field of digital health building and enhancing a network of relationships and unique expertise in this area.

Leon Ong Chua
Ph.D. at the University of Urbana Champaign (IL, USA). Internationally recognized for his research work in the field of circuit theory and neural networks. He is considered the father of cellular neural networks (CNNs '), he gave name to the famous Chua circuit; He is the inventor of the Memristor, the only electronic passive element that simulates a neuronal synapses. Professor Chua has received various awards, including 14 degrees and doctorates honoris causae, whose last at Politecnico di Torino in 2015.

Danilo Demarchi
Associate Professor; Electronics and Communications Department (DET).

Fernando Corinto
Associate Professor; Electronics and Communications Department (DET)

Numbers are important

Accurate, fast and easy to use, designed by medical professionals for their future use.

AREA
detects variations of 0,2 cm^2

GRANULATION TISSUE
by analyzing the RGB color map

DEPTH
detects variations of 1 mm

CALSSIFICATION
following the international WBP standard

ALERT SYSTEM
to prevent clinical complications
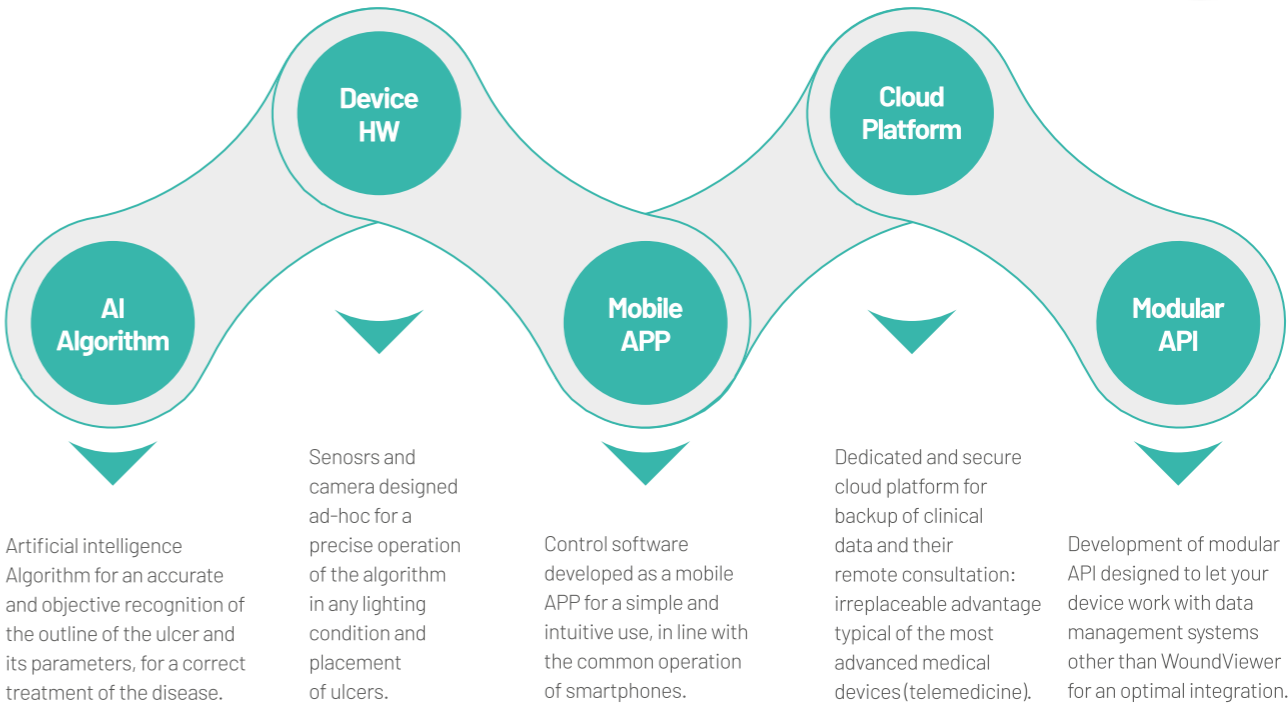
Integrated system is the solution

Technology for an accurate diagnosis, to detect trusted clinical data, for a consultation of the parameters even remotely.

Device HW

Cloud Platform

AI Algorithm

Mobile APP

Modular API

Artificial intelligence Algorithm for an accurate and objective recognition of the outline of the ulcer and its parameters, for a correct treatment of the disease.

Senosrs and camera designed ad-hoc for a precise operation of the algorithm in any lighting condition and placement of ulcers.

Control software developed as a mobile APP for a simple and intuitive use, in line with the common operation of smartphones.

Dedicated and secure cloud platform for backup of clinical data and their remote consultation: irreplaceable advantage typical of the most advanced medical devices (telemedicine).

Development of modular API designed to let your device work with data management systems other than WoundViewer for an optimal integration.

Everything you need... and more

Monitoring, documentation and classification of injury in just 2 minutes, against the 20 minutes required for the same process without WoundViewer.
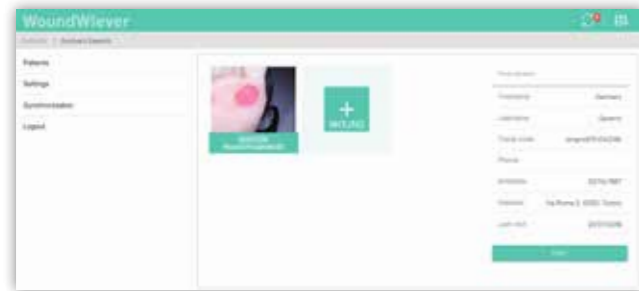
PATIENT LIST
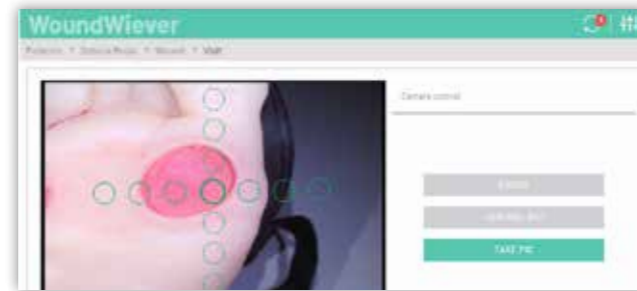go through the list of registered patients and check their medical records

CREATING NEW PATIENT
creates the profile of new patients and their medical records for the constant monitoring of their conditions
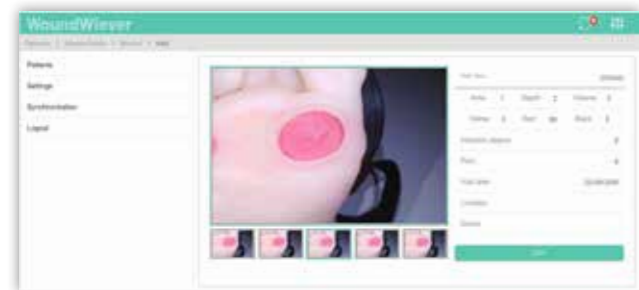
PATIENT GENERAL VIEW
consult the data of each patient, the evolution of her condition, to act promptly and with the most effective treatment
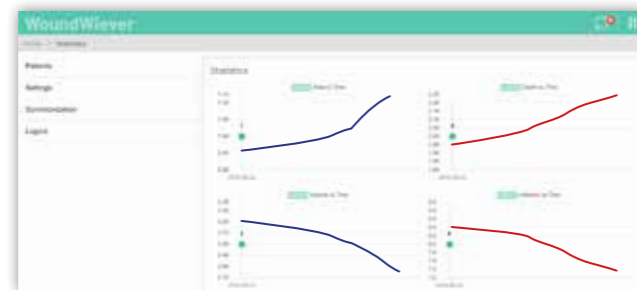
NEW PATIENT VISIT
by selecting the folder of a patient, you access a new visit with automatic acquisition of new images and measurement of parameters of the wound

RESULTS DISPLAY
once the image is collected, the artificial intelligence algorithm in a fully automatic way returns the parameters of the ulcer with very high precision

EVOLUTION OF THE LESION
allows you to see in real time the trends over time of a single lesion allowing the operator to verify any eventual complication or critical case

We are proudly different

The current procedures for the management of cutaneous ulcers have shown several difficulties that WoundViewer solved.

BETTER THAN OTHERS	ONLY US
COMPLETENESS OF THE PARAMETERS EVALUATED	STATISTICAL ANALYSIS OF PATIENT DATA (BIGDATA ANALYSIS)
ALERT SYSTEM FOR THE PREVENTION OF CLINICAL COMPLICATIONS	REGULATORY PRIVACY COMPLIANCE (GDPR AND HIPAA COMPLIANT)
DATA AVAILABLE IN LESS THAN 2 MINUTES	ULCER CLASSIFICATION ACCORDING TO INTERNATIONAL PROTOCOL
INTEGRATION WITH INFORMATION SYSTEMS AND DIGITAL HEALTH RECORDS THROUGH APIS	FULLY AUTOMATED MEASUREMENTS (CLICK AND GO)
CLOUD SYSTEM AND 4 G CONNECTIVITY FOR SHARING MEDICAL RECORDS BETWEEN OPERATORS	POSSIBILITY OF SECOND-OPINION AND APPROVAL TREATMENT PLANS
	DATA ACCESSIBLE FROM DIFFERENT DEVICES

Privacy and security above all

Data security is our top priority. We assure you to keep data confidential and secure.

Bank-level Encryption
The privacy of patient data is vital. All data transfers with WoundViewer possess the highest level of SSL/TLS encryption against the ill-intentioned parties and are stored on AWS servers, adopting modern techniques to remove bottlenecks and points of failure.

Auto logout and clear cash
In case the device is lost or stolen, the application performs an auto-logout after an inactivity timeout. The highest possible security is guaranteed by providing a feature to deactivate the device by clearing the cache and all device data in case of loss or theft.

Secure HTTPS communication
The external camera device that communicates with the mobile application works over a secure channel (HTTPS). On the Data storage level, the device communicates with the back end using the same security protocols and implements data encryption mechanisms. Fault-tolerance mechanisms have been implemented.

A smart investment

WoundViewer, through an accurate and standardized measurement, allows to reduce inefficiencies and improve the process of care.

Home care assistance
Safety, efficacy, accessibility and hospital performance standards are now available at home.

Hospitals
An essential aid to solve the issue of skin ulcers and to increase the effectiveness of care and optimize management plans for patients.

Life-Science
Complete and accurate analysis of clinical data, an irreplaceable support in clinical trials and drug development.

Local health autorities
A fundamental tool for rationalization and access to health care assistance.

Clinics
Essential partner for the enhancement of professionalism of private clinics and nursing homes.

Research
Objective, accurate and standardized clinical data in support of new directions and new experimental techniques.

Reliable partner in your work

Reliability and quality of clinical data, precise and accurate measurement of wounds, WoundViewer is an ideal tool for an effective, non-invasive and economic evaluation.

DATA QUALITY
standardized and in-depth

COST REDUCTION
organization and efficiency

LESS COMPLICATIONS
automatic Alert System

MORE SATISFACTION
patient well-being

ENABLES
comparative analysis and multi-analysis

Technical Specifications

DISPLAY	CAMERA	COMMUNICATION	EXTRA
LCD interface	1 x CMOS Camera	WiFi interface	Microphone
Capacitive	16 x IR Sensors	4G interface	Geo-localization
Touch screen	4 x white leds	Bluetooth	microSD
2 USB Plugs		Micro - nano SIM	

Artificial intelligence algorithm for data acquisition and analysis of cutaneous ulcers

Brightness control of the acquisition with optimum quality standards in all conditions

Supports medical staff in preventing and identifying the most effective therapy

4 g connectivity for remote data exchange

Analysis of the organization of hospital processes and definition of their targets

Application support and maintenance

Alert system for prevention of clinical complications

System for the organization of patient data in electronic medical records

Ad hoc training of health care personnel

get in touch.

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