The new era of rehabilitation is now
Are you looking to improve your rehab process?

Would you like to measure the outcome and trace the rehabilitation progress?

Do you value to involve the patients more during the session?

Would you like to present the exercises as a game?

The robotic rehabilitation system that supports doctors, physiotherapists, and patients throughout the course of treatment.

**What is hunova**

*hunova* is a robotic system designed in response to a clinical need for objective evaluation and rehabilitation treatment tools that support doctors, physiotherapists, and patients throughout the course of treatment and recovery.
“In the last five years, advances in technology have opened up opportunities to develop new robotic systems dedicated to people - systems that have the potential to revolutionize the world of rehabilitation and scientific wellness.”

Simone Ungaro
CEO and Co-founder of Movendo Technology

“I have invested the last ten years of my professional life to building and developing the Istituto Italiano di Tecnologia (IIT), a leading global center for applied technology. Humanoid robotics is the most important area where IIT has proved its excellence, recognized by the top research institutes and consortia around the globe.

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A group of directors at IIT decided to take on a stimulating new challenge: to bring this technology to market. They decided to found an innovative medical company with help from an investor in the world of biopharmaceuticals. We’ve named this company Movendo Technology.”
The origins of Movendo Technology

IIT and Dompé Farmaceutici

The Istituto Italiano di Tecnologia (www.iit.it) IIT - the leading Italian institute in the field of robotics and many other areas, such as nanotechnology, neurosciences, drug research and development, renewable energy, graphene, and computation - strives to promote excellence in basic and applied research and to improve human quality of life.

Movendo Technology was founded through financing from Sergio Dompé of the Dompé Farmaceutici group, one of the leading Italian pharmaceutical companies. Dompé Farmaceutici focuses on innovation, where a long tradition in the field of healthcare goes hand in hand with a commitment to research and development to meet hitherto unsatisfied therapeutic needs.

A challenge that the Company has pursued with passion, skill and courage, to make a difference to the lives of people around the globe.

1500
total staff

44%
scientific staff from abroad

150
European projects

500+
active patent applications

50+
represented countries

8569
publications

17
ERC
The objective is to develop Made in Italy innovative technologies, ranging from the excellence in research and a new way to conceive rehabilitation.

Movendo Technology develops medical devices that use the most advanced technologies and are, at the same time, effective, simple to use, and easy to interact with. They are created in Italy with the taste for aesthetics, design and functionality that is characteristic of our country.

Movendo Technology puts the patient and the clinician at the center of technological development, to understand the actual rehabilitation needs. It is only thanks to close collaboration and synergy with excellent clinical partners that we are able to combine ease of use with immediate inclusion in everyday clinical activity. The meeting between Movendo Technology and the clinical network led to the creation of the first robotic aid for physiotherapy: hunova.
hunova is a robotic aid for physiotherapists that is intuitive and easy to use, dedicated to rehabilitation in orthopedics, neurology, geriatrics, and reathletization.
In the orthopedic sector, hunova is used for rehabilitation of the ankle, the knee, the hip and the lumbar region of the spine, making the patient carry out exercises of passive mobilization, strengthening of the muscles, proprioceptive exercises, control of the posture and balance. The device is also used for sports rehabilitation.
In the geriatric field, hunova enables the physiotherapist to work on postural control, proprioception and balance, and it is used to prevent and evaluate the risk of falls in the elderly and in the recovery of cognitive aspects.
In the neurological field, hunova is used for after-stroke functional re-education, for the treatment of degenerative diseases of the central nervous system and lesions of the peripheral nervous system, making the patient carry out exercises of postural control, balance, core stability and proprioceptive exercises.
**Rehabilitation path**

**Protocols**

*hunova* allows for:

- The use of standardized protocols developed from international guidelines, combining more than 200 exercises from various applications (orthopedics, geriatrics, neurology).
- The modification of standard protocols to be adapted to specific applications.
- The creation of personalized protocols for the needs of each facility.

**Personalized rehabilitation**

*hunova* allows you to select, in an accurate and simple way, the level of difficulty of the protocol in order to adapt it to each patient’s abilities.

The *rehabilitation process* is integrated with an *evaluation path* that allows to record and monitor the clinical situation of the patient, thus supplying objective reports all through the therapy.

“*If you can’t measure it, you can’t improve it*”
1. Adjustable touch screen
2. Tablet for remote control and operation of hunova
3. Emergency button
4. Wireless position sensor
5. Adjustable and removable armrests, removable backrest
6. Sensorized robotic seat
7. Sensorized robotic platform
8. 3D seat position adjustment

Characteristics subject to change without notice.

“It measures what can be measured and makes it measurable what’s not”
The accessories allow the physiotherapist to isolate the individual districts of the body and to work with exercises of active, passive or assisted mobilization, strengthening and stretching. With Hunova it is possible to perform exercises standing in mono- or bipodalic mode, with precise load control.

Monopodal and bipodal platform

The monopodal platforms allow to reach a range of motion suitable for the ankle articulation. The bipodal platform allows for a wider working space suitable for the double support which improves the postural attitude and encourage overall muscular recruitment.
Within the rehabilitation process, depending on the exercise, the patient controls with the different parts of his or her body (ankle, pelvis, torso) the avatars generated on the screen in different gaming modes and versions. This makes rehabilitation an entertaining activity which motivates and amuses the patient.

Biofeedback and dual task

The biofeedback, generated at visual, auditory and proprioceptive level, allows the processing of a highly training voluntary motor response. By using gaming exercises, hunova encourages patients to beat their previous goals and scores, accelerating their recovery and turning therapy into a playful activity.
What they say about us

“Patients have highly appreciated the device’s simplicity and usability.”
Doct. Giovanni Antonio Checchia, Head of Recovery and Functional Re-education Pietra Ligure

“hunova represents an innovation and revolutionizes rehabilitation [...] Finally physiotherapists can use an instrument [...] which makes rehabilitation more objective and measurable, thus allowing to personalize the intervention and make the rehabilitation more effective.”
Dr. Mariuccia Rossini, Head of Korian Group, Italian division

“Rehabilitation with hunova makes it possible for the physiotherapist to personalize protocols for the patient thus quickening and improving the re-education results and maintaining the same relationship between physiotherapist and patient which is crucial in our center as we put the patient at the center of the humanization of care.”
Dr. Alessandra Mellano, CEO of Chiros Centro Fisioterapeutico e riabilitativo s.r.l.

“Time is precious! The first sensation I have had, which was then confirmed after using hunova, is the possibility to obtain maximum rehabilitation results in a very short period of time, thanks to the high compliance of the device. The robot versatility in regards to the patients allows to treat everybody from the professional athlete to the geriatric patient, all in an entertaining circumstance, very pleasing to the users.”
Dr. Giovanni Bei, Head of Rehabilitation of Korian Villa delle Terme

“It is an exceptional device that makes it possible to rehabilitate the patient also from a seated position. Another characteristic is the informatic precision which allows to set up an objective profile of the patient. It’s an amazing integration between technology and the doctor’s clinical eye.”
Dr. Giovanni Pietro Salvi, Head of Rehabilitation Operational Unit of the Istituto Clinico Quarenghi

“An efficient ally of our rehabilitation equipe for a faster and complete achievement of the results, but also a valid instrument for the evaluation of results and the rehabilitation of each patient, which can then be monitored by the medical and physiotherapy staff.”
Team le Terrazze