Exoskeletons & MedTech for Neurological Rehabilitation and Mobility Assistance

Summary

Profile type	Company's country	POD reference
Technology offer	**Spain**	**TOES20250321007**

Profile status	Type of partnership	Targeted countries
PUBLISHED	**Commercial agreement with technical assistance**	**• World**
	Investment agreement	
	Research and development cooperation agreement	

Contact Person	Term of validity	Last update
Enrico FRANZIN	**21 Mar 2025**	**21 Mar 2025**
	21 Mar 2026	

General Information

Short summary

A Spanish SME specializing in medical robotics has developed CE-marked exoskeletons for neurological rehabilitation and mobility improvement. The implemented technology integrates advanced sensors and real-time feedback, providing personalized solutions for individuals with neuromuscular impairments or recovering from injury or surgery. This intelligent design enhances clinical outcomes and ensures high patient satisfaction.

Full description

A Spanish SME with extensive expertise in medical robotics, focuses on designing exoskeletons that address the needs of patients with neurological and motor impairments, including those with stroke, spinal cord injuries, or neuromuscular disorders.

Conventional rehabilitation approaches for neurological conditions often lack continuous performance monitoring and the ability to adapt therapy in real time. As a result, patient progress can be slower and less precisely guided. The developed exoskeleton provides data-driven, immediate insights to clinicians, supporting tailored therapy protocols that optimise recovery.

While traditional devices may offer mechanical support, they rarely integrate comprehensive sensor-based measurements of patient movements. This exoskeleton stands out for its continuous data collection (e.g., joint

angles, force output, gait symmetry) and the capability to provide rapid adjustments, ensuring personalised therapy.

The exoskeleton stands out for several key features that enhance its functionality and adaptability:

- Ergonomic, Modular Design: Designed to fit diverse environments such as hospitals, rehabilitation clinics, and home care settings, promoting user comfort and improving adherence to therapy.
- Advanced Sensor Arrays: Equipped with comprehensive sensors that capture detailed neuromuscular metrics, allowing precise monitoring of patient performance and muscle engagement.
- Real-time Feedback: A specialised software platform provides instant insights, enabling clinicians to fine-tune therapies in real time for optimal results.
- CE-Marked Medical Product: The exoskeleton is officially certified and approved for medical use within the European market, ensuring compliance with high safety and quality standards.
- Proven Clinical Use: Robotic neurorehabilitation units are already in use at reputable medical centres such as Quirón, Fundación Jiménez Díaz, and Movex Clinics, with very positive feedback and notable improvements in patient outcomes.

The company is actively seeking partnerships to expand the adoption and development of its technology:
- Commercial Agreement with Technical Assistance: Collaboration with hospitals, rehabilitation centres, and medical device distributors is encouraged to integrate the exoskeleton into standard care practices. The company offers comprehensive training, on-site support, and customisation to ensure seamless implementation and optimal clinical outcomes.
- Research Cooperation: The company welcomes partnerships with universities, research institutes, and clinical organisations to support experimental trials, enhance the design through iterative improvements, and explore new features that further improve the effectiveness of neurological rehabilitation.

Advantages and innovations

Continuous, Data-driven Monitoring: Instant feedback enables immediate, effective therapy adjustments.
Personalised Treatment: Adaptive software tailors therapy to each patient's progression and capabilities.
Lightweight Construction: Minimises fatigue, enabling longer and more productive therapy sessions.
Clinically Validated: Successfully implemented in notable medical institutions, yielding tangible patient progress.

Technical specification or expertise sought

Stage of development

Already on the market

IPR Status

IPR granted

Sustainable Development goals

• **Goal 3: Good Health and Well-being**

• **Goal 17: Partnerships to achieve the Goal**

IPR Notes

Partner Sought

Expected role of the partner

The company is looking for hospitals, rehabilitation clinics, and especially medical device distributors interested in adopting and promoting CE-marked, data-driven exoskeletons in neurological rehabilitation settings. Potential partners should have a background in integrating advanced healthcare technologies and may also have the capacity to conduct clinical assessments.

In addition, they welcome collaborations with research institutions and universities focused on validating and enhancing the capabilities of their exoskeleton technology.

Type of partnership

Commercial agreement with technical assistance

Investment agreement

Research and development cooperation agreement

Type and size of the partner

- **Other**

- **SME 11-49**

- **Big company**

- **SME 50 - 249**

- **R&D Institution**

- **SME <=10**

- **University**

Dissemination

Technology keywords	Market keywords
• 06001013 - Medical Technology / Biomedical Engineering	**• 05003006 - Other therapeutic (including defibrillators)** **• 05007007 - Other medical/health related (not elsewhere classified)** **• 05005022 - Other clinical medicine** **• 05003001 - Therapeutic services** **• 05004001 - Electromedical and medical equipment**
Targeted countries	Sector groups involved
• World	

Media

Images

HANK EXOSKELETON

Videos

GOGOA PRESENTATION