

MEDTECH SIMULATION AND PRODUCT DEVELOPMENT SERVICES

This competency delivers integrated support for the design, simulation, and prototyping of medical technologies, combining engineering capabilities with clinical insight. Operating within the MedTech Innovation and Training Centre, it enables the development and validation of medical devices, healthcare robotics, and digital health solutions using advanced simulation and testing environments. The activity connects academia, healthcare providers, and industry to accelerate innovation from concept to pre-clinical readiness.



ACHIEVEMENTS

- Collaborative prototyping and clinical simulation projects with industrial and academic partners.
- Development of digital twin models for diagnostic and surgical training applications.
- Participation in national and EU-funded MedTech innovation programmes linking research and clinical practice.



INFRASTRUCTURE

- High-fidelity ICU, OR, and emergency simulation rooms with medical manikins.
- Hospital Information System (HIS) test environment with scenario and feedback tools.
- Prototyping and co-development spaces for device testing and validation.
- Laboratories for medical robotics, biomedical signal processing, and digital health.
- 3D design and printing facilities and simulation software for digital twins and HMI.



REFERENCES

- Simulated surgical workflow and device-testing project delivered with QTICS and 3DHistech.