Healthcare Robotics
Digital Innovation Hub

Healthcare Robotics Digital Innovation Hub network to come
A 16M EUR project to support the creation of a Healthcare Robotics Digital Innovation Hub network will lead to transformational changes in healthcare powered by advances in robotics, AI, and big data. It will be a pan-European network that can leverage regional expertise to introduce European-wide innovation and is expected to start early 2019.

Better health and care for better well-being and growth
To be productive and competitive, Europeans need to be healthy. This means finding new diagnostics and treatments for diseases, but also building a sustainable healthcare system that accounts for ageing populations, a drop in the number of healthcare professionals, and increased costs.

Healthcare robotics
Robotics has the potential to revolutionise the field of healthcare. In hospitals, surgical robots allow for minimally invasive surgery, with increased precision. Smart capsules are being used to diagnose cancers. Logistic robots provide ground transport for essential goods across hospitals and care homes. At home, rehabilitation robots motivate patients and help them perform their exercises. Robot exoskeletons and prosthetics are empowering disabled people to move. And carebots are allowing elderly people to stay at home for longer.

European strength
Europe has world leading expertise in healthcare robotics. Projects include:

- **MURAB** - MRI and ultrasound robotic assisted biopsy
- **EurEyeCase** - Use case for European robotics in ophthalmologic micro-surgery
- **EDEN2020** - Enhanced delivery ecosystem for neurosurgery
- **ENDOVESPA** - Endoscopic versatile robotic guidance, diagnosis and therapy of magnetic-driven soft-tethered endoluminal robots
- **CyberLegPlusPlus** - The cybernetic lower-limb cognitive ortho-prosthesis
- **An.Dy** - Advancing anticipatory behaviors in dyadic human-robot collaboration
- **MOVECARE** - Multiple-actors virtual empathic caregiver for the elder
- **DREAM** - Development of robot-enhanced therapy for children with autism spectrum disorders

Digital Innovation Hubs
Given the pressing societal need, and expertise in European healthcare robotics, it’s clear the time is right to bolster the use of this technology in local communities and SMEs. This will be done through a pan-European network of Digital Innovation Hubs, one-stop-shops providing services to companies in a region. Services include raising awareness about the technology and providing training and mentoring, building a vision and strategy around the technology, and providing access to specialist expertise and infrastructure to develop and test their robots solutions. Access to funding and investor readiness services will enable scale up.
**Impact**
Digital innovation hubs will ultimately increase the deployment of healthcare robots through the formation of supply chains around platforms and modules, the introduction of cross-industry-based standards, the generation of new businesses based around platform supply, and by leveraging other sources of regional and national funding.

**Stakeholders**
Advancing the use of robotics in the healthcare sector can only be done by integrating across all stakeholders. Patients and their families are set to benefit most through the improvement of care and quality of life. The digital innovation hub will also bring together stakeholders from the healthcare and technology sectors, including national healthcare system, hospitals, carers, equipment manufacturers, and robotics, AI and data experts and companies. The societal impact will bring interest from the legal sector, insurance companies, and policy makers.

**How to interact?**
The network of DIHs will offer opportunities, especially to SMEs, to get engaged. After the launch in early 2019, the network will provide funding to support industry, in particular SMEs, in their digital transformation, through for instance, demonstrators and platforms development, technology transfer experiments, or other services.

Similar networks of Digital Innovation hubs are expected in other domains, such as Maintenance and Inspection of Infrastructure, Agri-Food, or on Agile Production.

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