

The Networked Embedded Systems Cluster in Cork Institute of Technology (CIT) incorporates three established areas of research and innovation, namely Adaptive Wireless Systems, Smart Systems Integration and Technologies for Embedded Computing. This cluster, in which forty-five researchers and postgraduate are currently active, was first founded in 2000 by Dr. Dirk Pesch and Dr. John Barrett of CIT's Department of Electronic Engineering. The Cluster has grown rapidly through success in numerous national and international funding programmes, bringing in a total of ca. €5M from 2002 to 2006.

In 2006 the cluster founded the Technologies for Embedded Computing (TEC) Centre with funding from Enterprise Ireland, the national agency for supporting indigenous industry. The objective of the TEC Centre is to provide a comprehensive innovation service to industry and particularly SMEs. This complements and evolves CIT's existing knowledge transfer activities. The Genesis Programme, an industry incubation programme, was established by CIT, University College Cork and Enterprise Ireland in 1997 and has supported 95 start-ups. In 2006, CIT opened its Incubation Centre, the Rubicon, which hosts and currently supports over 23 start-ups; it is now the second most successful such Centre in the country. The determination and exploitation of intellectual property (IP) is being actively leveraged within this setting.

In 2007, the cluster achieved funding for a 14M€ national collaborative project with four Irish Universities and Tyndall National Institute, which has enabled CIT to build a research building co-located with the Rubicon Centre, due to be completed in January 2010, which will be a Centre dedicated to research and innovation in networked embedded systems.

The CIT has demonstrated the capability of the eGo technology by implementing some demonstrators within the framework of the health application.

[Nimbus eGo demonstrator](#)

Our Expertise

CIT has built up skills in the area of wireless systems and sensor networks (algorithms &

protocols and real-time location & tracking), smart systems integration (sensor device integration and miniaturisation of electronics) and in embedded systems (systems development and integral sensing networks). Many of these skills are relevant to the eGo project. In particular, CIT will contribute to the work on the design, development and performance analysis of the inertial prototypes, including the work related to the SIP packaging and integration of ultrathin MEMS. CIT will also support the implementation of the UWB subsystems and will contribute strongly to the creation of the application demonstrators