

# **An overview of Nanotechnology in FET in the European ICT Programme**

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The Future and Emerging Technologies (FET) theme of the Information and Communication Technologies (ICT) Programme has been supporting advanced research in foundational and long-term topics in Nanotechnology in FP5 (1998-2002) and FP6 (2002-2006) and will continue to do so, in particular, in the FET Proactive Initiatives in FP7 (2007-2013). This talk will provide an overview on the evolution of the research supported since 1994 and some of the achievements related to the 'Nanotechnology Information Devices' and 'Emerging Nanoelectronics' proactive initiatives launched in FP5 and FP6. Topics addressed by the research projects in these initiatives include, inter alia, devices under 10 nm size, self-assembly, architectures with many devices and advances beyond the limits of CMOS scaling, tackling new concepts in hybrid and molecular electronics. Observations on the most successful as well as on the most challenging aspects of this coherent set of European collaborative research initiatives will be presented. Initial proposals for new initiatives in ICT-based Nanoelectronics that could be called for in 2008-2009, and preliminary orientations, based on consultations for the new workprogramme 2009-10 will be provided.

