

# EUREKA labels PENTA - a new Cluster for pan-European partnership in micro- and nanoelectronic technologies and applications



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Paris - EUREKA's High Level Group met in Switzerland last week and has granted a label to PENTA, a new instrument to develop micro- and nano-electronic technologies, systems and applications, which are of key importance for European competitiveness. This industry is now central to societal and industrial development. Europe must ensure it retains and develops leadership positions in key market segments; such as health, automotive, industrial automation, security and energy. [More...](#) [2]

PENTA is a EUREKA Cluster in micro- and nano-electronics that supports the vision, strategy and implementation of programmes as envisaged by the Electronic Leaders Group<sup>1</sup>. In particular, it will address the whole electronics value chain and will encourage the participation of innovative European SMEs in the programme. In fact, PENTA fits into the tradition of collaborative research in the field as implemented by programmes like JESSI, MEDEA and CATRENE but extends its scope to include sub-system and end user companies. In this context, the objective of the new Cluster will be to support priorities jointly identified by Industry and Public Authorities, through an understanding of rapidly changing market needs.

Initially, the focus of projects will be on applications in automotive, healthcare and production technologies. In all applications it is recognized that security, connectivity and energy efficiency are essential crosscutting contributors. It is also understood that semiconductor processes, equipment, materials and tools are instrumental in all technologies. Implementation of the programme will result in an improved European presence in key electronics markets; together with economic, employment and social benefits to European companies and citizens.

Complementary to, but differentiated from the ECSEL Joint Undertaking<sup>2</sup>, PENTA will be a flexible and agile programme. It will identify opportunities, quickly assesses national governmental support and operate with a short, but effective, approval process. With its focus on smaller, faster and flexible projects, the new Cluster will provide an opportunity to take advantage of rapidly developing markets and their related value chains.

Openness and inclusivity will be at the core of the Cluster. 'Openness' will be visibly demonstrated at all levels, offering equal opportunities to all interested participants. 'Inclusivity' will be ensured through a range of activities centred on the creation of a "Market Place". It will bring visibility of the innovation that exists across Europe to the key electronics value chains and catalyse the formation of partnerships to take advantage of, and commercialise, these capabilities. Managed information exchange and networking will allow the efficient formation of focussed, well resourced, consortia developing leading edge technologies and applications. A special emphasis will be placed on SME involvement, to ensure Europe takes advantage of their innovative attitude and opportunity for rapid growth. The first PENTA call for project proposals is expected to open in first quarter 2016. Initially, the Cluster is scheduled to run for 5 years.

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**Links:**

[1] <https://project.edacentrum.de/node/1438>

[2] <https://project.edacentrum.de/en/node/1438>