

NOMAD: Exploring the man-machine interfaces of the future for mobile terminal applications

Background

Mobile electronic devices are becoming **increasingly complex** not only in terms of **use**, but also in terms of **design**.

From accessing email to organizing entire music libraries, the applications for such devices are more sophisticated than ever, and they can now handle **impressive volumes of data**.

Innovative technologies and partnerships with manufacturers are crucial to designing these sophisticated mobile electronic devices.

The electronics market is **fiercely competitive** and the economic stakes are potentially high.

Man-machine interfaces that are radically different from what is used today and that offer clear advantages in terms of user experience will constitute a key differentiator on the mobile electronic device market of the future.

The capacity to work collaboratively will be **a significant source of competitive advantage** for manufacturers on this market.

Partners

Corporate

STMicroelectronics

SME

Calao Systems - Movea - **Myriad Group**

Research laboratories

CEA-Leti - UJF (LIG)

Key figures

Budget: €11.5 million

Duration: 48 months

Human resources allocated: 83 FTE

Innovation

The NOMAD project will deliver the technical solutions needed to build **the man-machine interfaces of the future using embedded software and orchestrate the development of an industrial ecosystem capable of bringing these solutions to market**. The project will:

- Explore new types of man-machine interaction techniques using embedded systems.
- Create an open hardware and software platform for the development of the embedded interactive systems of the future. The Linux-based platform will feature a processor with integrated 3-D viewer and will include motion detectors, either embedded in the system or worn by the user.
- Leverage the use of motion detectors to innovate in the field of man-machine interaction by offering an alternative to the current “window, icon, menu, pointing device” interaction.
- Develop an industrial ecosystem to promote the emergence of consumer and industrial electronics manufacturers capable of using these technologies.

