

Infineon Technologies Romania

Nanoprospect Project Recommandations

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Semiconductor Industry and Nanotechnologies

- Semiconductor Industry is one of the main driver of Nanotechnologies
 - Nanoscale electronics represent a very large and mature market with even more potential for future development;

- Large worldwide semiconductor companies are already present on the Romanian market:
 - Intell, Freescale, OnSemi, Microchip, Infineon;

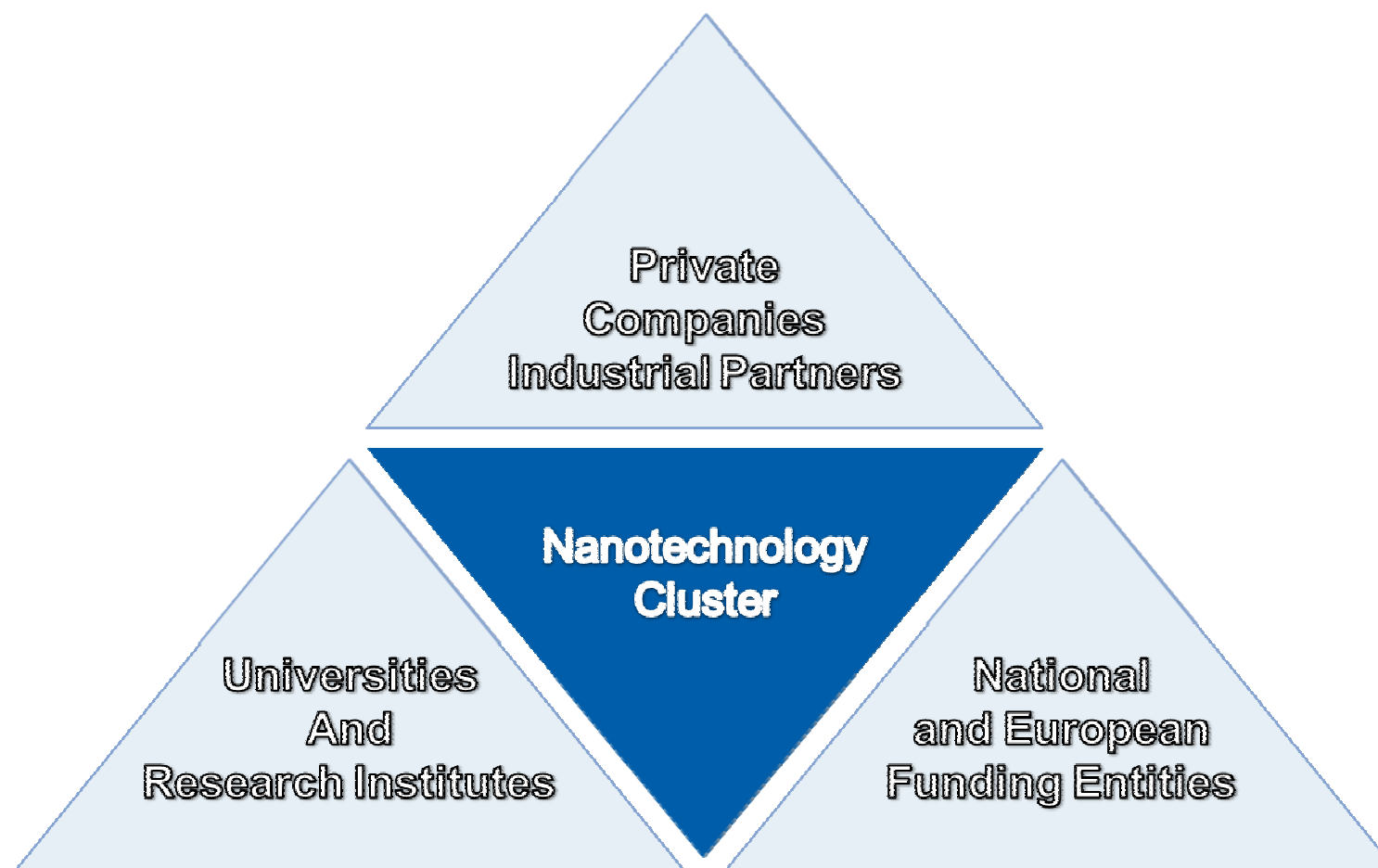
- Semiconductor Industry represent a large area of application:
 - Almost everything in the modern society contain Integrated Circuits;

Nanotechnologies – Multidisciplinary - Cluster

- Modern Society should answer to some challenges:
 - Energy efficiency;
 - Mobility;
 - Security;

- The answer to these challenges – Cluster development:
 - Multidisciplinary education;
 - Integration of research, education and industrial activities;
 - Create an intellectual pool of high level educated peoples to take advantage of nanotechnology development;

Nanotechnology Cluster Concept



Necessary measures to use the momentum

■ National Programs

- Set-up of National Funding Programs/Platforms with clear focus on certain technology fields and the needs of the local industry (e.g. Automotive Industry has a big potential in Romania) ;

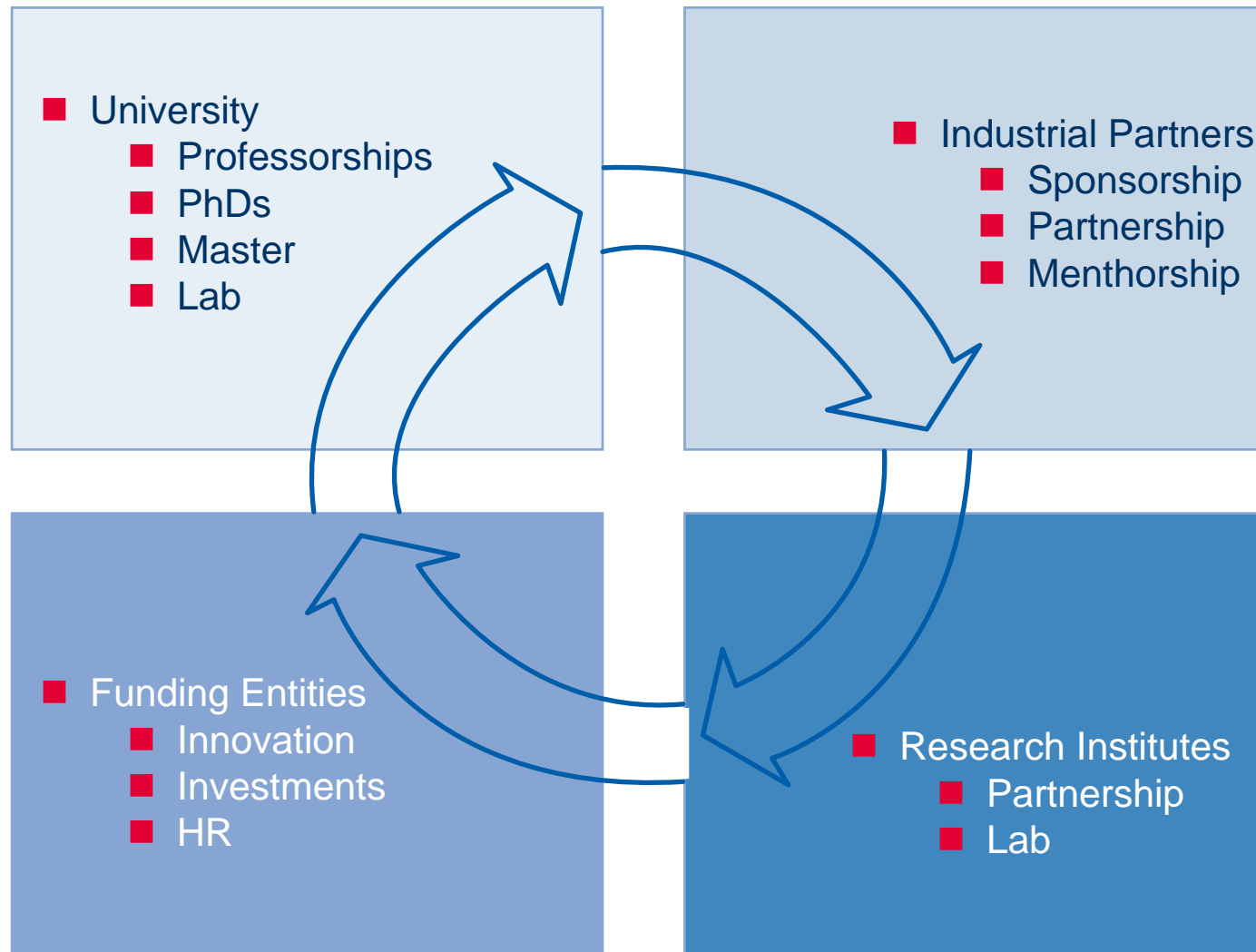
■ EU Programs

- Set-up of National coordination groups for EU Programs / Government-Industry (e.g. ENIAC Austria, an open platform acting as an industry driven enabler for research and development activities in the field of micro- and nano-electronics);

■ National Clusters

- Create national multidisciplinary clusters of interests supporting cooperation between companies, universities and government in order to develop consistent programs.

Research and Cooperation in a Cluster



Conclusions

- Nanotechnology practical applications is now crucial for society future developments;
- Semiconductor Industry is able to gather resources to pursue long term research in Nanotechnologies;
- Further developments in Nanotechnology should be based on a multidisciplinary platform defining a dedicated Cluster;
- The highly demanding investment request a new model:
 - **Strategic public-private partnerships between education system, industrial partners and government funding agencies.**



ENERGY EFFICIENCY MOBILITY SECURITY

Innovative semiconductor solutions for energy efficiency, mobility and security.

