

The Society for Micro- and Nanoelectronics (GMe — Gesellschaft für Mikro- und Nanoelektronik)

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Goals of the Society for Micro- and Nanoelectronics

The Society for Micro- and Nanoelectronics (GMe) has been founded in 1985 as "*Society for Microelectronics - Gesellschaft für Mikroelektronik*" with the aim to "*support microelectronics technology and its applications*" in Austria. With the shift of the focus in research from micro to nano technologies the goals of the GMe changed accordingly. In 2003, therefore, the GMe changed its name into "*Society for Micro- and Nanoelectronics - Gesellschaft für Mikro- und Nanoelektronik*".

The GMe defines its tasks as follows:

- Support of university-based "high-tech" research in the areas of micro- and nanoelectronics, semiconductor technology, sensors, and opto-electronics;
- Operation of research facilities;
- Support and consulting for industry, in particular, for small and medium enterprises, within the area of micro- and nanoelectronics.

The central task of the GMe is to provide an internationally competitive *infra-structure* in the area of micro- and nanoelectronics technology. The GMe allocates funds to maintain research projects in the fields of semiconductor technology, sensors, opto-electronics, and ASIC design. Thus the infra-structure support generates a base for research projects that are funded by other funding agencies.

Activities of the Society

Due to funding constraints, the present focal point activity of the GMe is exclusively the operation of university-based laboratories for micro- and nanoelectronics technology. Nevertheless, the GMe tries to support the other activities mentioned above in their submission and administration of certain projects.

The main task of the GMe is the operation of the cleanroom laboratories in Vienna and Linz. The GMe has coordinated the construction of the Microstructure Center (MISZ — Mikrostrukturzentrum) in Vienna; the funds were supplied by the Austrian Federal Ministry of Science and Research. The GMe now finances a significant part of the operation costs for the cleanroom laboratories in Vienna and Linz.

Microelectronics Technology — Cleanroom Vienna

The following university institutes receive support within this focal point activity:

- TU Wien:
 - Institut für Festkörperelektronik
 - Institut für Industrielle Elektronik und Materialwissenschaften

Microelectronics Technology — Cleanroom Linz

The following university institutes receive support within this focal point activity:

- Johannes Kepler Universität Linz:
 - Institut für Halbleiter- und Festkörperphysik
 - Institut für Mikroelektronik

Other Activities of the Society

In 2002, the GMe has prepared its biennial seminar, the “*GMe Forum*”, which meanwhile has taken place at the Vienna University of Technology on April 10 and 11, 2003. The intention of the “*GMe Forum*” is to present application-oriented results of international industrial and academic research and to indicate trends for future applications of research results. The “*GMe Forum 2003*” focused on the technologies and issues involved in the transition from a micro- to a nanotechnology.

One of the declared tasks of the GMe is to provide information on current Austrian academic activities in the field of micro- and nanoelectronics to industry, in particular to Austrian small- and medium enterprises (SMEs). To enhance the distribution of the results of the research work done with GMe support, the GMe has put the contents of its annual reports — 1995 through 2002 — and the proceedings of the latest seminars organized by the GMe on its Web server. This server provides a variety of search facilities into the reports, thus acting as a Micro- and Nanoelectronics Knowledge Base. The GMe Web server is available under the address:

<http://gme.tuwien.ac.at/>

The Annual Report for 2002 of the Society for Micro- and Nanoelectronics

The GMe is currently supporting the microelectronics technology activities of the cleanroom laboratories in Vienna and Linz. All projects described in this report were carried out in the cleanrooms in Vienna and Linz, respectively. They are *not* specific projects of the GMe but were funded by a variety of other sources. They all have in common that they use the infra-structure provided by the GMe. It would therefore not have been possible to carry out these projects without the support by the GMe.