

## SUGGESTED TOPICS FOR THE WORKSHOP

During the 12<sup>th</sup> session of the Turkish German Cooperation Council on 27 – 28 April 2006, Ankara, the “Science, Research and Technology” Working Group has made an action plan to enhance the cooperation between two countries.

One of the points was to arrange a workshop to bring together interested scientists to exchange ideas to strengthen the cooperation further between Germany and Turkey in the fields of science, technology and research. The program of the workshop will include the following topics:

### 1) **Material Technologies:** Nanosciences, Nanotechnologies, Materials and New Production Technologies

- New materials Advanced engineering materials technologies (nano structural materials, ultra-thin layers, self assembly)
- Nano photonics, (nano optics, nano-electronics, nano magnetics)
- Nano fabrication, nano magnetics-spintronic, shape memory alloys
- Nano electronics, lithography, nano crystal technology (e.g.Si-Ge electronics)
- Mechatronics (nano-electro magnetic systems and sensor systems, robotics, automation technologies)
- Boron technologies
- Composites

### 2) **Biotechnology and Genomics**

- Nano biotechnology
- Proteomics
- Tissue Engineering / Gene therapy / regenerative medicine
- Genetically modified food and food safety and quality
- White biotechnology / bio processing

### 3) **Energy**

- Hydrogen and fuel cell technologies
- Photovoltaic
- Renewable/alternative energy systems
- Bio-fuels (Biomass, biodiesel)

### 4) **Information and Communication Technologies**

- Algorithms and cognitive systems,
- Microelectronic systems
- Embedded systems and sensor technologies
- Intelligent systems and process engineering,
- Mobile and wireless communication technologies
- Software engineering
- Data processing
- Radio Microwave and infrared technologies

### 5) **Environmental Protection, Climate Change and Sustainable Development**

- Emission trading, greenhouse gas monitoring
- Cleaner production processes
- Waste management and recycling
- Desertification
- Earth quakes
- Marine sciences