



The Silesian University of Technology
Gliwice, Poland

Jerzy Mościński
International Cooperation in Science & Technology



From idea to business success

The Silesian University of Technology perspective





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The Silesian University of Technology mission:

- to be one of the best and leading technical universities in Poland where education of prospective engineers is based on the modern European curricula,
- to be up to any national and international challenges and goals within the European Union,
- to be open for wide international co-operation, especially in the range of common internationalisation of almost all aspects of human activities.

Seeing its mission as above, the Silesian University of Technology lays out its strategy as follows:

- further international co-operation as one of the main needs of the contemporary academic society,
- promotion and support of the education & training co-operation with the EU Members States including participation in various European programmes.





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12 FACULTIES:

- Faculty of Architecture
- Faculty of Automatic Control, Electronics and Computer Science
- Faculty of Civil Engineering
- Faculty of Chemistry
- Faculty of Electrical Engineering
- Faculty of Mining and Geology
- Faculty of Energy and Environmental Engineering
- Faculty of Mathematics and Physics
- Faculty of Mechanical Engineering
- Faculty of Materials Science and Metallurgy
- Faculty of Organization and Management
- Faculty of Transport

Faculties are located in:

Gliwice – 9

Katowice – 2

Zabrze - 1

The University also includes a subsidiary Engineering Education Centre in Rybnik.

SUT offers:

B.Sc. Study

M.Sc. Study

PHD Study



Regional Contact Point (RCP)

- **is a part of Contact Points Network and coordinated by National Contact Point (NCP) in Warsaw**
- **was established in 1999**
- **is responsible for providing information, trainings, consultations, assistance within:**
 - **5th, 6th and 7th Framework Programmes**
 - **Structural funds ERDF and ESF**
 - **Regional Mobility Information Centre**
 - **Other international programmes**





Examples of SUT's research projects – FP 5

Lp	PROJECT TITLE	PROJECT ACRONYM
1	Assessment of technologies for the removal of pharmaceuticals and personal care products in sewage and drinking water facilities to improve the indirect potable water reuse	POSEJDON
2	Development, characterisation and scaling of atomizers for a combustion technology that offers significant fuel savings and drastic reductions in both CO₂ and NO emissions	OIL-TECH
3	Advanced infrastructure for Pan-European collaborative engineering	E-COLLEG
4	Thermo-mechanical fatigue – the route to standardisation	TMF STANDARD





Examples of SUT's research projects – FP 5

Lp	PROJECT TITLE	PROJECT ACRONYM
5	Network of European medium- and Large-scale Transport Research facilities Operators	INSTRANSNET
6	Rapid Response Source Term Indicator Based on Plant Status for Use in Emergency Response	EU-STERPS
7	400 years of Annual Reconstructions of European Climate Variability using a High Resolution Isotopic Network	ISONET
8	High-resolution continental paleo-climate record from Lake Baikal: a key-site for Eurasian teleconnections to the North Atlantic Ocean and monsoonal system	CONTINENT





Examples of SUT's research projects – FP 6

Lp	PROJECT TITLE	PROJECT ACRONYM
1	Network of Excellence: General Olfaction and Sensing Projects on a European Level	GOSPEL
2	Research and training on restoration and protection of the city environment in industrial regions	REPROCITY
3	Polish Network of Mobility Information Centres	PL-MOC NETWORK
4	Superhigh energy milling in the production of hard alloys, ceramic and composite materials	ACTIVATION



Examples of SUT's research projects – FP 6

Lp	PROJECT TITLE	PROJECT ACRONYM
5	European Rail Research Network of Excellence	EURNEX
6	European Accessible Information Network	EUAIN
7	Optimization of Systems, Energy Management and Environmental Impact in Process Engineering	INSPIRE
8	Absolute time scales and isotope studies for investigating events in Earth and human history ATIS	ATIS
9	Researchers Night 2006 in Gliwice – Re-search IT in your life!“	Re-search IT





Examples of SUT's research projects – FP 7

Lp	PROJECT TITLE	PROJECT ACRONYM
1	Researchers' Night – Cracow and Gliwice Together , 2007	RESEARCHERS' NIGHT
2	Teachby Play. Enjoy Yourself with Researching	TEACHBY PLAY
3	Chernobyl Tissue Bank	CTB
4	Nanoporous Anodic Oxides for the Functionalization of Metal Surfaces	NANOXID





Technopark Gliwice

- **Science & Technology Park, SUT area**
- **Creating new innovative technological enterprises**
- **SME targeted technology transfer**
- **Research, specialized services, SMEs promotion**

- **To enable modern and efficient environment for young entrepreneurs – SUT graduates – aiming at creating high-tech innovative enterprises**





Technopark Gliwice tasks

- **Supporting transfer of innovative technologies from SUT and other units to Silesian SMEs – efficient management, access to technologies, laboratories and researchers**
- **Promoting incubator activities – creating new innovative enterprises by SUT graduates and PhD students – information technologies, teleinformatics, electronics, biotechnology, biomedical engineering, ecology and environment protection, ...**
- **Promoting high-tech enterprises at Technopark – creating high-tech jobs, utilization of SUT graduates capabilities, Silesia region transformation**



Technopark Gliwice projects

- **Creating technical infrastructure, Creating information & management infrastructure (2005-2006)**
- **INNTECH (2006) – promoting commercialization of technologies at Silesian University of Technology**
- **INNTECH II (2008) – Knowledge for innovation, advisory project, summer business schools: Marketing in microenterprises, Alternative funding of innovative enterprises (VC, BA), Intellectual Property Rights, small business organization, commercialization of ideas**





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Silesian Centre of Advanced Technologies

- **Consortium of 24 Silesian science & technology units: Universities (6), Polish Academy of Sciences Institutes (5), Research & Development Units (13)**
- **Science & technology parks + industrial enterprises**
- **Initiated by SUT**
- **Science & technology potential of Silesian units for Silesian industry – advanced technologies generator**
- **Common Research Programmes – coordinated by regional leaders**





SCAT Programmes

- **Biocybernetics and biomedical engineering**
- **Special chemical compounds, biotechnologies, environment engineering**
- **Teleinformatic infrastructures**
- **Nanomaterials and materials engineering**
- **New materials and composites**
- **New informatics services, computer and telecommunication networks**
- **Control and technological processes automation**





My Business Idea Competition

- **Initiated by Vattenfall Distribution Poland and Silesian University of Technology**
- **Preferably: innovative, sustainable development friendly, possible to implement, creating new jobs**
- **6th edition in 2007/2008**
- **Promoting innovation and entrepreneurship among students, graduates and staff of SUT**
- **Accompanied by workshops on innovation, technology transfer and entrepreneurship**





My Business Idea Competition

- **1st edition: 6th March, 2002, 39 applications**
- **2nd edition: 2003, 92 applications, 51 accepted for competition (17 from students)**
- **3rd edition: 2004, new sponsors from Silesian Region, 168 applications, 71 accepted for competition (42 from students)**
- **4th edition: 2005, new sponsors, 161 applications, 96 accepted for competition**
- **5th edition: 2006, 172 applications, 91 accepted for competition**





My Business Idea Competition - first winners

- **Intelligent autonomous robots**
- **Equipment for sewage treatment plants**
- **New materials and implants**
- **Solar technologies for low energy consumption buildings**
- **Thermoplastic materials and elastomers**
- **Building transformation – helioactivity and mechanical ventilation**





My Business Idea Competition - true winner

- **Hexor – mobile robot, Faculty of Electrical Engineering**
- **First winner of My Business Idea Competition (2002)**
- **Additional support from Vattenfall – Laboratory of Mobile Robots creation (2005)**
- **New versions of Hexor robot created and used for mobile robots idea promotion and teaching**
- **Hexor successful as educational and research tool at schools, universities and research institutes, also in other European countries and USA**





Ellipse car

- **Ellipse – innovative 2-person car with electric drive**
- **Pilot scale production in Radom, cooperation with ENEL company and Department of Power Electronics, Electrical Drives and Robotics of SUT**
- **SUT involved in design and commercialization of innovative control system for Ellipse car**





Regional Contact Point and SUT

- **Good examples of successful ideas commercialization plans – rather rare**
- **Majority of project proposals concerns basic research, „frontier” research**
- **Difficulties in finding partners from industry (SMEs) for the implementation of research results**





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Thank you for your attention!