# *Switzerland launches „Swiss Nano-Cube", the national information and learning platform dedicated to the topics of micro- and nanotechnologies for vocational schools, secondary schools and higher professional schools.*

**St.Gallen, Berne (Switzerland). Micro- and nanotechnologies (M&NT) are widely regarded as important future technologies and already serve as a basis for many innovative products and applications today. Despite the increasing importance of M&NT for the research and development site of Switzerland, however, there are only very few practical teaching aids and learning materials available for the secondary level II to date. Within the internationally unique and path breaking pilot project „Swiss Nano-Cube", a national information and learning platform dedicated to the topics of micro- and nanotechnologies for vocational schools, secondary schools as well as higher professional schools will be developed until the end of 2011. By ensuring the start-up funding, the Swiss Federal Office for Professional Education and Technology emphasizes the strategic importance of "Swiss Nano-Cube" for Switzerland. The project will be jointly developed by the Innovation Society Ltd. (St.Gallen) and the Swiss Federal Institute for Vocational Education and Training (Berne) and will be implemented in cooperation with national authorities, schools, companies and professional organisations.**

Micro- and nanotechnologies (M&NT) are widely regarded as important future technologies and already serve as a basis for many innovative products and applications today. In the future, M&NT promise tremendous potential for innovations for the research and technology site of Switzerland. The increasing importance of M&NT in practice, however, is opposed by an increasing lack of technically skilled professionals.

### *Accumulated Needs Regarding M&NT at Swiss Educational Establishments*

Despite the increasing importance of M&NT for the research and development site of Switzerland, however, there are only very few practical teaching aids and learning materials for the secondary level II available to date. M&NT at Swiss schools currently do not enjoy the status they observe according to experts and teachers of natural sciences. This is the result of a study[1] to determine the demand for such materials among Swiss teachers, education experts and professional organizations in autumn 2008. The results of the study also demonstrated that most of the polled teachers from the field of science and technology do not cover M&NT in classes due to the absence of information, tutorials and learning material. Moreover, a profound and integrated concept on the national level is missing.

### *Swiss Nano-Cube: National Information and Education Platform*

Against this background, the Innovation Society Ltd. (St.Gallen) initiates the project „Swiss Nano-Cube" in cooperation with the Swiss Federal Institute for Vocational Education and Training (SFIVET). Swiss Nano-Cube will result in the development and implementation of a national information and education platform dedicated to the topics of micro- and nanotechnologies for vocational schools, secondary schools as well as higher professional schools until the end of the year 2011. The project will

- *contribute to the education of skilled professionals in the field of M&NT and deeply strengthen the research and innovation site of Switzerland,*
- *ensure a sustained advancement of the vocational education through to the establishment of an educational framework focusing on emerging technologies,*

[1] *The study was conducted by the Innovation Society Ltd. (St.Gallen) and covered cantonal departments of education, vocational and secondary schools teachers focusing on natural sciences, companies engaged in the field of M&NT and national professional associations.*

- *link institutions and organizations that are leading in the field of M&NT with vocational education and create synergies between industry, national authorities and educational organizations,*
- *position Switzerland internationally as cutting-edge educational and technology site,*
- *demonstrate the outstanding quality and the innovation-friendly environment of the Swiss educational system in comparison to international competitors.*

Besides a comprehensive web-based educational platform which will be integrated in the Swiss educational platform of „educanet“, Swiss Nano-Cube will deliver practice-oriented modules for education and advanced training. While the latter contribute to the education and advanced training of the scholars and professionals, the web-based platform serves as an interactive database for didactically processed contents, topics and knowledge from the field of micro- and nanotechnologies. The contents of the web platform are freely accessible and will therefore also be available to the interested public and teachers from other educational levels.

### *Milestone in the Promotion of Swiss Young Professionals in the field of M&NT*

The Swiss Federal Office for Professional Education and Technology (OPET) in the context of the promotion of the Swiss professional education provides the start-up funding for “Swiss Nano-Cube”. The Federal authorities thereby follow the national strategy to promote the education of young people in natural sciences, mathematics and technology (NMT). In addition, “Swiss Nano-Cube” will be financed by sponsors. “Swiss Nano-Cube” contributes to the strengthening of the educational system of Switzerland and may therefore be interpreted as a strategic project of national importance.

### *Broad Support by Experts from Industry, Vocational Education and Science*

*„Swiss Nano-Cube“* will be launched in the German-speaking part of Switzerland and will be extended step-by-step to all national regions by adapting it to the three national languages. The project will be launched in July 2009 with a maximum duration of 30 months. After initial development and implementation, the national information and education platform will be maintained by the Innovation Society and the SFIVET and it will continuously be adapted to the needs of the teaches and scholars. By the involvement of cantonal departments of education, vocational / secondary schools, experts engaged in the field of M&NT and national professional organizations, the project is broadly supported and the network of the relevant stakeholders is ensured.
The Innovation Society Ltd. (St.Gallen) and the Swiss Federal Institute for Vocational Education and Training (Berne) are in charge of the management and coordination of “Swiss Nano-Cube”.

**Organizations**

***The Innovation Society Ltd. (St.Gallen)*** is an independent and international consultancy with the focus on innovation and emerging technologies. The Innovation Society belongs to the leading consultancies in the field of nanotechnologies and with its center of excellence joins the fields of innovation, technology and educational management as well as communication. Besides international companies from different industries (food, pharma, packaging, assurance, etc.) the Innovation Society’s clients are Swiss federal authorities, international authorities, the European Commission and NGOs. The company’s headquarter is based at the Technology Centre of the Federal Institute of Materials Science & Technology (EMPA) in St.Gallen (Switzerland). For further information please visit the following webpage: www.innovationsociety.ch.

**The Swiss Federal Institute for Vocational Education and Training SFIVET (Bern)** is the competence centre of the Swiss federal government for education and research in the field of vocational pedagogies, education and development. The institute is in charge of the education and advanced training of persons responsible for vocational education. In addition, the SVIFET accomplishes research and development in the field of vocational education. Further information please find under: www.ehb-schweiz.ch.

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