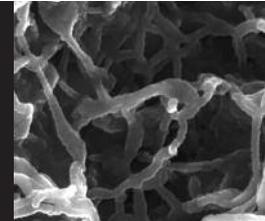# MiCRONARC
Micro-nanotech Cluster of Western Switzerland

Micronarc Industrial Forum

Aspects of nanomaterials:
conception, characterization and processing.

Ecole d'ingénieurs et d'architectes de Fribourg, 10.11.2010

Organised in collaboration with:

Réseau nanotechnologies
Nanotechnologie **Netzwerk**

Micronarc - The communication platform of a unique hub of competence.

INVITATION

Aspects of nanomaterials: conception, characterization and processing.

Micronarc Industrial Forum

Ecole d'ingénieurs et d'architectes de Fribourg, 10.11.2010

Chairman:
Dr Stefan Hengsberger
Professeur à l'école d'ingénieurs et d'architectes de Fribourg

Réseau nanotechnologies
Nanotechnologie **Netzwerk**

Nanotechnology: Nano-*hype* or Nano-*reality*? ...and what can it do for your company?
Nanotechnology has created a buzz that has nearly become a household word. Most people are now able to associate the prefix *nano-* with *very small*. Even smaller than small. Many commercial products already exist that take advantage of this perception in their marketing strategies. Nano-Polish (cars), Lifepak nano (skin care), Nanogreens (vitamins), Eco-fabric (nano cleaning pads) and the Apple iPod Nano are some examples of these products.

While some companies indeed use nanotechnology to innovate and create brand new products, others simply play upon the word nano in an effort to increase sales. Nevertheless, these companies all wish to capitalize on the perception that nanotechnology has created something more modern and better, so you should buy it over older, established products.

There are other entrepreneurs, however, that go a little farther than this with their thinking, and care much less about the *perception* of an improved product, but focus instead on how to use nanotechnology to *improve an existing product or process*. They achieve this by either fundamentally improving a product using nanotechnology, or by increasing the reliability or cost-effectiveness of the manufacturing process using nanotechnology. To give an example; nanotechnology allows for increasing the stiffness of plastic pieces by including ceramic or metallic nanoparticles in the polymer matrix. Furthermore, it is possible to increase the hardness of a substrate with nanoparticle-based coatings, thereby reducing wear on a given part.

For this edition of the Micronarc Forum we hope to attract participants from the second group of companies. Perhaps you are keen to learn how others have used nanotechnology to improve their existing products and processes? Perhaps you wish to get to the bottom of what is *really* nanotechnology? Nano-*hype* or Nano-*reality*? What can it do for your company? You'll have to come to find out!

MICRONARC INDUSTRIAL FORUM

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PROGRAM

12:30-13:15	Registration and coffee
13:15-13:25	**Welcome and presentation of Micronarc** *Edward Byrne, Coordinator Micronarc*
13:25-13:30	**Presentation of Nanotechnology Network** *Marc Pauchard, Coordinator Nanotechnology Network*
13:30-14:00	**Nanoparticles and their industrial applications: Processing and dispersion of nanomaterials, application in polymers and coatings** *Philippe Bugnon, BASF-SUISSE*
14:00-14:30	**Design Aspects for Nano-Particle based Liquid Coatings** *Gunter Roesler, CONVERTING TECHNOLOGY SYSTEMS GMBH*
14:30-15:00	**Coffee break and exposition**
15:00-15:20	**Characterization of nanoparticles with modern light scattering technologies** *Charles Völker, LS Instruments*
15:20-15:50	**Micro- and nanoscale modifications for polymer functionalization** *Magnus Kristiansen, Institut für nanotechnische Kunststoffanwendungen (INKA)*
15:50-16:20	**How to teach polymers new tricks** *Christoph Weder, Adolphe Merkle Institute*
16:20-16:50	**Round table discussion**
16:50	**Aperitif and networking**

There is **no entry fee** for this event, but **registration** is required though the site **www.micronarc.ch**
All presentations will be given in English.

MiCRONARC

Micro-nanotech Cluster of Western Switzerland

Mastering Miniaturization to Maximize Prospects

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«Réseau nanotechnologies/Nanotechnologie-Netzwerk»
unites partners from industry and academy with the aim to facilitate a profitable and responsible use of Nanotechnology. The activities focus on the needs of its members and range from personal consulting to networking events and theme specific workshops. The network is coordinated by the Adolphe Merkle Institute and the Fribourg Engineering School and is co-sponsored by SECO and the Canton of Fribourg in the frame of the new regional policy. Any interested company or academic institution can become a member of the network. **www.nano-net.ch**

Executive Office:

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In collaboration with
the GIM-CH / Swissmechanic

Micronarc is the dedicated micro-nanotech cluster and communication platform created by the governments of the seven cantons that constitute Western Switzerland. Its primarily role is the development and promotion of the regional scientific, industrial and economic base in the sectors of micro and nano-technology, as well as its educational structures, R&D facilities, technology transfer and inward investment.

To achieve its objectives, Micronarc manages and operates its internet portal **www.micronarc.ch**, organises grouped booths at industry trade shows and scientific conferences; organises professional and public events locally; provides information and networking possibilities and acts as a facilitator in establishing business relations.

Micronarc is an initiative of the Cantons of Bern, Fribourg, Vaud, Neuchâtel, Geneva, Valais and Jura, supported by the Swiss State Secretariat for Economic Affairs (SECO).

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