

[Newsletters](#)

MANCEF Quarterly Newsletter

Fourth Quarter 2005, Vol. 3

December 2005

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President's Message from Kees Eijkel

Dear MANCEF community,



There's healthy signs in micro- and nanoworld. Over the past 10 months, many of us have recognized the signs of growth in our field. Of course, there's more public R&D money coming in, a result of the many public programs around the world. These programs mostly support early R&D but also promote applied research and in many cases some efforts on commercialization. Such an increase in funding creates growth in some markets.

But more is happening. There's an increase in revenue and growth of high-tech SME's, an increase in innovation in corporate R&D and a renewed vitality in the world of financing: the potential and early value of our technology field are recognized and lead to revenue and growth.

I'm particularly excited by the global increase in interest for commercialization. That's where our organization, and its expert and experienced members come in. We see a sharp increase in awareness, with academia, with regional development and national authorities and with industrial players. Awareness that active commercialization is an important goal and strategy. We will need everyone's insight, vision, experience and lessons learned: micro/nano commercialization is new ground to all involved, and pioneering is something that's better done together.

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With our various partner organizations, we try to optimize the landscape for all. With our members and partners we identify the needs of today, and try to translate them into relevant activities. Many of those are covered in this newsletter.

We hope you like reading it, and look forward to meeting you at one of our [future events](#).

It has been an amazing 2005 and I wish a Happy and Prosperous New Year to all!

Your MANCEF president,

Kees Eijkel

MANCEF's Mission Statement

MANCEF globally supports the creation, exchange, and dissemination of knowledge vital to people, organizations, and governments interested in the commercialization of miniaturization technologies.

COMMERCIALIZATION OF MICRO AND NANO SYSTEMS CONFERENCE (COMS) NEWS

COMS 2006 Mark Your Calendar!

27-31 August 2006

St. Petersburg, Florida, USA

In the [second quarter 2005 newsletter](#), we announced that the 11th Annual Commercialization of Micro & Nano Systems Conference will be held in beautiful, warm St. Petersburg, Florida, USA.



We are really pleased to partner the COMS conference with the local MNT community. We look forward to learning about the entrepreneurship, knowledge capital, companies, facilities, workforce and economic development behind the growth of Small Tech commercialization in both Florida and the Southeastern United States.

The [COMS 2006 Call for Papers](#) is posted here.



Commercialization of Micro and Nano Systems Conference

Baden-Baden - August 21-25, 2005

Shaping the Future of the Micro Nano Marketplace

COMS 2005 Follow Up

COMS 2005 Proceedings are available for sale. [Read about the Proceedings](#), or [download the order form](#) (.pdf).

MANCEF and the host organizers, Forschungszentrum Karlsruhe, would like to say one final thank you to our lead Sponsors and Charter Members who supported COMS 2005, as well as Dr. Peter Bley and the COMS 2005 Team. Vielen Dank!



COMS 2005 Lead Sponsors



[Lead Equipment Sponsor: EVG](#)



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[COMS 2005 Proceedings
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COMS 2005 Charter Member Partners

- [Forschungszentrum Karlsruhe](#)
- [MESA+](#)
- [Sandia National Laboratories](#)
- [SEMI](#)

MANCEF Member News

New MANCEF Member

MANCEF would like to welcome our newest member. [Renew your membership here.](#)



Find Work or Workers at the tinytechjobs Career Site

MANCEF is pleased to hear that members of the community are connecting through the MANCEF-tinytechjobs collaboration. Congratulations! Search for jobs, contacts, or events in the micro- and nanotech realm at the [Resources webpage](#) on www.mancef.org. Check it out now!



November 2005 Board of Directors Election Results

MANCEF strives to be a very transparent, inclusive, and global organization in its internal and external activities. Members should be aware that on 30 November, 2005 the foundation successfully completed an important governance exercise, namely the cyclical election of key Board of Directors and Officers seats. Candidates, who stand for election to the Board, are selected from among MANCEF's General Advisory Councillors and existing Board of Directors around the world. The five Directors will be seated 1 Jan. 2006 and their term of service will extend to 31 December, 2008.

Congratulations to the following Directors and Officers. You can read their elections statements by clicking each name:

- [David Tolfree](#) - Vice-President for Africa/Europe
- [Carol Steele](#) - Vice President for the Americas
- [Jane Niall](#) - Vice-President for Asia/Pacific
- [Robert Giasolli](#) - Secretary
- [James Wylde](#) - Treasurer

Not Enough Thanks for Dr. Richard Smalley

As the Small Tech community is well aware, Dr. Richard Smalley passed away on 28 October 2005 after a six year battle with cancer. The Nobel Laureate served both science and humanity. Tributes to him from the Houston business community and his Rice University compatriots are heart-felt and accute. Only a few days ago, [Rice University's Center for Nanoscale Science and Technology \(CNST\) was renamed the Richard E. Smalley Institute for Nanoscale Science and Technology](#) (28 December 2005, OE Magazine).

However, not enough recognition has filtered to the larger public of how important a man has departed from among them. While widely covered among scientific community newsletters and magazines, Smalley's passing was sparcely covered outside of those channels. We were saddened to see that Smalley, and scientists in general, were not widely included in end of year obituary lists of great people leaving us in 2005. CBS News was one outlet offering brief one-liner notes to the passing of several important science and technology innovators. Disappointing was the seemingly majority concern for the entertainment or celebriitized realm. Smalley wasn't a celebrity; he was a visionary motivated by nanotechnology's potential to transform economies and focused on new solutions for the global challenges of health, energy, food, water, and poverty. It seems a worthy distinguishment. We take the lack of recognition as part of the larger challenge to increase awareness and enthusiasm for the visionary contributions science and technology make to all of us. In 2006, we ask the MANCEF community to re-double their efforts to reach the wider public about MNT's potential to positivieily impact their lives and futures.

- [Nanotech pioneer, Nobel laureate Richard Smalley dead at 62](#) - Rice chemist and Buckyball discoverer became statesman for nanotechnology (28 October 2005, Rice University)
- [Richard Smalley, champion of nanotechnology, died on October 28th, aged 62](#) (10 November 2005, The Economist print edition)
- [Passings 2005: Sci-Tech \(CBS News Online\)](#)

New Mexico in Tokyo

The State of New Mexico's Economic Development Department (NMEDD) wanted other MANCEF members to be able to take advantage of one of the highest attended Nanotechnology fairs in the world. NMEDD's International Trade Division will be co-sponsoring a booth with the Asian Technology Information Program at [Nano Tech 2006](#) held in Tokyo Japan, at the Tokyo Big Site between **February**



21 - 23. New Mexico-related MNT firms can display company and research information for interested investors, clients, and partners at the New Mexico booth. In preparation for this exciting event, the State office will be sponsoring a free nanotechnology seminar in late January. Please e-mail Danielle Duran at danielle.duran@state.nm.us for more information on this opportunity.

Ahead of Nano Tech 2006, MANCEF's Executive Director will be serving as a liaison on an upcoming Small Tech industry visit to Kumamoto prefecture in Japan with MANCEF Member companies. Member's requests for specific information from either the Kumamoto or Tokyo events may be sent to the Executive Director's office. If the foundation can be of assistance in either venue, we will try.

ROI Engineering 2006 ANSYS Training Schedule

ROI Engineering Inc. is the Canadian ANSYS channel partner designated to serve the local market and to respond to the needs of current ANSYS customers. View [ROI's 2006 training schedule](#) (.pdf) or visit www.ROIEng.com for descriptions of training courses.

SAME-TEC: Call for 2006 Educator and Industry Award Nominees

The Semiconductors, Automated Manufacturing, Electronics – Training and Education Conference (SAME-TEC) announces a Call for Award Nominees for the **2006 Intel Educator-of-the-Year Award**, the **SEMI Award for Excellence in Workforce Education**, and the **MATEC Industry Recognition Award**.

The Intel Educator-of-the-Year Award and the SEMI Award for Excellence recognize outstanding faculty members and teachers for their contributions to technology education and workforce development.

The MATEC Industry Recognition Award recognizes key industry personnel for outstanding contributions to promote technology education and career awareness.

Nominees for these awards must have had a demonstrated impact on technology education and/or workforce development on both a local and national level.

Give your educators and workforce developers the recognition they deserve. Award nominations are now being accepted. For more information about the awards and to see past recipients, please visit www.same-tec.org.

ABOUT SAME-TEC

SAME-TEC brings together faculty, teachers, trainers, workforce development personnel, learning managers, and program development specialists. People come seeking information on emerging technologies and solutions.

Now in its twelfth year, SAME-TEC provides educators a close-up look at the tools and training needed by technicians for our emerging workforce. The event features pre-conference workshops, great keynote speakers, and sessions to help faculty build their programs.

C2V first in SenterNovem's "Gallery of Fame"

Let no one doubt MANCEF community has some excellent firms and organizations working within it. One such company is MANCEF Board member [Job Elders' C2V](#). MANCEF is pleased to note that Senter Novem, an agency of the Dutch Ministry of Economic Affairs, has selected C2V as the first company in the "Gallery of Fame". Being listed in the Gallery of Fame is a token of appreciation for the outstanding work executed by the identified company and for the acknowledgement that the investments resulted in benefits for the company and Dutch society as a whole. The award was personally presented by Mr. Ludo Korteman in **Enschede, The Netherlands** on 13 October, 2005. Congratulations, Job and the C2V Team!

The award recognizes the combination of excellence in high-tech innovation and economical ambitions. In particular the microDELTA micro-fluidics integration technology, now applied in C2V's **ultra fast handheld micro Gas Chromatograph**, contributed to this success. The handheld microGC has applications in security and safety, industrial processing, laboratories, and quality control.

[SenterNovem's Gallery of Fame site](#)

About Concept to Volume BV (C2V)

C2V is one of the world's leading independent small-tech companies, offering customized solutions for OEM products. C2V has in-house MEMS, microfluidics and integrated optics design, software and manufacturing capabilities. C2V is specializing in fast, handheld analytical instrumentation based on micro/nano fluidics technology platforms. These versatile technologies and products provide value to life sciences, industrial, and security applications.

CMC Microsystems Strengthens Leadership Team

MANCEF General Advisory Councillor, [Dan Gale](#), has recently been appointed Chief Technology Officer, in addition to his role as Vice-President, of CMC Microsystems. In his new capacity, Mr. Gale will focus on CMC's strategic positioning and generate opportunities relating to technologies and associated partnerships that will benefit Canada's microsystems community in the future.

CMC's President and CEO, Dr. Brian Barge, announced the decision as the strengthening of CMC's leadership team to enable the implementation of Canada's national microsystems agenda. These strategic roles will increase CMC's capacity to serve a broader client base, launch new products and services and forge new national and global partnerships, for the benefit of the microsystems community and Canadians.

Congratulations/Félicitations, Dan!

Third Edition International Micro / Nano Roadmap Call for Authors and Reviewers

The process of contributing to a chapter with other chapter leaders is a productive and valuable experience, and we hope to be working with members in the upcoming phase of building the different roadmap

contributions. At SEMICON Europa, MANCEF held a kick-off meeting to discuss the chapters for the next MANCEF International Micro Nano Roadmap edition. People at the meeting were very interested in knowing where the technology and product platforms are headed for:

- Food Instrumentation for Life Sciences
- Precision Engineering/Assembly Optimization of MEMS processing
- System Integration Standards/Normalization in Equipment and Tooling
- Education/Work Force Development
- Measurement/Characterization

If members are interested in contributing to new chapters, please contact Steve Walsh (swalsh@mancef.org).

Equipment Maker Notes

EV Group

- [12 September 2005: EV Group Wins Order from Heptagon for Nanoimprint Lithography Production Equipment for Micro Optic Devices](#)
- [18 August 2005: IME to develop fully-integrated Lab on Chip with EV Group equipment](#)
- [12-15 June 2005: Plasma Activated Wafer Bonding for Polymer Based micro-Fluidic MEMS Applications](#)

Surface Technology Systems

- [30 September 2005: STS Announces Interim Results for the 6-month period to 30 June 2005](#)
- [12 September 2005: Surface Technology Systems Launches CPX Cluster Platform for Production Manufacturing](#)
- [22 August 2005: Surface Technology Systems Announces Appointment of New Chief Executive Officer](#)

SÜSS MicroTec

- [5 December 2005: SÜSS MicroTec Expands Training Facilities at German Headquarters](#)
- [28 November 2005: SÜSS Appoints MEMS Industry Veteran to Management Team](#)
- [11 November 2005: SÜSS MicroTec Introduces the PM300BEP Backside Emission Probe System](#)
- [20 October 2005: SÜSS Introduces Port Mapping for SüssCal® 6](#)

Veeco

- [21 December 2005: Veeco Appoints New Asia Pacific General Manager](#)
- [8 December 2005: Veeco Receives Two Orders for Production GEN2000 MBE Systems for Wireless Communications Applications](#)
- [19 October 2005: Veeco's GaNzilla II MOCVD Technology Being Adopted at Leading Asian Manufacturers for High Volume LED Production](#)

Zyvex

- [18 November 2005: Zyvex founder and CEO James Von Ehr To Chair Development Board at U. T. Dallas](#)
- [19 October 2005: Zyvex Reports Strong Financial Results](#)

SUPPORTED EVENTS

Here are some upcoming events in 2006 that the foundation believes are important. This is not a final list of supported events for 2006. September seems to be an especially busy month for conference activity. Keep an eye on our [Events webpage](#) for exact dates, venues, and other information:

Nanotech 2006	21-23 February	Tokyo, Japan
SEMICON Europa	4-6 April	Munich, Germany
Hannover Messe	24-28 April	Hannover, Germany
Micromachine Summit	26-29 April	Beijing, China
NSTI Nanotech 2006	7-11 May	Boston, USA
SEMICON West: Emerging Technologies	10-14 July	San Francisco, USA
3rd Ibero-American MEMS Symposium	15-16 July (tentative)	Mexico
SAME-TEC	24-27 July	Albuquerque, USA
Micro-Nano Breakthrough Conference	24-26 July	Vancouver, USA
Commercialization of Micro and Nano Systems 2006	27-31 August	St. Petersburg, USA
MINAPIM	1-4 September	Manaus, Brazil
TEX-MEMS	September	San Antonio, USA
METRIC	September	Pittsburgh, USA
NanoCon International 2006	20-22 September	Las Vegas , USA
Albany Symposium	26-28 September	Bolton Landing , USA
nanoTX'06	27-28 September	Dallas, USA
NanoFoods Forum	October	Amsterdam, Netherlands

See www.mancef.org/events for more information on MANCEF related events

PUBLICATIONS

Individual 2nd Edition International Micro-Nano Roadmap Chapters Available

The 2004 edition roadmap is a "living document" that has been 6 years in the making. With the introduction of the hugely successful First Edition in September 2002, the Second Edition builds on what the leadership team learned and our customers told us what they needed to know to succeed in the MST marketplace. We've almost sold out of the 2nd Edition copies, so order yours soon.



While a good value as a complete roadmap, some customers have requested to purchase individual chapters. We have made printed individual chapters are now available for the following chapters. [Order individual chapters here](#) (.pdf):

- [Nanotechnology](#) (explores the nuances of Nanosystems, nano enabled industry segments)
- [MEMS Patents](#) (contains a year by year mapping of Microsystems intellectual property)
- [Process and Equipment for MST](#)
- [Equipment and Tooling for MNT](#)
- [RF MEMS](#) (explores RFMEMS including new opportunities, intellectual property advances, technological process and process advances)
- Two chapter updates are also included: [Foundries](#) and [Packaging & Assembly](#)

The CD-ROM version of the International Micro-Nano Roadmap contains **both 1st and 2nd Editions**. The **2nd edition CD of the Roadmap** has an accompanying printed version.

Members, Partners, and 1st Edition customers receive significant discounts.

We encourage becoming a member of MANCEF in order to receive member price of \$350 for the roadmap. Individual MANCEF membership costs \$150 for two years. The non-member price is \$650 for each copy of the Roadmap.

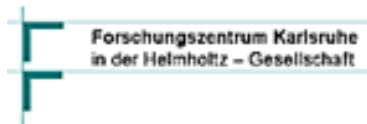
- Download the [Roadmap order form](#) (.pdf)
- Download the [Individual Membership form](#) (.pdf)
- Download the [Roadmap sales brochure](#) (.pdf)
- Download [2nd Edition Executive Summary](#)

MANCEF Charter Members



[EV Group \(EVG\)](#)

Wafer processing equipment for R&D applications and fully automated processes



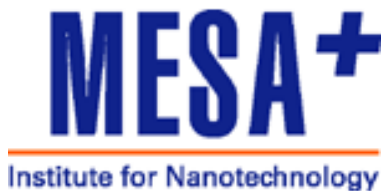
[Forschungszentrum Karlsruhe](#)

Materials, Environment, Health, Energy, and Key Technologies Research and Engineering



[Glaxo Smith Kline](#)

Research-based pharmaceuticals



[MESA+](#)

Nanotechnology, microsystems, materials science and microelectronics training and research



[Sandia National Laboratories](#)

Develops science-based technologies that support U.S. national security



[SEMI](#)

Semiconductor, MEMS, and FPD Industry and Standards Information



[Surface Technology Systems](#)

Specialist plasma etch and deposition systems



[Süss MicroTec](#)

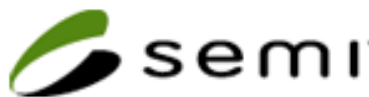
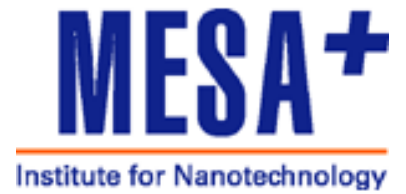
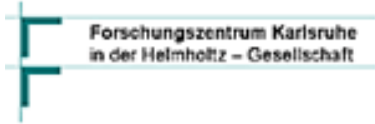
Mask aligners, bonders, flip chip bonders, spin coaters and probe systems; advanced packaging for semiconductors



[Zyvex](#)

Molecular nanotechnology R&D tools, nanomaterials, and assembled micromachines

Current MANCEF Members:





We send brief information on MANCEF activities, events, and developments periodically during each month, usually no more than once a week. The mailing list is password-protected and is only used for one-way announcements from MANCEF. No spam, no discussions. [Sign up for the MANCEF e-information list](#). Messages will arrive from dbase@mancef.org and simple instructions are encoded at the bottom of each MANCEF message should you desire to unsubscribe from the MANCEF information list.

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