



**The Competence Centre**  
for  
**Technical Analysis and Simulation Services**  
In the field of **Micro technology**

As part of a Global Network

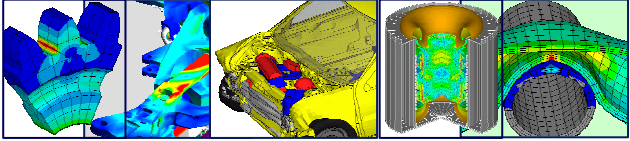
**Enhanced Version** of a Presentation at  
PATENT-DfMM and NEXUS MWG Design Modelling  
Simulation Workshop

January 25th, 2007 in Berlin

Dipl.-Ing. Wolfgang Brose, Dortmund

- ⇒ **Wolfgang Brose**
- ⇒ Civil engineer
- ⇒ Static and dynamic analysis
- ⇒ IBM, Sales and Marketing of CAD/CAE – software
- ⇒ Selfemployed
- ⇒ Cooperation with CADFEM

**CADFEM**  
**Technical Analysis and Simulation**  
**Sales, Service, Consulting, R&D**



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 In the field of **Micro Technology**

**PATENT-DfMM**  
**NEXUS MWG**  
**Patric Salomon**



City of Dortmund  
Economic Development  
Agency



**BVB**  
09  
**CLUB**

In the micro technology sector  
Dortmund numbers among the  
leading locations in Europe.



**TechNet Alliance**  
Technology Network Alliance AG

**AK MST-ET**  
**Study group**



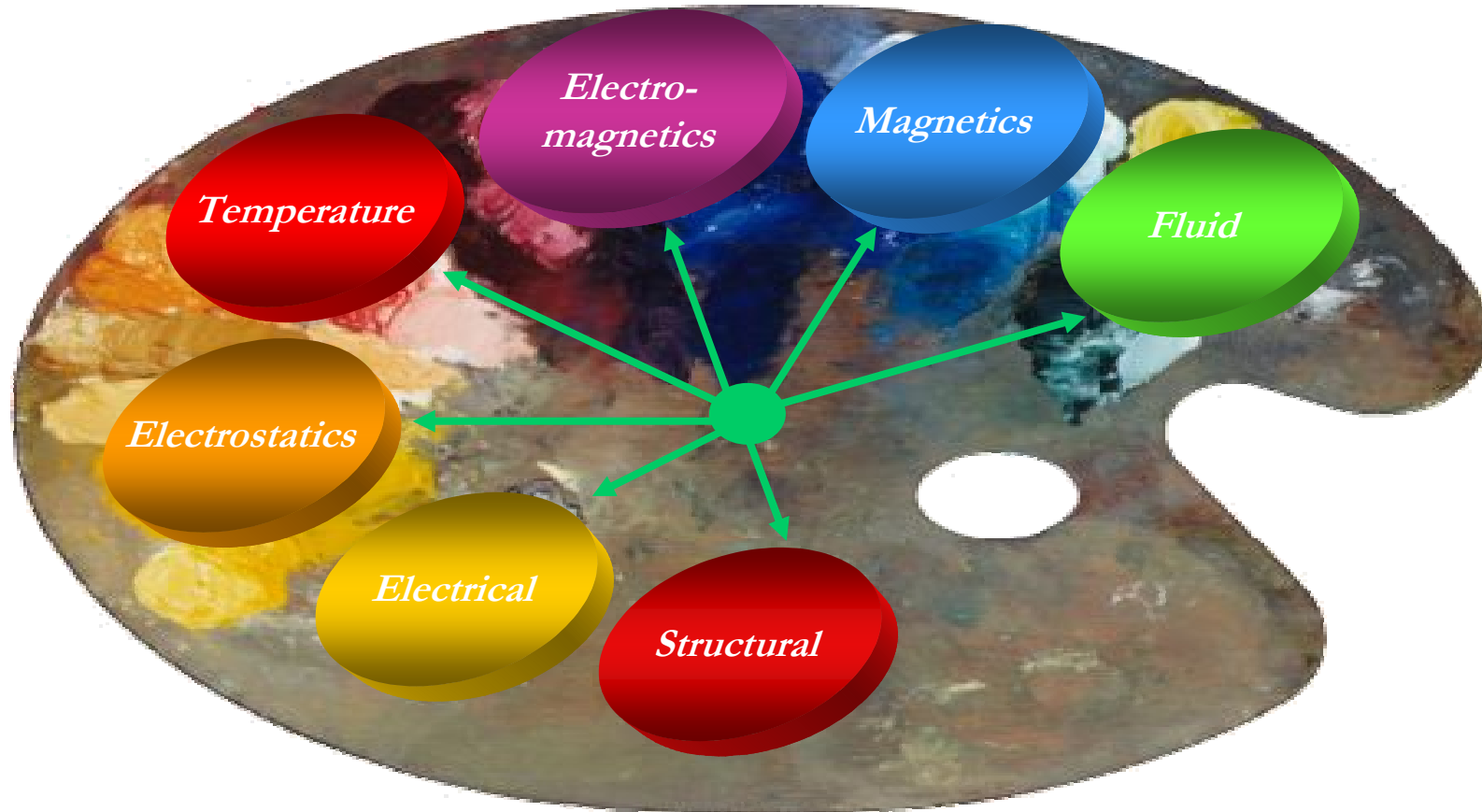
**IVAM.**  
Fachverband

## ***Simulation Service:***

### ***Possible Reasons for contract placing :***

- ⇒ **Customer is a SME who has no experience with simulation and will never have his own expertise in this field.**
- ⇒ **Customer is a new FEM – user, but wants to have access to the complete Know-How from the beginning**
- ⇒ **Customer needs additional resources / man power cause of the order situation**
- ⇒ **Customer wants to outsource FEM-analyses**
- ⇒ **Customer needs special Know-How for a complex simulation**
- ⇒ **Customer needs calculation services for the dimensioning and optimisation of his products or for verification**
- ⇒ **Multiphysics ( see next page )**

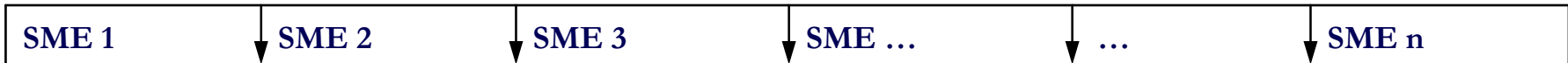
# Multiphysics – Complex Physics in Microsystems



All inclusive

# The Situation today:

Potential customer with needs of CAE - support



Coordination :  
how ????

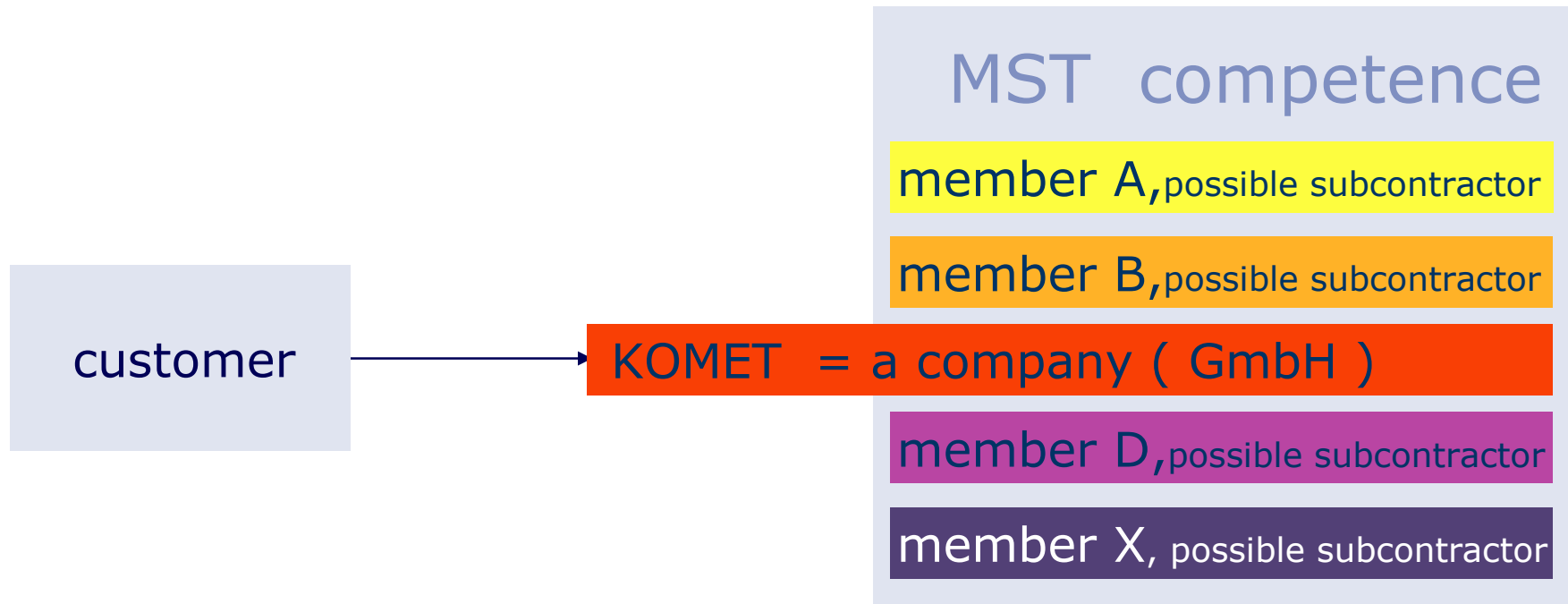
Expertise	Firm / Institute 1	Firm / Institute 2	Firma / Institute ...	....	Firm / Institute n	
special subject 1						
special subject 2						
special subject 3		Skill-Matrix of firms / institutes with special CAE-Know-How in Germany				
...						
...						
...						
...						
special subject n						

# The idea of the Germany wide acting study group AK MST-ET:

Founding a Company:

## Competence Center for Technical Analysis and Simulation Services called

**KOMET** (= Kompetenzzentrum für Entwurfstechnik in der Mikrosystemtechnik )



CADFEM is founder member of the

*Technology Network Alliance AG*

*Wittenwiler Str. 25*

*CH-8355 Aadorf*

*Homepage: [www.technet-alliance.com](http://www.technet-alliance.com)*

The global alliance comprises

- more than 800 CAE experts
- in 54 companies
- 21 countries
- 110 locations
- communicating in 18 languages



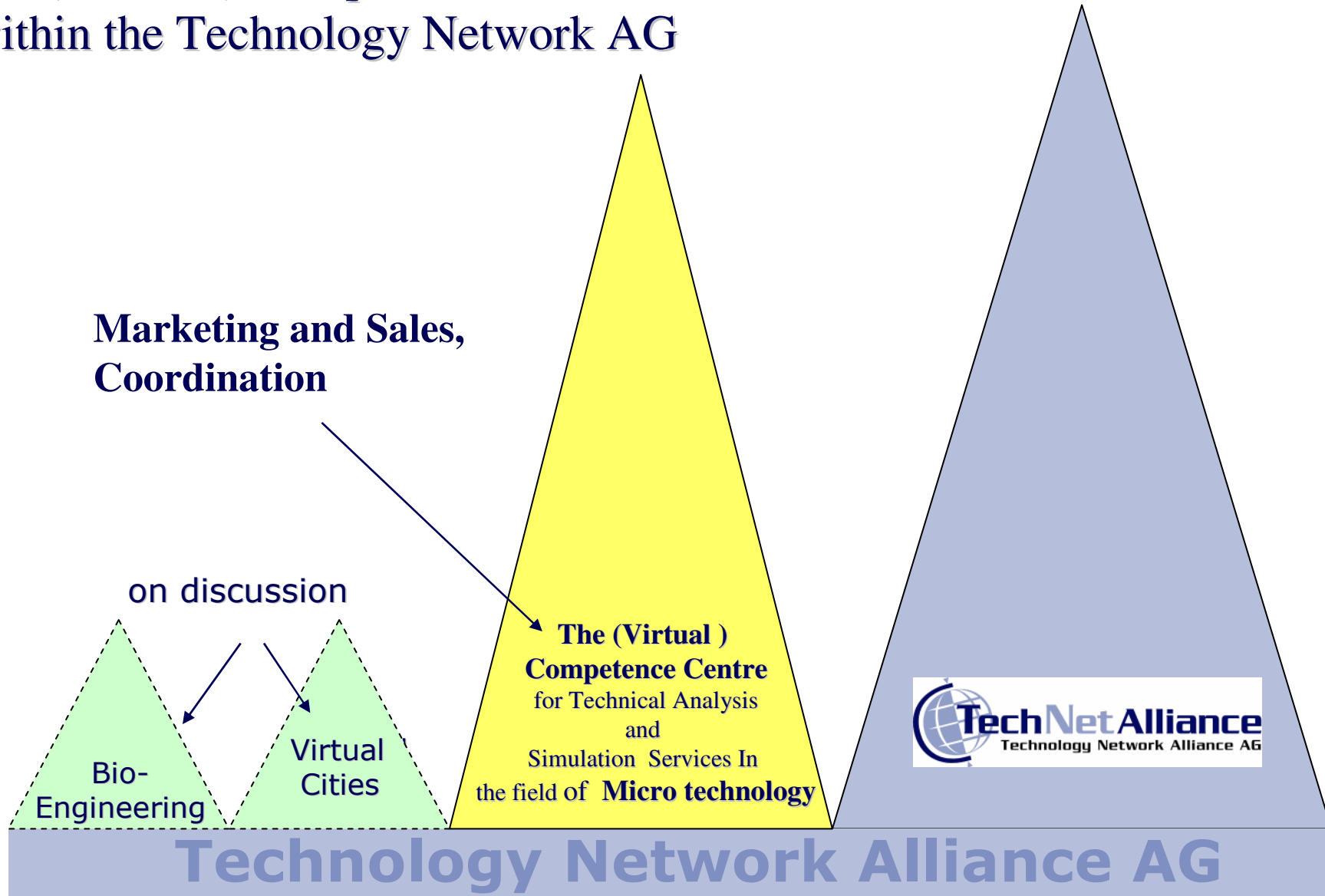
**Technology Network Alliance AG**

- ⇒ **This global alliance comprises more than 800 CAE experts in 54 companies, 21 countries, 110 locations communicating in 18 languages.**
- ⇒ **The idea of this alliance is to complete own competences with the expertise of other companies in order to offer „all-inclusive services“ in the field of technical analysis and simulation national and international wide.**
- ⇒ **Companies have the advantage to have one single point of contact ( SPOC ) worldwide, if it is e.g. necessary to find experienced experts for special tasks or if there is a capacity bottleneck.**
- ⇒ **Members have access to employees of other partners, if special know-how is searched.**
- ⇒ **All worldwide available software tools can be supplied and used, if required**
- ⇒ **Precisely because the tasks of the TechNet Alliance is similar to the role of „KOMET“ the idea is to integrate „KOMET“ into the Technology Network Alliance AG**

**The Technology Network Alliance AG can also organise a new network specialised in the field of Microsystems/MEMS:**

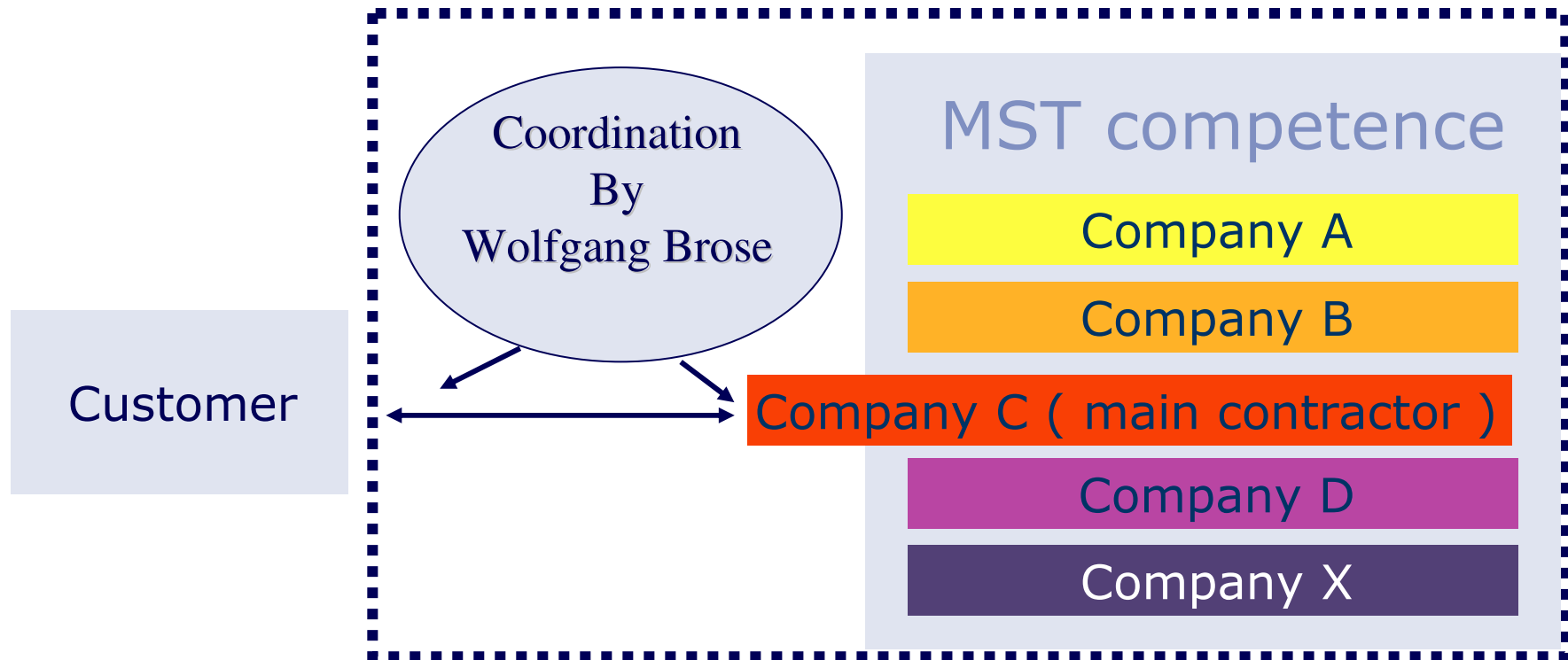
**The (Virtual ) Competence Centre for  
Technical Analysis and Simulation Services**

# The ( Virtual ) Competence Centre as an additional Network within the Technology Network AG



*The idea* of Wolfgang Brose, to establish a

**( Virtual ) Competence Centre for  
Technical Analysis and Simulation Services  
Integrated into the Technology Network Alliance AG as a new network**



# **Financing by fees, commission and own services**

**( suggestion, not fixed yet )**

- ⇒ Members of the centre of competence have to pay an annual fee
- ⇒ Commission for acquisition of work orders for the members
  - 3% till 20% of the revenue of acquired work orders has to be paid as commission to the competence centre;
  - the amount depends on the rendered service of the competence centre
- ⇒ Own service projects in the near future
- ⇒ Future target is to have it pay for itself

# Some Advantages of the Integration into The Technology Network Alliance AG

- ⇒ It can be started very quickly
- ⇒ Agreement by signing a Memorandum of Understanding (MoU)  
( being prepared now )
- ⇒ **No** new company has to be founded
- ⇒ **No** office space must be rent in the first step

## Project pilot:

- ⇒ Companies, institutions and associations being interested in establishing the ( Virtual) Competence Centre will pay an amount (still to be defined) to TNA to finance the pilot
- ⇒ TNA will mandate Wolfgang Brose to coordinate the activities of the ( Virtual ) Competence Centre
- ⇒ **It is planned to set up a project pilot lasting till end of December 2007**
- ⇒ **Six institutes / firms have already given their verbal commitment to support this project ( see next page )**

You are invited to become member of

**The ( Virtual ) Competence Centre**  
for  
Technical Analysis and Simulation Services  
In the field **of Micro technology**



**The (Virtual) Competence Centre**  
 for  
 Technical Analysis and Simulation Services  
 In the field of **Micro technology**  
*integrated into*  
*Technology Network Alliance AG*

Coordination  
 by  
**Wolfgang Brose**

Expertise	Founding member ( verbal commitment )	Prospective members
	<b>CADFEM</b>	→ further Institutes
	<b>Fraunhofer IZM Berlin</b>	→ CAD-provider
	<b>Fraunhofer IIS/EAS Dresden</b>	→ Engineering offices
special subject 1	<b>IVAM</b>	→
special subject 2	<b>UNI Bremen ITEM</b>	→
special subject 3	<b>TU München, TEP</b>	→
...	<b>and ?????</b>	→

## **Tasks of the coordinator of the competence centre**

- ⇒ **Set up of a sales and marketing concept for the competence center**
- ⇒ **Hiring members for the network, for the virtual competence centre**
- ⇒ **Public relations ( Fairs, Internet, direct contacts )**
- ⇒ **First Level support for customers who need MST-design competence**
- ⇒ **Acquisition and coordination of design projects in the Centre of Competence**
- ⇒ **Organisation of**
  - **Meetings**
  - **Workshops for know-how-transfer between research and industry**
- ⇒ **Close cooperation with the MST associations IVAM, AVA, ZVEI and others**
- ⇒ **Networking / contacts to other networks**



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If you have any questions, please, contact:

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**Thank you for your Attention**