

# Workshop Micro- and Nanomanufuture

## Is Microtechnology already State of the Art?

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Research@Festo



## Sectors



**Festo feels at home with many different customer requirements**

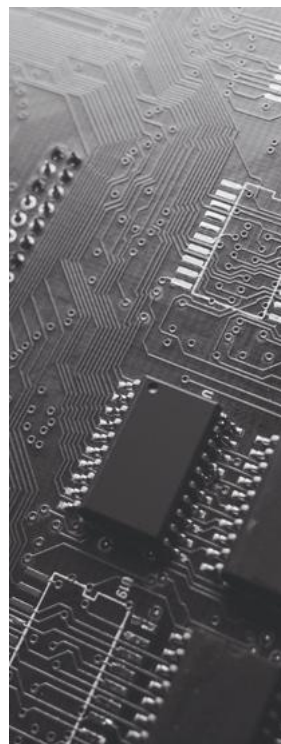
## Our customers in key segments



Automotive



Food



Elektronics



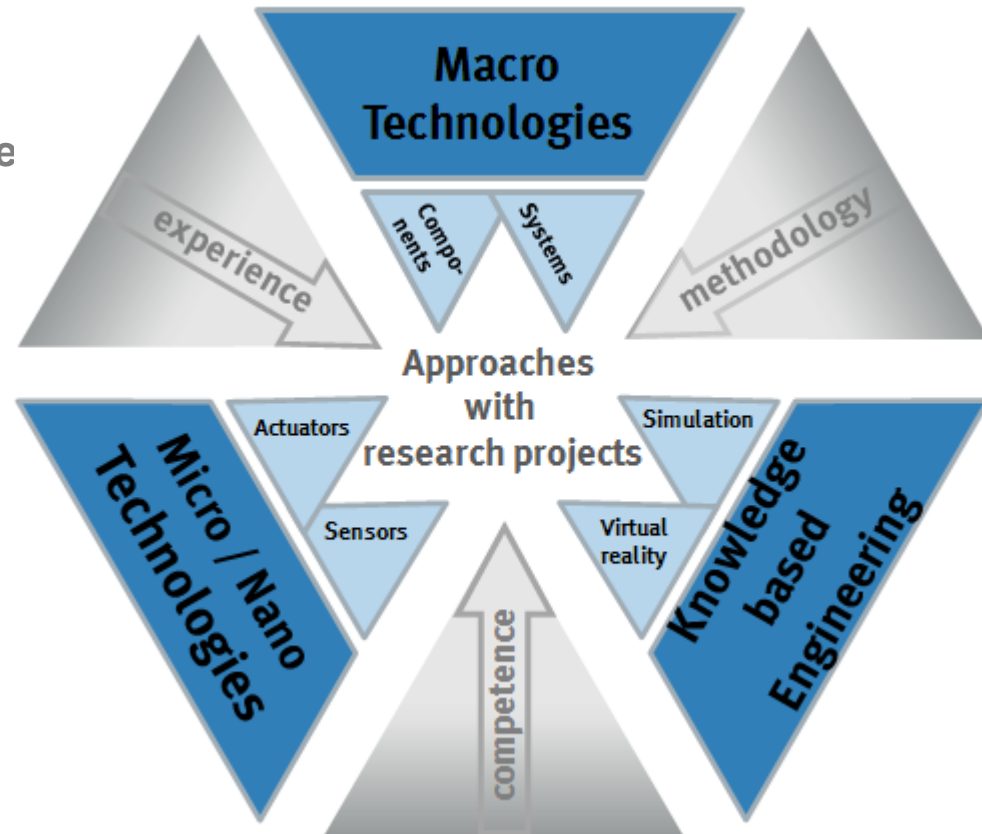
Handling and  
Packaging



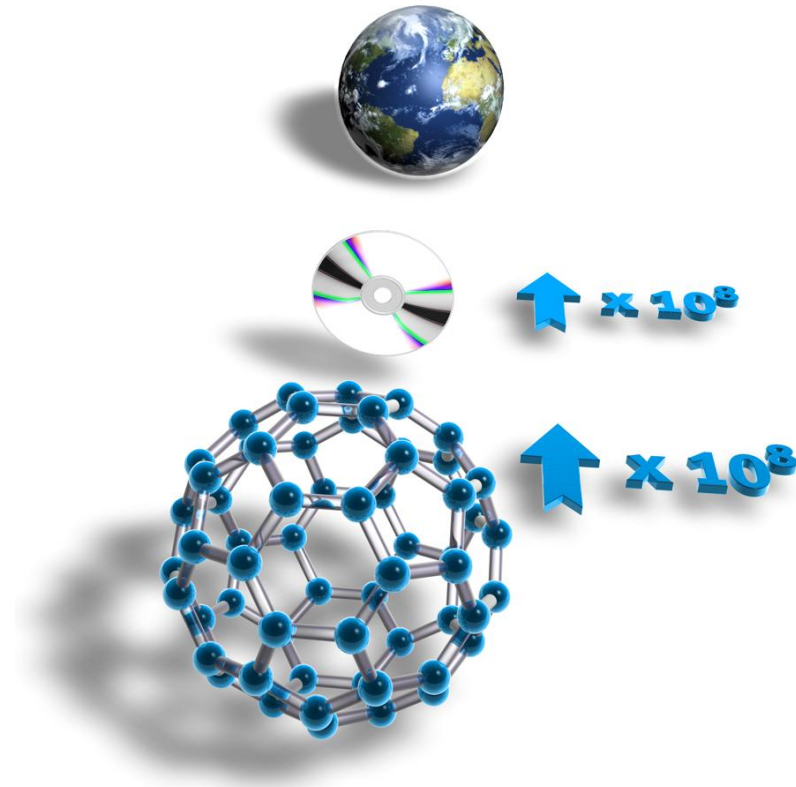
Processindustry

# Future Technologies – an integrated view necessary

- Mechatronics require mechanics as well as electronics as well as IT
- Integrating function
- Cost efficient solutions
- Thinking in systems



A matter of perspective ...



... talking about micro and dimensions

**Without microtechnology ....**



**Whereas there is no doubt ..**

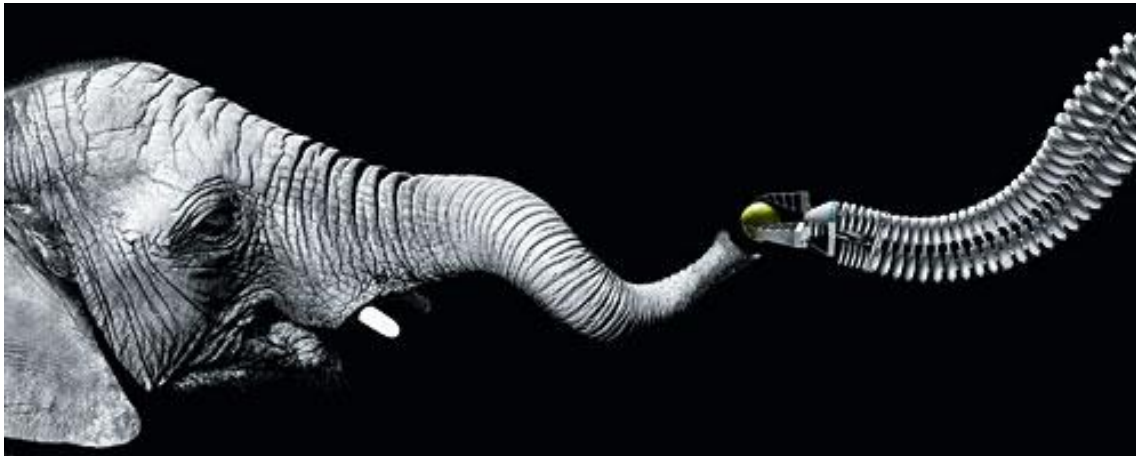


**... this car without microtechnology is impossible**



## Lessons to be learnt

- Innovation is not achieved at research level
- Microtechnology is an enabler in combination with other technologies
- Production technology is the embracing umbrella



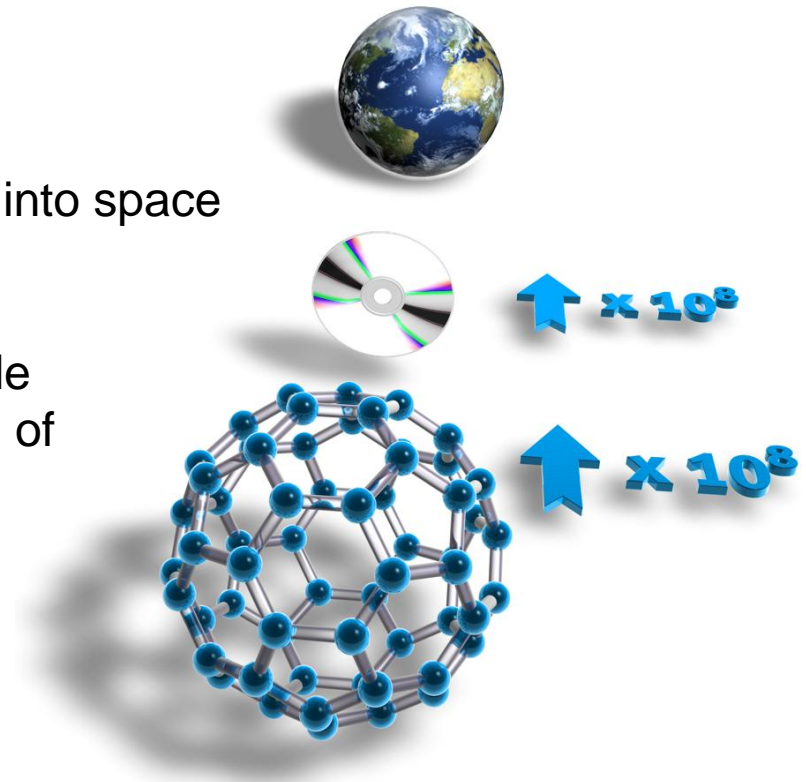
**... consequences in terms of technological research**

## Why is MINAM 2.0 so important

You need to move about 100000 km out into space to see the earth the size of a CD.

„Moving in“ to see nano at the same scale one has to „approach“ atoms at fractions of hundredths of microns

-> don't forget the bigger picture



MINAM 2.0 is linking to manufacturing topics as the enabler of the future

... understanding the perspective

**Thank you for your attention**