

Nanotechnology Location Saarland

Others made history, we make the future!



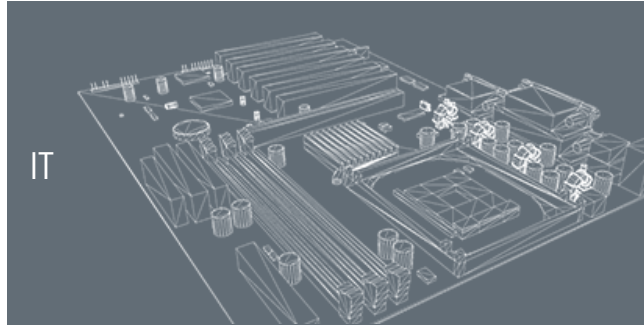
STRONG INDUSTRIES ON COURSE FOR GROWTH

Everything is pointing towards success: be it the location, infrastructure, real estate value and availability of land, qualified staff or political support: investors find optimum conditions in Saarland.

No wonder that industry and future sectors grow successfully with us.

Saarland is the third-largest automotive location in Germany, one of the best research locations for IT in Europe and a forerunner in nanotechnology.

IT



Medical technology



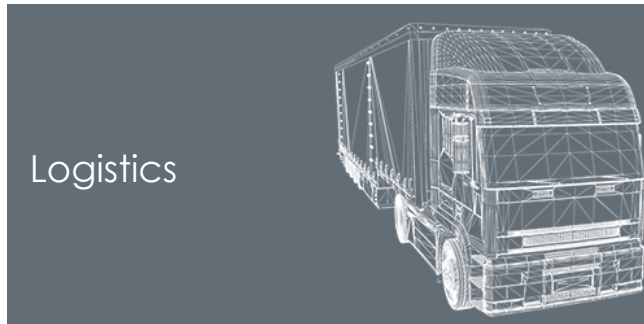
Call centres



Nano-
technology



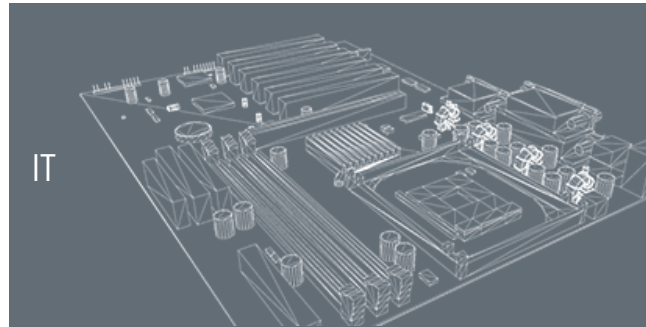
Logistics



Automotive



STRONG INDUSTRIES ON COURSE FOR GROWTH



IT



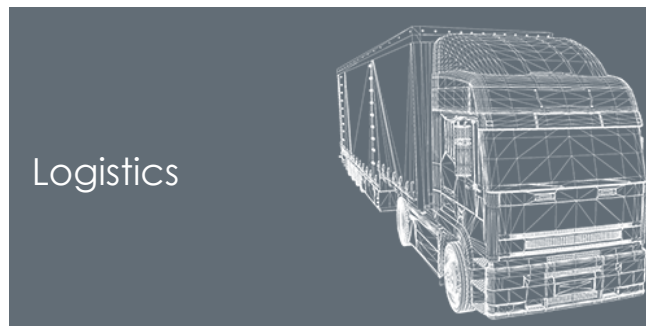
Medical technology



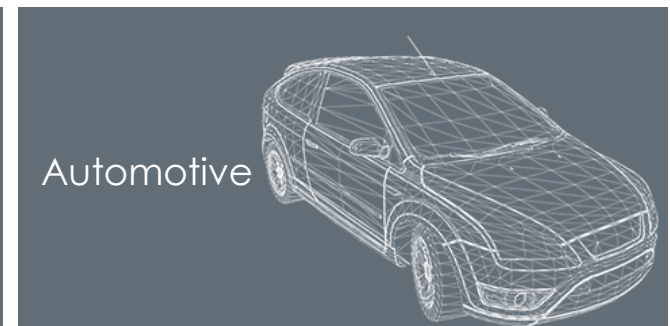
Call centres



Nano-
technology



Logistics

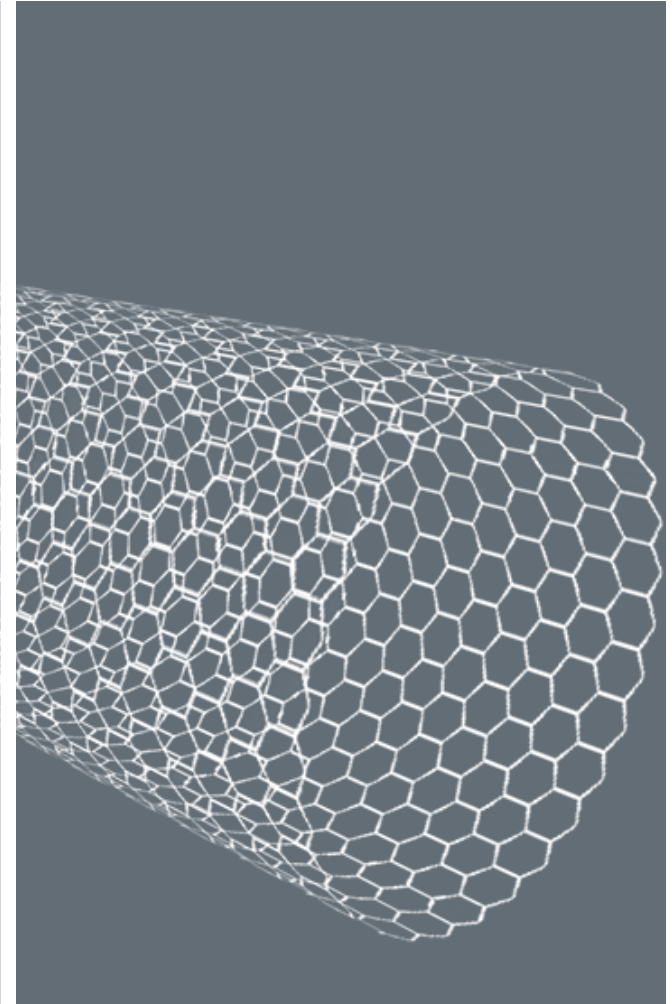


Automotive

NANOTECHNOLOGY IN SAARLAND

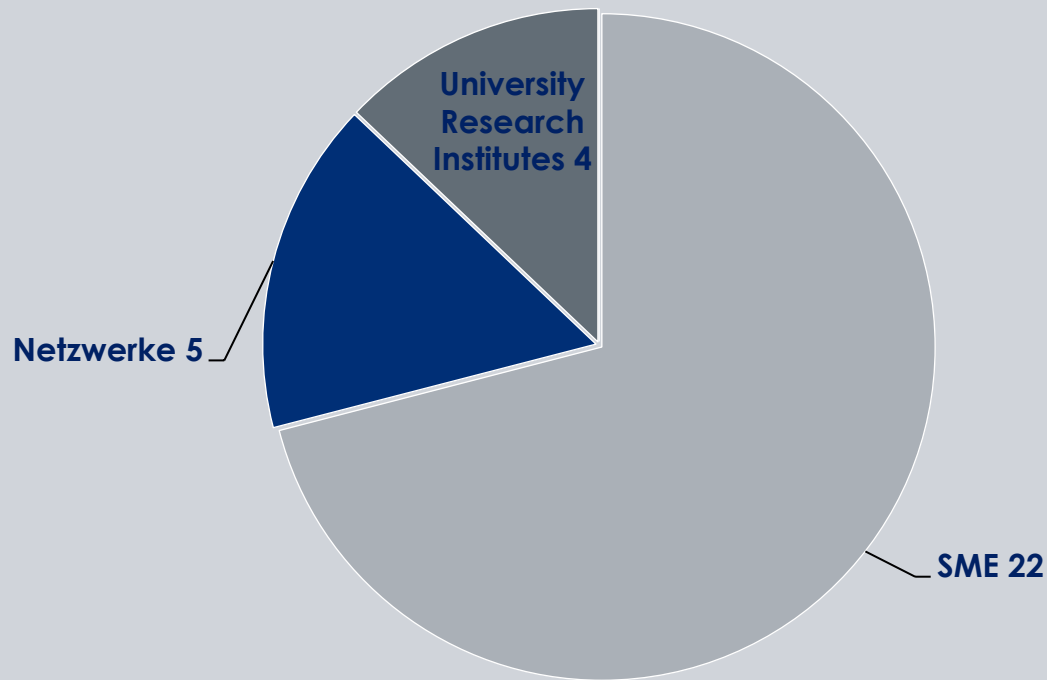
OPTIMAL PREREQUISITES FOR COMPANIES

- Successful small and medium-sized companies
- Close cooperation between industry and research
- Application-oriented research and development
- Excellent research infrastructure with renowned institutes such as the Leibniz Institute for New Materials (INM)
- Headquarters of the largest industry and research networks: The German association of nanotechnology (Deutscher Verband Nanotechnologie) and NanoBioNet



NANOTECHNOLOGY IN SAARLAND

Nanotechnology players in Saarland



Source: nanoatlas BMBF

Saarland has developed an innovative industrial sector out of excellent university and institutional research.

Nanotechnology in Saarland is characterised by small and medium-sized that are mostly active worldwide.

The focus is on chemical nanotechnology for different clients from medicine to construction and through to the aerospace industry.

Particular emphasis is placed on surface finishing and surface finishing systems, to which many Saarland companies are making important contributions.

NANOTECHNOLOGY IN SAARLAND

RENOWNED INSTITUTES | SUCCESSFUL COMPANIES



Successful networks secure competitive advantage for companies located in Saarland.

Nanotechnology is a young, cross-sectoral industry. Research and product development tie up more resources here than in traditional sectors.

The close networks between research and industry in Saarland substantially increases the R & D potential of established companies.

www.dv-nano.de

www.dv-nano.de

www.nanobionet.de

SAARLAND OFFERS EXCELLENT PREREQUISITES



Active support:

- Technology transfer
- Development of international markets
- Development of an international network
- International marketing

STRONG NANOTECHNOLOGY NETWORKS



Established: 2002

Headquarters: Saarbrücken

Objectives:

- The creation of new, innovative, marketable products and workplaces
- The establishment of nano- and bio-technology content on all training levels
- The support of research and development

www.nanobionet.de



Established: 2011

Headquarters: Saarbrücken

Objectives:

- Concentrating competence
- Network platform
- Expert dialogue

www.dv-nano.de

INM – LEIBNIZ INSTITUTE FOR NEW MATERIALS



The INM – Leibniz Institute for new materials on the Saarbrücken Campus

©Uwe Bellhäuser



Investigation of nano-tribologie at INM

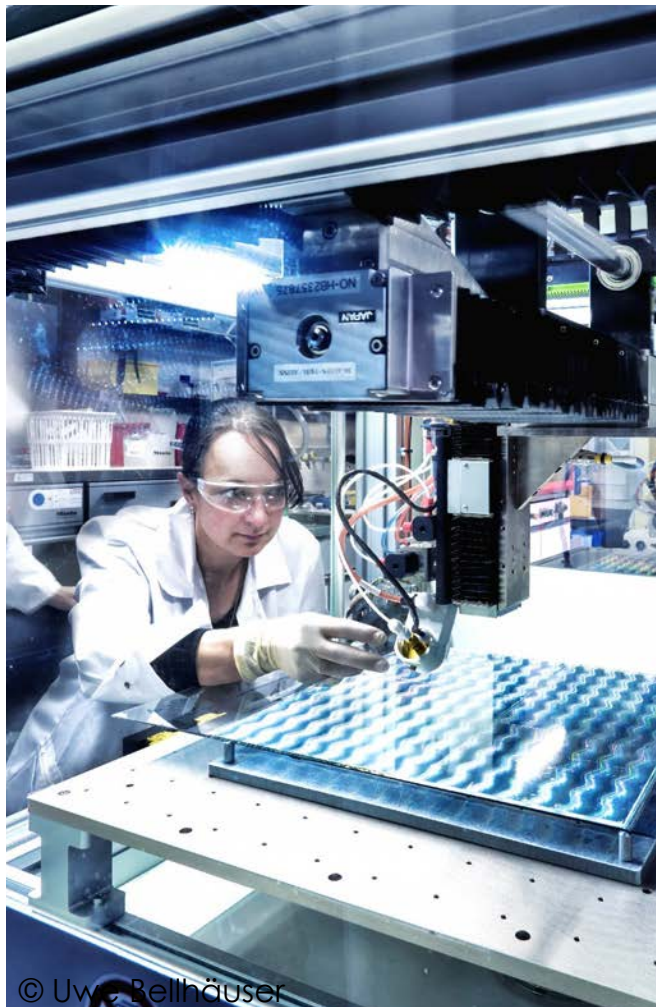
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Spray robot at INM for the application of nano-coatings

©Uwe Bellhäuser

INM – LEIBNIZ INSTITUTE FOR NEW MATERIALS



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Key Facts INM

- Leading international research centre for innovative materials
- Focus: research and development for optical materials
- 3 main research areas: chemical nano-technology, interface materials and materials in biology
- Scientific partner to national and international institutes
- Approx. 200 employees, annual budget approx. 19 million Euros, approx. 100 patent families

www.inm-gmbh.de



© Uwe Bellhäuser

FIRE SAFETY 'MADE IN SAARLAND': INM LEIBNIZ-INSTITUTE FOR NEW MATERIALS



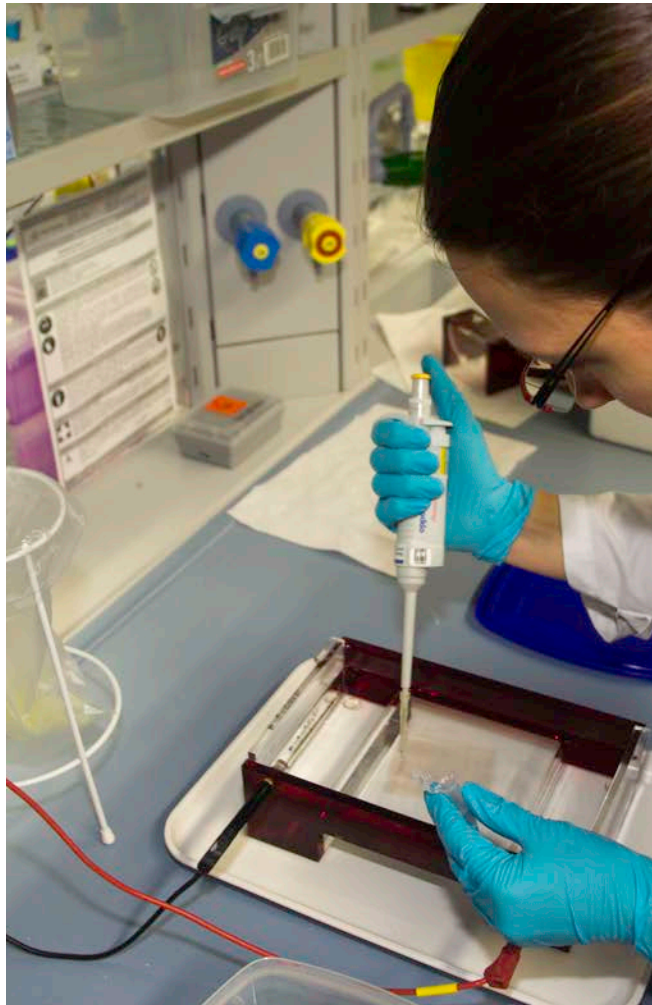
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- A new generation of fire resistant surfaces
- Fire safety materials that absorb heat on the basis of nano-composites keep the temperature on the other side of the fire constant in the event of fire
- The nano-composite converts to ceramic foam in contact with fire, giving it good insulating properties and high temperature stability.

www.inm-gmbh.de

KIST EUROPE

KOREAN INSTITUTE OF SCIENCE AND TECHNOLOGY



Key Facts KIST

- Implants
- Nano-biosensors
- Specific medication
- Protein therapy
- Functional bio-materials
- Bio-mineralisation and metallisation
- Tissue engineering for bones
- Molecular pharmaceutical research
- Development of biomaterial
- Immunoassay
- Microbiology technology
- Drug screening
- Breath analysis

www.kist-europe.de



NANO GATE

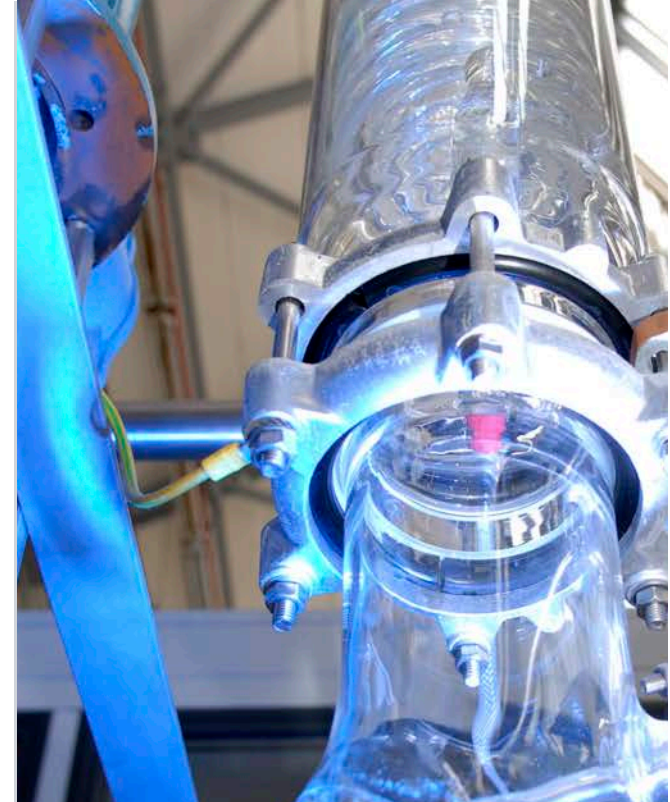


Anti-scratch

Key Facts Nanogate

- Leading international provider of integrated systems for nano-surfaces
- Pioneer of European nanotechnology
- Focus: processing of high performance surfaces
- Coating of plastic and metal surfaces in high optical quality (two and three dimensional components)
- Established 1999
- Listed since 2006
- Approx. 250 employees

www.nanogate.com



Synthesis plant

NTC NANO TECH COATINGS GMBH



Coated surfaces at Berlin's main railway station

Key Facts NTC

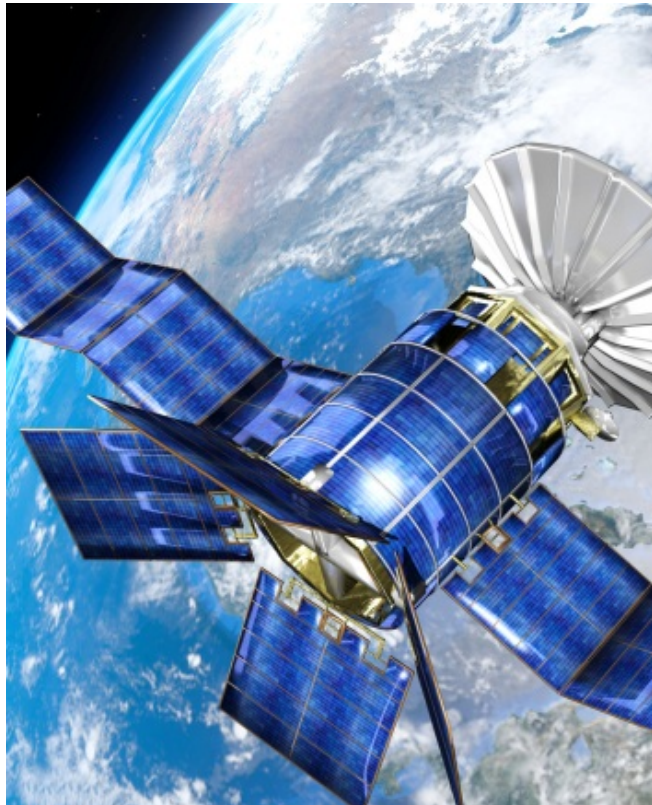
- Leading innovator in the chemical nanotechnology sector
- The development and production of high tech corrosion protection based on the Sol-Gel process for light metals
- Clients are renowned manufacturers from the automobile industry, aircraft manufacturer and many other sectors
- Headquarters in Tholey
- Established: 2000
- Employees: 15

www.ntcgmbh.com



Coated bridge at Melbourne airfield

CERANOVIS GMBH



**Ceramic coating for space satellites
and modules**

Key Facts Ceranovis

- Technology leader for ceramic protection and non-stick coatings in thermally stressed applications
- Active in the areas of development, production, sales and application in the sectors of aerospace technology, energy production and the chemical industry
- Headquarters in Saarbrücken
- 13 employees
- Established: 2012 as a 100% subsidiary of ItN Nanovation AG.

www.ceranovis.com



**Thermal-shock resistant
non-stick coating**

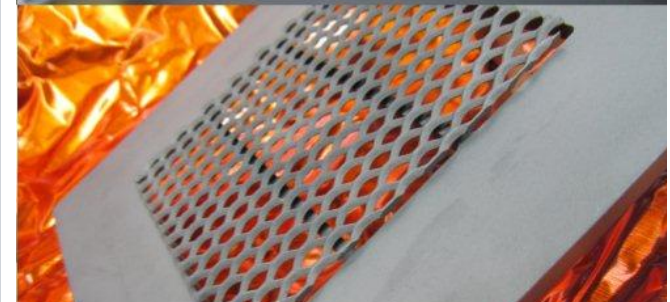


Coatings by NANO-X GmbH

Key Facts Nano-X

- The development and production of custom materials with chemical nanotechnology with multi-functional properties
- Areas of application: scaling and corrosion protection, functional coating and catalysis, energy and optics
- Number of patent families: 45
- Headquarters in Saarbrücken
- Established: 1999
- Employees: 48

www.nano-x2.de



Coatings by NANO-X GmbH

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