



Industrie Service

**Choose certainty.
Add value.**



Scanning electron micrograph of a nanoparticle

Nanotechnology offers enormous potential for growth. Clothes, cosmetics, food – nanoparticles are everywhere. And yet their effects still remain largely unexplored.

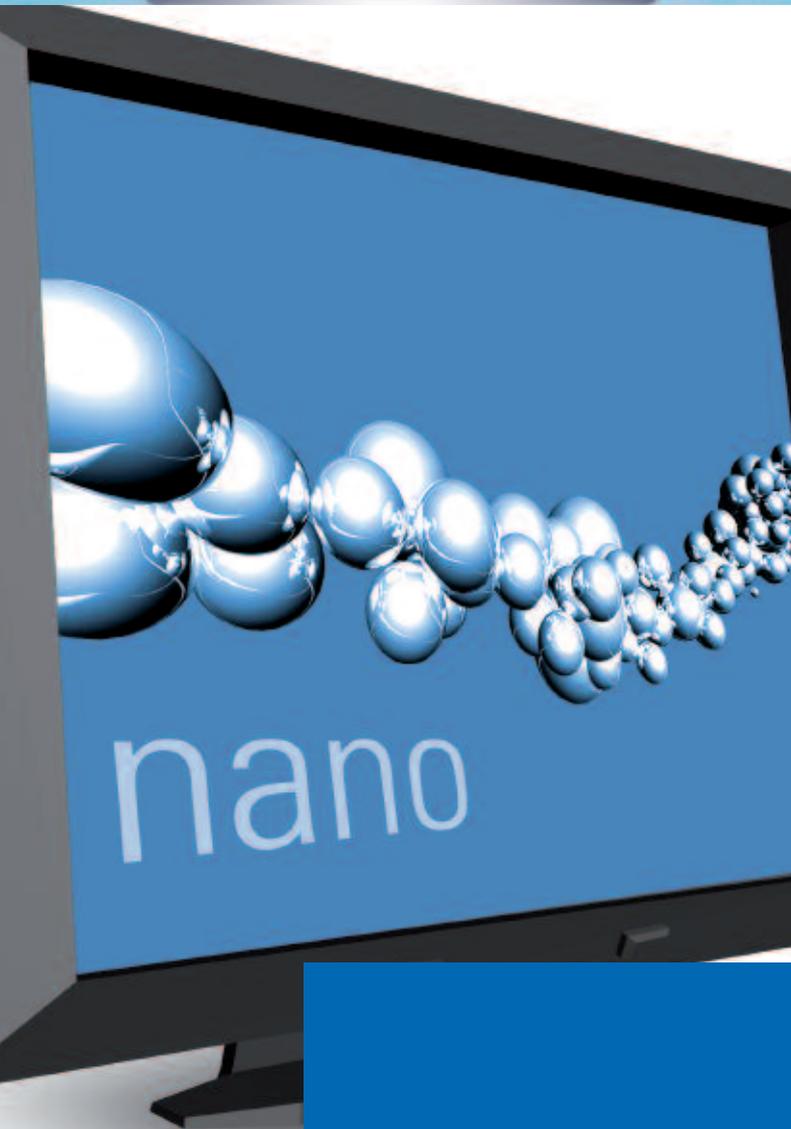
CENARIOS® now enables the potential risks and opportunities involved in nanotechnology and their possible impacts on people to be identified, analysed and assessed rapidly and comprehensively.

Nanotechnology

CENARIOS® – the first nanotechnology risk management and monitoring system

TÜV SÜD Industrie Service GmbH







CENARIOS® assesses risks based on the latest findings in science and technology

Recognise risks. Create certainty.

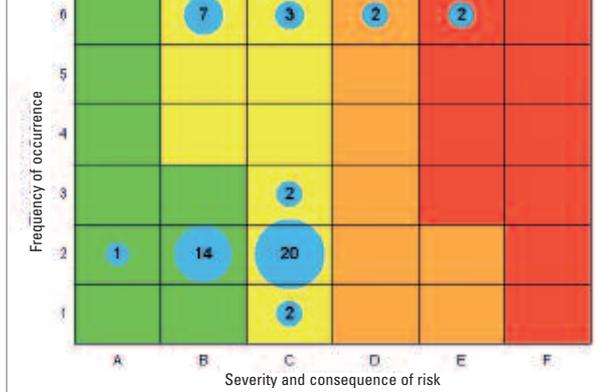
CENARIOS® (Certifiable Nanospecific Risk Management and Monitoring System) is the world's first certifiable risk management and risk monitoring system in the field of nanotechnology.

CENARIOS® was developed to cater to the specific needs of nanotechnology risk assessment. CENARIOS® integrates the latest scientific and technological developments into risk management, thus enabling objective risk assessment to be performed in a rapidly developing market characterised by a high level of uncertainty.

While CENARIOS® was developed especially for the field of nanotechnology, it can also be applied to other areas. The system demonstrates the current risk portfolio of your products and processes. CENARIOS® describes the trends relevant in strategy definition. CENARIOS® offers information about long-term risks related to technology, business and society which are significant for your organisation, and about the crisis management measures available.

TÜV SÜD. Choose certainty. Add value.

Risk matrix for risk assessment



Modularly structured. Perfectly designed.

CENARIOS® comprises three modules that seamlessly build on each other.

Module 1: Risk Assessment/Risk Evaluation

This module identifies the current product- and process-related risk inventory.

The module evaluates risks and carries out comprehensive risk assessment. All available data are reviewed to assess products and production processes for health, environmental and occupational safety risks, and findings are documented in a comprehensive product and process risk portfolio. The methodology is aligned to the often scant level of knowledge about nanotechnology risks. Module 1 prepares an exact inventory and initiates appropriate measures. The action catalogue allows targeted reduction of existing risks.

Module 2: 360° Risk Monitoring System

As foresight instrument, focusing the relevant trends in science, regulation and technology.

To provide your organisation with a comprehensive outlook of strategically

relevant developments, module 2 applies a prospective analysis to future relevant risk fields, thus ensuring timely recognition of relevant trends. Assessment covers risk trends in the fields of health, environmental protection and occupational safety. Analysis also includes trends in society, in particular regulatory developments (e.g. tightening of legal regulations, impending liability risks etc.) and the latest observations and trends in technology and the respective market segment.

Module 3: Issue Management and Communications

Including tools for rapid and safe crisis management.

Module 3, "Issue management and communication", develops tools for crisis prevention and provides measures (documentation and, if necessary, training) for professional crisis management. Risk communication plays a key role. Module 3 provides you with all the tools necessary for optimum crisis management and is based on the data developed in modules 1 and 2.





CENARIOS® – for companies, designing the future.

CENARIOS® was developed jointly by Innovationsgesellschaft mbH (St. Gallen) and TÜV SÜD (Munich) on behalf of a leading nanotechnology company.

CENARIOS® and its modules can, however, also be applied to the safety and risk management of any other company.

CENARIOS® is especially suitable for:

- Nanomaterial manufacturers (chemical, pharmaceutical and engineering sectors)
- Processing industries (Textiles, paints, plastics, cosmetics, automotive, electronics, medical, packaging, food industry, etc.)
- Retailers
- R & D organisations and all types of institutes or companies using nanomaterials.



CENARIOS® – the basis of your TÜV SÜD certification and your enterprise value.

CENARIOS® includes a criteria catalogue for TÜV SÜD certification. This catalogue includes criteria for personnel, organisational structure, risk assessment and risk management (risk communication and issue management).

By opting for certification, you ensure optimisation of your internal coordination processes and continuous improvement of risk management. The CENARIOS® certificate is recognised worldwide, issued by the TÜV SÜD certification body in line with the TÜV SÜD standard and monitored on a regular basis.

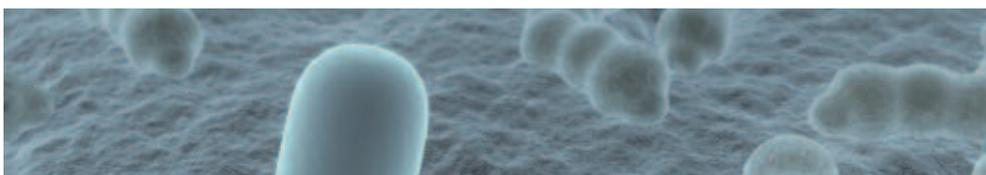
TÜV SÜD's CENARIOS® certificate strengthens your customers' confidence in your organisation and your products. With TÜV SÜD's CENARIOS® certificate,

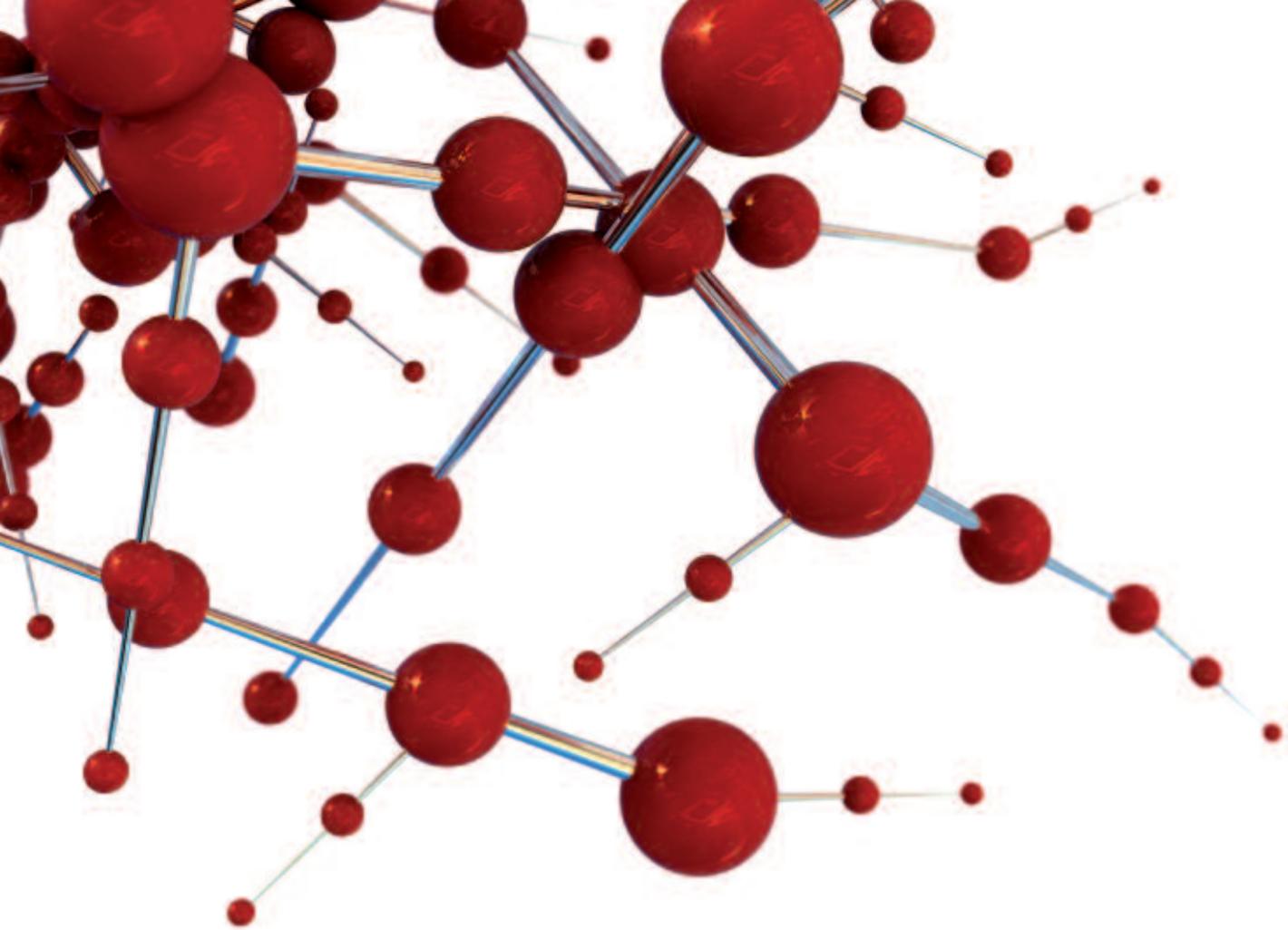
you have documented proof that your company ...

- ... guarantees a comprehensive risk management and monitoring system.
- ... continuously improves product and process safety.
- ... proactively pursues and invests in product and process safety.
- ... observes recognised standards of product and process safety and documents these standards to customers, suppliers and authorities.
- ... significantly minimises potential liability risks.

By having your organisation certified by TÜV SÜD on the basis of CENARIOS®, you choose certainty for yourself and your customers - and thus also add value.

TÜV SÜD. Choose certainty. Add value.





Benefits offered by CENARIOS®:

1 You gain certainty

You bring your safety and risk management system up to the state of the art in science and technology.

2 You save time

You ensure timely identification of potential risks and their elimination before they turn into problems.

3 You optimise process insights

You are supplied with a risk management and monitoring system which offers a comprehensive overview of the product and process-related risks in your organisation.

4 You increase your strength

You are provided with an action catalogue to minimise your risks.

5 You keep the overview

You will be informed about strategically relevant trends and the latest safety-related developments in science, technology and society.

6 You get support

As a neutral partner with longstanding experience and comprehensive technical expertise, we support you in the prompt correction of any nonconformities that may have been revealed.



Industrie Service



www.tuev-sued.com

We have international representation and provide access to the entire field of TÜV SÜD expertise.

TÜV SÜD Industrie Service GmbH offers a comprehensive range of engineering and test services. Our experts work in teams allowing them to solve even the most complex interdisciplinary tasks. As an experienced third-party expert organisation, TÜV SÜD is your consultant on all issues associated with the safety, availability and cost-effectiveness of technical plants, systems and installations.

CENARIOS[®], the world's first risk management system for nanotechnology, has been developed jointly by TÜV SÜD and **Innovationsgesellschaft mbH (St. Gallen)**. As the leading internationally active consulting firm in the field of nanotechnology, Innovationsgesellschaft mbH focuses on the development and application of comprehensive risk management and monitoring solutions.

**Call us! We will be happy to advise you.
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