



TÜV SÜD

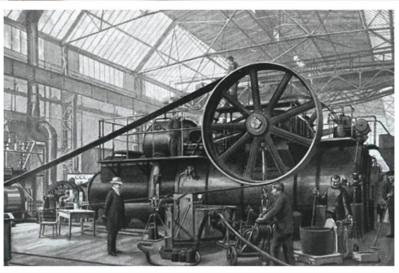
Testing, inspection, certification and training solutions for business success

TÜV®

Our heritage: 148 years of business success







Establishment of a Mannheim-based steam boiler inspection association by 21 operators and owners of steam boilers, with the objective of protecting man, the environment and property against the risk emanating from a new and largely unknown form of technology

1910 First vehicle periodic technical inspection (PTI)

1926 Introduction of the "TÜV mark / stamp" in Germany

Development of a Bavaria-wide network of vehicle inspection centres in the late 1950s

Conglomeration of TÜVs from the southern part of Germany to form TÜV SÜD and the expansion of business operations into Asia

2006 Expansion of services in ASEAN by acquiring Singapore-based PSB Group

Launch of Turkey-wide vehicle inspection by TÜVTURK

Today TÜV SÜD continues to pursue a strategy of internationalisation and growth

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TÜV SÜD in numbers: Growing from strength to strength



1

One-stop technical solution provider

150

years of experience

800

locations worldwide

1,900

million Euro in sales revenue 2013

20,200

employees worldwide



Note: Figures have been rounded off.

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Testing & product certification

Chemical, physical, mechanical, electrical and environmental testing and product certification.

Inspection

Product, system, building, plant and infrastructure inspection.

Auditing & system certification

Audits system certification in a variety of fields including quality, safety, energy, IT security, social compliance and environment.

Knowledge services

Safety, quality, risk, environmental protection and regulatory advisory.

Training

Training in work safety, technical skills, management systems and executive programs.

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Market access



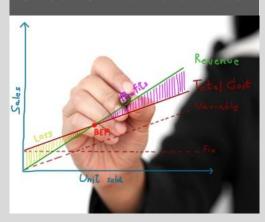
Productivity & profits



Brand reputation



Costs & inefficiencies



Time to market



Business risks





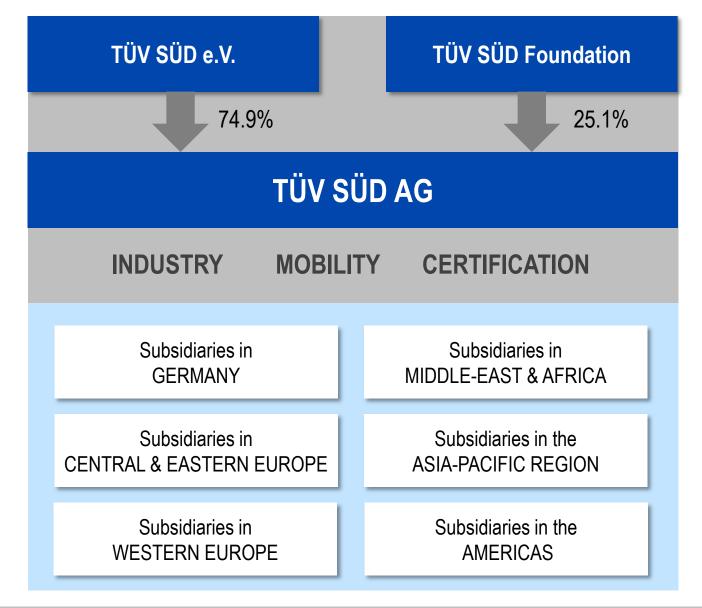
TÜV SÜD: A brand synonymous with quality and safety. Our certification marks certificates are excellent marketing tools for our customers. Our test reports provide customers with the confidence to market their products' safety, quality and sustainability attributes. Our personnel certificates provide our customers with greater market opportunity.















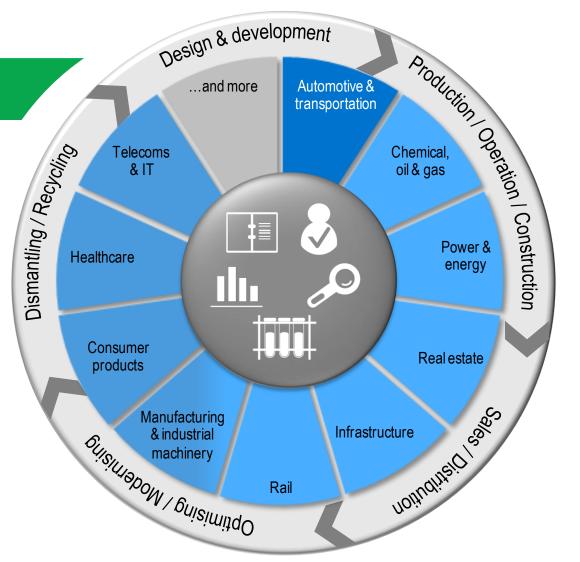
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Sustainability

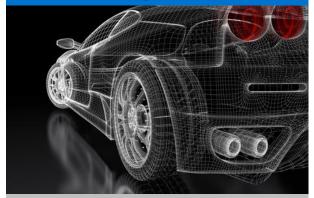
- Energy efficiency
- Renewable energy
- e-Mobility
- Corporate Social Responsibility (CSR)







Automotive R&D and manufacturing



Services for automotive suppliers and Original Equipment Manufacturers (OEM) include:

- Homologation, certification and international regulatory compliance management
- · Quality & safety services
- Emissions testing

Transportation



Services for repair shops and car dealerships, leasing companies and fleet management companies include:

- Vehicle and used car management
- Damage assessments
- Value appraisals
- · Quality and process optimisation
- Performance audits
- System certification
- Training

Road safety & traffic



Services for government transport authorities include:

- Legal framework advisory
- Development of periodic transport inspection solutions
- Transport research and advisory

Services for private vehicle owners include:

- Periodic technical inspections
- Used vehicle assessment & valuations
- Expert reports and damage assessments
- Issue of emission stickers

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Chemical, oil & gas



Services for investors, operators and equipment manufacturers of upstream, midstream and downstream installations include:

- Quality assurance and control
- Periodic inspection
- Owners' engineer
- · Acceptance checks and tests
- Material testing
- Auditing
- · System certification
- Training

Power & energy



Services for investors, owners, operators and equipment manufacturers of conventional, nuclear and renewable energy plants include:

- Due diligence
- Design reviews
- Risk management
- Owners' engineer
- · Construction monitoring
- Material testing
- Periodic inspection
- Regulatory compliance assessment
- System certification
- Training

Manufacturing & industrial machinery



Services for components manufacturers, contractors, installation providers, equipment & material manufacturers and operators include:

- Component testing
- Periodic inspection of equipment
- Failure analysis
- System certification
- Training



Rail



Services for authorities, train operating companies (TOC), infrastructure managers (IM) and equipment manufacturers include:

- Technical support
- Testing
- Independent safety assessment
- System certification
- Training

Real estate



Services for investors, owners, operators and equipment manufacturers of existing and new buildings include:

- Due diligence
- Design reviews
- · Risk management
- Construction material testing
- · Periodic testing and inspection reports
- Feasibility studies
- Energy analysis and audits
- · Owners' engineer
- Property assessment and valuation
- System certification
- Training

Infrastructure



Services for owners, operators and equipment manufacturers of building infrastructure, irrigation, transportation and utilities include:

- Due diligence
- Technical support
- Risk management
- Periodic testing and inspection
- System certification
- Training

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Manufacturing & industrial machinery



Services for components manufacturers, contractors, installation providers, equipment & material manufacturers and operators include:

- Component testing
- Periodic inspection of equipment
- · Failure analysis
- System certification
- Training

Consumer products & retail



Services for manufacturers, retailers, buyers and suppliers of electrical & electronics, food, health & beauty, hardlines, softlines, toys & children's products:

- Testing
- Auditing
- Inspection
- Product certification
- Knowledge services
- · System certification
- Training

Healthcare & medical devices



Services for medical device manufacturers and healthcare providers include:

- Clinical approvals
- Market approvals and certification
- Testing
- Evaluation
- Quality control
- System certification
- Training

Telecommunications & IT



Services for equipment manufacturers and operators of infrastructure equipment and radio frequency wireless equipment include:

- Design reviews
- Testing
- Software escrow
- Product certification
- System certification
- Training



Energy efficiency



Services for manufacturers, planners, owners and operators of buildings, products and equipment, production plants, power plants, municipalities and regions include:

- Energy audits
- Energy optimisation
- Energy efficiency certification
- Testing
- Product certification
- Compliance evaluation
- System certification
- Training

Renewable energy



Services for investors, manufacturers and operators of biomass, geothermal, hydropower, photovoltaic, solar thermal and wind components and plants include:

- Feasibility & bankability assessments
- Construction monitoring
- Safety and licensing support services
- Equipment and component testing and certification
- Periodic inspection
- Training



e-Mobility



Services for authorities, suppliers and OEMs of electric vehicle and components, charging infrastructure and battery include:

- Testing
- Training
- Range evaluation
- Technical support
- Site selection advisory
- Certification
- Homologation
- System certification
- Training

Corporate social responsibility (CSR)



Services for authorities, business owners and operators include:

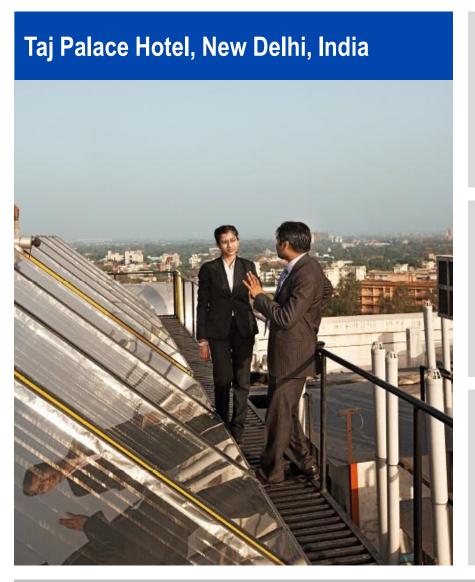
- Carbon footprint certification
- Verification, validation and certification of climate change projects
- · System certification

Services for manufacturers, suppliers and retailers include:

- Social compliance audits
- System certification
- Training

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Business challenge

- Review the energy consumption pattern of Taj Palace Hotel in New Delhi, India
- Achieve savings without compromising on the level of service

Our solution

- Reviewed energy consumption pattern and evaluated energy savings potential of Taj Palace Hotel in New Delhi, India
- Scope included air-conditioning system, electricity supply and operation facilities

Business benefits to client

 Identified a 15% energy savings without compromising on service level

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Business challenge

- Check the functioning of the rotor blades and nacelle of the E-126, ensuring that the structure will withstand 20 years of operation
- Adopt new verification procedure approaches due to the large size of the components

Our solution

- Issued type certification for the safe functioning of rotor blades and nacelle on ENERCON E-126, the largest in the world
- Simulated environmental conditions including turbulent winds and severe storm to ensure that structure will withstand 20 years of operation

Business benefits to client

- Certified wind turbines, ensuring conformance to statutory requirements
- Validated reliability of structures of minimum 20 years of useful life

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Case study: Demonstrated conformity of e-Mobility charging infrastructure network with Singapore's stringent safety standards for Robert Bosch





Business challenge

- Develop the e-Mobility charging infrastructure network
- Ensure that the e-Mobility charging infrastructure network conforms with Singapore's stringent safety standards

Our solution

- Provided Robert Bosch with expert advice to develop a solution for charging electric vehicles and a network of charging stations including design and technology of charging stations
- Conducted comprehensive testing and safety checks

Business benefits to client

 Demonstrated that the charging infrastructure conformed with Singapore's stringent safety standards

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Case study: Connecting sustainability and corporate social responsibility to strategy for Alcantara®





Business challenge

- Review the carbon footprint, sustainability report and management system of Alcantara®.
- Integrate and coordinate all management system certification requirements into a single system while ensuring that sustainability and corporate social responsibility is achieved by Alcantara®

Our solution

- Issued carbon footprint certification from 2009 to 2012
- Assurance on sustainability report from 2010 to 2012
- Integration and coordination of all management system certification requirements into a single system (ISO14001, SA8000®, OHSAS18001)

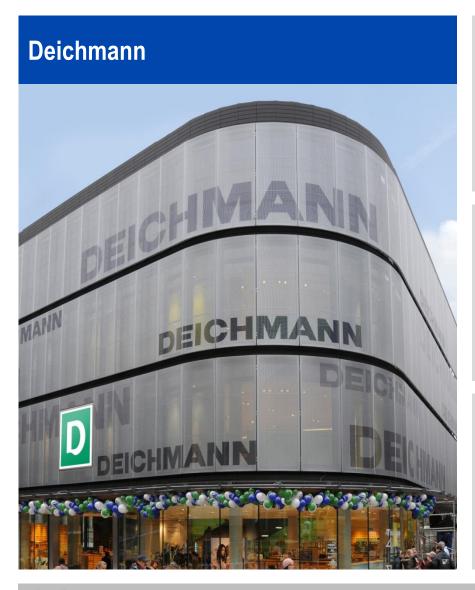
Business benefits to client

 Connected company strategy to Sustainability and Corporate Social Responsibility

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Case study: Providing assurance to Deichmann that finished footwear products from third-party manufacturers are safe to use by their consumers





Business challenge

 Ensure that finished footwear products from third-party manufacturers meet regulatory requirements as well as the company's exacting standards regarding the use of restricted chemicals and other substances that could be harmful to consumers

Our solution

- Restricted Substances List (RSL) testing
- Business Social Compliance Initiative (BSCI) audit
- TÜV SÜD "Tested for Fit" Certification Mark

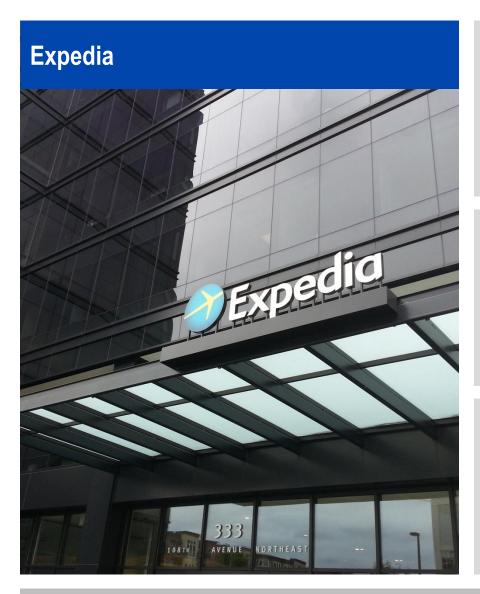
Business benefits to client

Provided consumers with footwear products that are safe

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Case study: Securing the confidential data of Expedia customers and giving Expedia an important advantage in a competitive marketplace





Business challenge

 Assure consumers of the security of their personal data and the safety of booking online

Our solution

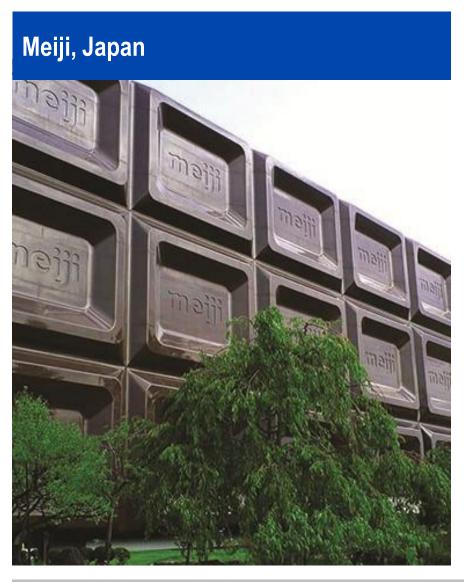
- Issued TÜV SÜD S@fer Shopping Certification, providing a thorough and systematic assessment of the performance and security of Expedia's German website
- Provided Expedia with a data security framework which has been successfully applied across multiple country platforms

Business benefits to client

- · Improved website security and usability
- Validated company's commitment to the security of customers' personal data
- Created an important competitive advantage in the travel marketplace through a brand reputation for secure, reliable transactions

Case study: Increasing marketability and providing access to markets for Meiji through achievement of a GFSI benchmarked food safety standard





Business challenge

 Meet internationally recognised standards to establish new distribution channels in the US

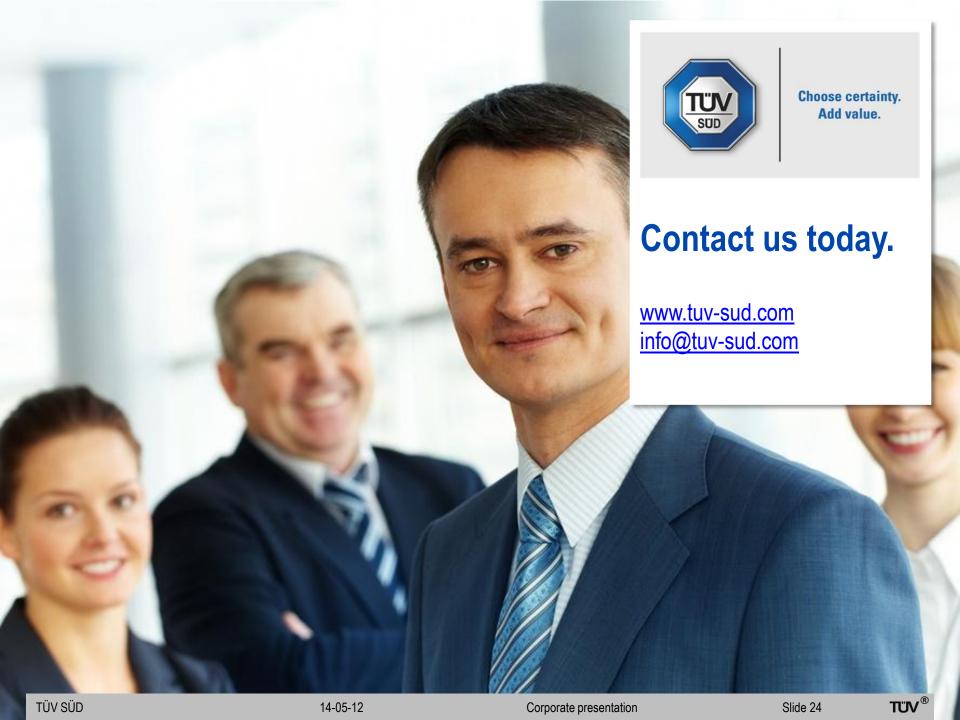
Our solution

 Helped Meiji obtain a GFSI benchmarked food safety for their Osaka (SQF certification) and Sakado (FSSC 22000 certification) factories

Business benefits to client

- Upgraded quality management framework
- Raised production line quality levels
- Increased trust and confidence by customers and business partners
- Improved marketability and created a competitive edge
- Faster response time
- Reduced business risks through regular asset maintenance

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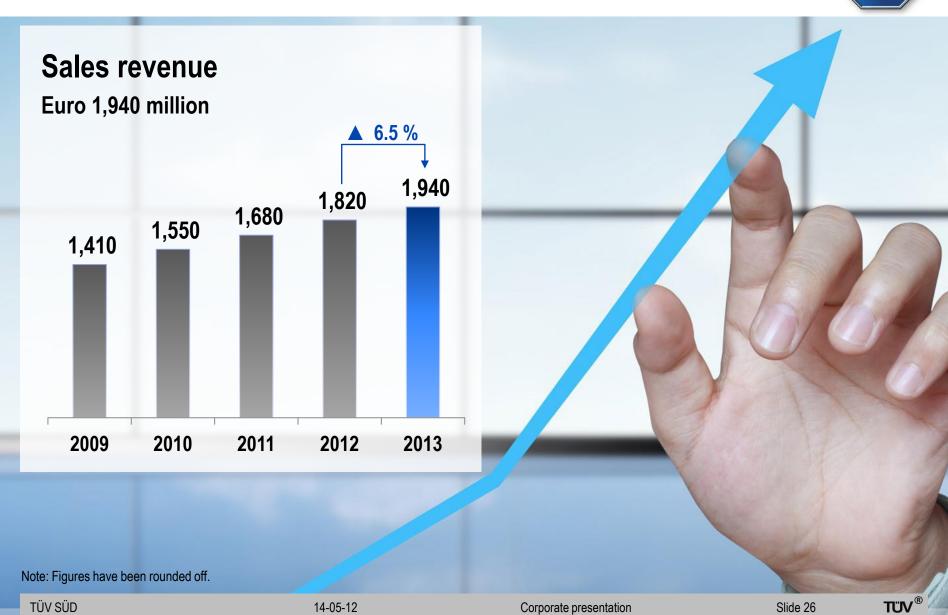


Appendix: Additional TÜV SÜD facts and figures











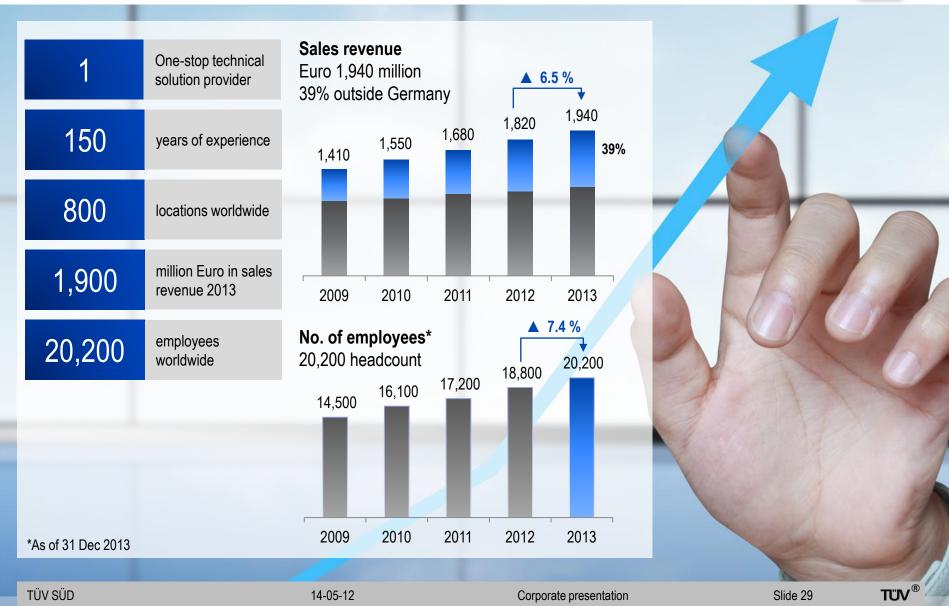






TÜV SÜD Overview – Facts & figures







MOBILITY



Employees: 5,494

Sales Revenue: € 647.4 million

Auto Services: 84.5 %

Automotive: 7.3 %

• Life Services: 8.2 %

INDUSTRY



Employees: 7,271

Sales Revenue: € 789.8 million

Industry Services: 64.8 %

• **Real Estate:** 27.9 %

Rail: 7.3 %

CERTIFICATION



Employees: 5,615

Sales Revenue: € 501.4 million

Product Services: 64.2 %

Management Services: 24.3 %

• Academy: 11.5 %



MOBILITY



Ensure 100 years in safe mobility:

- Periodical Technical Inspections
- Car business services
- Fleet management
- Automotive

INDUSTRY



Maximise reliability, safety & efficiency for:

- · Chemical, oil & gas
- Power & energy
- Manufacturing & industrial machinery
- Rail
- Real estate and infrastructure

CERTIFICATION



Achieve market access for:

- Manufacturing & industrial machinery
- Consumer products & retails
- Healthcare & medical devices
- Telecommunications & IT
- Transportation (Automotive, Aerospace and Marine Component)



Our business success in the last decade





2006

•

Expansion of services in Asia and Northern America by acquiring Singapore-based PSB Group and US inspection company PetroChem

2008

Initial and periodic testing of plants and installations now offered throughout Germany

2009



Launch of Turkey-wide vehicle inspection by TÜVTURK, a joint venture of TÜV SÜD and two Turkish partner companies

2010



Acquisition of US Global Risk Consultants Corporation (GRC), global market leader in unbundled risk management and property loss consulting

2011



Acquisition of South-African market leader in nondestructive material testing and inspection for energy industry (Pro-Tec Boiler Inspection and NDT Services)

Today



TÜV SÜD continues to pursues a strategy of internationalisation and growth



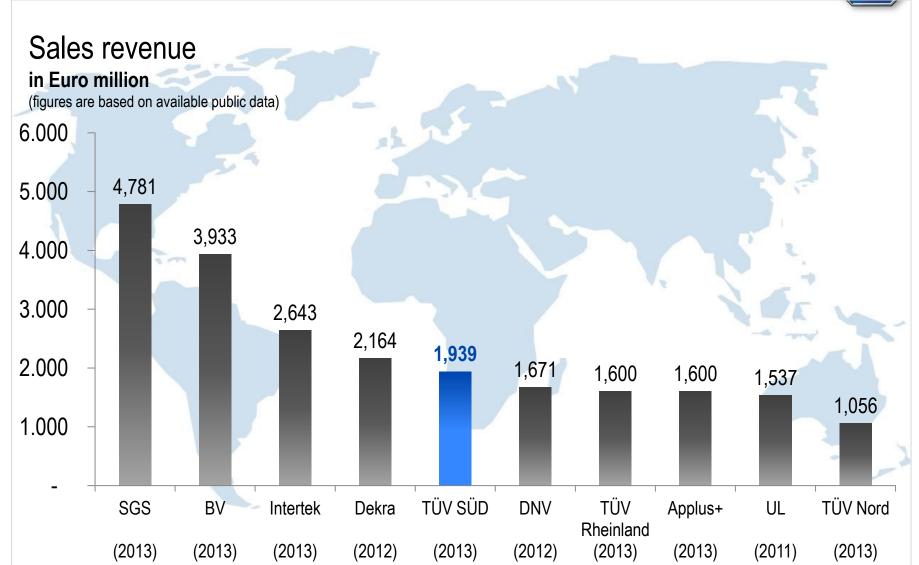
Corporate structure: Driving business growth worldwide



BOARD OF MANAGEMENT									
DR. AXEL STEPKEN (Chairman)		DIRK EILERS	DIRK EILERS DR. MATTHIAS			P HORS	T SCHNEIDER	KARSTEN XANDER	
IND		ISTRY		MOBILITY		CERTIFICATION			
	INDUSTRY SERVICE	REAL ESTATE SERVICE & INFRA- STRUCTURE		AUTO SERVICE		PRODUCT SERVICE	MANAGEMENT SERVICE	ACADEMY	LIFE SERVICE
GERMANY									
AMERICAS									
ASEAN									
CENTRAL & EASTERN EUROPE									
CHINA									
JAPAN									
KOREA									
MIDDLE EAST / AFRICA									
SOUTH ASIA									
WESTERN EUROPA									
TÜV SÜD	14-05-12			Corporate presentation				Slide 33	TÜV®

TÜV SÜD is the largest TÜV company worldwide, and ranks fifth among the biggest global players in the field of technical safety





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