DEKRA SE

COMPANY REPORT 2010

DEKRA

EXPERTISE VVITHOUT BORDERS

DEKRA e.V.

DEKRA SE

DEKRA is one of the world's leading providers of expert services, with approximately 25,000 highly qualified employees in over 50 countries providing vehicle testing, appraisals, industrial testing services and personnel services to ensure safety, quality and environmental protection. Based in Stuttgart and a wholly owned subsidiary of DEKRA e.V., also of Stuttgart, DEKRA SE is responsible for the Group's operational activities, which are managed by the DEKRA Automotive, DEKRA Industrial and DEKRA Personnel business units.

KEY DATA DEKRA SE IN MILLION EUROS	2008	2009	2010
Total revenue*	1,595.8	1,710.0	1,859.0
Income before taxes	99.9	101.7	104.9
EBIT	121.5	91.7	121.6
Return on sales (based on EBIT) in %	7.6	5.4	6.5
Employees (as of Dec. 31)	20,121	21,925	24,867

* The prior-year figures have been restated throughout the company report to reflect organisational changes.

DEKRA AUTOMOTIVE

The DEKRA Automotive business unit includes all our core automotive services, in which we are the world market leader. Our portfolio comprises regular vehicle testing, technical reports and expert analytical appraisals, used car management, homologation and type approvals, as well as consulting and workshop tests (mystery shopping). We are one of Europe's leading claims service organisations. Our innovative services and the latest technology help our customers to boost their safety standards and efficiency on a long-term basis.

District of the second s

	2008	2009	2010
Revenue in million euros	909.3	986.6	1,028.0
Employees (as of Dec. 31)	8,650	9,884	10,681

DEKRA INDUSTRIAL

Buildings & Facilities, Machinery & Plant Safety, Health, Safety & Environment (HSE), Energy & Process Industries, Systems Certification, and Product Testing & Certification are all fields in which we operate extremely successfully with customerfocused solutions from a single source. Industrial inspection services represent a significant growth opportunity for DEKRA. Thanks to professional, motivated staff, flexibility and outstanding service quality, we are systematically expanding into new markets and activities.



	2008	2009	2010
Revenue IN MILLION EUROS	363.0	402.4	494.7
Employees (as of Dec. 31)	4,715	5,241	5,902

DEKRA PERSONNEL

DEKRA Personnel is constantly tapping into new customer segments with its integrated personnel services. Our unrivalled mix of services from the Qualification, Temporary Work, and Out- and Newplacement segments gives the company a unique market profile. DEKRA is one of the biggest private independent training bodies in Germany, and our services are also highly successful in other European countries. Our specialist publications are produced by our ETM joint venture and represent an important source of information for the transport and logistics sector.



	2008	2009	2010
Revenue in Million Euros	302.9	302.6	322.8
Employees (as of Dec. 31)	5,820	6,422	7,894

DEKRA is a leading international company with a human face – our employees offer "expertise without borders", enabling our customers to meet complex national and international requirements. Our success is founded on the professionalism and flexibility of each and every one of our employees, across all business units and positions. Dekra's presence in over 50 countries means that some 40% of our employees work outside Germany, a figure that will continue to rise. The ability of our specialists to constantly embrace new challenges around the globe opens up exciting future growth opportunities.

KEY ACHIEVEMENTS IN 2010:

- Revenue boosted to more than 1.8 billion euros
- Around 3,000 new jobs created
- Service portfolio significantly expanded
- International expansion driven forward

CONTENTS

REPORTS AND COMMITTEES

- 2 Committees of DEKRA e.V. and of DEKRA SE
- 3 Report of the Chairman of the Supervisory Board
- 4 Report of the Chairman of the Management Board
- 6 Report of the Management Board
- 9 Highlights 2010

COMPANY ACTIVITIES

- 10 DEKRA Automotive
- 13 DEKRA Industrial
- 16 DEKRA Personnel
- 19 DEKRA Service Lines
- 20 DEKRA Management





ENERGY FROM SWEDEN >>> 30



SAFETY FOR U.S. HIGHWAYS >> 35





EXPERTISE WITHOUT BORDERS



TRAINING FOR THE ROAD >> 46

CONTACT

- 50 Overview of countries
- 52 Addresses Imprint

OMMITTEES

PRESIDENTIAL BOARD DEKRA e.V.

Prof. Dr.-Ing. Gerhard Zeidler (President), Stuttgart¹⁾ Thomas Pleines (President), Munich²⁾ Prof. Dr. rer. pol. Gerhard Fels (Vice-President), Bergisch Gladbach Prof. Joachim Bitterlich, Paris, France Günther Fleig, Stuttgart Ulrich Graf, Pfäffikon, Switzerland Rolf-Peter Hoenen, Coburg Prof. Dr. jur. habil. Franz Kasper, Stuttgart¹⁾ Dipl.-Wirtsch.-Ing. Arndt Günter Kirchhoff, Attendorn²⁾ Bernd Tönjes, Marl Peter Tyroller, Stuttgart²⁾

1) until 3 May 2011 ²⁾ since 3 May 2011

SUPERVISORY BOARD DEKRA AG (until 28 June 2010)

Prof. Dr.-Ing. Gerhard Zeidler (Chairman), Stuttgart Dipl.-Ing. (FH) Heinrich Breitbach (Deputy Chairman), Offenbach1) Marcus Borck, Bühl³⁾ Assessor jur. Hermann Burr, Uhingen³⁾ Wolfgang Chur, Stuttgart Rolf-Peter Hoenen, Coburg Dipl.-Wirtsch.-Ing. Arndt Günter Kirchhoff, Attendorn Prof. Dr. Günther Langenbucher, Stuttgart Wolfgang Loschwitz, Berlin¹⁾ Dipl.-Ing. (FH) Wilhelm Oberfranz, Munich²⁾ Thomas Pleines, Munich

Dipl.-Ing. Andreas Schwedler, Dresden¹⁾

ADVISORY BOARD DEKRA e.V.

Matthias Wissmann (Chairman), Ludwigsburg Secretary of State Dr. h.c. Rudolf Böhmler (ret'd), Schwäbisch Gmünd Christian Buchel, Karlsruhe Fred B. Irwin, Frankfurt/Main Dipl.-Kfm. Peter M. Jani, Seevetal³⁾ Dr. Volker Kefer, Erlangen⁴⁾ Mathias Krage, Hanover⁵⁾ Michael Kubenz, Hamburg⁴⁾ Helmuth H. Lederer, Wollerau, Switzerland Dipl.-Ing. Martin Marmy, Confignon, Switzerland Dr. techn. Georg Pachta-Reyhofen, Niederpöcking Robert Rademacher, Cologne Prof. Dr. Peter Reichelt, Königswinter Dr. Harald Schwager, Speyer Dr. jur. Axel Theis, Baierbrunn Roger Van Steenbergen, Halle, Belgium ³⁾ until 22 April 2010 Dr. Eckart John von Freyend, Bad Honnef 4) until 26 November 2010 Dr. Thomas Weber, Stuttgart ⁵⁾ since 28 March 2011

MANAGEMENT BOARD DEKRA e.V.

Stefan Kölbl (Chairman), Leinfelden-Echterdingen Roland Gerdon, Stuttgart

SUPERVISORY BOARD DEKRA SE (from 28 June 2010)

Prof. Dr.-Ing. Gerhard Zeidler (Chairman), Stuttgart⁶⁾ Thomas Pleines, (Chairman), Munich⁷⁾ Dipl.-Ing. (FH) Heinrich Breitbach (Deputy Chairman), Offenbach¹⁾ Marcus Borck, Bühl³⁾ Patrick Defour, Lapte, France³⁾ Prof. Dr. Sabine Fließ, Hagen⁷⁾ Heinz-Günter Herliczek, Vechta1)4) Jean-Luc Inderbitzin. Doulevant-le-Château, France³⁾ Dipl.-Wirtsch.-Ing. Arndt Günter Kirchhoff, Attendorn Jörg Leiser, Ettlingen¹⁾ Dipl.-Ing. (FH) Wilhelm Oberfranz, Munich Monika Roth-Lehnen, Wuppertal¹⁾⁵⁾ Peter Tyroller, Stuttgart Dr. Wolfgang Weiler, Coburg

MANAGEMENT BOARD DEKRA SE

Stefan Kölbl (Chairman), Leinfelden-Echterdingen Roland Gerdon, Stuttgart Clemens Klinke, Boffzen Mark Thomä, Stuttgart Jörg Mannsperger, Unterensingen

1) employee representatives

- 2) employee representatives –
- representing senior managerial staff
- 3) employee representatives -
- appointed by the trade unions
- ⁴⁾ until 8 February 2011 ⁵⁾ since 9 February 2011
- ⁶⁾ until 3 May 2011
- ^{7]} since 3 May 2011

COMPELLING SERVICES

Ladies and gentlemen, members, customers and friends of DEKRA,

In this age of globalisation and rapid technological progress, protecting people and the environment is becoming increasingly important. DEKRA was quick to recognise this trend, continually adding to its expert know-ledge across the world. Today we perform product tests in China, power station inspections in Scandinavia and vehicle tests in the USA. As a global company with a wealth of independent expertise, DEKRA is much in demand among political organisations, trade associations, the transport sector and industry.

As a result of the growing importance of our work at international level, in 2010 we converted DEKRA AG into a European company or "Societas Europaea" (SE) – an important milestone in our ongoing internationalisation process. The move brings with it a European concept in terms of co-determination, whereby employees are repre-



PROF. DR.-ING. GERHARD ZEIDLER

BORN 1936, HAS BEEN PRESIDENT OF THE PRESIDENTIAL BOARD OF DEKRA E.V. AND CHAIRMAN OF THE SUPER-VISORY BOARD OF DEKRA SE SINCE JANUARY 2006. FROM 1996 TO THE END OF 2003, HE RAN THE GROUP AS CHAIRMAN OF THE MANAGEMENT BOARD OF DEKRA SE AND WAS CHAIRMAN OF THE MANAGEMENT BOARD OF DEKRA E.V. UNTIL THE END OF 2005.

sented on the Supervisory Board. DEKRA is thus showing itself to be a pioneer for the wider business world as well. When it comes to forward-looking services, DEKRA is a leading player worldwide. The Automotive, Industrial and Personnel business units were extremely successful in 2010 with their wide range of offerings, delivering further increases

in sales and profits. The number of staff employed also grew significantly, especially outside Germany. Looking to the future, we will focus on particularly challenging areas, such as energy and sustainability. I welcome the long-term strategies which are enabling DEKRA to forge ahead with solutions that support e-mobility, power station safety and energy-efficient construction. E-mobility is a key technology, and DEKRA supports Germany's National Electric Mobility Platform (NEMP) and is also helping to develop the German Standardisation Electric Mobility Roadmap as a member of the standardisation and certification study group. This demonstrates our capabilities in a particularly compelling manner.

On behalf of the Presidential Board and the Supervisory Board, I would like to thank all our business partners for their support and trust. I am grateful to our highly motivated employees, who work so hard for DEKRA's success. In DEKRA, our members, customers and suppliers have a strong and reliable partner – a role to which we remain committed in the future.

Best regards,

Prof. Dr.-Ing. Gerhard Zeidler President of the Presidential Board of DEKRA e.V. Chairman of the Supervisory Board of DEKRA SE

PROFITABLE GROWTH WITH OPTIMISED PROCESSES



STEFAN KÖLBL

BORN 1967, BECAME CHAIRMAN OF THE MANAGEMENT BOARD OF DEKRA E.V. AND DEKRA SE IN JANUARY 2010. HE JOINED THE COMPANY IN 2000 AND WAS SUBSEQUENTLY APPOINTED MANAGING DIRECTOR OF DEKRA AKADEMIE GMBH AND DEKRA INTERNATIONAL GMBH. FROM 2006 TO THE END OF 2009, HE WAS RESPONSIBLE FOR DEKRA'S AUTOMOTIVE OPERATIONS OUTSIDE GERMANY.

Ladies and gentlemen,

With its high-quality services, DEKRA continued its growth course trajectory in the 2010 reporting year. Important acquisitions, particularly in the industrial testing segment, significantly broadened our strategic base and were supported by sustained organic growth. Revenue rose by 8.7% to a record high of 1.859 billion euros, and income before taxes again reached three figures, increasing by 3.1% to 104.9 million euros. Operating income (EBIT) grew by an impressive 32.6%.

DEKRA's outstanding positioning was evident in all three business segments. We are the undisputed world market leader in expert automotive services in our sector, and after only a few years we are already a top ten provider of industrial inspections worldwide. Our personnel services are also increasingly in demand outside Germany. This positive performance is mirrored in our headcount: DEKRA currently employs some 25,000 people worldwide, an increase of around 3,000 on the previous year's figure.

Building on this solid foundation, DEKRA has initiated the << DEKRA 2015>> strategic development programme. Our objectives for the coming years are clear: we want to be a global leader in our industry, to be more profitable and to grow with efficient structures, and to be attractive to our staff and guarantee secure employment. With competition growing more intense by the day, we will sharpen our focus on strategically important, high-margin business segments. Healthy, organic growth will be accompanied by further acquisitions. To support our goals of improved profitability and sustained growth, we will continue to optimise our processes across the Group.

In our pursute for business excellence, we have achieved initial milestones like the appointment of chief regional officers in the strategically important regions of China, North America and South America who will manage activities in these areas across business units. We also recently opened our new asia headquarters in Shanghai.

To support inter-company cooperation, optimise internal processes and leverage yet more synergies, we have established the Group-wide Organisation and Processes unit. We will also continue to harmonise our financial processes and IT systems worldwide.

DEKRA stands on the threshold of a new stage in its development which will change and advance the company in much the same way as the strong growth of recent years has done. The challenges that lie ahead of us are demanding and require us to perform to the best of our ability. I am convinced that, thanks to the efforts of our highly qualified and committed staff, we will continue to remain successful in the future.

Stefan Kölbl Chairman of the Management Board of DEKRA e.V. and DEKRA SE

CLEAR STRUCTURES AND STRATEGIES FOR SUCCESS IN GLOBALISED MARKETS

DEKRA performed well in fiscal 2010. Although the year got off to a sluggish start due to the lingering impact of the economic crisis and a harsh winter, DEKRA picked up speed again during the ensuing global recovery. Through innovation, proven service quality and continued international expansion, DEKRA consolidated its strong market position as a worldwide provider of quality and safety services. Our growth and wide-ranging expansion projects were again funded by a healthy balance sheet. Our equity totalled 317.7 million euros at the end of the year, which represents an equity ratio of 25.2%. DEKRA has no net debt and possesses sufficient funds to finance further expansion projects in the future. Our growth over the past six years has been accompanied by high-quality acquisitions. A key element of our expansion strategy over the years has been a desire to achieve a balanced mix of sustained organic growth and growth via acquisitions.

We focus on selected markets with good longterm prospects, and intend to develop our activities in the strategically important regions of China, North America and South America. We are also systematically expanding higher-margin business segments such as industrial inspection and certification while implementing lean structures and efficient processes to significantly boost our profitability.

We will also gradually integrate our new acquisitions into our different information systems, thus streamlining communication and accelerating know-how exchange. Improved cooperation between complementary services and comparable activities will make us stronger at both national and international level. We will therefore be able to respond more quickly to changing market conditions and create additional opportunities.

Double-digit growth for international automotive business

DEKRA's national and international automotive services are combined in the Automotive business unit. These activities, which generate total revenue well in excess of a billion euros, were brought together in a single management entity at the beginning of 2010. Sharing resources creates opportunities for further growth and allows optimised internal coordination processes to improve market penetration.

DEKRA is the undisputed world market leader in this core business and is present in 28 countries. The performance of DEKRA Automobil GmbH in Germany, the largest individual company within the Group, was crucial to this excellent result. We maintained our market share of around 35% for vehicle testing, and DEKRA is the German market leader in used car management. E-mobility was a key area in 2010: DEKRA has been working hard to ensure that it is well prepared for testing electric vehicles. DEKRA Consulting GmbH achieved double-digit growth with an expanded service portfolio. We continued to grow our consulting services worldwide, particularly via the new Business Improvement Services area.

Our automotive services also recorded doubledigit growth at international level, mainly because of our new activities in Europe, the Americas and Africa. DEKRA Automotive S.A., our largest foreign subsidiary specialising in vehicle testing in France, performed extremely well and now additionally manages automotive activities in Spain, Portugal and North Africa. The newly created cluster at regional level is designed to drive forward structured expansion on the Iberian Peninsula.



from left

JÖRG MANNSPERGER

MEMBER OF THE MANAGEMENT BOARD DEKRA SE HEAD OF BUSINESS UNIT DEKRA PERSONNEL

ROLAND GERDON

MEMBER OF THE MANAGEMENT BOARD DEKRA E.V./DEKRA SE

STEFAN KÖLBL

CHAIRMAN OF THE MANAGEMENT BOARD DEKRA E.V./DEKRA SE

CLEMENS KLINKE

MEMBER OF THE MANAGEMENT BOARD DEKRA SE HEAD OF BUSINESS UNIT DEKRA AUTOMOTIVE

MARK THOMÄ

MEMBER OF THE MANAGEMENT BOARD DEKRA SE HEAD OF BUSINESS UNIT DEKRA INDUSTRIAL

Industrial portfolio expanded

The industrial inspection and certification services provided by the Industrial business unit contributed some 495 million euros to Group revenue in the reporting year. The substantial increase of around 23% was largely achieved through international expansion, with new activities growing DEKRA's business, particularly in Scandinavia, Eastern Europe and China. We are now able to offer material testing and inspection services alongside product and systems certification from a single source.

In Northern Europe, DEKRA Industrial became the market leader in the power station sector thanks to the acquisition of Swedish company DEKRA Industrial AB (formerly ÅF-Kontroll AB) in 2010 and Finnish subsidiary DEKRA Industrial Oy. The Swedish acquisition provides the Group with important expert knowledge relating to the energy sector. Our French subsidiary, DEKRA Industrial S.A., will take responsibility for future expansion in Southern Europe, North and South Africa and in the Middle East.

Business activity at DEKRA Industrial GmbH was dominated by the merger of the three German industry companies, resulting in a broad service portfolio that has been well received by customers. DEKRA Industrial S.A. made good progress with its reorganisation and gradually reaps the fruits of comprehensive measures to improve efficiency.

The DEKRA Product Testing & System Certification group grew revenue by 10% compared to the previous year. Integration of KEMA Quality B.V., which was acquired at the end of 2009, opened up a range of new possibilities for future development. Extended access to international standards and accreditations approval systems as well as new service offerings are significantly boosting DEKRA's international presence. DEKRA is now represented in all the main global markets for systems certification and product tests.

Pioneer in driver qualification

Integrated personnel services are the Group's third growth area. The DEKRA Personnel business unit posted revenue of 323 million euros in the reporting year, representing a substantial 7% increase over the successful prior year.

The DEKRA Akademie group is one of Germany's biggest private independent training bodies, with its core competencies lying in the areas of transport, warehouse and dangerous goods logistics. Although the publicly funded market was subdued as a result of government spending cuts to job market initiatives, the corporate business performed well. Deployment of Europe's most advanced truck driving simulator and the successful implementation of programmes for basic qualification and training enabled DEKRA to consolidate its pioneering role in professional driver training. Through the acquisition of a company specialising in digital educational media, DEKRA is driving forward development of its own materials.

The DEKRA Arbeit group enjoyed buoyant growth, with the rapid economic recovery responding to above-average demand for personnel services and temporary staff, particularly in the automotive industry. Expanding our commercial and engineering services is another focus of management activity. Our Event & Logistic Services team obtained exclusive orders from big-name customers.

DEKRA is well positioned for the coming year and benefits from outstanding international market opportunities. To leverage these opportunities, we have launched << DEKRA 2015 >>, a new strategic programme. DEKRA will continue to play an active role in shaping the market and is looking to the future with confidence.

HIGHLIGHTS 2010









SEPTEMBER



JANUARY

DEKRA is the first testing and certification provider to offer tests for the photobiological safety of LED lights in China via its CBTL laboratories.

FEBRUARY

DEKRA acquires a majority stake in Belgian appraisals group Coorevits to become a leading provider of vehicle appraisals in Belgium.

MARCH

DEKRA acquires Swedish industrial inspection service provider ÅF-Kontroll, a leading power station specialist in Scandinavia and Eastern Europe with some 450 employees.

MAY

DEKRA becomes premium partner of the Porsche Tennis Grand Prix in Stuttgart for the first time, looking after guests via DEKRA Event & Logistic Services GmbH.

IUNE

DEKRA AG assumes the legal form of a "Societas Europaea" (SE).

JULY

20 years of DEKRA in Eastern Germany: DEKRA e.V. was appointed technical test centre for motor vehicles in 1990.

AUGUST

DEKRA is official technology partner for the first worldwide Formula Student Electric (FSE) competition for electric racing cars at the Hockenheimring.

SEPTEMBER

The DEKRA Service Portal goes online. This innovative tool simplifies management of machinery subject to mandatory inspection in vehicle dealerships/ workshops and transport companies.

OCTOBER

DEKRA Akademie commences operation of Europe's most advanced mobile driving simulator for professional driver training.

DECEMBER

At DEKRA's headquarters in Stuttgart, a charging station for electric cars opens, where customers and visitors can recharge their vehicle batteries free of charge.

dekra business unit



DEKRA AUTOMOTIVE REVENUE (IN MILLION EUROS) AND EMPLOYEES	2008	2009	2010
Total revenue	909.3	986.6	1,028.0
Employees (as of Dec. 31)	8,650	9,884	10,681
SERVICE LINES REVENUE (IN MILLION EUROS)			
Vehicle Testing	621.4	637.4	650.5
Expertise	202.9	241.4	251.2
Used Car Management	39.0	46.1	53.9
Homologation and Type Approvals	16.2	17.1	17.0
Consulting and Mystery Shopping	13.2	8.9	13.1
Claims Services	15.2	25.1	28.5
Other revenues	1.4	10.6	13.8



Growth in the face of increasing competition: that was the story of 2010 for the DEKRA Automotive business unit. Represented in 28 countries worldwide, its activities are distinguished by continued organic growth and strategic acquisitions. Revenue for the business unit increased by 5% to more than a billion euros compared to 2009 – a new record, which is all the more impressive given the impact of the economic crisis on the automotive sector.

The performance of DEKRA Automobil GmbH in Germany was crucial to this excellent result. Although smaller expert organisations have gained ground in the fiercely competitive testing market, DEKRA managed to maintain its leading market share of around 35% in this important segment.

E-mobility was a key area in 2010. With ever tougher legal requirements for reducing harmful emissions, this technology is set to play an increasingly important role, especially in major cities. DEKRA is already well prepared for testing electric vehicles, safety of which is paramount given their highly complex technology. With double-digit growth, we made excellent progress at international level. DEKRA Automobil GmbH has been crucial to this success, with its size, experience and expertise providing valuable support to the foreign subsidiaries. Since 2010, all worldwide automotive activities have been combined under the Automotive business unit. As part of this restructuring, sharing resources has also delivered very positive results.

"Our acknowledged expertise in regular vehicle inspections and automotive appraisals is in increasing demand around the world. This expert knowledge is delivered across national borders and helps to make the roads safer and our customers more efficient."

Clemens Klinke _ Management Board member of DEKRA SE and head of the DEKRA Automotive business unit

In France, our second domestic market, DEKRA Automotive S.A. was the only testing organisation in the country to slightly increase its market share. Despite fierce competition, our biggest international subsidiary boosted revenue by around 6%. DEKRA Automotive Maroc S.A. expanded its network of inspection centres and franchisees further. The same applied to the Czech Republic, Slovakia and DEKRA Automotive Pty. Ltd. in South Africa.

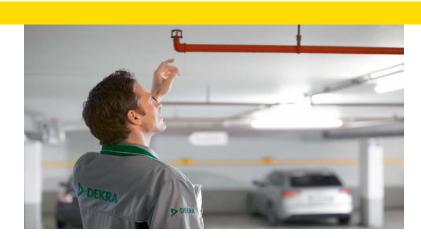


Although regular vehicle testing has yet to be introduced in South Africa, DEKRA will be ready when the moment arrives. In the face of strong price pressure and tough competition, DEKRA Emission Check was able to grow its testing business in the US states of Georgia and Texas.

DEKRA is also consolidating its position as a leading provider of expert services at both national and international level. Numerous automotive manufacturers, importers, insurers, courts and public prosecutors entrust us with vehicle and damage reports, mystery shopping for workshop services, audits, engine endurance tests, consulting services and expert reports. Our used car management services are also in great demand.

DEKRA strengthened its operations in Belgium with the acquisition of the Coorevits Group, the country's leading provider of vehicle appraisals. In Italy, the MC Group's consulting services for the vehicle and transport industry have been added to the portfolio. In the USA, the acquisition of Truck Remarketing Services and Magoo's Automotive Consultants has enabled expansion of technical vehicle inspections. DEKRA Claims Services, our international claims settlement specialist, has identified potential growth in marine, property and liability (MPL). This area covers services such as damage reports and claims settlement for transport and marine insurance, property and buildings insurance as well as liability insurance. DEKRA has always been strongly committed to boosting road safety. Our experts at all international subsidiaries of the DEKRA Automotive business unit work together with national and international bodies and contribute their know-how to help optimising road safety. As part of the 2010 DEKRA "SafetyCheck" initiative, over 18,000 young drivers had their predominantly old vehicles tested free of charge at German branches of DEKRA Automobil GmbH. In the same year, we reached the line of the one millionth highvisibility cap, which are handed out to school starters under the "Street Smart for Safety" campaign.

The DEKRA road safety report, which this time focused on motorcycles, was presented in locations that included Berlin and Brussels, attracting a lot of international interest. DEKRA has now published three such reports in succession. The 2010 report is available in German, English and French at www.dekra.de/ verkehrssicherheitsreport-2010.



dekra business unit





With a strong international presence, DEKRA is now firmly established as a successful global player in the field of industrial inspection services. The DEKRA Industrial business unit achieved growth of 23% in 2010 with revenue approaching 500 million euros. We are now able to offer material testing and inspection services alongside product and systems certification from a single source. We have gained market shares from our competitors in virtually every area of the business unit both in Germany and abroad.

The securing of major contracts and new outline agreements with big-name customers emphatically underscores the level of expertise delivered by DEKRA as a one-stop service provider of industrial inspections. This applies to the segments Buildings & Facilities, Machinery & Plant Safety, Health, Safety & Environment (HSE), Energy & Process Industries, Systems Certification, and Product Testing & Certification.

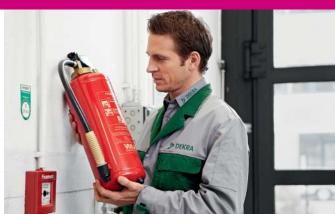
One of the highlights of the fiscal year was the acquisition of Swedish industrial inspection service provider ÅF-Kontroll, which has 27 sites in Sweden as well as branches in Norway, the Czech Republic and Lithuania. The name of the company has since been changed to DEKRA Industrial AB. The acquisition was a decisive step towards positioning DEKRA as the leading inspection service provider for the energy sector in the fields of refining, nuclear power and renewable energy. Together with Finnish subsidiary DEKRA Industrial Oy, this move makes DEKRA the market leader in the power station sector in Northern Europe, and the profitable company has extended DEKRA's presence in important Eastern European growth markets.

"Safety and quality requirements for machinery and products are increasing all the time. DEKRA Industrial has established a presence in all the key markets to support its customers across national borders with innovative, one-stop services."

Mark Thomä, Management Board member of DEKRA SE and head of the DEKRA Industrial business unit

Expansion of our activities in non-destructive material testing in nuclear power stations was also achieved in Germany with the acquisition of QSB GmbH & Co. KG of Lübbecke. In addition to standard test procedures, DEKRA Material Testing can now offer special procedures such as phased array and TOFD for safe management of complex tasks.





The acquisition of QSB and establishment of a laboratory vehicle for portable metallography also enabled us to develop a new customer segment for structural examinations across Germany.

Mergers of individual companies in France and Germany in 2010 strengthened the business unit and made it more efficient. We have significantly streamlined our structures to optimise processes and offer a customer-focused, end-to-end service portfolio from a single source.

A key plank of DEKRA's worldwide expansion strategy is China, where we anticipate major growth in the testing business for products, buildings, industrial plant and certifications. With the acquisition of Dutch company KEMA Quality – since renamed DEKRA Certification B.V. – at the end of 2009, we now have five product testing laboratories in China and employ over 300 people at nine locations. From these sites, DEKRA supports European customers with operations in China and helps Chinese companies with their regional development and ongoing internationalisation. The DEKRA Industrial business unit has experienced strong growth in all six service lines and is represented with its own subsidiaries in the world's key markets. Continuing globalisation means that our international presence is a crucial competitive advantage, and DEKRA is participating in a growing number of international projects for regular customers in Germany, France and the Netherlands. In addition, DEKRA's knowledge is increasingly in demand for testing integrated management systems and customers' own quality standards.

Our customers benefit from the close ties between the Industrial business unit and DEKRA's Automotive and Personnel units. We are increasingly bringing together the services of our business units under one roof. As well as our "DEKRA Houses" in Germany, Italy and the Czech Republic, a DEKRA service centre was opened in Shanghai at the end of March 2011.

DEKRA Industrial now has a presence in over 25 countries in addition to its core markets in Europe, allowing it to provide customers with cross-border support.



dekra business unit PERSONNEL



DEKRA PERSONNEL REVENUE (IN MILLION EUROS) AND EMPLOYEES	2008	2009	2010
Total revenue	302.9	302,6	322.8
Employees (as of Dec. 31)	5,820	6.422	7,894
SERVICE LINES REVENUE (IN MILLION EUROS)			
Qualification	173.2	201,7	173.1
Temporary Work	120.5	89,9	137.1
Out- and Newplacement	9.2	11,0	12.6



DEKRA Personnel was a clear beneficiary of the fast and sustained global recovery in 2010. The Temporary Work business unit performed particularly impressively and needed additional resources to cope with aboveaverage demand for qualified workers. In contrast, public sector cuts had a negative impact on the DEKRA Akademie group, particularly with regard to publicly funded training opportunities for the long-term unemployed. Despite this, DEKRA Akademie managed to expand its corporate business and maintain its position as one of Germany's leading private training organisations.

DEKRA Akademie's traditional core competencies lie in the areas of transport, warehouse and dangerous goods logistics. This strategy proved particularly effective in 2010 with the successful implementation of programmes for basic qualification and training in accordance with German legislation on professional driver qualifications (BKrFQG). Deployment of Europe's most advanced mobile truck driving simulator enabled the academy to extend its pioneering role in professional driver training. The thriving corporate business was given a further boost with transport companies being able to apply to the Federal Office for Goods Transport for subsidies for measures under the BKrFQG legislation. DEKRA Akademie supported interested companies with sophisticated subsidy management advice.

Through its acquisition of a company specialising in digital educational media, DEKRA was also able to make progress in developing its own materials. One example is a blended learning concept aimed at qualifying IT experts in the 50-plus age group, an initiative that was successfully launched under the slogan "Learning in the virtual workplace" and is supported by Germany's Federal Employment Agency. Further steps have also been taken to internationalise professional training and education offerings in conjunction with DEKRA's foreign subsidiaries.

"Having a highly qualified, flexible workforce is essential to business success. With our services, customers can plan their technical and business activities with confidence – and can increasingly also rely on our support at international level."

Jörg Mannsperger, Management Board member of DEKRA SE and head of the DEKRA Personnel business unit

Ensuring that the seminar range reflects the latest technological developments is crucial to maintaining strong demand for DEKRA Akademie as a training body. For example, DEKRA Akademie has added a special course on high voltage systems to its portfolio in response to the challenges faced by car dealerships and workshops in connection with the rise in e-mobility.



These systems are deployed in fuel cell, hybrid and electric vehicles and can be dangerous when the vehicle is being worked on. The Academy enables workshop staff to assess any electrical work, identify potential hazards and take the appropriate protective action. DEKRA thus makes a significant contribution to safety in the workplace as well providing educational and training support.

The DEKRA Arbeit group greatly benefited from the upturn in the automotive industry and the resulting high demand for staff. Successful participation in the tender processes of big-name companies also led to a number of major contracts involving substantial requirements. DEKRA Event & Logistic Services, part of the DEKRA Arbeit group, acquired significant orders from prestigious companies in 2010, including the Porsche Tennis Grand Prix in Stuttgart, for which the company supplied hostess services.

There was an increased focus on expanding DEKRA Commercial Service & Engineering. The demand for well trained, highly qualified, flexible engineers and technicians continues to grow sharply. International companies from every sector are increasingly turning to DEKRA for its expertise. At the same time, individuals placed in employment see their deployment in various projects and at different companies as an ideal opportunity for professional training. Revenue for the DEKRA Arbeit group increased by 34% over the previous year to around 145 million euros. The group benefited from its extensive presence in Germany, with a network of 79 offices. Across the country, DEKRA found temporary work for 5,200 people – 1,740 more than in 2009. The DEKRA Arbeit group also enjoyed healthy growth at international level, with its presence in some 20 locations delivering an increase in foreign revenue of around 64%. DEKRA Arbeit is still the market leader in Croatia with 11 offices, and it also has companies in Spain, Serbia, Montenegro, Hungary, Slovakia, Bosnia-Herzegovina and the Czech Republic.



DEKRA SERVICE LINES

AUTOMOTIVE SERVICES



Vehicle Testing



Homologation and Type Approvals

INDUSTRIAL SERVICES



Buildings and Facilities



Energy and Process Industries

PERSONNEL SERVICES



Qualification



Expertise



Consulting and Mystery Shopping



Used Car Management



Claims Services



Machinery and Plant Safety



Systems Certification



Health, Safety and Environment (HSE)



Product Testing and Certification



Temporary Work



Out- and Newplacement

THE DEKRA MANAGEMENT







from left STEFAN KÖLBL CHAIRMAN OF THE MANAGEMENT BOARD DEKRA E.V. / DEKRA SE, ROLAND GERDON MEMBER OF THE MANAGEMENT BOARD DEKRA E.V. / DEKRA SE

> **DR. GERD NEUMANN** MANAGING DIRECTOR DEKRA AUTOMOBIL GMBH, **DIETER ROTH** MANAGING DIRECTOR DEKRA AUTOMOBIL GMBH, **WOLFGANG LINSENMAIER** MANAGING DIRECTOR DEKRA AUTOMOBIL GMBH, **AXEL NOACK** MANAGING DIRECTOR DEKRA AUTOMOTIVE S.A.

DR. ROLAND KRAUSE MANAGING DIRECTOR DEKRA INTERNATIONAL GMBH, **CAREL KUIPER** MANAGING DIRECTOR DEKRA CLAIMS AND EXPERT SERVICES INTERNATIONAL S.A., **VINCENT JACOBS** MANAGING DIRECTOR DEKRA CLAIMS AND EXPERT SERVICES INTERNATIONAL S.A.





from left

CLEMENS KLINKE MEMBER OF THE MANAGEMENT BOARD DEKRA SE, HEAD OF BUSINESS UNIT DEKRA AUTOMOTIVE, MARK THOMÄ MEMBER OF THE MANAGEMENT BOARD DEKRA SE, HEAD OF BUSINESS UNIT DEKRA INDUSTRIAL, JÖRG MANNSPERGER MEMBER OF THE MANAGEMENT BOARD DEKRA SE, HEAD OF BUSINESS UNIT DEKRA PERSONNEL

BRUNO LABARRE MANAGING DIRECTOR DEKRA INDUSTRIAL S.A., LOTHAR KREUTZ MANAGING DIRECTOR DEKRA INDUSTRIAL GMBH, LOTHAR WEIHOFEN MANAGING DIRECTOR DEKRA CERTIFICATION GROUP, BERT ZOETBROOD MANAGING DIRECTOR DEKRA CERTIFICATION GROUP, DR. BERND STEISSLINGER MANAGING DIRECTOR DEKRA INDUSTRIAL INTERNATIONAL GMBH, SUZANA BERNHARD MANAGING DIRECTOR DEKRA ARBEIT GMBH

STEPHAN HEIGL DIRECTOR COMMUNICATION AND MARKETING, REINER LEBER DIRECTOR IT DIVISION, ULRICH ROTHFUCHS DIRECTOR COUNSEL AND COMPLIANCE, ERICH MÜLLER DIRECTOR REPORTING AND CONTROLLING, KAI VARNAI DIRECTOR HUMAN RESOURCES CHRISTIAN POLZER DIRECTOR ORGANISATION AND PROCESSES, MANAGING DIRECTOR DEKRA CONSULTING GMBH

EXPERTISE WITHOUT BORDERS



HANSON ZHANG

After graduating in instrument engineering from Hangzhou University, Hanson Zhang started his career in the automotive industry, focusing on testing and homologation of modern light systems. Following seven years specialising in photometric measurements and tests, he joined DEKRA and helped to set up Asia's most advanced LED test centre in Shanghai. Hanson likes skating and loves playing table tennis as a way of relaxing.



OLGA MOTORINA

Olga Motorina, a qualified engineer, has been a member of DEKRA Industrial AB's team of experts for the past three years. The 41-year-old Russian studied material testing, automation and telecommunications in St. Petersburg before emigrating to Sweden in 1994. She is an expert in non-destructive material testing and specialises in ultrasonic and eddy current measurement methods. Olga lives with her family in Stockholm and lists yoga and gardening among the leisure pursuits that enable her to unwind from her demanding job. OUR SERVICES DELIVER SUSTAINED IMPROVEMENTS IN QUALITY, SAFETY AND EFFICIENCY AROUND THE WORLD. THE HIGHLY QUALIFIED DEKRA SPECIALISTS HAVE A PRACTICE-BASED, PARTNERSHIP-ORIENTED APPROACH, HOWEVER COMPLEX THE PROJECT. THEIR DEEP EXPERT KNOWLEDGE PROVIDES A PLATFORM FOR FURTHER INNOVATION AND CONTINUING EXPANSION. OUR PEOPLE ENABLE OUR CUSTOMERS TO MEET FUTURE CHALLENGES WITH CONFIDENCE.



MICHAEL IRWIN

Michael Irwin has been director of safety and quality assurance at DEKRA America for the past two years. He was previously a policeman in the US state of Michigan for nine years, where he carried out thousands of highway vehicle and load inspections. One of Michael's responsibilities at DEKRA's US headquarters in Atlanta is the US-wide deployment of DEKRA inspectors. Michael lives in Valpariso, Indiana, and also has his office there.

PETER RÜCKER

Engineer Peter Rücker has been working at DEKRA Automobil GmbH since 2000 and, as line manager at the DEKRA Technology Centre, is responsible for crash tests in Neumünster. The 45-year-old trained as a machinist before studying mechanical engineering at RWTH Aachen University is specialised in automotive engineering. Peter keeps in shape for his job by working out at the gym and running. He is also a passionate motorcyclist.

REINHARD BUCHSDRÜCKER

Reinhard Buchsdrücker joined DEKRA Akademie in Norderstedt in 2002 as an instructor specialising in safe driving, economical driving styles and securing loads. In 2005, the trained coachbuilder was promoted to project manager for driving simulation, focusing on conceptual design, testing e-learning concepts and creating digital trainer guides. In his spare time, the 50-year-old goes camping and cycling by the Baltic Sea.



ILLUMINATION FROM CHINA

DEKRA has opened its new Testing and Certification Centre China, a state-of-the-art building called DEKRA House that is a prominent feature of Shibei HiTech Park, located in north-west Shanghai. At the heart of the new laboratory is the LED test centre. Here, DEKRA experts deploy sophisticated equipment and innovative methods to scrutinise the lights and lighting systems of the future for manufacturers worldwide, checking for compliance with the full range of international standards.





ASIA'S MOST ADVANCED LED TEST CENTRE

"Without light, we won't see anything," says Hanson Zhang, switching on the lighting for the photobiological safety test room. The walls and ceiling are painted black. On a long workbench, also painted black, three high-tech devices, some rails and a computer monitor have been strategically placed. "For our new laboratory I was able to choose and calibrate the equipment myself and define the test process together with my colleagues in Arnheim, in accordance with IEC guidelines," explains Zhang. A trace of pride is evident in his voice, which is understandable given the pioneering role he has played in the field of LED tests in Asia, significantly enhancing the reputation of DEKRA Testing and Certification Centre China in the process. It is the first laboratory of its kind in Asia, enabling DEKRA to test and certify the photobiological safety of new light systems, in particular the new LED lights which are set to play such a major role.

Two storeys below, on the ground floor, are the other 12 test rooms of the centre with their light-coloured, six metre-high walls and precisely arranged test rigs. Hanson Zhang oversees an average of up to seven tests at any one time. "Performance tests for lighting units can take up to three months and more," explains the measurement engineer, indicating an array of halogen bulbs laid out in long rows. His day starts and ends at very different times, depending on the tests being performed. "I am often in the lab at five in the morning, and sometimes we don't finish a test until late at night." As the expert responsible, Hanson Zhang writes up the test reports and discusses the results with his customers and colleagues.

⁰¹ In the lab where continuous tests are performed, the experts wear sunglasses to protect their eyes from the glare. Hanson Zhang checks a batch of halogen bulbs.

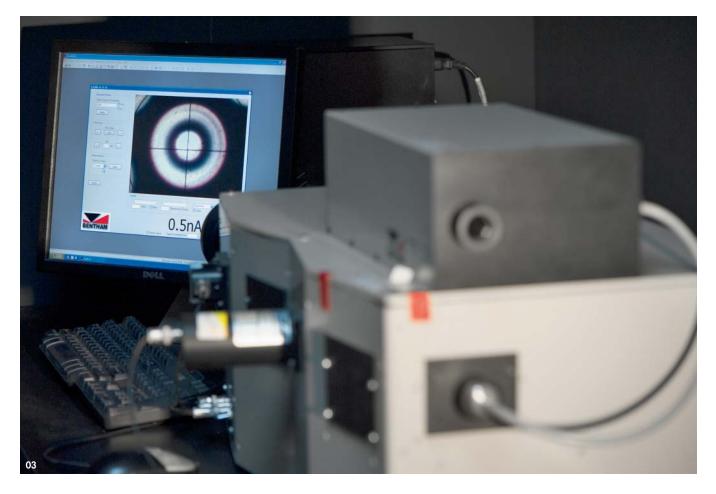
⁰² DEKRA experts test the intensity of an LED light in a special sphere.





- 01 Safety expert Vicky Zhang prepares an LED chain for the environmental test.
- 02 The thread of a lamp is tested using a metal measuring device.
- ${\tt O3}~{\tt The}~{\tt UV}$ radiation of an LED light is measured in the photobiological safety test room.

- CHINA CONSUMED 410 BILLION KILOWATTS OF ELECTRICITY FOR LIGHTING PURPOSES IN 2008.
- JUST 21% OF LAMPS AND BULBS SOLD IN CHINA IN 2010 CONTAINED AN LED.
- CHINA AIMS TO CAPTURE AROUND 75% OF THE ENTIRE MARKET FOR LED LIGHTS BY 2020.



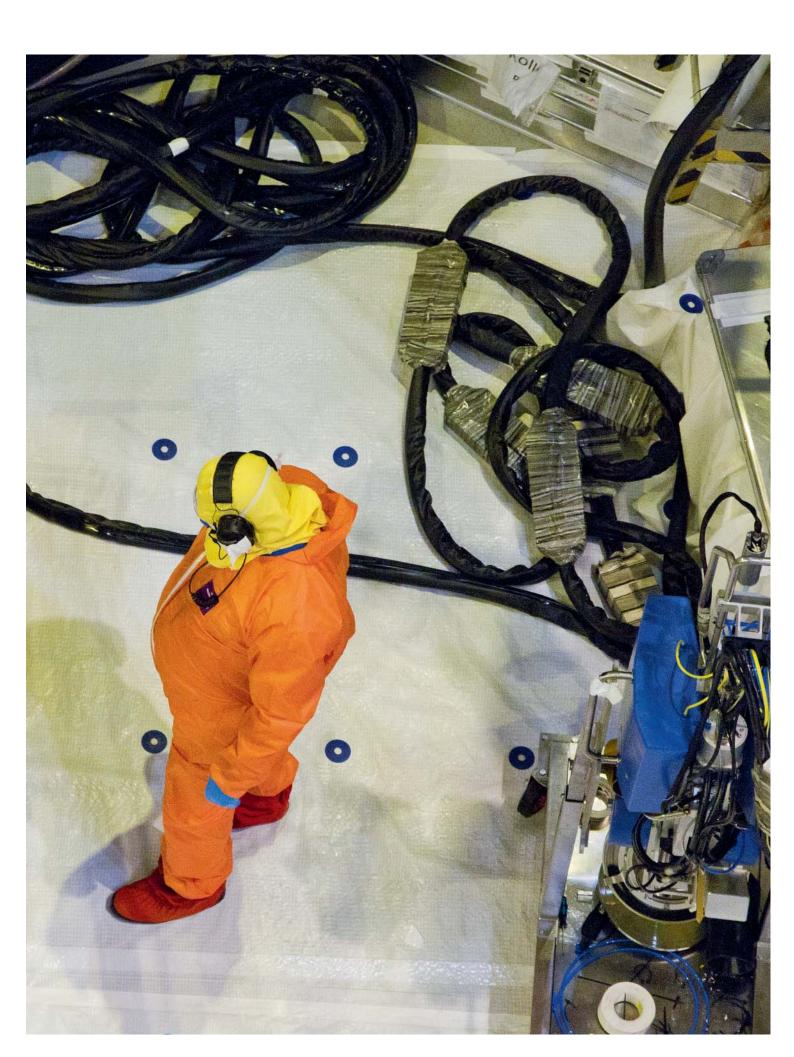
TOUGH LED TESTS IN SHANGHAI

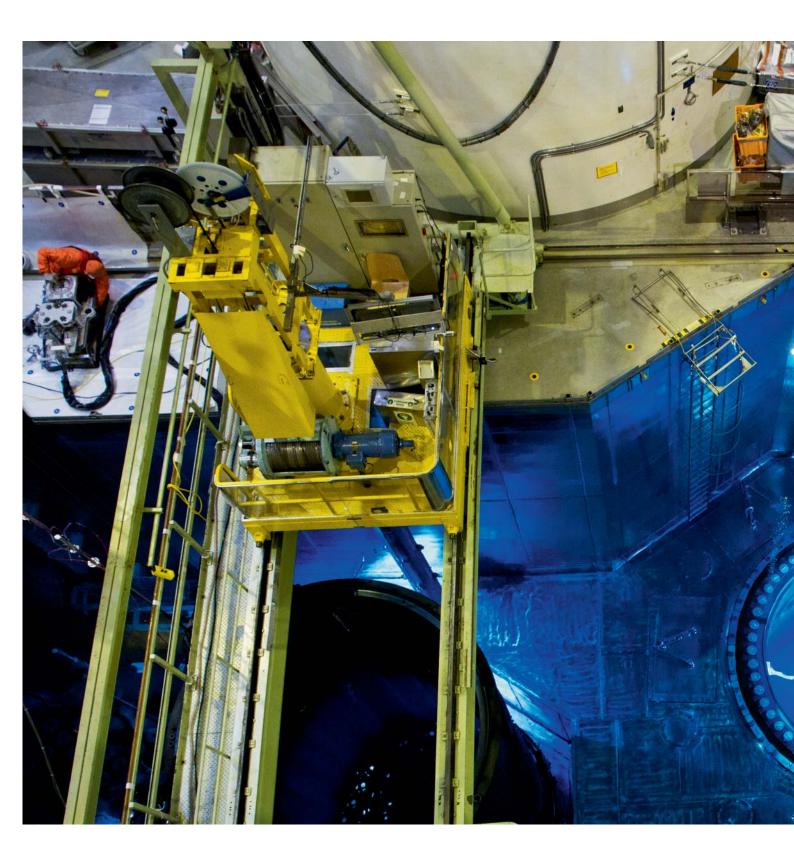
Vicky Zhang is Hanson Zhang's closest colleague. The young engineer from Shanghai joined DEKRA eight years ago and is responsible for safety tests. To be awarded certification, new light systems and lights must undergo more than ten safety and performance tests. In the environmental test room, Vicky Zhang shows how around 30 pressurised water jets are aimed at a lamp. "I really like these tests because they help me to play a big role in improving a product." Thanks to her extensive experience at DEKRA, Vicky Zhang is fully aware of the market potential of LED light sources and other innovative light systems. Important clients include big-name companies like Philips, GE, LedzWorld and their Chinese partners who produce for the international market. Global department store chains such as Auchan and ASDA also work with DEKRA on product certification. China itself defined the development of LED light sources as a core national strategy in 2005 in order to master this new technology and save energy in the long term.



ENERGY FROM SWEDEN

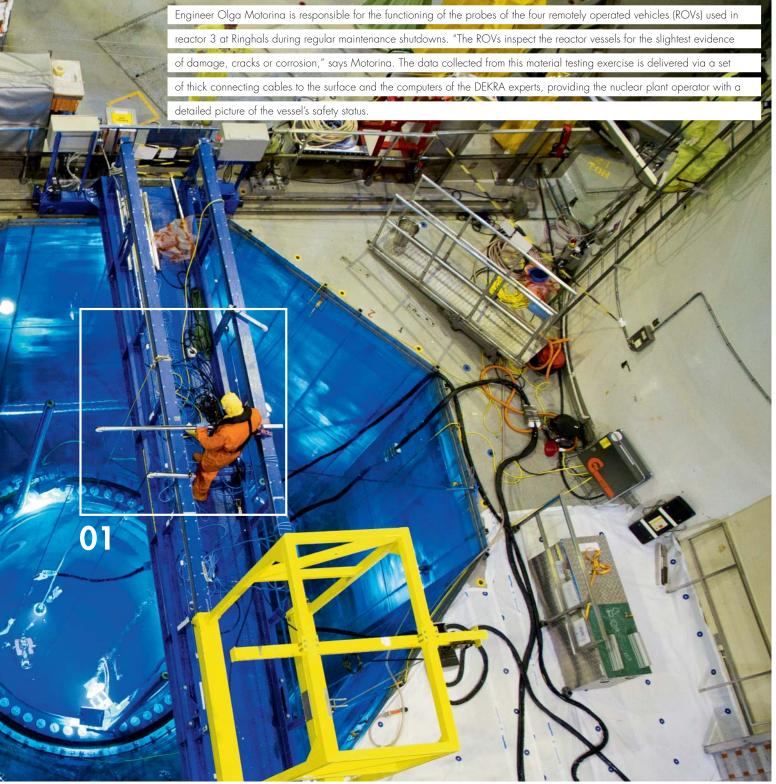
Everything has been building up to this moment: Clad in protective clothing, gloves and face masks, a DEKRA team carefully lowers the remotely operated vehicle "Skidbladner" via a winch into the deep blue water of the Ringhals nuclear power plant in Sweden. "Okay", signals one of the men. The other team members watch the scene intently from the control room and register on their monitors that the ROV is ready. Inspection of the reactor vessel can now begin.





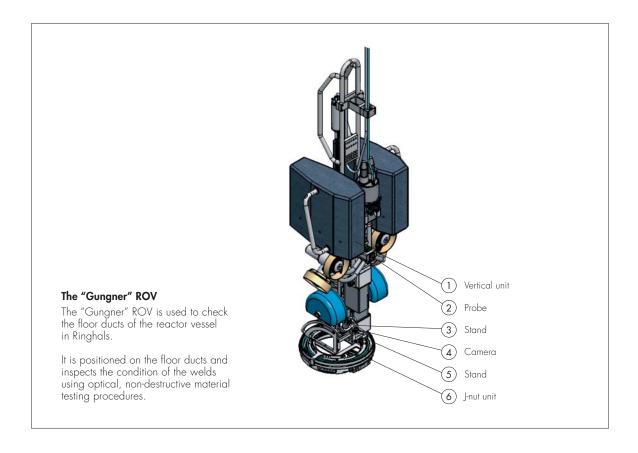


AT A DEPTH OF UP TO EIGHT METRES, THE DEKRA ROBOT INSPECTS THE STAINLESS STEEL SHELL OF THE REACTOR VESSEL.



01 The experts lower the inspection robots into the water via a bridge.

UNDERWATER ROBOT DEVELOPED BY DEKRA



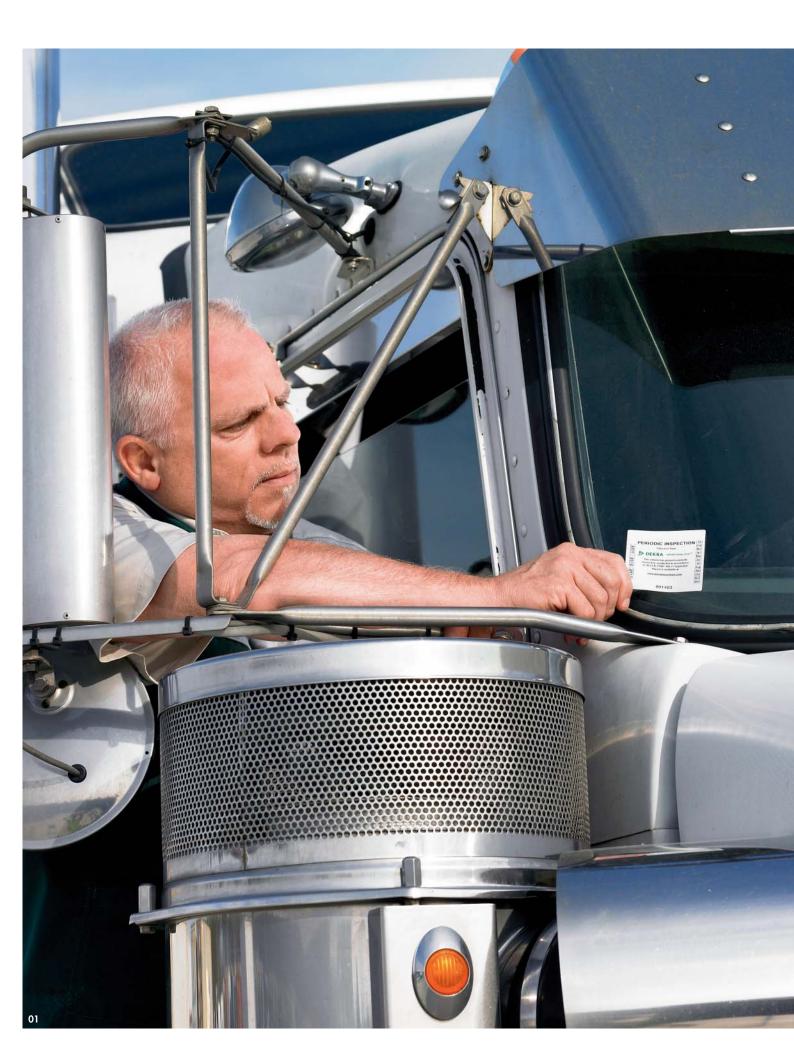
EFFICIENT WORKING METHOD SAVES TIME

DEKRA experts use four ROVs simultaneously to test the 30-centimetre-thick steel shell of the reactor vessel in Ringhals, thus saving time. "Although we are able to complete the tests in about half the usual ten days, this system actually increases the quality and precision of the inspection," says Olga Motorina. "You have to bear in mind that shutting down for just one day costs around half a million euros." Watching the data appear on her monitor, Motorina adds that all four ROVs were developed by DEKRA's Swedish subsidiary, DEKRA Industrial AB. She designed the test probes herself, which contain complex measurement technology and fire electrical or ultrasonic energy pulses, depending on the test, at the material being inspected. "Abnormal resonances indicate damage to the metal wall or the welded seams," says the engineer. The high-quality test technology and extensive analytical experience of the team ensure that the Vattenfall reactor can continue to be safely operated in the future.

SAFETY FOR U.S. HIGHWAYS

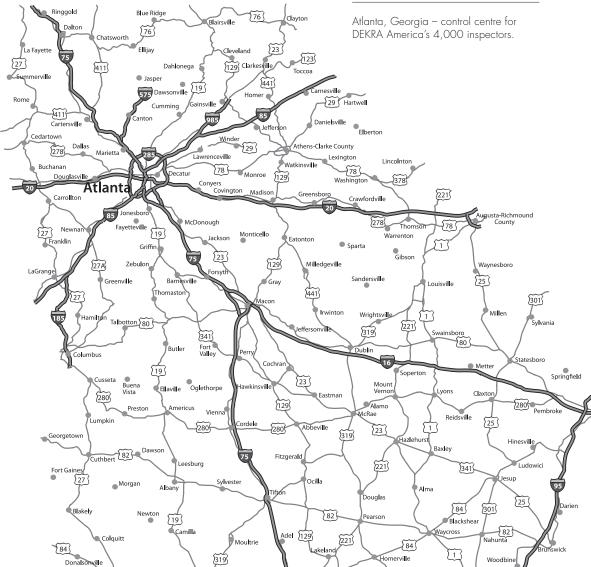
Sitting behind the steering wheel of a powerful Peterbilt, Mack or Freightliner truck, an endless highway stretching out into the distance: a U.S. trucker's dream. In everyday life, the reality is somewhat different. Driver professionalism and vehicle safety are paramount and monitored by the police. DEKRA's voluntary technical checks guarantee the freedom on the road.





ONLY FAULT-FREE VEHICLES HAVE THE CHANCE OF GETTING A LOAD

"Passed!" shouts Michael Irwin to the trucker sitting behind the wheel. He climbs up to him to stick the DEKRA safety seal on the windscreen – an increasingly popular test certificate in the USA. Irwin has just performed this key safety check on a truck belonging to DEKRA customer Bridge Terminal Transport (BTT). The check takes about half an hour and includes vital components such as brakes and steering, as well as tyres and lights. Irwin also checks all the paperwork relating to both driver and vehicle. Anyone who fails the test must correct all faults before they receive their next load from BTT. "We always check everything that the police is covering in their highway checks, but BTT and many other DEKRA customers demand a higher standard of safety and voluntarily expand the scope of the inspection," says Irwin, describing his work at the BTT fleet site. He is one of hundreds of inspectors who ensure the roadworthiness of heavy trucks on behalf of DEKRA, whether they are taking a route through the Rocky Mountains that may last several weeks, driving through the Nevada desert or negotiating through the dense traffic of a major city.



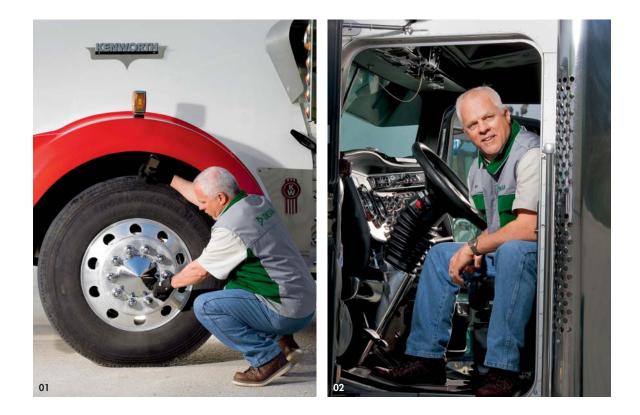
01 The DEKRA safety seal on the windscreen confirms that the truck has passed a technical check. With almost 2,000 vehicles, BTT was the first DEKRA customer in the United States to have its fleet checked by DEKRA America both regularly and on an ad hoc basis. Another important customer is Consolidated Chassis Management (CCM), the largest fleet operator in the US, with more than 138,000 chassis.

The willingness of such companies to voluntarily perform their own technical inspections is a direct result of the many roadside checks that take place in the US every day. Failing a roadside check can result in immediate impounding of the vehicle. Two million of such tests are carried out annually by the authorities. The failure rate is between 20% and 25%. In addition to vehicle tests to avoid problems on the highways, DEKRA's business activities in the US include emission testing, appraisals for vehicle manufacturers, leasing companies, dealers and auction houses, as well as consulting services.

Having entered the important US market in 2002, DEKRA is now present in five strategic locations. Its American headquarters is in the major southern city of Atlanta, Georgia, with other offices in Dallas/Fort Worth (Texas), Ventura (California), Detroit (Michigan) and Hartford (Connecticut). DEKRA America is also represented in Brookfield, Connecticut, via the DEKRA-TRS joint venture. The company thus has a presence in all the major US economic regions.

ON THE OPEN ROAD IN A SAFE TRUCK. DOES LIFE GET ANY BETTER THAN THIS?

01 DEKRA expert Michael Irwin checks a truck's wheel nut torque. He enters the test log using a mini-computer.02 Over ten years of inspection experience: Irwin is respected by truckers and companies alike.



ELECTRICITY IN THE TANK

DEKRA has a growing commitment to e-mobility, whether by performing crash tests to improve the safety of vehicles with alternative drive systems, carrying out practical tests to assess the suitability of electric vehicles for daily use, or accompanying development of the first purely electric formula racing car.







GREEN MOBILITY CONCEPTS ARE A CHALLENGE FOR THE FUTURE. WE ARE DOING OUR BIT.

Given current growth expectations, electric vehicles are crucial to future mobility, particularly in urban areas of emerging markets. To achieve a widespread market penetration, alternative vehicle concepts need to be safe, suitable for daily use and have to offer acceptable performance. As an experienced e-mobility consulting partner, DEKRA benefits from a wide spectrum of expertise. DEKRA engineers across Germany conduct practical tests that subject the electric cars currently available to everyday conditions, with criteria including range, required charge cycles and charge times and their impact on the availability of electric vehicles, particularly in low temperatures. Of course, electric cars need to meet the same safety requirements as conventional vehicles, and DEKRA's experts carry out corresponding assessments at the company's crash test centre in Neumünster. The new technology also benefits from DEKRA's motorsport expertise: DEKRA has teamed up with the French company Formulec and other big-name partners to bring the fastest purely electric formula racing car currently in existence to production readiness. DEKRA is advising on safety aspects of the electric racer in particular, and assisting with drafting the rules.

01 In conjunction with RWTH Aachen, DEKRA is investigating key operating parameters such as acceleration, cruising speed and braking.

02 Developed by Formulec, the electrically-powered "EFO1" accelerates from 0 to 100 in three seconds and has a top speed of 250 kph.

03 High-tech: SAFT developed the special battery, Siemens supplied the electric motors, and Michelin provided the energy-optimised tyres.

"OUR CRASH TESTS ARE ESSENTIAL TO ENSURE A HIGH LEVEL OF SAFETY FOR ELECTRIC VEHICLES."

Peter Rücker, team manager at the DEKRA crash test centre in Neumünster



01 Team manager Peter Rücker inspects the test set-up ahead of a crash test in Neumünster. In a few minutes, his team will hurl an e-bike against a wall. Key points of interest include assessing how the battery responds when the bike hits the obstacle, the strength of the frame and the risk of the rider suffering an electric shock.

ADDITIONAL HAZARDS POSED BY ELECTRIC VEHICLES IN ACCIDENTS

Neumünster, Schleswig-Holstein, DEKRA crash test centre: Team manager Peter Rücker observes the test set-up intently. In a few minutes, his team will once again crash a vehicle into a wall, but this time a twowheeled version: an e-bike, i.e. an electrically powered bicycle. Key focus points include assessing how the battery responds when the bike hits the obstacle, the strength of the frame and the risk of the rider suffering an electric shock. Tests like these are becoming more common in Neumünster, with alternative drive vehicles now accounting for around 70 out of the 150 crash tests performed annually. The results of the crash and safety tests of electric vehicles conducted by Peter Rücker in Neumünster are important for a number of reasons. In the event of an accident, all those involved, and the emergency services, want maximum protection. The crash tests are also of great value to manufacturers, who have to comply with legal standards for their vehicles to be approved. For Peter Rücker, there is an obvious need for special crash tests on electric vehicles: "As well as increasing the weight of a vehicle, the battery alters the centre of gravity. The biggest danger comes from the drive technology itself: If the battery, hybrid electricity or power cable short-circuits during an accident, the occupants and emergency services face extreme danger. After all, we are talking about voltages of 200 to 500 volts."





02 Crash preparation using a calibrated dummy.

03 Peter Rücker prepares the electric bike for the crash.



Interview with Andreas Richter, DEKRA Automobil GmbH

E-MOBILITY

WHY IS DEKRA ENGAGED IN E-MOBILITY?

 \rightarrow The automotive industry is currently facing enormous challenges. We need to offer attractive solutions to these challenges, especially with regard to enabling individual mobility in towns and cities. Against a backdrop of dwindling fossil energy resources, environmental pressures in urban areas and increasing motorisation in emerging markets, alternative drive concepts are very important to ensuring mobility in the medium to long term. As a leading provider of expert services, we are addressing this issue head on, with safeguarding Europe's future as a business location also being a key factor.

WHAT CAN DEKRA CONTRIBUTE TO E-MOBILITY?

 \rightarrow Our contribution to the e-mobility arena is the expertise and experience of a global testing organisation. We can help the industry to resolve the issues surrounding technology, infrastructure and personnel. Our range of knowledge spans vehicle and product tests, crash tests and homologation through to certification, consulting and training.



ANDREAS RICHTER COORDINATES THE WORK OF THE DEKRA E-MOBILITY COMPETENCE CENTRE, WHERE ALL OF DEKRA'S ACTIVITIES RELATING TO THIS IMPORTANT TECHNOLOGY ARE BASED.

WHAT RESOURCES DOES DEKRA HAVE AT ITS DISPOSAL?

→ The DEKRA e-mobility competence centre leverages expert knowledge from across the organisation to shape our e-mobility strategy. This expertise is particularly evident at the DEKRA Technology Centre, which has been examining components, systems and vehicles for decades. It has the modern laboratory and test track facilities needed for safety and approval testing of hybrid and electric vehicles and their components. Our knowledge is further expanded by cooperation with scientific institutes.

WHAT IS THE IMPACT OF ELECTRIC VEHICLES ON THE VEHICLE TESTING REGIME?

→ Regular technical testing of vehicles has been a major factor in the high level of road safety in Germany and Europe in recent decades. It goes without saying that we apply the same rigorous safety standards to electric vehicles as we do to conventional cars. We are currently working on binding safety standards for electric vehicles and on defining relevant criteria to be included in the inspection catalogue for vehicle testing.

WHAT ARE YOU DOING IN TERMS OF USER SAFETY?

 \rightarrow We are utilising synergies throughout the DEKRA Group to ensure that the new technology does not pose a safety risk. From simple charge cables and charging points through to the complex charging in-frastructure, our CE product tests and certifications provide safety. DEKRA Akademie has developed a new training programme for workshop technicians working with high-voltage vehicles that deals with the special risks involved.

HOW DID YOU COME TO GET INVOLVED WITH ELECTRIC FORMULA RACING?

→ Motorsport has been instrumental in speeding up development of road vehicles and components. We are hoping to achieve the same effect with the electric racing car. As official technology partner for the Formula Student Electric competition, we are working with the French company Formulec which develops the first formula racing car powered solely by electricity to production readiness. We aim to demonstrate that technological progress and environmental protection can not only go hand in hand in motorsport but also in ordinary vehicles.



With the most advanced mobile driving simulator currently available in Europe, DEKRA Akademie is taking the training of truck and bus drivers to a new level. Almost every conceivable traffic and risk situation can be repeated any number of times, in conjunction with all modern assistance systems. DEKRA's stated aim is an anticipatory driving style.



"THE MOBILE UNIT CAN BE USED ANYWHERE – INCLUDING ON-SITE BY CARRIERS. SIMULATOR TRAINING SAVES COSTS AND IS ALSO FRIENDLY TO THE ENVIRONMENT." Reinhard Buchsdrücker, DEKRA Akademie



- O1 Thanks to sophisticated computer technology, the instructor has the ability to intervene in the simulation with another, autonomous vehicle.
 O2 In the simulator produced by manufacturer Krauss-Maffei Wegmann (KMW), the driver sits in a standard MAN TGS cab and "drives" the virtual vehicle using a sophisticated, multi-function steering wheel. Both manual and automatic transmission are available. Through on-screen projection and an electronic motion system, near-perfect simulation of actual driving situations is possible. Unlike conventional driver training, situations can be varied or repeated as often as desired and drivers systematically trained to avoid accidents.
- 03 Simulation-supported seminars offer a special and very realistic driving experience independent of location.



THE LATEST TECHNOLOGY. STRONG PRACTICAL FOCUS. REALISTIC, ALL-ROUND VISION.

After hours spent on the motorway with little to relieve the boredom, the first signs of driver fatigue appear as the truck veers from the inside lane towards the middle of the road. The driver fails to react in time and the truck crashes into the central reservation. Luckily, no other vehicle is involved in the accident. And it is also fortunate that this scenario took place in DEKRA Akademie's driving simulator, the most advanced of its kind in Europe.

Motorways, country roads, urban streets, mountain passes, deer crossing, black ice, pedestrians on the road, failing brakes and much more besides: At the click of a mouse, Reinhard Buchsdrücker, project manager of driving simulation at DEKRA Akademie GmbH in Hamburg, confronts drivers with every conceivable situation that professional drivers encounter every day on the road. Buchsdrücker can instantly evaluate the driver's performance, address any shortcomings and repeat the relevant scenario as often as desired. "I can even intervene in the simulation with another, autonomous vehicle," he says. For example, a car cuts in from the outside lane in front of the truck to take the exit road, forcing the truck driver to brake sharply.

The DEKRA trainer's workstation has the very latest driver assistance systems including ESP, adaptive cruise control and lane departure prevention system, which drivers can learn to use effectively in the simulator. Another valuable benefit of the simulator is its ability to educate drivers on how to achieve low fuel consumption and thus boost the efficiency of the fleet. Naturally, the training fully complies with the requirements of German legislation on professional driver qualifications.

OVERVIEW OF COUNTRIES



EUROPE

GERMANY

- » DEKRA e.V.
- >> DEKRA SE
- >>> DEKRA Akademie
- >>> DEKRA Arbeit
- ≫ DEKRA Automobil
- >>> DEKRA Certification
- >>> DEKRA Claims Services
- >>> DEKRA Consulting
- \gg DEKRA EXAM
- >>> DEKRA Industrial
- \gg DEKRA International
- >>> DEKRA Material Testing
- >>> DEKRA Personaldienste
- \gg DEKRA Testing and Certification
- \gg EuroTransportMedia

FRANCE

- >> DEKRA Automotive
- >>> DEKRA Certification
- \gg DEKRA Claims Services
- >>> DEKRA Conseil HSE
- \gg DEKRA France
- >>> DEKRA Industrial
- >>> DEKRA Inspection
- >>> DEKRA Systèmes

TURKEY

- \gg DEKRA Claims Services
- ≫ DEKRA Endüstriyiel
- >>> DEKRA Sertifikasyon

RUSSIA

- >>> DEKRA RUSS
- >>> TRANSDEKRA

UNITED KINGDOM

- >> DEKRA Certification
- >>> DEKRA Claims Services
- ≫ DEKRA Expert

ITALY

- >>> DEKRA Automotive Services
- \gg DEKRA Certification
- >>> DEKRA Claims Services
- >> DEKRA Consulting
- ≫ DEKRA Italia
- >>> DEKRA Revisioni Italia
- \gg DEKRA Testing and Certification

SPAIN

- >>> DEKRA Arbeit
- >>> DEKRA Certification
- >>> DEKRA Claims Services
- >>> DEKRA Expert
- >>> DEKRA Industrial

EUROPE (Continuation)

POLAND

- \gg DEKRA Certification
- \gg DEKRA Construction Management
- » DEKRA Industrial » DEKRA Polska
- >> DEKKA POISKa

ROMANIA

 \gg DEKRA Certification

NETHERLANDS

- >>> DEKRA Automotive
- » DEKRA Certification
- >>> DEKRA Claims Services >>> DEKRA Experts
- >>> DEKRA Keuringen
- » DEKRA Pre-Risk

NORWAY

≫ DEKRA Industrial

SERBIA

>>> DEKRA Arbeit

MONTENEGRO

 \gg DEKRA Arbeit

PORTUGAL

- >>> DEKRA Claims Services
- \gg DEKRA Portugal Expertises

BELGIUM

- >>> DEKRA Automotive
- >>> DEKRA Claims Services
- \gg DEKRA Experts

CZECH REPUBLIC

- >>> DEKRA Arbeit
- >>> DEKRA Automobil
- >>> DEKRA Certification
- >>> DEKRA Claims Services
- >>> DEKRA Qualitest
- \gg DEKRA Testing and Certification

HUNGARY

- \gg DEKRA Albasafe Akademie
- >>> DEKRA Arbeit
- >>> DEKRA Certification
- >>> DEKRA Claims Services
- >>> DEKRA Expert
- \gg DEKRA Megamos Akademie

SWEDEN

>>> DEKRA Automotive >>> DEKRA Industrial

AUSTRIA

- >>> DEKRA Austria Automotive
- >>> DEKRA Claims Services

BULGARIA

>>> DEKRA Automotive

SWITZERLAND >> DEKRA Claims Services

SLOVAKIA » DEKRA Arbeit » SLOVDEKRA

FINLAND » DEKRA Industrial

BOSNIA-HERZEGOVINA >>> DEKRA Arbeit

- LITHUANIA
- >> DEKRA Industrial

CROATIA

» DEKRA Ekspert » DEKRA Arbeit

- LUXEMBOURG
- >>> DEKRA Claims Services

UKRAINE

- >>> DEKRA Claims Services
- >>> DEKRA Expert

OVERSEAS

USA

- >>> DEKRA America
- >>> DEKRA Certification
- ≫ DEKRA Industrial

MOROCCO

- >>> DEKRA Automotive >>> DEKRA Claims Services
- >>> DEKRA Industrial

ALGERIA

- >>> DEKRA Industrial
- ISRAEL
- >>> DEKRA Certification

SOUTH AFRICA

- >>> DEKRA Automotive >>> DEKRA Certification
- >> DEKRA Industrial

BRAZIL

- >>> DEKRA Brasil Automotivo
- \gg DEKRA Expertises
- >> DNA Security Consultoria Tecnica em Veiculos
- ≫ Checkauto
- \gg Linces Vistorias / Linces Motores

JAPAN

 \gg DEKRA Certification

CHINA

- » DEKRA Shanghai
- \gg DEKRA Testing and Certification
- >>> DEKRA Testing Services
- >> DEKRA Testing and Laboratory Services
- \gg DEKRA WIT

HONG KONG

 \gg DEKRA Certification

ADDRESSES

DEKRA e.V.

Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 61 0 Fax +49.7 11.78 61 22 40 E-mail info@dekra.com

DEKRA AUTOMOTIVE

DEKRA Automobil GmbH

Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 61 0 Fax +49.7 11.78 61 22 40 E-mail automobil@dekra.com

DEKRA International GmbH

Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 61 43 01 Fax +49.7 11.78 61 43 02 E-mail international@dekra.com

DEKRA INDUSTRIAL

DEKRA Industrial GmbH

Handwerkstraße 15 D-70565 Stuttgart Phone +49.8 00.1 33 32 22 Fax +49.8 00.1 33 32 23 E-mail industrial@dekra.com

DEKRA Industrial S.A.

Parc d'activité Limoges Sud Orange 19, Rue Stuart Mill BP 308 F-87008 Limoges Cedex Phone +33.5 55.58 44 45 Fax +33.5 55.06 12 80 E-mail contact@dekra-industrial.fr

DEKRA SE

Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 61 0 Fax +49.7 11.78 61 22 40 E-mail info@dekra.com

.....

GKK Gutachtenzentrale GmbH

Lindemannstraße 47 D-40237 Dusseldorf Phone +49.2 11.68 78 06 0 Fax +49.2 11.68 22 69 E-mail duesseldorf@gutachtenzentrale.de

DEKRA Automotive S.A. 11–13, Avenue Georges Politzer – BP 152 F-78190 Trappes Phone +33.1.30 69 52 00 Fax +33.1.30 69 52 01 E-mail contact@dekra.com

DEKRA Certification GmbH

Phone +49.7 11.78 61 25 66

DEKRA Certification B.V.

Business Park Arnhems Buiten

+49.7 11.78 61 26 15

E-mail certification.de@dekra.com

Handwerkstraße 15

D-70565 Stuttgart

Utrechtseweg 310

NL-Arnhem, 6802 ED

Phone +31.26.3 56 20 00

Fax +31.26.3 52 58 00

E-mail customer@dekra.com

P.O. Box 5185

Fax

DEKRA Consulting GmbH

Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 61 25 21 Fax +49.7 11.78 61 22 02 E-mail consulting@dekra.com

DEKRA Claims & Expert Services International NV Lenneke Marelaan 12 B-1932 Sint-Stevens-Woluwe Phone +32.2.7 10 10 00

Fax +32.2.7 10 10 05 E-mail info@dekra-claims-services.com

DEKRA Industrial AB

Frösundaleden 2 S-169 99 Stockholm Phone +46.10.5 05 00 00 Fax +46.10.5 05 13 10 E-mail info.inspection@dekra.com

DEKRA Testing & Certification China Ltd.

10F #250 Jiangchangsan Road Building 16 Headquarter Economy Park Shibei Hi-Tech Park, Zhabei District Shanghai P.R.C 200436 Phone +86.21.60 56 76 66 Fax +86.21.60 56 75 55 E-mail info_shanghai@dekra-certification.cn

DEKRA PERSONNEL

DEKRA Akademie GmbH

Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 61 36 01 Fax +49.7 11.78 61 36 94 E-mail service.akademie@dekra.com

DEKRA Personaldienste GmbH

Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 6136 50 Fax +49.7 11.78 61 36 60 E-mail info.pd@dekra.com **DEKRA Arbeit GmbH** Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 61 32 03 Fax +49.7 11.78 61 32 08 E-mail info.arbeit@dekra.com

Euro Transport Media

Verlags- und Veranstaltungs GmbH Handwerkstraße 15 D-70565 Stuttgart Phone +49.7 11.78 49 80 Fax +49.7 11.78 49 824 E-mail info@etm-verlag.de

IMPRINT

DEKRA e.V. Communication and Marketing Handwerkstr. 15 D-70565 Stuttgart

Phone +49.7 11.78 61 28 76 Fax +49.7 11.78 61 29 12

Concept and Design HGB Hamburger Geschäftsberichte GmbH & Co. KG, Hamburg

Photography DEKRA Craig Bromley Photography, Atlanta, GA, USA Thomas Küppers, ETM Verlag, Stuttgart Andri Pol, Switzerland

Lithography Hirte GmbH & Co. KG, Hamburg

Printed by Bechtle Druck&Service GmbH & Co. KG, Esslingen a.N.





WWW.DEKRA.COM

DEKRA SE HANDWERKSTR. 15 D-70565 STUTTGART PHONE +49.7 11.78 61 0 FAX +49.7 11.78 61 29 12