

# AIR

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# LAND

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# WATER

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**BUSINESS REVIEW 2014**

**SGS**







**>80 000**  
*employees*

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**>1 650**  
*offices and laboratories*

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**ONE**  
*global network*

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## OUR VISION

We aim to be the most competitive and the most productive service organisation in the world. Our core competencies in inspection, verification, testing and certification are being continuously improved to be best in class. They are at the heart of what we are. Our chosen markets will be solely determined by our ability to be the most competitive and to consistently deliver unequalled service to our customers all over the world.

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## OUR VALUES

We seek to be epitomised by our passion, integrity, entrepreneurship and our innovative spirit, as we continually strive to fulfil our vision. These values guide us in all that we do and are the bedrock upon which our organisation is built.

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SGS is the world's leading inspection, verification, testing and certification company. We are recognised as the global benchmark for quality and integrity. With more than 80 000 employees, we operate a network of more than 1 650 offices and laboratories around the world.

We are constantly pushing ourselves to deliver beyond customers' and society's expectations. On air, land or water, we strive to create innovative and integrated services that add significant value.

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# AIR

PAGE 4

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# LAND

PAGE 24

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# WATER

PAGE 52

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# A WORLD OF VALUE

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When thinking of what to highlight in the SGS Business Review, there is always one difficulty – the sheer scope of what we do as a company. SGS services encompass nearly every part of people’s lives. The solutions we deliver to businesses, governments and institutions around the world benefit millions each day. Yet, it is only possible through illustrating the connection to our customers that the true extent of SGS’ reach can be shown.

To this end, I have decided to place our customers first and foremost in this year’s report. The case studies presented demonstrate the value SGS brings across a small, yet diverse range of our offerings globally. Whether it is helping mitigate air pollution or air travel risk, safeguarding nuclear materials transport or sustainability in new building, or enabling disease-free aquaculture or marine protection, SGS is committed to making a positive difference for companies, communities and individuals.





How do we do this? Around the globe, we remain the leader for inspection, verification, testing and certification. The business benefits we deliver are synonymous with today's expectations for safety, quality, trust, and sustainability; and the requirements of industry to realise speed to market, efficiency, productivity, and reduced risk. It is our ability to integrate these benefits through cross-industry services and innovative solutions that makes SGS the benchmark now, and for the future.

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REDUCED RISK."**

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**CHRISTOPHER KIRK**  
*Chief Executive Officer*



# AIR

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Our services help customers keep skies cleaner, travellers safer, and aircraft and airports operating more efficiently. We partner with the likes of aviation industry leaders British Airways on jet fuel quality assurance, facilitate safer air travel for Rio Tinto employees, input into new regulations as members of the Energy Institute and the Joint Inspection Group (EI/JIG), supervise construction at infrastructure projects as sizeable as Tan Son Nhat International Airport, and investigate vehicle emission levels for the American Petroleum Institute. In this section, read customer case studies on how our state-of-the-art technologies, customised audits and expert consultancy provide the knowledge that makes the sky no limit for global, sustainable business.

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ON



TIME

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# ON SPECIFICATION

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British Airways (BA) operates one of the most extensive international scheduled airline route networks. Flying to more than 70 different countries, with a fleet of 280 aircraft, robust operations and punctuality are crucial for customer satisfaction in BA's air cargo and scheduled passenger services. The airline uses SGS' customised audit solutions for its jet fuel logistics.

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With fuel costs estimated industry-wide to account for 30% of total operating spend, transparency and trust in the supply chain is essential. When BA needed a second-party audit of its jet fuel road transportation provider, it approached SGS for the solution.

## NEW STANDARD

The recently published Energy Institute and the Joint Inspection Group (EI/JIG) Issue 1 for EI/JIG Standard 1530, potentially fills the gap for a globally adopted standard across the aviation fuel refining, storage and distribution industry. SGS' in-depth knowledge of the new EI/JIG standard – SGS is a member of the EI/JIG – helped BA with additions to audit scope taking into account the new developments from EI/JIG.

## A PARTNER FOR EXCELLENCE

"British Airways has worked with SGS for over a decade for fuel quality verification," says Christopher Watt, Fuel Operations Manager for British Airways. "SGS has also previously verified the quality of fuel delivered by ship before BA took possession in port, so we asked SGS to design a customised audit of our new jet fuel road transportation provider. We also use SGS to verify that emissions are recorded and reported accurately before we submit them to environmental agencies and competent authorities. As SGS know our expectations and requirements, they were able to meet our specifications as an audit partner."

## DELIVERING TRANSPARENCY

SGS' comprehensive review of all operating and quality aspects, including onsite vehicle loading of fuel and final delivery practices at the destination airports, covered among others: confirming driver records, ensuring up-to-date training and correct licenses, checking schedules met industry-approved driving hours, determining in-date vehicle documentation, observing secure parking on site and during transportation, validating that an appropriate system is in place for HSE reporting and tracking, and delivering transparency through ensuring the supplier had the correct procedures in place to record and track its activities.

## BEYOND EXPECTATIONS

"What BA needed from SGS was to provide an auditing system for our new road transportation service," continues Christopher. Facilities at ports or pipelines which are jointly owned by oil companies already have audits in place checking and confirming best practices in fuel quality. However, for BA's new road transportation service we needed a new audit system and SGS provided a comprehensive package which allowed us to understand what was needed and how quality assurance could be audited and demonstrated in this new arena. Additionally, the network SGS offers meant their people could cover all BA locations as required. Ultimately, SGS' understanding of the audit scope, attention to detail and timely delivery of the final report made for an impressive audit process – SGS went beyond our expectations in this respect."





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OUR EXPECTATIONS  
IN THIS RESPECT."**

**CHRISTOPHER WATT**  
*Fuel Operations Manager,  
British Airways*

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# \$212 BILLION

*is the estimated aviation industry spend on jet fuel – almost 30% of total operating costs*

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# 3.5X HIGHER

*contribution to the global economy by aviation jobs compared to other industry jobs*

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# 3 LITRES

*of jet fuel per 100 passenger/kilometres makes the new Airbus A380 and Boeing 787 as fuel efficient as most modern compact cars*

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# \$606 BILLION

*would be the GDP of the aviation industry if it were a country – nearly the same amount as the country where SGS is headquartered:*  
**Switzerland**

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# 70%

*of jet aircraft in service today are >70% more fuel efficient per seat/kilometre than jet aircraft of the 1960s*

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# A Doo

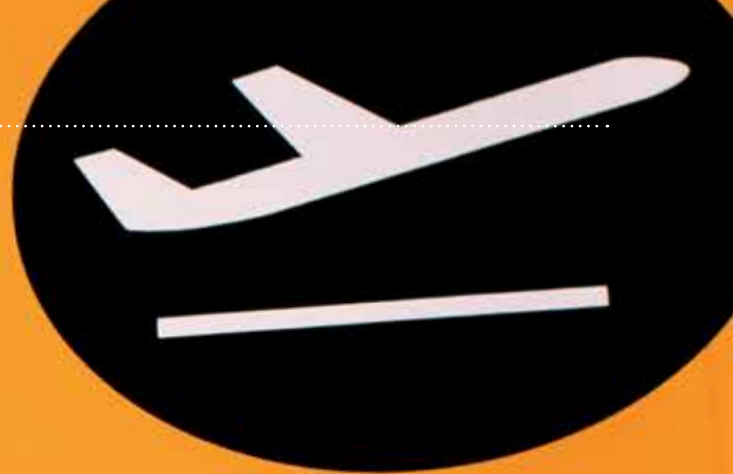
## SETTING THE STANDARD FOR **JET FUEL** AUDITS

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Historically, a small number of integrated oil companies ensured aviation jet fuel arrived on specification, clean, dry, fit-for-purpose, and according to each airline's company proprietary manuals. However, that is set to change as major oil companies divest their downstream assets, and step back from monitoring quality in the aviation fuel supply chain.

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# 18 r A



The Energy Institute and the Joint Inspection Group (EI/JIG), of which SGS are members, recently published Issue 1 of a new standard concerning aviation fuel refining, storage and distribution industry: EI/JIG Standard 1530. The document was developed as a joint EI/JIG publication to include the existing technical content of JIG 3 related to upstream storage terminals and to expand this to include refinery operations. The new standard aims to firmly place responsibility for the quality and cleanliness of aviation fuel on each of the parties involved in its journey from refinery to airport. Aviation fuel passes through many hands from initial production to subsequent storage and handling, and the EI/JIG Standard 1530 is a response to the concern that a single defining standard for quality management does not currently exist. A concern that prompted the International Civil Aviation Organisation (ICAO) to reference EI/JIG Standard 1530 in its Doc 9977 'Manual on Civil Aviation Jet Fuel Supply' which it supplied to the civil aviation authorities of the 191 Member States of ICAO.

## A FIRST FOR QUALITY MANAGEMENT

For the first time with regards aviation fuel, EI/JIG 1530 sets out specific quality management requirements from point of manufacture through an often complex and diverse distribution system, including best practice for: quality assurance and traceability; management of change; sampling and testing of fuel; fuel testing laboratories; fuel manufacture; handling and application of aviation fuel additives; aviation fuel receipt, batching, certification and release; bulk fuel storage; ocean tankers, coastal and inland waterway vessels; transportation by pipeline, rail, road; and by drum, IBC and ISO tank containers.

## LEADING THE CHANGE

To meet EI/JIG 1530 requirements, all facilities throughout the supply chain need to demonstrate their conformance through a completed gap analysis including a risk assessment and a plan for closing the identified gaps. SGS can support companies in the form of training, customised audit solutions, gap audits, pre-audits, supply chain solutions and limited assurance verifications against the requirements of the EI/JIG 1530 standard.

Another example of how SGS is directly benefitting the aviation industry at a time when more flights than ever are taking to the skies – over 100 000 per day indicated in a recent report by the Air Transport Action Group (ATAG).



# SKY HIGH SAFETY

Whenever employees take to the skies there is risk. If flights involve lesser known commercial airlines or air travel within the higher-risk category of specialised charter flights, then that risk is significantly higher. Since 2006, Rio Tinto has accessed the services of SGS HART Aviation to ensure its people fly safely.

Rio Tinto is a leading global mining and metals company. For 140 years it has been finding, mining and processing the Earth's mineral resources: metals and minerals that help the world to grow. With 60 000 people working in more than 40 countries across 6 continents, operations cover some of the most difficult terrains and climates in the world. How to get employees in and out of work facilities often has only one answer: air travel.

## BEYOND AUDITS

Each year, SGS HART Aviation conducts more than 700 aviation audits and inspections in 60 countries. For Kevin McLeish, Global Practice Leader for Safety at Rio Tinto, this impressive annual auditing figure is just one reason to entrust the safe travel of Rio Tinto employees to SGS. He explains, "Rio Tinto views SGS as more than just an audit company. SGS is a provider of operational experience and advice in the widest sense of the word."

"As a global company Rio Tinto operates in some well regulated areas such as Western Australia and in more challenging environments such as areas in West Africa. In regions where there is less regulation provided by the government, it is important for any company to correctly set up its own operational infrastructure and control system. SGS has been instrumental in helping Rio Tinto to do that, and much more besides."

# INDEPENDENT INSPECTION

The ability of SGS to independently inspect aircraft operators and infrastructure anywhere in the world means confidence and peace of mind for customers. As Kevin makes clear, this encompasses a wide variety of aviation services. "Rio Tinto doesn't own any aircraft, we lease everything in," he elaborates, "and our operations cover an incredible breadth of aviation: plane charters in Western Australia where we have airfields operating Boeing 737 and Airbus A319 aircraft to helicopter operations at harbours around the world where we have to get marine pilots on board our ships to navigate in and out of port. Anywhere in the world Rio Tinto contract helicopters and fixed wing aircraft, SGS ensures we operate them safely."

"That does not just mean the aircraft themselves, SGS helps us establish fully functioning airfields and helicopter landing strips, and wherever we fly, SGS makes sure proper operating procedures and standards are followed at all times."

## COMPLEX AND TECHNICAL

The aviation industry is by its very nature complex and technical. Companies such as Rio Tinto, which rely on aviation to support their operations, recognise the efficiencies of working with an independent third party. Advising on 'aviation policy' is another service SGS provides for Rio Tinto. While there are many pilots and charter aircraft operators in the world, finding those which meet the stringent operational, qualification and experience standards required by Rio Tinto is not an easy task.

SGS speeds up this process of identifying aircraft, pilots and charter and maintenance companies and ensures they continually meet industry regulatory standards and any internal codes of conduct – another service which SGS worked closely with Rio Tinto to produce. "We needed to review and revise the internal Rio Tinto aviation safety standards," explains Kevin, "and SGS played a vital role in helping us draft these new standards. Rio Tinto's aviation standards cover everything from how we expect operations to run, to the required level and experience of pilots, and the type of equipment we have on aircraft to ensure a safe operation. The expert advice, extensive qualifications and significant industry experience of SGS really contributed to making our standards comparable against the best in the industry."

## ENABLING BUSINESS WORLDWIDE

"Aviation is a key enabler for Rio Tinto," Kevin concludes. "It enables us to go about our business. We need the help and advice from an organisation like SGS because they understand what we expect from our suppliers and can link that to what the aviation industry requires. We know SGS can provide this in a uniform way wherever in the world we need. The solutions SGS delivers for Rio Tinto around the globe are absolutely critical for our operations."

**"AVIATION IS A KEY ENABLER FOR RIO TINTO. IT ENABLES US TO GO ABOUT OUR BUSINESS. THE SOLUTIONS SGS DELIVERS FOR RIO TINTO AROUND THE GLOBE ARE ABSOLUTELY CRITICAL FOR OUR OPERATIONS."**

**KEVIN MCLEISH**

*Global Practice Leader for Safety, Rio Tinto*

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**700**  
*aviation audits  
and inspections  
in 60 countries*

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# AIRLINE RISK CALCULATOR (ARC)

The Airline Risk Calculator (ARC) is a risk analysis tool maintained by SGS. ARC provides companies with detailed information and relative risk ratings for scheduled airlines from all over the world. Each airline is awarded a risk rating (from 1 to 10) which can be used for comparison and assisting in the development of company travel guidelines. As an online tool, ARC ensures alerts and expert analysis on significant industry events, and monthly reports on which scores have changed and why, are available 24/7.

## REVIEWS OF EACH CARRIER TAKE INTO ACCOUNT:

✓	ACCIDENT AND INCIDENT RECORD
✓	FLEET COMPOSITION, AS WELL AS INDIVIDUAL AIRCRAFT TYPES AND AGE
✓	MAINTENANCE ARRANGEMENTS
✓	REGIONAL AIRLINE SAFETY FACTORS
✓	COUNTRY SECURITY AND REGULATORY OVERSIGHT
✓	TECHNICAL PARTNERSHIPS AND AFFILIATIONS
✓	COMMERCIAL ALLIANCES AND FINANCIAL STABILITY

## SGS HAS EXTENSIVE EXPERIENCE IN A COMPREHENSIVE RANGE OF AVIATION SERVICES INCLUDING:

✓	SAFETY AND TECHNICAL AUDITS OF CHARTER OPERATIONS
✓	FLIGHT SAFETY FOUNDATION BASIC AVIATION RISK STANDARD (BARS) AUDITS
✓	HELIDECK INSPECTION AND CERTIFICATION
✓	INSPECTION OF AIRFIELDS AND HELICOPTER LANDING SITES (HLS/HELIPADS)
✓	AIRCRAFT INSPECTION
✓	ASSESSING AND ADVISING ON SPECIALIST FLYING OPERATIONS (LOW LEVEL, AERIAL/GEOPHYSICAL SURVEYS, MARINE PILOT TRANSFER ETC)
✓	CUSTOMISED TRAINING AND WORKSHOPS
✓	AIRLINE RISK ASSESSMENT
✓	ACCIDENT AND INCIDENT INVESTIGATION
✓	AVIATION STANDARDS AND POLICIES
✓	AVIATION PROCUREMENT AND TENDERS
✓	ONSITE AVIATION OVERSIGHT AND MANAGEMENT
✓	UAV OPERATIONS AND RISK ASSESSMENTS

# FUELLING SUCCESS

Tan Son Nhat Airport began life in the 1930s as a small local village airfield. By the late 1990s soaring air traffic had turned this tiny runway into one of the world's busiest airports. Following construction of a new international terminal in 2007, the Tan Son Nhat Petrol Commercial Joint Stock Company (TAPETCO) contracted SGS Vietnam Ltd. in 2013 for project management consultancy and construction execution supervisor for the construction of aviation fuelling facilities at Tan Son Nhat International Airport.









Serving Ho Chi Minh City and Vietnam's southern region, Tan Son Nhat International is the largest international airport in Vietnam in terms of area. According to the Vietnamese Ministry of Transport estimates, the airport has the potential to serve up to 23.5 million passengers and process more than 600 thousand tons of cargo annually by 2015. But for that to happen, flights need fuel.

## VIETNAM'S FIRST UNDERGROUND FUELLING FACILITY

TAPETCO was established in 2008 and licensed in 2009 for the provision of aviation fuel services at Tan Son Nhat International Airport. The fuelling project required TAPETCO to construct Vietnam's first underground aviation fuelling facilities: 3 new aboveground Jet A-1 storage tanks with 3 009 cubic metres each, providing a total of 9 027 cubic metres of working capacity including all required airport depot systems and an underground pipeline system to connect with the existing fuel hydrant system (FHS).

## BEST-IN-CLASS PARTNER

Due to the extensive experience and proven expert competence of SGS in projects of this kind, Madam Doan Thi Mai Huong, chairperson of TAPETCO knew SGS had the right skills to make the project a success. "Guaranteeing the highest level of safety for airplanes during re-fuelling is TAPETCO's number one responsibility," Madam Huong makes clear, "and in such an important project we needed to choose a best-in-class partner. The project management consultancy and construction execution supervisor from SGS allowed us to reduce technical risks, prevent construction errors, control budget costs, and keep the project moving to the planned schedule. Having SGS construction supervisors working onsite and delivering professional construction supervision services we successfully completed the project to all relevant regulations and quality standards."

**"SGS HAS BEEN INSTRUMENTAL IN HELPING TAPETCO REDUCE TECHNICAL RISKS, PREVENT CONSTRUCTION ERRORS, CONTROL BUDGETS AND MEET ALL RELEVANT REGULATIONS AND QUALITY STANDARDS."**

**MADAM DOAN THI MAI HUONG**  
*Chairperson of TAPETCO*

# 600 000

*tonnes of cargo annually by 2015*

# 23.5

## MILLION

*passengers potential by 2015*

# 3 009 M<sup>3</sup>

*storage tanks (3 in total)*

# 9 027 M<sup>3</sup>

*of working capacity*

# 146 000

*landings and takeoffs per year*

## UNDERGROUND PIPELINE SYSTEM

# CLEANER SKIES

## FROM LOWER EMISSION VEHICLES

The United States already has the toughest vehicle exhaust emissions standards in the world. These strict standards reflect the thinking of the US Environmental Protection Agency (EPA) which states: “Emissions from motor vehicles are the primary source of ozone-causing pollutants, accounting for almost half of our air pollution.”

Remarkable improvements in urban air quality have been realised over the past decade as automakers have introduced clean technology vehicles that use lower sulphur fuels.

Starting in 2017, the EPA is introducing even more stringent ‘Tier 3’ fuel and emissions regulations that should lead to an 80% reduction in hydrocarbon and nitrogen oxide pollutants from light-duty vehicles by 2025.

### INVESTIGATING GASOLINE SULPHUR CONTENT

SGS is partnering with the automotive and energy industries to develop pathways to meet the new Tier 3 emissions standards. Leading up to the Tier 3 rulemaking, the American Petroleum Institute (API) commissioned SGS to perform an independent study to investigate the impacts of gasoline sulphur content on catalytic converter performance at the SGS environmental testing centre located in Aurora, Colorado.

This state-of-the-art facility features a comprehensive array of engine and vehicle chassis dynamometer laboratories used for research, development and emissions certification.

Gasoline-powered vehicles feature three-way catalysts that reduce engine exhaust emissions. Fuel sulphur is known to poison automotive catalysts, but the impact on emissions was only understood for older technology vehicles. To enable the use of advanced catalyst coatings and materials, the EPA proposed to limit the sulphur content of gasoline to an annual average of 10 ppm (parts per million) for Tier 3; but, pending further study, did not initially specify an upper fuel sulphur limit.


### REVERSIBLE EFFECTS

SGS tested 6 late model vehicles using gasoline ranging from 10 to 80 ppm sulphur. The study provided more information for the EPA Tier 3 rulemaking process. Testing was performed in a chassis dynamometer lab compliant with EPA emissions certification requirements. SGS used highly sensitive instruments to accurately measure tailpipe pollutants, and performed statistical analysis to determine sources of variation for these very low emission vehicles. SGS concluded that any catalyst poisoning effects caused by exposure to 80 ppm sulphur fuel were reversible after refuelling the vehicles with 10 ppm sulphur fuel.

### INDEPENDENT FINDINGS

SGS’ independent study of fuel sulphur effects on light-duty vehicle emissions provided objective information to both government and industry for this important regulatory process. In 2014, the EPA finalised the Tier 3 rules requiring gasoline to have an annual average sulphur content of 10 ppm and also concluded: “The 80 ppm sulphur cap is sufficient to allay concerns over irreversibility or sulphur poisoning.”



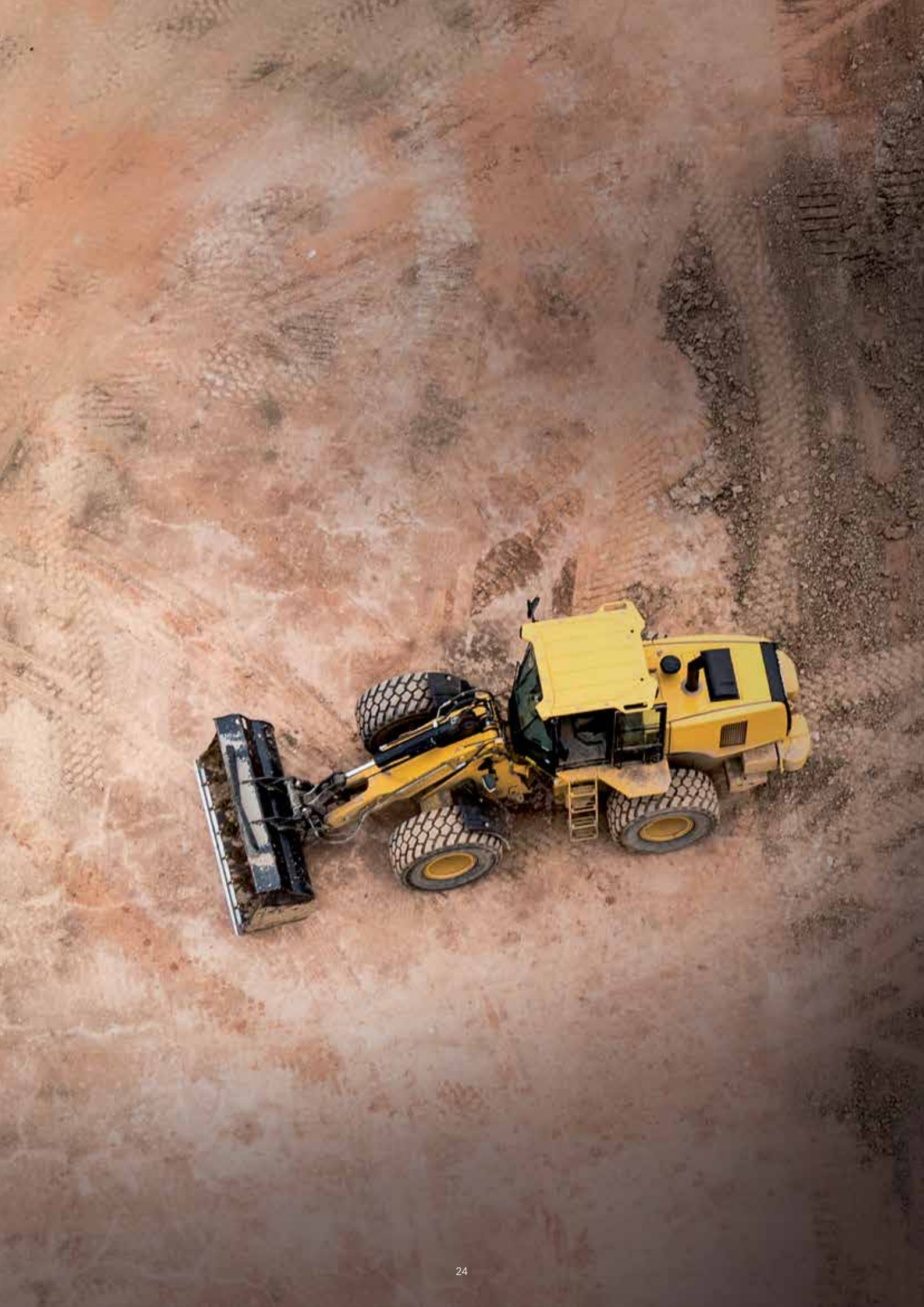


"The American Petroleum Institute (API) chose to partner with SGS through a competitive bidding process that considered cost, corporate qualifications, technical expertise and experience of the project team, as well as timeliness. SGS ranked high in all of these areas. The results of the test program were reported and delivered in a timely manner and provided valuable science-based support for API advocacy on the gasoline sulphur requirements adopted in the EPA Tier 3 rulemaking."

**THE AMERICAN PETROLEUM INSTITUTE (API)**

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# LAND

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Wherever we partner with our customers, SGS' local presence connects them with the needs of countries, communities and individuals. Our services save lives in industrial emergencies in Spain, keep people safe from radiation risk in Australia, help Southern European governments fight fraud, facilitate transparent trade and tax solutions for African governments, create greener buildings in Asia, and further long-term sustainable work environments in the UK. In this section read customer case studies on how SGS makes a difference to the lives of millions and the places they inhabit.

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# EMERGENCY RES

Accidents or medical emergencies in the confines of industrial, oil and gas, chemical, marine, or other high-risk environments, require a unique set of skills from first-on-scene-responders. For E.ON, one of the leading European companies in the electricity sector, the trusted and expert personnel they call upon when an emergency strikes are the SGS Industrial Rescue Teams (IRTs).

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# CUE

**"WE WENT TO SGS INDUSTRIAL RESCUE TEAMS TO FACE THE CHALLENGE OF AN OPERATION OF HIGH TECHNICAL AND HUMAN COMPLEXITY. WITH SPECIALISED ADVICE FROM THE FIRST MINUTE, RAPID DEPLOYMENT OF ALL NECESSARY MEANS, TOGETHER WITH THE PROFESSIONALISM OF ITS STAFF, THE RESULT OF THE OPERATION WAS A SUCCESS."**

**CONCEPCIÓN GOMEZ MEGIA**

*Health & Safety Manager Generation, E.On Spain*

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Highly trained and specialised units, IRTs from SGS really are 'life savers' in the truest sense of the word. In the last two years, SGS IRTs have saved lives during real interventions at various industrial facilities. The passion, dedication and commitment of the members of SGS IRTs mean they are fast becoming the benchmark for excellence in industrial rescue, safety management and risk control services.

## EQUIPPED TO RESPOND

Rescue within industrial spaces often goes beyond the capabilities of regular emergency services. Employees working in such environments can succumb to any number of dangers: trapped in confined spaces, suspended hundreds of feet above ground, stranded below sea level, or exposed to potentially flammable or toxic atmospheres. The complexities and challenges of industrial facilities demand emergency responders be ready to deal with any number of obstacles from the moment they step on site. This is why SGS IRTs must first pass one of the most rigorous, in-depth and physically demanding selections for emergency responders imposed anywhere in the world.

## ALWAYS READY 24/7

On any given day, SGS IRTs may be called 24/7 to attend situations in environments like those above. Each team member possesses a detailed knowledge of how to successfully manage many areas of emergency response including high angle rope rescue, aquatic intervention, fire-fighting assistance, and personnel extraction and evacuation.

And to ensure rescue leads to survival for the injured party, each team member undergoes advanced emergency first aid training, with one team member always qualified as a paramedic.

## ARRIVING IN TIME

Before any rescue can take place, SGS IRTs must get to an emergency in time, and have the correct equipment. Depending on the necessity, each team has at their disposal a choice of off-road units: light/rapid response vehicles, aquatic and diving units, and heavy intervention vehicles (i.e. cranes, towers, fire-fighting). Each unit carries full rescue, advanced life support and stabilisation equipment, and command and control communications solutions.

## EMERGENCY RESPONSE SOLUTIONS

For companies employing the services of SGS IRTs at their facilities, the solutions SGS provides really are, without doubt, an 'investment for life'.

SGS IRTs range of specialist emergency response solutions include:

- Integral preventive care in large industrial works and unique projects
- Safety coordination and emergency response intervention (ERI)
- SGS safety school
- Coordination of business activities (CBE)
- Fall arrest installation, inspection and certification
- Emergency brigades
- Contractors safety management
- External risk prevention service
- Emergency response service
- ATEX equipment certification laboratories, industrial hygiene, asbestos, and more

### RESCUE EQUIPMENT

- Extrication
- Confined spaces material
- Personal protective equipment for high angle rescue
- Chemical protective suits
- High angle rescue material

### FIRST AID EQUIPMENT

- Automated external defibrillator (AED)
- Immobilising splints
- Upper body immobiliser (FERNO keed)
- Oxygen therapy material
- Stretcher for high angle rescue


### RESCUE VEHICLES

- Light/rapid intervention vehicle
- Aquatic intervention unit
- Diving equipment
- Outboard powered boat
- Heavy intervention vehicle
- Auto-load crane
- Lighting tower
- Fire-fighting equipment

### COMMUNICATIONS EQUIPMENT

- Control stations for coordination with the customer
- Hands-free communications via throat activation
- UHF radios
- EX radios (private channel and encrypted for rescue actions and recordings)
- EX camera that allows live broadcasting.





**365/24/7**

*rapid response time*

**MINIMUM**

*three persons in each IRT*

**ADVANCED**

*life support trained*

**STRICT**

*selection criteria  
for each IRT member*

**VOICE &  
IMAGE**

*recording units with  
remote streaming*

**COMMAND**

*and control solutions  
in all deployed IRT vehicles*



# RADIATION





# PROTECTION

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**SGS AUSTRALIAN RADIATION SERVICES (SGS ARS), FORMERLY KNOWN AS AUSTRALIAN RADIATION SERVICES PTY. LTD., WAS FOUNDED IN 1996. FROM THE BEGINNING, SGS ARS HAS BEEN AT THE FOREFRONT OF CHAMPIONING INNOVATIVE, PRACTICAL, AND COST-EFFECTIVE RADIATION MEASUREMENT AND PROTECTION SOLUTIONS.**

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Being a multidisciplinary consultancy and well versed in State and Commonwealth radiation legislation, SGS ARS was approached by a Commonwealth government entity for help with undertaking a volume reduction of their legacy radioactive source inventory, including sealed capsules and laboratory reagents containing uranium and thorium. The project, which is still in operation, involves providing expert consultancy services and project managing logistics to facilitate packaging according to dangerous goods regulations, shipment and subsequent export disposal of the material.

## THE WORLD'S LARGEST URANIUM RESOURCES

Based on government figures, Australia has the world's largest reasonably assured resources (RAR) of uranium and exported 6 969 tonnes of uranium (8 218 tonnes  $U_3O_8$ ) valued at \$696 million, in 2012. Uranium exports from Australia are transported to US, Japan, China, South Korea, Canada, India, Russia, the UAE, and many members of the European Union (United Kingdom, France, Germany, Spain, Sweden, Belgium, and Finland): all exports must meet stringent safeguard criteria.

## MINIMISING RISK

For the Commonwealth government entity, minimising risk to those involved in the handling and packaging of radioactive material, as well as the transit of the material, and any possible public exposure to the general population along the transit route, is a top priority.

SGS ARS enacts operations and applies processes for dealing with the radioactive material in a manner that protects human health and the environment.

The planning for such projects includes:

- Setting dose constraints on radiation exposure to ensure that doses to project personnel do not exceed legislated radiation dose limits
- Identification and classification of sources as to physical and chemical characteristics
- Researching availability of documentation to support the selection of transport packaging requirements according to national and international regulations
- Assessment of potential hazards and evaluate nature of risks before any source is handled
- Developing safety, radiation protection measures and contingency plans

Radioactive material for disposal is conditioned according to the acceptance conditions of the recipient facility as well as the radiation regulatory agency of that jurisdiction. The radioactive material is only shipped to those facilities having the appropriate regulatory licencing to accept such material. Containers used to transport the radioactive sources comply with the design limits within the International Atomic Energy Agency transport regulations.

## KEEPING PEOPLE SAFE

The successful completion of this project and many others for research facilities, medical agencies, government departments, health authorities, and the mining industry, demonstrates why SGS ARS is a trusted partner in keeping people safe whenever radiation sources are present.

# 6 969 TONNES

*of uranium (8 218 tonnes  $U_3O_8$ ) exported by Australia in 2012*

# 34%

*of the world's uranium resources are located in Australia*

# \$696 MILLION

*generated from Australian exports of uranium in 2012*

# 20 MILLION

*consignments of radioactive material are transported globally per year*







# DRIVING CONSUMER **CONFIDENCE**



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For over a decade, SGS has pioneered Fuel Integrity Programmes (FIPs) for governments and oil companies around the globe. FIPs target fuel fraud and tax evasion. In Serbia, where estimates place 5–10% of fuel in the adulterated and/or diluted category, an SGS-led consortium (comprising SGS, Authentix and Nanoinspekt) recently implemented a FIP, which in less than 6 months resulted in a 46% increase in revenues.

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Adulteration and/or dilution of fuel significantly impacts on quality, consumer confidence and potential for environmental health risks. SGS is a world leader in providing governments with transparency in national fuel distribution systems. FIPs from SGS are a true 'one-stop-shop' outsourced solution.

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## **SUPPORTING THE FIGHT AGAINST FRAUD**

The Ministry of Energy, Development and Environmental Protection of the Republic of Serbia contracted SGS to implement a FIP in 2014. Its aim was to support enforcement efforts in tax compliance, identify outlets trading in illicit fuel, and ensure only correctly taxed fuel of specified quality is sold nationwide in Serbia.

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## **ADVANCED TECHNOLOGIES AND SOLUTIONS**

Rapid slow-down of trade in illicit fuels in Serbia happened in an extremely short timeframe. SGS' specialist FIPs teams use advanced marker technologies and professional surveillance, together with a secure electronic database system to identify and trend activity on illicit fuel at a national and regional level. Fuel testing and data analysis results from the system are available online via a secure interface, meaning in Serbia the Ministry of Energy, in collaboration with the Ministry of Trade, could immediately begin monitoring and mitigating against tax evasion.

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## **RAISING EXPECTATIONS**

According to the Deputy Prime Minister Zorana Mihajlovic, the Government of Serbia realised growth in diesel and gasoline sales of 13.9 and 18%, respectively, in the first 6 months of FIP operation. In fact, the success of the program has already raised expectations that by the 12-month mark, a 50% increase in excise taxes, totalling EUR 60 million, could be achieved.

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## **ONE SOLUTION, MULTIPLE BENEFITS**

The highest tax revenues ever recorded, and demonstrated consumer confidence from increased fuel sales, has resulted in the Government of Serbia requesting that SGS extends the FIP scope to include LPG monitoring. With so many positive benefits to Serbia's economy, environment and citizens, FIPs from SGS are just one more solution bringing multiple benefits to the lives of millions.

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**46%**  
*increase in tax revenues*

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**50%**  
*increase in excise taxes*

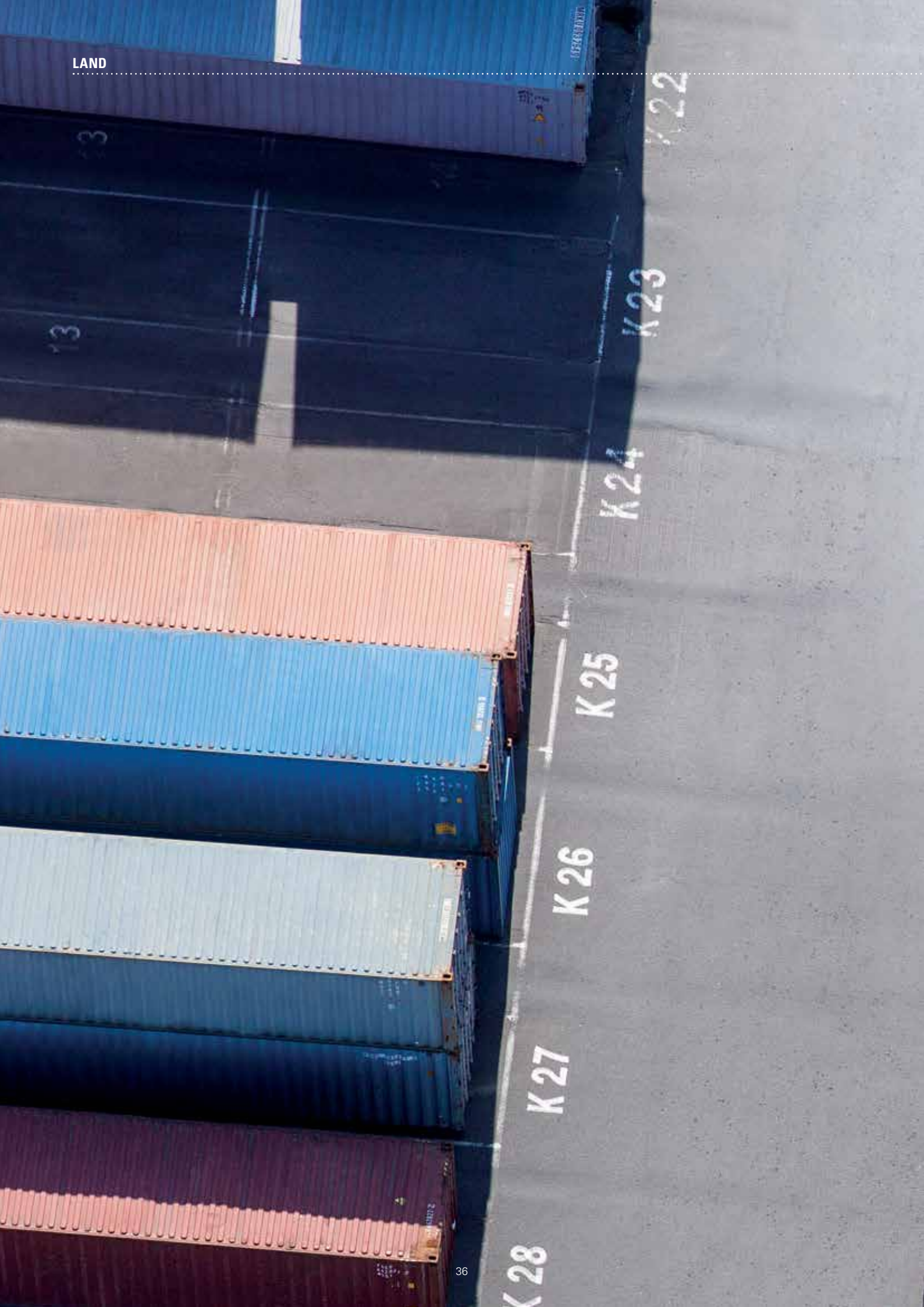
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**18%**  
*increase in sales of gasoline*

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**13.9%**  
*increase in sales of diesel*

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# TRADING THROUGH A SINGLE WINDOW

For over 50 years, SGS has been providing innovative services to governments around the world which streamline and secure the trade supply chain and enhance economic growth. One such solution from SGS – the Single Window trade facilitation platform – has been radically transforming the trade environment in Ghana, Madagascar and Mozambique.

Beyond simply a Port Community System or a Customs Management System, the SGS solution is a full supply chain facilitation application which is designed specifically to facilitate trade. Plus, it also sets the foundations towards a full E-Government system.

SGS partners with technology company CrimsonLogic from Singapore. CrimsonLogic provides the technology, while SGS acts as strategic investor, speeding up the process of set up to fully functioning Single Window platform for the country involved.

## MAKING A COMPLEX SYSTEM WORK

In financial and operational terms, a Single Window project is a significant undertaking for any country to implement. Establishing a system as complex and interconnected as TradeNet technology, requires extensive project management skill and acumen. SGS makes this daunting task easier through the establishment of Public Private Partnerships (PPP). By working in full commercial partnership with governments, SGS is able to succeed in rolling out projects of this difficulty, size and scope in a very short timeframe. As a result, the trading community quickly benefits from a more fluid supply chain and the government rapidly enjoys increase in revenues related to import duties and taxes thus fulfilling its mission.

All countries having implemented our Single Window solutions have subsequently enjoyed an improvement in their ranking within the World Bank 'Doing Business' annual report.





## RECOGNISED FOR LEADERSHIP

Most countries in the world are today embarking on Single Window projects in various forms. For countries like Ghana, the PPP with SGS has been so successful it has been said that GCNet – as Ghana's Single Window system is known – is arguably one of the most successful PPPs ever initiated in the country. The programme has evolved over the years well beyond trade, now managing tax administration and business registration. In Mozambique, SGS' MCNet company processes over 1 million data transactions per year, connecting, all over the country, nearly 3 000 users including clearing agents, freight forwarders, seaports, airports, commercial banks and many government agencies. Additionally, in Mozambique, SGS operates a 'Customs Management System' which is providing the Customs Administration with a powerful, modern application to manage its internal operations. It is really no surprise the solution and methodology from SGS have been recognised by the World Bank and World Customs Organisation as an example of best practice.

## PARTNERS FOR THE LONG TERM

Collaboration, inclusiveness and long-term value are what drive SGS in any Single Window integration. At the heart of all projects is the notion of sustainability. SGS ensures sustainability by developing people and transforming the economy.

By investing not only in the capital expenditure, but importantly also in the significant recurring costs associated with operating a Single Window, SGS is able to ensure a continuously evolving development programme. Through establishing training and capacity building programmes for all trade parties involved in the project, governments see the full benefit of increased transparency, accountability and increased compliance.

SGS understands the need to take a holistic approach to Single Window programmes, and create a system that is good for traders and governments alike. Such programmes succeed with governments who hold a long-term vision and strategy. The successes of SGS in this domain are directly correlated to the commitment of the governments and all involved to realise their vision of the future.

## TRANSFORMING FUTURES

With successful stories in Ghana, Madagascar, and Mozambique, plus high-level advice to countries such as Mongolia and countries in the Caribbean region, SGS is at the forefront of transforming the future of trading through Single Window solutions.

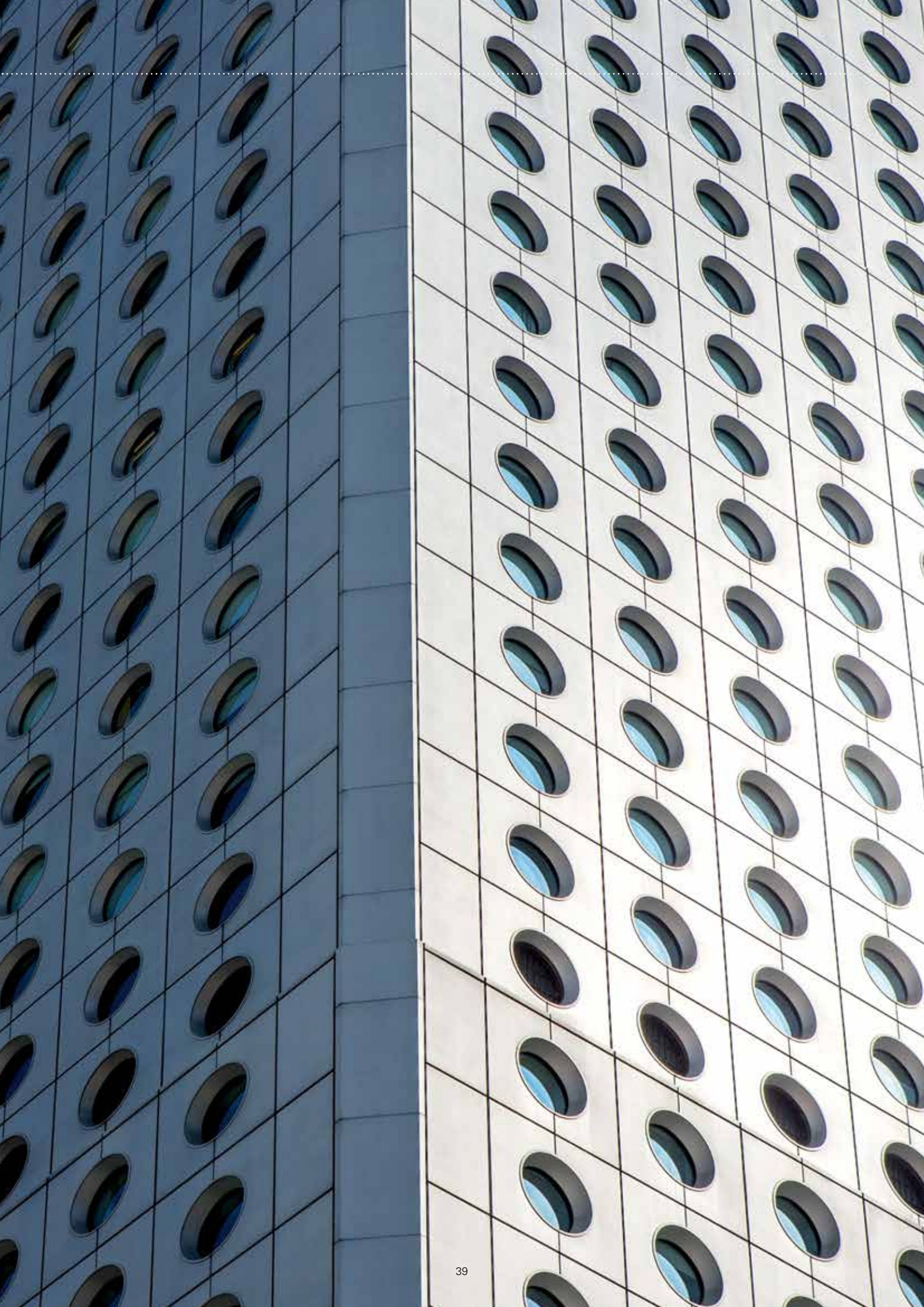
TradeNet technology from SGS is built on a modular principle, which act as individual solutions for customers including:

- Full Ship Arrival and Manifest processing module: ensures all manifests are automatically received by Shipping Agents and routed to Customs, to the port and to any other authorised recipient
- Full Configurable Controlling Agency module: controls an automated request, back-end processing and delivery of permits, licenses, concessions and exemptions

- E-Payment module: enables all operators to pay duties, taxes and other charges electronically
- Transit and Guarantee management module: ensures that all transit consignments are correctly accounted for, and allows the associated guarantee to be correctly managed and enforced when necessary
- Scanner interfacing module: enables the data exchange with the software provided by scanner manufacturers to ensure the exchange of scanned documents and scanned images
- Customs Management System interface module: ensures the ability to implement a Single Window regardless of the software application customs use

**"WE HAVE CHOSEN TRADENET TO FULFILL OUR VISION OF TRANSFORMING CUSTOMS TO BECOME THE BEST SERVING PUBLIC INSTITUTION IN THE COUNTRY."**

**DR DOMINGOS TIVANE**  
*Director General Mozambique Customs*









# YOU ONLY SELL ONCE

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Nonwoven-based absorbent hygiene products (i.e. baby diapers, feminine hygiene products, incontinence products) are a market segment experiencing rapid growth. In Asia, 3 countries alone account for a third of the world's infants – China, India and Indonesia – and the continent is already witnessing the construction of 20 new diaper plants by key industry players. At the other end of the lifecycle, in less than 5 years it is estimated that 1 billion people will soon pass the age of 60. Facts that make the acquisition of Courtray Consulting SARL – a leading provider of performance testing, validation and expertise services in the global disposable hygiene industry – an extremely well timed expansion by SGS in the nonwoven sector.

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Established in 1988, Courtray Consulting is based in Douai (North of France). The inventor and holder of at least 10 patents for the testing of absorbent hygiene products, Franck Courtray is the founder of Courtray Consulting, and a respected and recognised expert in his field. After 25 years in business, he provides an insight into why the acquisition by SGS came at the perfect time.

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## THE 'SPRINGBOARD EFFECT'

"We were a small company, 10 people in total, but very specialised in terms of what we offered our customers," Franck begins. "There was no question a lot of companies would use our services outside of Europe, if only we could make ourselves visible to them. What SGS made possible was to scale up our marketing and global reach. The SGS network is immense, and gives an immediate effect on lead generation and securing new customers. I think of it as a 'springboard effect', that opportunity to take the next leap, which I alone could not make, but SGS makes possible."

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## STANDING OUT IN THE CROWD

The customers Franck describes are the raw materials suppliers – product manufacturers of disposable hygiene products, and retailers – who have to constantly innovate to stand out in a crowded and competitive sector. But with innovation, you need a partner to ensure any new product meets national and international standards, institutional guidelines and/or industry standards; especially in a sector where consumer expectations and loyalty to a product are key influencers.

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## ISO 17025 AND 25 YEARS OF INNOVATION

SGS is now able to be that partner and offer an ISO 17025 (COFRAC) approved laboratory and the capabilities that go with it. Franck's ongoing consultancy and SGS' global network mean the business can grow beyond Europe, with plans for further expansion and laboratories in China and the US.

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## STEPPING STONE TO SUCCESS

"You know, when you sell your company you only do this once, so you need to be sure of the human element behind the company you sell to," continues Franck. "Behind SGS, the company if you will, there are people who bring tremendous benefits. That gives you the confidence your company is in safe hands. I had a strong feeling that doing business with the people I met within SGS was the right thing to do. They have the same thinking as I do, the same outlook for the future, and that has really been the stepping-stone to achieve what I had always hoped for with my company."

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# BEYOND

## ANALYTICAL AND ADVISORY QUALITY ASSURANCE

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With a turnover of more than EUR 13.2 billion and over 77 000 employees (2013), REWE International AG is one of the leading trading and travel and tourism companies in Europe. With more than 180 certifications, accreditations and approvals, and 155 years of experience in the field of analysis, SGS INSITUT FRESENIUS provides REWE International AG with a wide range of services for non/near-food products.

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As one of Europe's leading providers of non-medical laboratory analysis, SGS INSITUT FRESENIUS gives REWE International AG access to the combined knowledge of the entire SGS INSITUT FRESENIUS global and local network.

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### RELIABLE AND COMPETENT PARTNER

As a reliable and competent partner for technical, commercial and international activities, SGS INSITUT FRESENIUS specific services for REWE International AG include:

- Marketability testing for cosmetics, decorative cosmetics, detergents, paper hygiene, commodities and textiles
- Chemical, physical and microbiological quality assessment of non/near-food products
- Comparative performance studies of cosmetics, paper hygiene and detergents
- Consulting services
- Training on specific subjects for the employees of REWE International AG Quality Management Department
- Auditing of REWE International AG Private Label suppliers
- Support in establishing specific REWE International AG quality criteria for non/near-food private label products

In addition to the specific solutions above, SGS INSITUT FRESENIUS offers REWE International AG a unique industry insight. SGS INSITUT FRESENIUS' close contact and involvement with various authorities, and technical and advisory boards, mean any consultancy is always based on the most up-to-date scientific and legal considerations.

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### DEDICATED, CUSTOMER FOCUS

For REWE International AG, the customer-focused solutions delivered by SGS INSITUT FRESENIUS mean it always receives support as and when required. REWE International AG can access SGS INSITUT FRESENIUS via a dedicated 24/7 hotline. Should the need arise for an immediate statement or supplemental information or technical reports in the event of claims by authorities, SGS INSITUT FRESENIUS is on hand to advise and prepare what is needed. It is this readiness to respond, and the willingness to go beyond and proactively seek solutions from across the SGS INSITUT FRESENIUS network, that make the partnership such a powerful conduit for improving the top priority at REWE International AG – the safety and quality of all products offered by REWE International AG.

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100m 109yds col. 071  
Art. 1171

GERMAN  
MADE A2771  
No. 100

109yds col. 0672  
100% Polyester Art. 1171

GERMAN  
MADE A2641  
No. 100

109yds col. 0561  
Polyester Art. 1171

GERMAN  
MADE A2961  
No. 100  
Metrosene Plus 100%

A2661  
No. 100  
Metrosene Plus 100% Polyester

0703  
GERMAN  
MADE A2881  
Art. 1171

GERMAN  
MADE A2881  
No. 100  
100% Polyester Art. 1171

GERMAN  
MADE A2631  
No. 100  
100% Polyester Art. 1171



# NEXT GENERATION MINERAL MAPPING

Around the world, SGS offers a comprehensive range of services for the hard rock, energy and fertiliser sectors including geochemical analysis, resource and reservoir modelling, mineralogy, geology, processing and engineering services. In 2014, an agreement with Corescan Pty Ltd further increased SGS' extensive portfolio with the integration of Corescan's state-of-the-art mineralogical imaging technology that can be applied across our services for the mining, oil and gas, chemical, and energy industries.

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CoreScan is a global services company, with offices in Australia, Chile, Mexico and the United States, specialising in automated mineralogical and textural analysis of drill core, rock chips and other geological samples for mining, oil and gas, geothermal and geotechnical applications.

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## CORE DATA FOR ADVANTAGE

SGS' existing range of logistics, sample management, analytical, and professional services has greatly benefitted from the addition of CoreScan's 'Hyperspectral Core Imager Mark III (HCI-3)' mineralogical mapping technology. This new capability delivers greater understanding in applications from exploration through to geometallurgical assessment, by generating high-volume and objective mineralogical and geotechnical data that serves to increase customer confidence in resource estimation, domain creation and mine optimisation modelling. Similarly the data can be applied to the enhancement of geological models and reservoir characterisation.

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## INTEGRATED HYPERSPECTRAL IMAGING

During 2014, SGS commissioned two mobile HCI-3 units from CoreScan. These units are currently deployed in the Tucson and Santiago offices of the SGS' Minerals network. Each laboratory incorporates integrated hyperspectral imaging sensors, ultra-high resolution core photography and 3D core profiling technologies that provides customers with a digital core library of photographic, mineralogical and geotechnical data. The data is globally accessible for remote viewing via a web-based facility known as 'Coreshed'. In addition to visual results,

numerical data is in a format compatible for input into all standard geological modelling packages for direct use in resource enhancement activities.

Over the coming period, SGS is looking at opportunities to expand this new capability in other regions, and further develop services for the oil and gas, and chemicals industry.

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## ONSITE CAPABILITIES

SGS leads the market when it comes to creating innovative onsite analytical services, such as the FluidPro PAL™ or AutoGORT™. CoreScan's new HCI-3 technology has joined that list of onsite offerings. A full suite of mineralogical and geotechnical solutions can now be deployed in an onsite, self-contained mobile laboratory. Backed by the logistic and technical capabilities of SGS, this brings near real-time mineralogical data into the hands of customers for immediate application to resource modelling or production monitoring programs.

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## PARTNERSHIP FOR SUCCESS

Already in demand and expanding to new areas of the SGS network, the agreement between CoreScan and SGS has proven a success. Based around joint-collaboration on continued technology and application developments, the future for this new offering looks certain to deliver on SGS' commitment to leading edge, integrated exploration, development and production services.

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## 60 MICRON

*pixel size high resolution digital true-color (RGB) photography*

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## 3D

*laser profiler with a surface profile resolution of 20µm*

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**"WE ARE PLEASED TO BE WORKING ALONGSIDE SGS TO CONTINUE THE EXPANSION OF CORESCAN SERVICES. COMMISSIONED LABORATORIES IN NORTH AND SOUTH AMERICA UNDER OUR PARTNERSHIP ENABLES ACCESS TO AN ELEVATED LEVEL OF MINERALOGICAL ANALYSIS AND SYNTHESIS AS WELL AS EXPERT MODELLING AND INTEGRATION SERVICES."**

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**DR BRIGETTE MARTINI**  
*Vice President of Business Development, CoreScan*

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# TURNING GREEN INTO **GOLD**

KFC Thailand celebrated its 30th anniversary in 2014. The second largest market in the world for company-owned KFC restaurants – only China ranks higher – presently there are 530 restaurants in 74 provinces across the country. With plans to open a further 300 restaurants by 2020, SGS is helping KFC Thailand enhance the value of its restaurants and realise economic, social and environmental benefits via 'green building' for 'gold LEED certification'.

## WHAT IS 'GREEN BUILDING' AND 'LEED'?

Green buildings are designed to conserve resources, find efficiency in energy, water and materials usage, and reduce negative impacts on human health and the environment throughout their lifecycle.

LEED, or Leadership in Energy and Environmental Design, is a globally recognised green building certification programme, developed and administered by the US Green Building Council.

The LEED rating system for green building offers four certification levels for new construction: Certified, Silver, Gold and Platinum – each corresponding to credits accrued in five green design categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality.

## DEDICATION AND PARTNERSHIP

Construction Associate Director for KFC Thailand, Piyanan Sirinan, works with SGS for third-party LEED consultancy and certification services. "KFC is the leading quick service restaurant (QSR) brand in Thailand. We have more than twice as many restaurants than our nearest competitor, and we are growing at a record rate. With this defining leadership position comes responsibility." A responsibility that KFC views as an important part of their business expansion in Thailand, as Piyanan explains, "KFC is committed to building outstanding restaurants for Thai customers, and as the leading QSR Brand in Thailand, KFC is also committed to continuously innovating and improving the environmental footprint of our restaurants for the future sustainability of Thailand. SGS makes these twin goals possible for us because they are leaders in the field of sustainability development, and we recognised from day one in SGS a customer-focused mindset and can-do attitude. End-to-end consultancy services from SGS for green building and LEED certification have helped us open the first LEED Gold Certified QSR Restaurant in Thailand. We are proud to be able to say this as it demonstrates our achievement and willingness to invest in sustainability practices. Without the dedication and partnership of SGS, this is something we may not have been able to deliver."

## SETTING THE BAR HIGH

KFC Thailand now has a number of new restaurants under development, and being built with eventual LEED certification in mind. For each one, Piyanan is setting the bar high and hopes that, with the ongoing support of SGS, many more LEED gold standard restaurants will soon be welcoming KFC customers in Thailand.

# >40%

*energy savings compared to international baseline*

# >40%

*reduced CO<sub>2</sub> emissions compared to international baseline*

# >60%

*reduced water consumption*

# >75%

*reduced construction waste*

**"END-TO-END CONSULTANCY SERVICES FROM SGS FOR LEED CERTIFICATION HAVE HELPED US OPEN THE FIRST LEED GOLD CERTIFIED QSR RESTAURANT IN THAILAND."**

**PIYANAN SIRINAN**  
*Construction Associate Director  
for KFC Thailand*







**"SGS OFFERED A REAL OPPORTUNITY TO BOTH OPTIMISE OUR WORK FLOW WITHIN THE REFINERY ITSELF, AND BRING A MORE EFFICIENT AND PRODUCTIVE SINGLE SOURCE APPROACH ACROSS ELLESMERE PORT AS A WHOLE."**

**MICHAEL GAYNON**

*Refinery Laboratory Contract Manager  
at Essar*

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# PROCESSING ADVANTAGE

In the UK, SGS has offices in Ellesmere Port, close to where Essar Oil (UK) Ltd operates the UK's second largest refinery, located at Stanlow. This proximity paid dividends when Essar began its search for a new laboratory services and product testing partner.

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Essar is a world-class, low-cost, integrated energy company with operations in more than 29 countries. Stanlow, on the south side of the Mersey Estuary near Liverpool, produces approximately 15% of UK transport fuels, including nearly 3 billion litres of petrol, 3.5 billion litres of diesel and 2 billion litres of jet fuel per year.

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## AN EXACTING SEARCH

In choosing a new partner for analytical services, a key consideration for Essar was that the service provider could demonstrate a proven track record in a number of areas: competence and experience in transitioning existing skills and people, ability to safeguard product quality assurances, record of excellence in health and safety, and capabilities to support the overall growth and sustainability of Stanlow.

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## IMPROVING PROCESSES AND PRODUCTIVITY

Malcolm Cooper, Global Operational Excellence Manager at SGS, describes Essar's search criteria in more detail. "At Stanlow, of particular importance to Essar was the health and safety performance of the new service provider and how it planned to implement and manage the transfer of more than 40 existing staff. We needed to ensure Essar trusted SGS to safeguard existing local jobs on the Thornton site and be committed to utilising the skills available in the local community, along with an ongoing focus to develop the potential of the region. Another requirement was that there could be no reduction in service quality at Stanlow during the transition period from Essar's previous service provider. This meant the transition had to be as short and effective as possible, and at the same time still improve processes and productivity. No small task."

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## CONNECTING TEAMS AND SERVICES

No small task indeed, however, the innovative and creative solutions proposed by SGS secured both the contract, and trust, of Essar. "SGS stood out during our detailed evaluation process, which involved a number of potential service providers," explains Michael Gaynon, Refinery Laboratory Contract Manager at Essar, "because SGS offered a real opportunity to both optimise our work flow within the

refinery itself, and bring a more efficient and productive single source approach across Ellesmere Port as a whole. SGS' ability to link its port and terminal operations, inspection services, laboratory services, and cross-functioning teams together with our operations at Stanlow meant we could access a wide range of services from a single partner. Once you begin to work with SGS, the synergies and the benefits they deliver for a company such as Essar, quickly become apparent."

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## TOWARDS A SUSTAINABLE FUTURE

The successful transition at Stanlow is as much due to SGS improving the environmental management, as it is the operational management. Through careful monitoring, SGS has been able to identify, control and reduce consumables usage, in particular laboratory gases, and eliminate analyses that are no longer required. And incentivise and retain existing employees by creating attractive career pathways. It all adds up to a more sustainable and profitable future for both Stanlow and Essar.

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# INTELLIGENT WELLS

Already highly regarded for its game-changing services and solutions, SGS' Applied Technology and Innovation Center (ATIC) was awarded the 2014 Innovation Prize by the Energy Institute for the development of the AutoGOR™ – the world's first fully automated onsite fluid analyser.

Since 2009, the ATIC has been solving, and helping to automate, some of the most complex challenges faced by the oil and gas industry. In one of the ATIC's most ambitious projects to date – the AutoGOR™ – industry recognition is a welcome reward for nearly three years of intensive research and design.

## COMPACT AND POWERFUL

Measuring a mere four feet by four feet, the compact yet powerful AutoGOR™ operates offshore or onshore, and in any climate. The gas/oil ratio (GOR) describes the amount of gas in oil, normally determined as US standard units: scf/bbl (standard cubic feet per barrel). GOR-value allows oil reservoirs to be classified according to levels of 'shrinkage' and monitored throughout the lifecycle (i.e. initial GOR vs produced GOR). Hence, access to immediate GOR-value aids the overall productivity and profitability of a well. Whereas traditional GOR measurements are subject to delays or potential sample transportation integrity issues, the onsite capability of the AutoGOR™ simplifies data generation without sacrificing data quality. Decisions on the management and forecasting of well production can be made, and validated, in near real-time both on and off site.

## THE FUTURE OF WELL MANAGEMENT

Inherently efficient, the AutoGOR™ requires minimal technical servicing and no human intervention for the analysis per test. With its optimal use of space, time, and most of all people, this innovative solution from SGS is the first step toward intelligent wells that stream real-time data.

## INTELLIGENCE DELIVERED: THE AUTOGOR™

- 4 ft x 4 ft footprint
- Remotely controlled and monitored
- Sample up to 5 000 psi and 200°F
- Purged Class I Div II Enclosure
- Automatically measures:
  - Gas/Oil Ratio (GOR)
  - Shrinkage
  - API Density
  - Gas Composition ( $C_1$  to  $C_{14}$ )
  - STO Composition ( $C_1$  to  $C_{36+}$ )



# WATER

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Water makes up more than two-thirds of the planet and is the medium responsible for 90% of world trade. Our services help maritime agencies in Europe develop new technologies to protect the oceans' ecosystems, certify leading exporter/importers of seafood products such as the UK's Mardon plc to global quality standards, and fight disease and uncertainty at shrimp farms across Indonesia. In this section read customer case studies on a small selection of SGS services that turn the tide on pollution and risk for this precious resource.

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# DEFEATING SHRIMP DISEASE



Global shrimp farming is valued in excess of \$17 billion – which makes shrimp the most valuable traded marine product in the world today. With disease the number one threat to production and profits, any advance in protecting shrimp yield is welcome, as long as shrimp quality is not compromised.

During the last decade a virus known as ‘infectious myonecrosis virus’ (IMNV) spread from Brazil to Indonesia, decimating shrimp farms with mortality rates reaching 70% at some farms. When the Indonesian feed producer and shrimp farmer, Central Proteina Prima (CP Prima), found its farms badly hit by an outbreak of IMNV in 2009-2012, it decided to act and find an antidote.

**80%**  
*of all farmed shrimp come from just two species **Penaeus vannamei** (Pacific white shrimp) and **Penaeus monodon** (giant tiger prawn)*

## INDEPTH RESEARCH PROJECT

Two species of shrimp account for approximately 80% of all farmed shrimp production worldwide: **Penaeus vannamei** (Pacific white shrimp) and **Penaeus monodon** (giant tiger prawn). IMNV attacks the former, and at the start of 2013, CP Prima began a long and in-depth research project into the best way to combat IMNV at its farms. Working in the laboratory, CP Prima created a formula which demonstrated in repeated experiments that shrimp infected with IMNV but given the supplement experienced no mortality; while shrimp without the supplement that were also infected with the virus showed mortality rates of 43%.

## PRACTICAL SOLUTION

CP Prima’s antidote while very practical for shrimp farmers to apply needed to be accompanied by tight biosecurity standards, good aquaculture practice, and the use of good quality feed and fry for it to work optimally. CP Prima also needed to prove one more effect of the new formulation: that it did not reduce CP Prima’s reputation for high quality shrimp.

**55%**  
*of the world’s total supply of shrimp is harvested from commercial shrimp aquaculture operations*

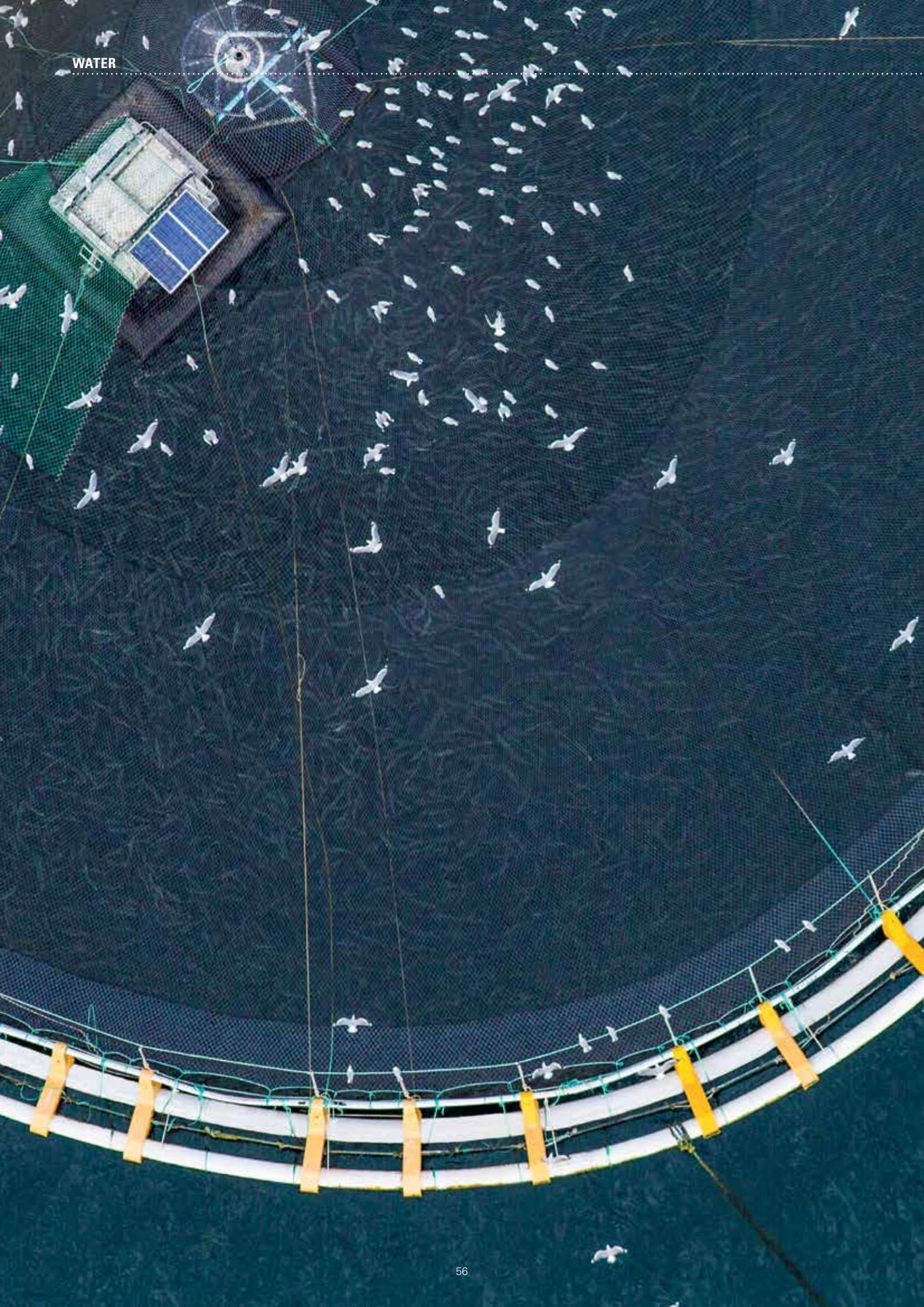
## IMPROVING FARMERS’ FUTURES

SGS has an established and trusted expertise in aquaculture, and one that CP Prima knew they could rely on, as Ahmad Wahyudi, the company’s Vice President of Aquaculture Programmes and Data Centre (APDC), makes clear: “SGS’ diligent monitoring and testing allowed us to transparently demonstrate to international buyers that our new antidote had no negative effects on the high quality standards we place on our feed and shrimps. With the third-party verification from SGS in place, we could confidently produce and distribute our special formulated shrimp feed and liquid supplement, in a bid to help shrimp farmers in Indonesia solve IMNV issues and improve their welfare through shrimp farming.”

**\$17 BILLION**  
*is the value placed on global shrimp farming – which makes shrimp the most valuable traded marine product in the world today*



WATER







# CASTING A WIDER QUALITY NET

In the UK, seafood export and import is estimated to be worth over £ 3.5 billion annually. SGS has been working with one of the UK's leading exporter/importers of seafood products – the Lancashire based company Mardon plc – on the first ever certification to the new BRC 'Global Standard for Agents and Brokers'.

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Recent cases of adulterated or fraudulent food in the supply chain, such as the horsemeat scandal in Europe, harmed consumer confidence and brought calls for more transparency and traceability of food supply chains. The new BRC certification for agents and brokers now enables companies that buy and sell products, or provide services to other parties in the supply chain, to prove they adhere to best practice and the highest quality standards.

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## QUALITY AND ATTENTION TO DETAIL

Mardon plc has been importing and exporting frozen seafood since 1979. The company trades with more than 35 countries worldwide and is, by any measure, one of the most successful businesses in its sector. In close cooperation with SGS, Mardon helped trial the certification to the new BRC Global Standard. Already a holder of Marine Stewardship Council (MSC) certification, ISO 9001 and 22000, UKAS, and member of Campden BRI, Mardon believed working with SGS on adding BRC Global Standards to this list would further highlight how important quality and attention to detail are for the company.

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## REPUTATION FOR EXCELLENCE

"We are committed to safety and we want to highlight our technical strength and the depth of experience we have in delivering safe, 100% compliant products," explains Mark Donoghue, Mardon's Managing Director.

"We have always run a large quality control department and this is something we focus on at every stage of our operational processes."

In terms of demonstrating this to other businesses, achieving the first certification of the new BRC Global Standard only increases Mardon's reputation in the industry as David Hughes, Mardon's Technical Manager points out: "This new certification takes our own quality standards to a new level. SGS is the foremost independent surveyor and inspection agency and we found their intensive assessments of our control systems proved that we are matching the targets we are setting for ourselves and our customers. The BRC Global Standard is the highest and most respected in the industry and we are proving we are a match for that."

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# 100%

*compliant products*

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## SAFE, LEGAL AND TRUSTED PRODUCTS

As the first UK certification body for, and largest issuer of, BRC Global Standards worldwide, SGS is committed to supporting the continued drive for traceability and transparency in the food supply chain. Often, the importance of agents and brokers is overlooked, but they enable business, small and large, to source ingredients and packaging materials in a cost effective manner within the complex global market. While not directly involved in the manufacture, storage or distribution of products themselves, companies such as Mardon are the key link in ensuring only safe, legal and trusted products are sourced and supplied worldwide.

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**"SGS IS THE FOREMOST  
INDEPENDENT  
SURVEYOR AND  
INSPECTION AGENCY  
AND WE FOUND  
THEIR INTENSIVE  
ASSESSMENTS OF OUR  
CONTROL SYSTEMS  
PROVED THAT WE  
ARE MATCHING  
THE TARGETS WE  
ARE SETTING FOR  
OURSELVES AND  
OUR CUSTOMERS."**

**DAVID HUGHES**

*Technical Manager, Mardon plc*

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# PROTECTING MARINE ECO SYSTEMS

Marine environmental protection from ballast water is set to come into full force no later than 2016, under the IMO's 'Ballast Water Management Convention'. The Convention requires ships to have an effective onboard ballast water management system, for which the IMO has established strict monitoring criteria and standards.





OVER 50 000

*merchant ships,  
registered in more than*

150

*NATIONS,  
transport nearly*

90%

*of world trade.*

*Shipping not only moves  
huge quantities of  
commodities globally,  
but approximately*

3 TO 5  
BILLION

*tonnes of ballast water  
internationally each year  
– which on discharge has  
the potential to introduce  
non-indigenous marine  
micro-organisms into*

ECO  
SYSTEMS

*far from home, threatening  
the world's oceans and*

BIO  
DIVERSITY.



## SIGNIFICANT ECONOMIC IMPACT

Several governments have conducted surveys into the economic impact of invasive marine micro-organisms on fisheries, aquaculture, coastal facilities for shipping and tourism, and other assets. Damages in respect to waters alone were estimated in the hundreds of millions.

Due to proposed IMO standards, in the future this sort of economic cost could be avoided. Ships will be expected to have an onboard treatment system that reduces the risk of ballast water pollution during discharge in port. The difficulty for the IMO is how to assist ships in proving that the onboard ballast water has been adequately 'cleansed' before discharge.

And it is this issue – the testing and verification of ballast water quality – which an important marine-trading country approached SGS to help solve, especially the avoidance of any potential delays to port shipping operations.

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## EMPOWERING PORT STATE CONTROLS

SGS undertook a research and development project into ways to enable inspectors from port state controls to rapidly assess compliance to the new strict IMO criteria. However, given the need to ensure a representative sample of ballast water, which in some cases exceeds 100 000 tonnes for tankers and bulk-carriers, and factoring in that testing and verification must not delay cargo handling in port – which requires the discharge of ballast water to ensure the safety and stability of the ship – the project was far from simple.

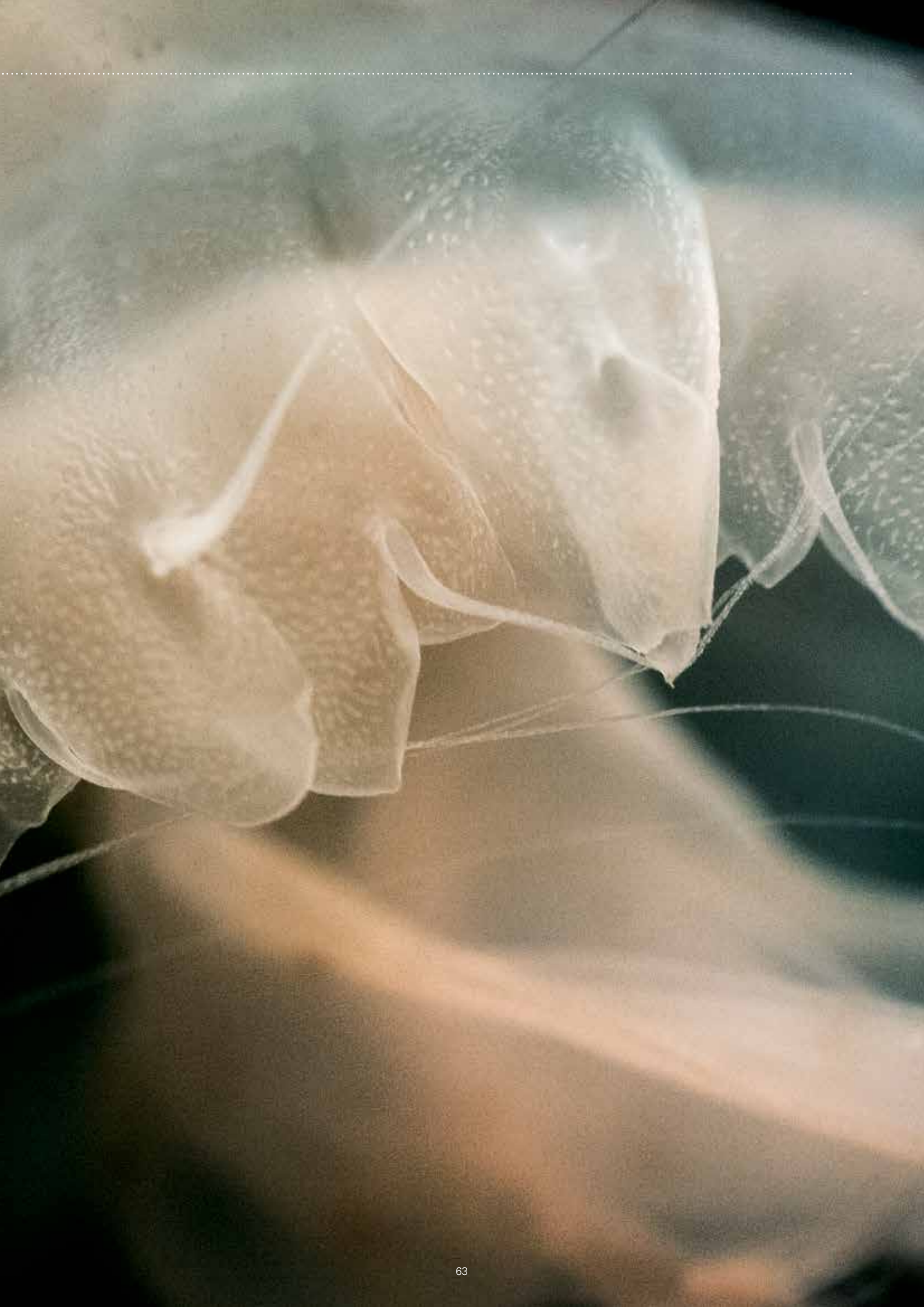
## PROVEN NEW TECHNOLOGY

In fact, the unique, first-of-its-kind system invented by SGS has proved so successful it has been included in the presentations of the IMO's working group on ballast water. Having past the initial hurdles, it now has made it into an international onboard testing phase. The system created is akin to a 'big tool box' which contains all the analytical devices required by the port state control inspectors for ballast water quality testing. Portable enough to be carried and transported by pilot boat, the system can taken onboard vessels before they reach port. Filtering, highly innovative basic bio tests and counting methods all meet IMO stipulations, and even the bio step for bacteria analysis has been cut to an initial 6 to 8 hours, far less than the normal 48+ required by on shore external laboratory testing.

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## RELIABLE WAY TO PROTECT MARINE ENVIRONMENTS

While the time it takes to fully complete a quality assessment is still too long to be practical in real terms, one possible future scenario is a quarterly inspection with the system and the establishment of an 'inspection label'; but with testing still ongoing and final ratification of the IMO Convention not yet in force, many outcomes are possible. In any circumstance, the new technology has already made massive steps in developing a workable and reliable testing regime to protect the world's oceans.













# SAFETY

We help organisations develop effective health and safety systems to protect employees, generate consumer confidence and enhance trust in business operations. We support our customers in adhering to best practices and complying with local, national and international regulations.

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# QUALITY

Our customers rely on our independent third-party inspection, testing and auditing solutions to ensure products, services and processes comply with the latest quality standards. Our global network of state-of-the-art facilities provides information to certify and verify quality worldwide.

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# PRODUCTIVITY

Our training and outsourcing solutions ensure productivity keeps pace with developments in our customers' organisations. In the short-term, we help by outsourcing our world-class productivity experts. In the long term, we deliver focused training to develop specialist skills in our customers' existing personnel.

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# EFFICIENCY

Our tailored business solutions help our customers implement processes and systems that make business operations faster, simpler and more efficient. We deliver unrivalled efficiency results from locally accessed SGS experts, who draw on the global experience of the entire SGS network.

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# TRUST

Our global reputation for independence and integrity enables us to build trust wherever needed. We provide transparent and unbiased inspection, testing, verification and certification solutions so our customers can give assurance in their products, processes, systems and services.

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# SUSTAINABILITY

We help our customers take ownership for building a more responsible and sustainable future. We encourage environmental responsibility and reduce the risk of corruption in our customers' projects. Our services assist in developing sustainable facilities and production, as well as better working and social environments.

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# REDUCED RISK

We provide our customers with independent and impartial services that enable them to identify, manage and reduce risk. Our experts deliver risk management solutions, drawing on our testing and inspection capabilities to verify risk prevention measures are in place. Across a wide range of industries we assist with compliance to international risk management standards.

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# SPEED TO MARKET

Compliance with the requirements of target markets is key to increasing speed to market. Our consultancy, testing and certification services help our customers overcome the complex challenges of understanding and meeting market demands anywhere in the world, whatever the industry or sector.

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Our specialist teams deliver trusted results in world- leading services, covering virtually all industries.


We audit across the entire value chain, providing benefits in all business sectors. We ensure our customers' projects, products, processes and operations meet and exceed regulations and standards, and we provide the verification and certification needed to trade in target markets around the world. Our consultancy services inform organisations on market demands, while our outsourcing solutions provide the expertise, experience and resources that enable our customers to meet their goals.

We use state-of-the-art examination methodologies with unsurpassed accuracy to perform inspections that reduce risk and control quality and quantity, while at the same time we conduct testing of raw materials, components and products in our global network of facilities. Our industry experts also deliver world-class training, specifically designed for the precise needs of our customers, providing the right skills and knowledge to maximise efficiency and improve productivity.

## AGRICULTURE & FOOD

Our services deliver end-to-end supply chain solutions that reduce risk, ensure quality and improve productivity.




 We play a key role in protecting the integrity of global food production through our agricultural goods tracking from field to fork. Consumers want assurance of safety and quality at every stage of the process. We safeguard their interests through our involvement from primary production to the point of processing or custody transfer. We assist with legislation compliance, ensure correct storage, shipping, packing and distribution, and assess products throughout diverse agricultural and food supply chains. Through our comprehensive range of cost-effective solutions we continuously improve safety, quality and sustainable development. Further to this, our approach to delivering services to our customers is harmonised across the largest independent network of experts in the world.

We grow consumer trust in safety and quality from field to fork

## AUTOMOTIVE

We help every player in the automotive industry improve performance and reduce risk.



 Our services focus on the design, construction and operation of motor vehicle inspection solutions that limit damages and increase automotive safety. We manage supply chains to provide reliable vehicles, cost reductions, shorter delivery times and improvements in build quality and efficiency. At the same time, our logistics and supply chain security, and dealership and workshop audits, keep aftermarket and distribution operations in line with brand guidelines. We increase safety and reduce the environmental impact of road traffic through our vehicle inspections to national requirements, testing and calibration of speed safety cameras, traffic management, driver examination and vehicle axle load control. Across our worldwide network we have the resources and expertise to deliver independent, accurate and secure vehicle and automotive solutions.


We drive performance and safety worldwide

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# AVIATION      CHEMICAL      CONSTRUCTION

Our services enhance safety, quality, reliability and trust in all sectors of the aviation and aerospace industries.



 We offer a comprehensive range of advisory services to the aviation and aerospace industries. Our expert aviation consultancy and risk services provide airline safety ratings and confidential insight into root causes of error. Our leading expertise in quality and supply chain assurance means customers can trust in the quality of aerospace manufacturing and infrastructure. Our project management, inspection and materials services keep airport construction on time and in budget. We provide professional trainings and audits to ensure ground operations for fuelling, cargo handling and maintenance meet or exceed best practice. From airport hygiene to airline food safety, passenger experience to check-in gate, we are continually delivering to the highest standards of safety and quality.

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We enhance trust from departure to arrival, infrastructure to airframe

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Industrial chemicals companies trust SGS to provide the services they need to remain innovative, sustainable, efficient and competitive.



 Our services help to control chemical use according to the tolerance levels in place for an industry. We offer a comprehensive range of chemical solutions as well as asset integrity management services, lean optimisation programmes, project lifecycle services and technical support to help businesses run more smoothly, profitably and effectively. We have the knowledge, experience and global reach to assist with staff training or the provision of extra staff. We support our customers in meeting complex industry requirements, dealing with intricate equipment and sometimes difficult and dangerous logistics. Our services are designed to augment our customers' existing processes and procedures and are delivered by our experienced operatives and qualified scientists.


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We test safety in everything from perfumes to paints to toys

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We ensure construction sites are safe, processes run efficiently and reliable materials are sourced.



 Partnering all organisations constructing buildings or infrastructure, we determine how best to add value to all stages of both small and large scale construction projects. Our Geotechnical Services and Environmental Services conduct construction feasibility, risk assessment and management studies. We perform chemical and physical testing of the durability of materials and provide materials certification, checking suppliers and materials at source. In addition, we offer equipment services and an AHEAD asset management system to keep track of machines and other assets. Once a building is complete, we provide facilities management, waste management and inspection requirements, including energy audit certification. Thanks to our wide-ranging knowledge of construction and engineering, we ensure our customers realise projects on time, on budget and within all safety regulations.

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We build efficient and sustainable businesses

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## CONSUMER GOODS & RETAIL

Our consultancy and cross-business services help to facilitate quality, compliance, safety and sustainability across global supply chains.



 Manufacturers, importers, exporters and retailers of consumer products rely on our expertise to enable them to meet the challenge of delivering trusted consumer products. We help organisations to reduce risk, improve efficiency and ensure compliance with contractual or regulatory requirements throughout the supply chain. We provide a broad and detailed understanding of consumer goods and retailing, supporting our customers in building stronger and more resilient businesses. With our support, our customers gain a competitive edge by developing products, processes and supply chains that surpass expectations.

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We deliver quality, compliance and safety to global supply chains

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## ENERGY

We ensure regulations are met, safety is considered at every stage and environmental impact is limited.



 We support organisations involved in both renewable energy generation and conventional power plants drawing on our petroleum, gas, electrical power, coal and renewable energy industries expertise. Our independent inspectors verify and validate everything from petroleum fuel quality to stock levels. We support natural gas extraction and coal gas manufacture, as well as electrical power generation. For the coal industry our services cover exploration to decommissioning and we assist renewable energy organisations with hydroelectric power, wind power and solar power generation. Across all sectors we risk assess projects and support our customers through sales and distribution processes. Used on a standalone basis, or alongside existing working processes and methodologies, our services help energy companies run efficient, profitable and reliable businesses.

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We power processes from renewables to conventional energy generation

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## FINANCE

Our services help organisations ensure they have the right advice to reduce the risks in project finance decisions.



 We evaluate lending, assess risk management, facilitate trade, and provide audit, certification and verification solutions along with finance training. For investment or borrowing on a new project, acquisition or venture, we inform on whether an investment or lending decision is viable and sound. Our teams deliver due diligence services throughout a project's development phase; and for implementation phases we offer comprehensive monitoring, technical and financial risk management, as well as guarantee and collateral services. For financiers or banks providing funding to facilitate trade, we inspect, test and verify cargo and goods and perform collateral management and trade documentation assistance. Our knowledge of local, national and international standards and legislation enables us to meet the financial challenges facing any organisation.

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We draw on expert knowledge for the full financial picture

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# INDUSTRIAL MANUFACTURING

Our testing and conformity assessments ensure processes and projects meet all quality and performance requirements and minimise environmental impact.



 Industrial manufacturers across a wealth of business areas, from pharmaceuticals to farm machinery, aerospace to automotive, and everything in between, rely on SGS for independent advice on growth strategy execution and market best practices. Whether an organisation is fabricating components or finished products to be sold directly to consumers, we understand its operations from process control to logistics. Due to the complex nature of manufacturing attention to national and international compliance with quality, health and safety legislation is essential. We ensure both products and processes comply with specific regulations related to the area of manufacturing. Our experts are skilled at helping our customers build more competitive and profitable businesses through our trustworthy, reliable and independent services.

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We make businesses more productive and profitable

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# LIFE SCIENCES

Our services provide analytical, bioanalytical and clinical trial testing, along with process management, enabling pharmaceuticals to swiftly reach those that need them with minimal cost and maximum safety.



 Our services get pharmaceuticals and medical devices to market quickly, while adhering to best practices and conforming to national and international regulations. We offer vital support and expertise throughout every stage of the drug development cycle. Partnering with SGS, our customers receive access to comprehensive biopharmaceuticals services and our in-depth knowledge of the medical device regulatory environment. Our staff-training covers pharmaceuticals, medical devices and health, beauty and wellness; with courses tailored to the requirements of individuals and businesses. There is no industry more heavily regulated than the development, testing and distribution of medicines and medical devices and our customers trust us to help them navigate the complexities.

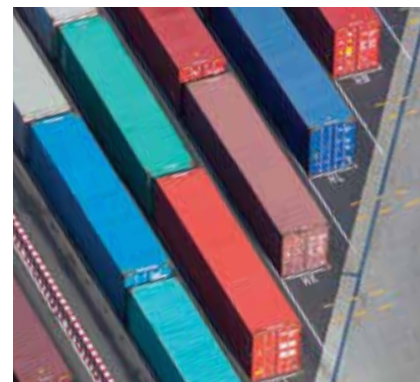
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We protect safety and costs in pharmaceutical and medical devices development

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# LOGISTICS

We work closely with our industry partners to find innovative solutions to develop and grow businesses through processes that work better, faster and more profitably.



 Designed to ease the process of freight forwarding, whether by sea, rail or road, our services include extensive import and export assistance. Our solutions encompass marine services such as cargo and vessel services, plant and terminal operations (PTO), import control services and international customs data exchange. For customers moving freight by rail or road, our essential solutions include terminal manning and weighbridge management services. We examine the operation of the interconnected processes and by using various tools and technologies we help to streamline operations and improve operating efficiencies. To support the logistics process we have a wide range of audit, certification and training services designed to help our customers run better businesses.

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partnerships that streamline operations and improve efficiencies

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# MINING

As a strategic partner, we provide testing, technology, trade services and consulting to help deliver growth and lean efficiencies.



 Our expertise in mining covers steel manufacturing processes, coal and coke trading, risk reduction and maximising profits and efficiencies in precious or base metal mining or extraction. We are a trusted third-party service due to our exploration, production, industrial applications, and decommissioning and closure solutions. Our services, delivered by our team of specialists, include advice on the most suitable technologies for a project and flow sheets to chart project progress. We work with customers to meet the challenges of this dynamic sector by improving speed to market and ensuring market developments and advances in technology are embraced. With our global network and cutting-edge facilities, SGS is trusted to provide transparent and unbiased support, helping organisations to flourish.

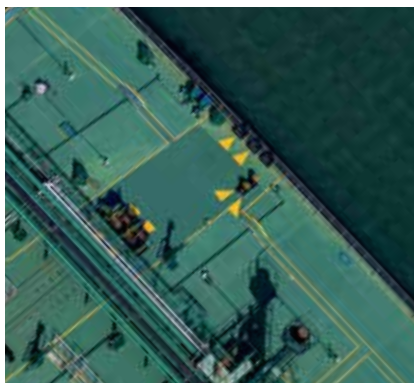
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We find solutions that reduce risk and deliver competitive advantage

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# OIL & GAS

Our robust technology, knowledge-based approach and dedication to quality and safety allow us to provide innovative solutions to every part of the oil and gas industry.



 Whether our customers are exploring, extracting, refining, transporting or marketing oil, gas, oil sands or other hydrocarbons, they turn to us for specialist advice and tailored solutions. We support upstream activities such as applied mineralogy, metering, measuring or hydrocarbons allocation with services that can be used independently or as packages. Our downstream services support distribution and retail, as well as the design and execution of optimisation processes and global trade inspection. Throughout both sectors our services enrich the value chain and impact on everything from transport fuel and heating products, to plastics, fertilisers and pharmaceuticals. Organisations partner with SGS to support them in achieving efficient processes and in maximising production.

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We enrich quality and value in the exploration, extraction and distribution of hydrocarbons

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# PUBLIC SECTOR

We offer verification and technology-based solutions, covering compliance assessment, government revenue, trade facilitation, good governance and sustainable development.



 We cannot replace public infrastructure but our expertise in public protection through border control is unrivalled, while our road safety solutions offer everything needed to ensure an effective transport system. Our e-government services touch on almost every aspect of everyday life and we have a broad range of quality management systems and health, safety and environment solutions. Our services are tailor-made to integrate and enhance existing policies and processes, or to act standalone as part of a broader package. By working with us, public sector organisations are able to improve customer experience while reducing costs, timescales and backlogs.

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We ensure sustainable development of public sector services

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## ENVIRONMENT



Our international team of experts provides guidance on everything from complying with environmental regulations to assessing environmental performance. We support and enhance reputations through state-of-the-art laboratory analyses, knowledgeable consultants, and specialised environmental and climate change services. The environment is at the top of the agenda for governments, civil society and citizens and is increasingly important for business and purchase decision-making, legislation and standards. We help with every aspect of environmental responsibility covering air, soil, water, waste, climate change and financial services. We also provide third-party assurance that goods exist and the right quality and quantity are delivered.

## HEALTH & SAFETY



Our services make working environments as safe as possible by carefully performing risk assessments and executing preventative measures. Occupational health and safety is a major consideration for successful businesses. We ensure that organisations have effective occupational health and safety systems in place to protect employees, generate customer confidence and enhance business reputations. Quality, Health, Safety & Environment (QHSE) policies also protect co-workers, family members, employers, customers, suppliers, nearby communities and other members of the public who are impacted by a workplace environment. We help with occupational or industrial hygiene, assessing working environments with regard to air quality, dust, noise and vibration, technical due diligence and hazardous substances. We are also experienced at environmental audits and economic and social sustainability evaluations.

## RISK MANAGEMENT



Our specialist risk management teams identify and quantify specific risks and make decisions about how to manage and mitigate them in the future. Whatever industry an organisation operates in, ensuring the safe execution and maintenance of all projects, operations and business activities, including trade, is a necessity. We draw on more than 50 years of risk management experience to deliver solutions for a broad range of economic sectors: agriculture to life sciences, mining to finance. Covering all aspects of risk management, equator principles monitoring and issues relating to cost management, we ensure our customers achieve identifiable schedule milestones and key performance indicators. We review transactions making sure they are secure and in full compliance with rules, regulations and industry best practices.

## SUSTAINABILITY



Our services focus on providing a more responsible, balanced and sustainable future. We help organisations ensure that they and their partners have efficient and manageable processes and systems in place, which comply with stakeholder requirements. We offer services covering everything from environmental responsibility and ensuring sustainable facilities and production, to minimising the risk of corruption and developing a better working or social environment. We can audit environmental management systems and undertake due diligence checks as part of certification programmes. We also help with supply chain management, social responsibility, traceability and training. As the world's leading testing, inspection, certification and verification company we offer unrivalled experience, expertise and a global reach.

## TRADE



Our experts cover all aspects of trade activity to assess the associated risks in order to mitigate and minimise liability for successful trade transactions. Managing the risks associated with trade and financing trade is a complex process that needs practical and objective planning. We certify that products are compliant and that the commodities bought are of the specified quality and in the correct quantity. We provide the independent control and assurance that allows banks and the finance world to supply loans and letters of credit to those who trade. For countries upgrading their institutional infrastructure, we maintain a smooth flow of commerce in and out of their borders. Plus, we collate independent information for import and export tax purposes. Our services help global trade to function as efficiently and fairly as possible and ensure trust between trade partners.

## TRAINING COURSES & SEMINARS



People who are given proper training and support in their professional development are likely to be more motivated, proud of their position and responsibilities, and more skillful, knowledgeable and productive. Over the years, SGS has trained professionals at some of the biggest companies and government organisations in the world. Our training and development solutions are designed to help organisations and individuals improve personal competence and skills: core enablers of sustainable business development and competitive advantage. The courses we offer address learning objectives in areas such as quality and safety improvement, compliance, sustainability, the safety of products and systems, risk management and brand protection.









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**WHEN YOU NEED TO BE SURE**

**SGS**