

Consulting, Engineering and Management in Africa





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INTRODUCING

Royal HaskoningDHV



As a leading global engineering consultancy, we are a company for people from people.

In partnership with our clients, we create innovative solutions for the sustainable interaction between people and the environment. In this way we enhance society together.

Operating across a vast range of industries in Africa and beyond, we use our expertise and insights to respond to client needs in sustainable and innovative ways – recognising the impact of our actions and interventions; appreciating that the legacy we build is ultimately for future generations.

To this end, Royal HaskoningDHV consistently works within its framework of good governance, notably that of “people, planet and profit”.

By giving back to the communities in which we operate, we additionally make a sustainable investment – and contribution – to society and the continent through our operations. In structuring our work around people and our awareness of the environment, we further ensure long-term profitability for all of our stakeholders.

As such, we bring our philosophy of sustainable solutions through partnership to life – remaining committed to finding new and innovative ways to address the challenges of tomorrow, today.

WHO WE ARE

The Royal HaskoningDHV Group offers specialist inputs through its diverse range of engineering resources and services, spanning:

- consultancy
- programme management
- master planning
- conceptual design and detailed engineering
- asset and operations management

Leveraging our collective expertise to ensure local delivery, we work across a broad spectrum of markets. We have a long established reputation in each of these including:

- water technology
- rivers, deltas and coasts
- transportation, aviation and planning
- maritime and rail
- energy, industry and mining
- buildings
- environmental expertise

Royal HaskoningDHV employs in excess of 1 000 professionals in Africa. We have a network of over 20 centres in sub-Saharan Africa

We draw on our global network of over 100 offices in 35 different countries to find the right solution to your infrastructure and business challenge:

- affording you the expertise of over 8 000 specialists and support staff
- constructing the best team your project requires
- tailoring integrated world-class offerings to meet your particular needs
- global engineering consultancy group

WHAT WE DO

By partnering with you to achieve your vision and strategic objectives, we ensure local delivery of relevant global solutions, focussing on:

- urbanisation: urban development and its related needs from food and water security to smart mobility and infrastructure
- sustainable infrastructure: large-scale water and transportation systems
- sustainable energy solutions
- pit to port: integrated mining and turnkey port solutions


As a multinational company committed to enhancing society in partnership with our clients and stakeholders, we are recognised leaders in our fields of expertise.

PRIORITY Planet Earth

Our environmental monitoring services enable us to assist you with compliance and ensuring best practice. In this way, we deliver custom-made solutions that contribute positively to people and the planet, while supporting our company's profitability.

We use multiple strategies to deliver sustainable construction in practice, focussing consistently on our clients and the end users. The budget, environment and design remain priority regardless of the type of project – whether greenfield or brownfield; whether operations or maintenance.





SUSTAINABLE INFRASTRUCTURE

Water, Energy and Transport

We demonstrate respect for people and their environment and view each project as an opportunity for promoting sustainability

WATER

Bringing life beyond our rivers

Our water sector solutions speak to client and community needs, contributing directly to growth and sustainable development.

We have pioneered new wastewater technologies and alternative surface water solutions in southern Africa. We have established unrivalled expertise in all aspects of water and wastewater strategies, treatment and management including master and regional planning, hydrology and development.

Where surface water storage is a challenge, Royal HaskoningDHV has designed world-class desalination and direct and indirect wastewater re-use projects. In this way, we assist in reducing strain on the environment and counter projected treatment costs caused by increased pollution of surface water.

Our comprehensive water, delta and coastal services incorporate identification of supply, through to planning and development. These services are based on water management and thereby create flexible, innovative and sustainable solutions in coastal areas and delta zones.

Expertise positions include:

- water and wastewater treatment
- management, operations and maintenance
- water management
- dams and hydropower
- bulk conveyancing systems
- strategic services

Cutting edge technology

Our cutting-edge technology includes Nereda® wastewater treatment. This in-house technology allows for automated operation, no chemical usage, and reduced energy requirements. Significant investment in research and development and group-funded development (in conjunction with the University of Delft and major Dutch Water Boards) has made Nereda® a sustainable tool.

Full-scale plants are operational in the Netherlands, South Africa and Portugal with exceptional results for municipalities and water authorities – reducing capital costs, improving operational efficiencies and reducing energy requirements. We are the first in the market to utilise fast settling granules, which outperform conventional settling times in conventional bioreactor plants.



ENERGY & INDUSTRY

*Finding sustainable solutions
for energy generation
and distribution using
resources responsibly*

Royal HaskoningDHV partners with clients and communities to harness conventional energy supplies and systems where appropriate.

Our capabilities also extend to the implementation of hydro and solar power, as well as other sources of renewable energy. We advise both the energy industry and industrial clients regarding planning, design and development of fossil-fuel and renewable energy generation plants, as well as distribution and reticulation throughout urban and rural environments.

Group expertise covers all aspects of electrical engineering – generation, transmission and distribution and industrial electronic services – from conceptual design through to start-up assistance. We also offer policy and feasibility studies, planning, stakeholder consultation, environmental studies, design, contracting, development and procurement.

Our renewable energy and energy recovery capabilities extend across the full spectrum of renewable energy sources, notably:

- wind, solar, wave and tidal energy
- biofuels
- energy from waste, including methane gas recovery from landfill sites
- ground heat and cold storage

Our Industrial Electronic Services provide:

- drives and automation
- building automation
- information and communications
- support technologies
- electronics and innovations (R&D)
- control and instrumentation

We drive energy efficiency – advising on energy cost management through:

- assessment and implementation of energy saving measures in mining and industry
- energy benchmarking
- monitoring services as per the energy-saving agreements between utilities and industry

Energy storage is a critical component of certain renewable energy projects. We provide sophisticated storage systems in the following fields:

- electricity
- gas (e.g. import terminals for liquefied natural gas)
- oil and subsoil heat/cold



TRANSPORT

Enhancing road and aviation planning; applying lifecycle costing models to optimise construction and maintenance



Road

Our range of transportation services has evolved dynamically to meet present-day transport challenges.

Drawing on almost a century of specialist engineering expertise, we lead in planning and build-operate-transfer (BOT) projects, such as toll roads.

From national and regional master planning, feasibility, infrastructure, transport and traffic and policy studies, and design and technical advice, our services extend through to:

- supply of high quality mechanised surfacing technologies and equipment
- design and construction of bridges and tunnels
- supplementary work including curbing, drainage and signage structures
- traffic and transport planning
- green roads expertise, including thin film surfacing technologies
- integrated public transport networks and BRT
- ITS and variable traffic demand modelling

Aviation

We deliver feasibility studies, planning, design, construction and maintenance management for major airport and aviation assignments in Africa.

As an aviation provider of choice, Royal HaskoningDHV offers air transport planning and terminal services to both airport operators and airlines including:

- runway and apron planning, design and construction
- facility improvement
- terminal upgrades and redesign
- conceptual and detailed design of airport terminal buildings to ICAO, IATA and CAA standards
- conceptual and detailed design and development of non-aviation related commercial buildings at airports / airport cities
- services coordination of all disciplines in airport terminal buildings

PIT to port

Partnering with clients across the mining supply chain from pit through to rail and maritime services.



MINING

Drawing on our diverse mining expertise and the dynamic projects we have undertaken on each continent, we offer clients a wealth of experience in underground and surface applications

Royal HaskoningDHV is proud to offer the mining sector a complete, one-stop advisory and engineering service. We partner with your company to provide specialist support services that meet your diverse requirements, spanning:

- water and wastewater management
- energy
- materials handling
- logistics support and development
- environmental assessment and monitoring

From gold and precious metals to coal and bauxite, we offer a comprehensive service that incorporates:

- exploration feasibility studies and assay reports
- financial planning for development
- underground and surface assessments
- design of underground and surface facilities
- selection and procurement of appropriate extraction equipment
- supervision of all power and safety requirements
- oversight of all aspects of personnel and mineral transportation
- surface support infrastructure

RAIL

We provide services and sustainable solutions for rapid transit and rail, developing innovative concepts in the fields of rail consultancy and engineering

Our range of rail services includes: management consultancy, advice, design and engineering, project, contract and operational management.

The Royal HaskoningDHV Group has extensive experience and capacity in rail and mass transit projects, built up mainly during the last 10 years, covering:

- feasibility, infrastructure and policy studies
- design and technical advice





PORTS

We are among the largest port development consultants in the world offering a total ports business consultancy service

Port projects usually integrate with other disciplines and we are able to initiate specialist investigations and conduct studies to assess the impact of sociological, geotechnical, hydrological and structural factors.

Green Ports

Our green port concept actively tackles the challenges to create innovative solutions for coastal hot-spots where people, environment, ports and industries meet. We can advise existing port operators the best way to adapt to new laws and legislations and facilitate the process of providing 'green' incentives such as rewarding clean ships and operators.

Our fields of expertise cover the entire range of maritime infrastructure services:

- port planning and engineering
- waterfront development and marinas
- flood management and coastal protection
- land reclamation and dredging
- civil & maritime structures
- trade forecasting and financial analysis
- container terminals and facilities for handling of oil products, LNG, LPG and petrochemical products



URBAN Planning and Development

Helping communities realise their aspirations by providing the essential elements developing societies need

Royal HaskoningDHV offers a complete range of urban planning and development services

These encompass all related infrastructure needs, including conceptualising and implementing spatial and green building planning, as well as ensuring food and water security.

Our experience and abilities extend from implementing basic services in developing countries to enhancing fully urbanised environments. Our comprehensive service in water, energy and spatial planning includes:

- initial feasibility studies and full environmental appraisals
- detailed design and submission of planning applications
- construction supervision to the highest specifications
- policy formulation
- state of environmental assessments
- environmental management frameworks
- acquiring environmental permits and licences



WATER

Because water plays a key role in communities and introduces both opportunities and risks as urban populations grow, climate changes and resources become increasingly scarce; we apply our international knowledge to design resilient cities and communities

This includes managing flood risks and safeguarding the quality and security of water and the natural environment.

Our essential infrastructure offering comprises everything from planning to construction to resource management:

- provision of potable water and sanitation
- management, operation and maintenance of water and wastewater treatment works
- bulk conveyance systems



BUILDINGS

We have extensive experience in large multi-disciplinary architectural and engineering projects for building services in commercial, industrial and institutional projects

Our design, construction, renovation and management of offices, schools, residences and healthcare institutions around the world meet engineering excellence requirements.

Our services cover:

- electrical and electronic
- mechanical
- cleanrooms
- civil / structural
- architectural master planning on airport buildings, rail and ports, and a focus on industrial and corporate buildings specifically:
 - tender and construction drawings, specifications of materials, building contract administration and inspection and quality assessments
 - compilation of maintenance manuals for clients based on specified materials
 - retail and real estate development



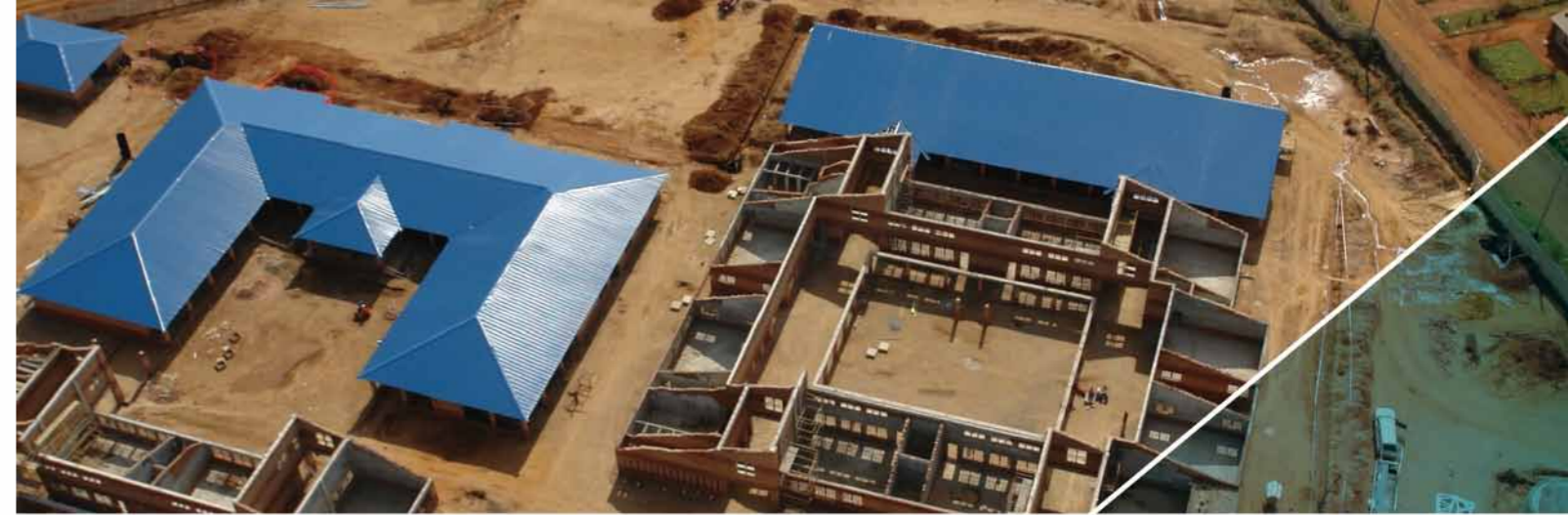
GREEN DESIGN

When it comes to green building planning, we fully commit our expertise for commercially viable solutions

Our Green Star-certified professionals apply their knowledge to new buildings; and retrofit existing buildings to perform more efficiently than before.

Because we have experience in and understand the complex issues of project and design management, as well as real estate management, we deliver exceptional buildings that are not only sustainable, efficient and safe, but also exciting, innovative and beautiful. Extensive collaboration with our clients and partners further enables this.

As such, we ensure long-term return on investment for housing developments. Our work in this sphere additionally takes cognisance of social wellbeing and the need for the economic growth of the communities to which they belong.



PROJECT AND CONSTRUCTION MANAGEMENT

We supply highly qualified project management capabilities for complex, multi-disciplinary projects which include training, mentoring, institutional support and facility management services

The objective is to supplement public sector skills with a highly experienced project team to efficiently execute projects, while at the same time, mentoring and transferring these skills to bolster the client's experience pool. An extension of this philosophy is to transfer skills to develop emerging contractors engaged on infrastructure projects.

SHOWCASE PROJECT *16 Schools Project*

The R367-million 16 Schools Project was undertaken in joint venture with Mafuri on behalf of the Gauteng Department of Education.

The contract is ground breaking in that it delivers on time quality construction within budget, while training, up-skilling and empowering emerging contractors. More than 70% of the contract price was paid to emerging contractors and suppliers.

Focus areas include:

- project management
- construction management including models for advancement of emerging contractors
- operations and maintenance
- GIS mapping and modelling
- project finance and development
- training, mentoring, institutional support and asset and facilities management
- OHS- act assignments
- certification and auditing



CELEBRATING *our achievements*

As a company operating across multiple cultures and regions, Royal HaskoningDHV offers you innovative solutions that meet your specific needs and speak to the demands of your unique environment

This makes our awards and achievements, your awards and achievements – as we change lives

RECENT AWARDS INCLUDE:

Business Excellence

- 2012 CESA AON Engineering Excellence Awards

Bedford Dam at the Ingula pumped storage scheme in JV with Gibb and Knight Piésold

- 2011 CESA AON Engineering Excellence Awards
- 2011 Construction World Magazine Best Projects Awards
- 2012 SAICE Water Engineering Award

Blackburn Bridge and pedestrian walkway

- 2011 SAICE Outstanding Civil Engineering Achievement Awards
- 2011 Concrete Society Fulton Awards

Life beyond our rivers – Sedgefield case study

- 2010 SAICE National Awards
- 2010 SAICE Southern Cape Regional Award

Warwick Triangle Outbound

- 2011 SAICE Outstanding Civil Engineering Achievement Awards

uMngeni Viaduct

- 2010 CESA Glenrand-MIB Award

Toolkit for implementing the Integrated Coastal Management Act

- 2010 International Association for Impact Assessment South Africa (IAIASa) Awards



Living OUR VISION

At Royal HaskoningDHV, we consistently strive to exceed your expectations – delivering technologically advanced, cutting-edge solutions no matter the scale or scope of your project

We pride ourselves on our ability to provide and deliver the highest levels of support, worldwide.

Our global operating structure additionally enables us to offer you world-class quality through our unique integration of services. Our focus on strategic solutions-driven partnerships ensure operational efficiency and cost-effectiveness.

We are committed to the high corporate governance standards we have set for ourselves, and driven to act as a responsible corporate citizen.

CORPORATE GOVERNANCE

Our group-wide Business Integrity Management System affirms our commitment to ethical practice, and ensures that we serve the best interests of our stakeholders. Integrity management plays a key role in assuring the sustainability of current development initiatives.

We are members of Consulting Engineers of South Africa (CESA) and are actively involved in various initiatives to alleviate the current skills shortage in southern Africa. We thereby facilitate the infrastructure rollout required to uplift the full spectrum of South African society.

The Construction Charter

Royal HaskoningDHV is also a signatory to the Construction Charter, indicating our commitment to redress past inequalities in the sector, pertaining to South Africa in particular. We look forward to unlocking the extraordinary growth potential of the industry through our work and operations.

Empowerment in South Africa

Black Economic Empowerment (BEE) is a business imperative for Royal HaskoningDHV, and follows a process-based system accessing growth and enterprise development.

We are proud of our track-record and ethic in utilising projects to transfer skills, create work opportunities and grow entrepreneurs – enhancing society through our efforts.

At present we contribute 3% of our total national payroll towards skills development, in compliance with the South African Skills Development and Skills Development Levies Acts.

In conjunction with our BEE partner, Sangena Investments (Pty) Ltd., our empowerment programme specifically enables:

- equity ownership and management
- employment equity
- skills development
- enterprise development
- preferential procurement
- community upliftment through our corporate social investment programme

CORPORATE RESPONSIBILITY

As professionals in the built environment, Royal HaskoningDHV is especially aware of our responsibility to the societies where we operate

We remain mindful of the positive impact we wish to have on the lives of those involved in our business – and those whose lives may be improved by our undertakings. Our projects are guided by our underlying principle of enhancing society together.

We ensure sustained and impactful community upliftment by adopting a three-pronged approach to Corporate Responsibility:

- corporate project responsibility
- corporate internal responsibility
- corporate social responsibility

Corporate Project Responsibility

We actively encourage and support business strategies that demonstrate commitment to the long-term viability of any projects we undertake. This means that we're able to assess the sustainable positive impact of our projects in direct relation to the community living within the immediate environment.

Corporate Internal Responsibility

We remain committed to contributing to broader, global sustainability directly through our own working environment.

To this end, we focus on minimising waste and reducing our carbon footprint, while engaging in water- and energy-saving practices throughout our international operations.

Corporate Social Responsibility

At Royal HaskoningDHV, we manage our business in a way that enhances the positive economic, social and environmental impact of our activities.

Remaining sensitive to the needs of employees, customers, communities and society at large, we have structured our business practice to interface directly with our Corporate Social Responsibility programme – ensuring that we act as a good corporate citizen.

Every project we undertake is examined from this perspective and as a consequence, many outreach initiatives are undertaken by our project staff aimed at involving the beneficiary community who are exposed to the wider aspects of engineering.

CASE STUDY

Saturday School Initiative

Royal HaskoningDHV provides free tuition to senior school learners through its Saturday School Initiative. In this way we endeavour to improve pass rates of these subjects. We encourage learners to pursue a technical career, post-matric. Courses are restricted to pupils without access to additional tuition. Tuition is aligned to the Department of Education's syllabi for maths, physical science and engineering graphics and design.

Since inception in 2007, more than 700 learners from government schools have benefited from tutoring by our "teachers" – all volunteers – drawn from the ranks of our own professional staff.





Professional SERVICES, Professionally Delivered

As a leading global organisation, Royal HaskoningDHV is registered with and accredited by numerous agencies across the world

Registrations

Royal HaskoningDHV is registered with the following international financing agencies:

- African Development Bank
- Kuwait Fund
- Arab Bank for Economic Development in Africa
- European Union
- International Bank for Reconstruction and Development (World Bank)
- United Nations Development Programme

Project management

We have achieved cross-sectoral accreditation for our in-house project management programme from the Services Sector Education and Training Authority (SETA) in South Africa.

Quality management

Quality assurance is integral to our value proposition. We hold all relevant certification (including ISO 9001:2008) for consulting engineering, project management and development activities.

We emphasise the quality of our work and consequently our oversight systems are structured to ensure that clients receive service of an international standard. Our quality management systems have been developed internally within our company. This ensures applicability and formalises our attention to detail and quality.

Health and safety

Health and safety is a non-negotiable at Royal HaskoningDHV. As such, we provide and maintain a safe working environment for all within our employ and for all those affected by our work activities. We comply with the requirements of the Occupational Health and Safety Act of 1993.

Our Safety Committees, through the election of the Health and Safety Representatives, ensure that all health and safety issues are timeously and appropriately addressed through direct communication with our staff, throughout the business.



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If you're looking for a partner committed to engineering excellence, contact one of our offices today

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