Pit to Port
The changing economics of mining
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>From Pit to Port</td>
<td></td>
</tr>
<tr>
<td>1. Pit</td>
<td>5</td>
</tr>
<tr>
<td>2. Mine Engineering</td>
<td>7</td>
</tr>
<tr>
<td>3. Processing</td>
<td>7</td>
</tr>
<tr>
<td>4. Logistics</td>
<td>9</td>
</tr>
<tr>
<td>5. Transport</td>
<td>9</td>
</tr>
<tr>
<td>6. Port</td>
<td>11</td>
</tr>
<tr>
<td>7. Shipping</td>
<td>11</td>
</tr>
<tr>
<td>8. Industry</td>
<td>11</td>
</tr>
<tr>
<td>Comprehensive supporting expertise</td>
<td></td>
</tr>
<tr>
<td>1. Planning</td>
<td>13</td>
</tr>
<tr>
<td>2. Environmental considerations</td>
<td>13</td>
</tr>
<tr>
<td>3. Water</td>
<td>13</td>
</tr>
<tr>
<td>4. Energy</td>
<td>15</td>
</tr>
<tr>
<td>5. Stakeholder communication</td>
<td>15</td>
</tr>
</tbody>
</table>
Introduction

The economics of mining are changing. Infrastructure is increasingly becoming a crucial aspect of the viability equation. Terrain presents new challenges and political and environmental conditions are often difficult to negotiate.

Expertise is more critical than ever. So are innovation, a commitment to sustainability, and the ability to adapt to the changing demands of the industry using knowledge and insight.

Royal HaskoningDHV has an extensive track record in pit to port consultancy. The multidisciplinary nature of our organisation enables us to offer a complete and comprehensive end-to-end service to our customers.

Just as important however is the innovation which is central to our activities. By using our advanced skills, network and business models, we are able to convert opportunities into innovative implementations which offer tangible transformational value – exactly what is needed in the mining industry right now.

We are also taking the lead in sustainable development. We are well aware that continuation with ‘business as usual’ is no longer an option and we at Royal HaskoningDHV are committed to making a positive difference to our clients’ business and to society.

This is as true for the mining industry as anywhere else. Mining has the opportunity to transform and enhance communities. Conversely, it also has the power to destroy and degenerate environments. We are on the side of enhancement and we are committed to work with stakeholders and governments to realise positive benefits from projects.

We can provide the optimal integration of the components in your project, but more than that, we can provide the innovative new ways of thinking that make the difference when it comes to the profitability of your project and to the enhancement of society.
1. Pit

Our operations in both surface and underground mining are in demand across the world. We recently expanded our activities and staff numbers in Africa and have a growing presence in Asia and the Americas.

Our independence is ensured by the fact that we are a private, employee-owned company. We undertake due diligence and peer review assignments and have recently completed a number of project feasibility studies used as a basis for successful listings on the Toronto (TSX) and London stock exchanges (LSE).

Royal HaskoningDHV also carries out work for funding institutions in support of financing and loan draw down schemes. We have engineers who meet the competence requirements of all the main mining exchanges.
2. Mine Engineering

Our own mine engineering experts specialise in surface mining, underground mining, environmental engineering, metallurgical and process engineering. On the design side, we have a distinguished record for work including high and low pressure pump and piping systems, electrical reticulation, and mechanical design including shaft steel work, loading chutes and conveyors.

3. Processing

The multi-disciplinary nature of our organisation makes us well placed to advise on, plan and design processing operations associated with mining activities. We build efficiency and sustainability into systems. Our expertise spans metallurgical plant and process.
4. Logistics

Our ability to offer an integrated solution is critical in adjusting to the changing pit to port economics whereby transportation costs now constitute a major expenditure. Choosing the right options, optimising the logistics chain, and improving the effectiveness of transport systems can have a significant impact on the costs of resources and operations and potentially reduce negative environmental and social impact. Our expertise also covers materials handling and storage as well as minimisation of environmental pollution including air and noise.

5. Transport

We have wide experience in infrastructure development and demonstrable capability in innovative design techniques. Our track record of involvement in complex developments including bridges, underground structures and immersed tunnels enables us to draw on practical know how to advise and design the optimum solution for your project. Our transportation experience spans everything from road and rail to inland waterways or pipeline. It includes design, engineering, procurement and construction management.

We have extensive experience in optimizing road and rail track alignments in several types of landscape. Concerning rail transport, we have experience in finding the optimum combination of train scheduling and track lay out, including the design of shunting yards.
6. Port

We are global market leaders in marine and maritime design and engineering, specialising in docks and shipyards, ports and terminals. We are responsible for some of the world’s busiest ports and harbours. This, combined with our reputation as the world’s leading mining infrastructure development consultancy, makes us the perfect partner for providing the optimal integrated solution for pit to port projects.

7. Shipping

Royal HaskoningDHV uses a unique database of trade, port and shipping data on which to base insight and advice. Our consultants have been at the forefront of independent market analysis and appraisal in many shipping sectors and published in-depth analytical reports on all aspects of international trade, shipping and commodity handling. We are therefore extremely well placed to advise and assist on your shipping needs and options.

8. Industry

On arrival at their destination the materials, whether raw or processed, enter an industrial process. We can bring to bear worldwide experience in logistics, industrial building design, processes and manufacturing to help our clients with innovative, sustainable and pragmatic solutions.
Comprehensive supporting expertise

1. Planning

Planning is the cornerstone for success. In conceptualising and defining the project, we are able to draw on our expertise, knowledge and experience across all the operational and structural disciplines. Our focus within key market sectors combined with thought leadership ensure we deliver world-class solutions locally.

2. Environmental considerations

With environmental challenges faced across the world, there is a need to develop new solutions for responsible production, supply chains and resource management. We are actively working on developments including renewable energy, sustainable transport solutions and responsible mining. Furthermore, we focus on environmental impact, stakeholder management, safety and compliance within all our activities.

3. Water

The growing demand for water means innovative technologies are vital for ensuring efficient use of this critical resource. We combine operational excellence and tools with proven technologies and products like Carrousel® to ensure smart use of all waste water systems within mining operations. We have been successful in developing and delivering very specific technical solutions for water recycling and wastewater treatment.
4. Energy

The worldwide trend towards energy efficiency and the utilisation of renewable energy resources is equally relevant within the mining industry. Royal HaskoningDHV can deliver energy solutions based on energy supplied from the grid, as well as client specific options using wind, solar, hydro, gas and coal generation.

5. Stakeholder communication

Our relationships with clients and stakeholders are based on trust and integrity. We work closely with you to understand and achieve your ambitions and are committed to ensuring projects take into account the needs and values of parties which are directly or indirectly involved. Our experience and expertise in listening to and working with stakeholders and our commitment to enhancing society together is particularly valuable where transportation routes cross international borders.
Royal HaskoningDHV is an independent international engineering and project management consultancy with more than 130 years of experience. Its head office is in the Netherlands, other principal offices are in the United Kingdom and South Africa. In addition, solid track records have been established over the years through offices in Indonesia, Thailand and the Americas; and we have a long standing presence in Africa and the Middle East.

Backed by the expertise and experience of 7,000 colleagues all over the world, our professionals combine global expertise with local knowledge to deliver a multidisciplinary range of professional engineering, consultancy and project management services in aviation, buildings, infrastructure, industry, energy and mining, planning and strategy, transport and asset management, rivers, deltas and coasts, and water technology all over the world from 100 office in 35 countries.

By showing leadership in sustainable development and innovation, together with our clients, we are working to become part of the solution to a more sustainable society now and into the future.

Today, the company ranks in the top 50 of independently owned, non-listed engineering companies worldwide and 13th in Europe.

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