

## Responsible & Sustainable Business Update 2019

Royal HaskoningDHV - March 2020



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# 1 INTRODUCTION BY CEO ROYAL HASKONINGDHV

The world in which we operate changes constantly and significantly. New challenges arise in our economies, environments and societies at large. Many of these challenges are driven by climate change and related policy changes and by the acceleration and impact of digital and data.

These two fundamental trends – climate change and digital - influence the needs and desires of society, our clients, our current and new colleagues. Three years ago, we started with a strategy that enables the company to be prepared and ready for growth helping clients to navigate through and lead in a complex, volatile and rapidly changing world. Proud to share that we are making good progress, financially as well as the positive impact on society.

We recognise that the challenges the world faces, as captured in the UN Sustainable Development Goals, can only be tackled by working in partnership. Our mission is to 'Enhance Society Together' with our clients and other stakeholders through innovation and co-creation. As we move forward, our mission has become even more relevant than ever before.



Erik Oostwegel, CEO

We are constantly curious, applying our creativity and intellect to develop new solutions. Solutions that do not exist today, but which will help to enhance society tomorrow. It is therefore exciting and inspiring to see the impact of combining our creative human intelligence with analytical intelligence, leading to new data and better insights. Our multidisciplinary expertise across water, energy, industry and transport, combined with our mission puts us in an excellent position to deliver distinctive new services and solutions to meet the challenges expressed in the SDG's and enhance society together.

This Responsible & Sustainable Business Update is complementary to our Annual Report and provides further information on topics contained in [the Annual Report 2019 website](#) and Financial Statement. It provides additional detail and depth to ensure transparency on progress and performance from 1 January to 31 December 2019. We welcome your comments and feedback, which you can send to [info.cr@rhdhv.com](mailto:info.cr@rhdhv.com)



quality

time

## 2 SCOPE AND TRANSPARENCY

The most important objective of this update is to inform our clients, partners, employees, future employees and all who are interested in Royal HaskoningDHV about our developments during 2019. We hope that it will prompt continuing dialogue with all our stakeholders.



### 2.1 Scope

This update aims to give a representative impression of our Responsible & Sustainable Business (RSB) activities and performance in 2019. The RSB update is complementary to [our Annual Report 2019](#), as it provides more transparency and detail on our RSB activities and performance in 2019 and the positive impact achieved through our projects, innovations and operations. It is not part of the external assurance. The scope includes activities of Royal HaskoningDHV and majority-owned legal entities but does not include joint ventures and subcontractors. This is in line with the scope of the Financial Statement. The selected Key Performance Indicators (KPIs) for employees relate to our own employees and exclude freelance employees or those hired through temporary recruitment agencies. We report environmental KPIs on our permanent office locations. Any deviations are made explicit in this update.

### 2.2 Materiality

To continuously improve as an organisation, we identify, understand and balance the most important topics for our stakeholders, and relate them to the actions and decisions we take. A solid materiality analysis provides insights into future trends, business risks and opportunities that influence our ability to create value. It helps identify topics that our stakeholders, internal and external, expect us to focus on.

#### How we obtained our shortlist of material topics

Our first materiality analysis was performed in 2014. It has been used as a baseline ever since, checked and refined when needed by internal experts in the environmental, social or economic field, and approved by the board in 2016, 2017 and 2019. The analysis has resulted in a shortlist of 5-7 material topics, obtained by prioritising a long list from the GRI principles, studying our existing business strategy, internal input, and regular stakeholder engagement. Every year we check whether these topics are still aligned with our business strategy, reflected in customer and employee feedback, and through wider discussions across society and the media. The results are validated with key internal stakeholders. Our view on priorities has remained consistent with current priorities set as:

1. Health and safety
2. Quality and sustainability in our products and services
3. Integrity and ethical performance
4. Economic / financial performance
5. Employability

Recent shifts in our business strategy (eg digitalisation) and societal trends (eg climate change and the energy transition) have increased the priority of emission reduction, security and privacy from medium to high. Human rights assessment, anti-competitive behavior and environmental compliance have been raised from low to medium priority.

Our CSR strategy is based on our promise (we 'walk the talk') and our culture of 'enhancing society together'. Material topics that contribute to this way of working are therefore addressed continuously in our projects and operations (see also the section '[Strategy & Governance](#)' for our key results on the material topics).

## 2.3 Stakeholder feedback

Our most important stakeholders, clients and employees, are asked annually for feedback on the company's strategy and performance, which serves as a regular pulse check. Our 2019 client survey indicated a dramatic increase in demand for sustainability. Customers' key materialities are:

- Minimise negative effects of a project on the environment
- Minimise the use of scarce resources and materials
- Adapt to the energy transition and use renewable sources of energy
- Work with consultants who not only do what is asked, but proactively provide advice and solutions
- Implement innovative solutions to add more value to the project.

For our employees, key materialities are human rights issues and ethical questions that arise when working on projects in certain countries.

The outcomes of our client and customer surveys indicate a need to revise our materiality analysis in 2020. We will do this through a further survey and open discussions with all relevant internal and external stakeholders. This will be used to refine our company strategy and long-term vision.

## 2.4 Reporting process

This RSB Update has been created in collaboration with colleagues in our three largest countries, the Netherlands, South Africa and the United Kingdom. Data collection is based on the entire company (as described in Scope) and facilitated by our data management system. Data is reviewed by local data experts, before further review and consolidation by Corporate Finance and Control. Progress is measured partly with KPIs and partly described qualitatively.

## 2.5 GRI Table

The RSB information in [the Annual Report](#) and [this RSB Update](#) is also presented in the GRI Table (self-assessment). The Global Reporting Initiative (GRI) provides a comprehensive sustainability reporting framework used globally to communicate transparently on the impact of business on critical sustainability issues such as climate change, human rights, anti-corruption and many others.

Disclosure Number	Disclosure Title	Information source			Comments
		Annual report 2019	Responsible & Sustainable Business Update 2019	Website	
102-01	<b>Name of the organization</b>	Introduction by CEO Royal HaskoningDHV	Introduction by CEO Royal HaskoningDHV, Our company	Company Profile	
102-02	<b>Activities, brands, products, and services</b>	Report of the Executive Board - Our company; Other Information - Group companies & Non-group companies		Company Profile	
102-03	<b>Location of headquarters</b>	Notes to the consolidated financial statements - Registered office & group structure	General information	Company Profile	
102-04	<b>Location of operations</b>	Key figures; Backpage; Our company - Our stakeholders and how we engage	General information	Company Profile	

The PDF of our GRI Table is available via our Responsible and Sustainable Business Update [download section](#).

GRI Table image

## 2.6 RSB governance and certification

Our RSB (former CSR) is integrated in our company and way of working via several integrated management processes and systems, which are verified and certified by internationally recognised bodies. Specific certificates appear in relevant chapters and global certificates are presented at [our website](#). For our Integrated Management System, explaining our standards for QHSE and integrity, see 'Integrity & Compliance Governance Structure' below. Our Information Security Management System is explained in section '[Cyber security and personal data protection](#)'. Certifications relating to CSR across our activities appear below.

## 2.7 Gold medal awarded from EcoVadis

EcoVadis assessed our Corporate Social Responsibility (CSR) practices and awarded Royal HaskoningDHV (Group) the Gold medal in 2019 for the fourth consecutive year. The global supply chain & purchasing index is highly valued in the industry. It places our company in the top 2% of architectural and engineering firms and in the top 5% for overall CSR performance among all businesses rated. The Gold medal covers international standards on sustainable development like ISO 26000, UN Global Compact and Global Reporting Standards (GRI table). The assessment includes environment, labour practices & human rights, fair business practices, anti-corruption and sustainable procurement. We value these subjects and have integrated them in our business processes, so we are proud to receive recognition from EcoVadis with the Gold medal. Our EcoVadis CSR Performance details, including a Score Card Summary, are available on our [website](#).



Colleagues celebrating the obtained EcoVadis gold medal in 2019 for the fourth consecutive year

## 2.8 CSR performance on MVO Register

MVO Register (formerly FIRA) is an assurance provider with a sustainability platform and verifies CSR performances of companies and organisations. Our branch in the Netherlands, HaskoningDHV Nederland B.V., is committed to the principles of corporate social responsibility (CSR) and discloses its ambition on CSR issues prioritised by MVO Register. These include management approach, policies, measures and plans in a basic CSR report via the MVO Register Platform. MVO Register provides us with an external assurance statement on the reliability of our Corporate Social Responsibility information as presented in the MVO Register Platform and re-assesses us annually.



## 2.9 Outlook and actions for 2020 and beyond

It is our collective intention to continuously develop and improve how we embed our mission Enhancing Society Together in our strategy, ambitions and actions. In the first half of 2020, we will review and redesign our current measurement framework to allow a more integrated approach to driving social, economic and environmental impact within our operations and through services we deliver. In doing so, we will continue to monitor updates on the global CSR / SDG measurement framework created by GRI and UNSDG.

# SUSTAINABILITY



## 3 STRATEGY AND GOVERNANCE

The world is in transition. The effect of a changing climate is becoming increasingly visible and the challenges of a growing world population are being felt in towns and cities across the world. There are consequences for water and resources, transport and accommodation, food, energy and waste. Impact on the way we build and operate our infrastructure is immense. It is very clear that our mission to Enhance Society Together is more relevant than ever. This mission is reflected in our company strategy and is a guiding principle for all our colleagues, uniting us with common purpose and drive.



### 3.1 Reducing risks while adding value to society

Our faster, more crowded and interconnected world needs innovative solutions that help people, businesses and governments to take the right decisions that help the world move forward – sustainably. Solving today's biggest challenges involves physical solutions, smart brains and digital technology. This is the combination Royal HaskoningDHV is using to help build a better, more efficient and sustainable society. To do this, we need to run a financially healthy business and apply our collective intelligence and smart solutions together with our clients and partners, creating positive impact on people, our living environment and the economy.

Our strategy ensures our business remains relevant and able to assist our clients in this rapidly changing world. It continued to guide our activities during 2019 with its clear focus on global leading services and export services, new innovative services and digital engineering. We are successfully integrating digital and data capabilities with our traditional engineering expertise and our strategy and mission give direction to how we use innovations, technology and digitisation. Investments made in 2019 supported our strategy and strengthened our portfolio. We acquired simulation software experts, Lanner, flood resilience digital solutions provider, Ambiental, and took a minority share in Hydroinformatics Institute, H2i.

Innovation is integral to our strategy and we have further developed a structured and scalable process to boost our innovation pipeline and embed a culture of innovation across our organisation. Innovations pursued are those which fit strategically, are client-centric, scalable, financially sustainable and ideally offer a different business model.

Our ambition is to leverage our Products & Services (technology and innovations) and our own operations to contribute to inclusive sustainable development. We drive this with our clients and partners in areas we master and can actively influence to contribute to a relevant selection of UN Sustainable Development Goals (SDGs). We use our 4 Questions for sustainable growth to connect and align with our clients (see section Progress update on our prioritised UN Sustainable Development Goals) and to ensure we maintain our focus on specific SDGs.



Since our client's projects cannot always have only positive impact, our goal is to achieve a net positive impact by our involvement in these projects. The construction of a new road, for example, will positively impact mobility and economic growth, but will also emit greenhouse gas emissions both in construction and use phase. Our 4 questions guide our conversations with clients and partners on these considerations, and help to identify where we can add value for society while minimizing the potential negative impact of projects. The SDGs are specifically mentioned as part of our 4 Questions conversations to maintain clear focus on the areas where we are committed to make a difference. The questions are:

1. Does the output meet the requirements of most stakeholders involved?
2. Does the output serve added value for the client and society as a whole?
3. Is the result lasting, thus is it future proof?
4. Can we meet the client's demand while minimising the use of natural resources and energy?

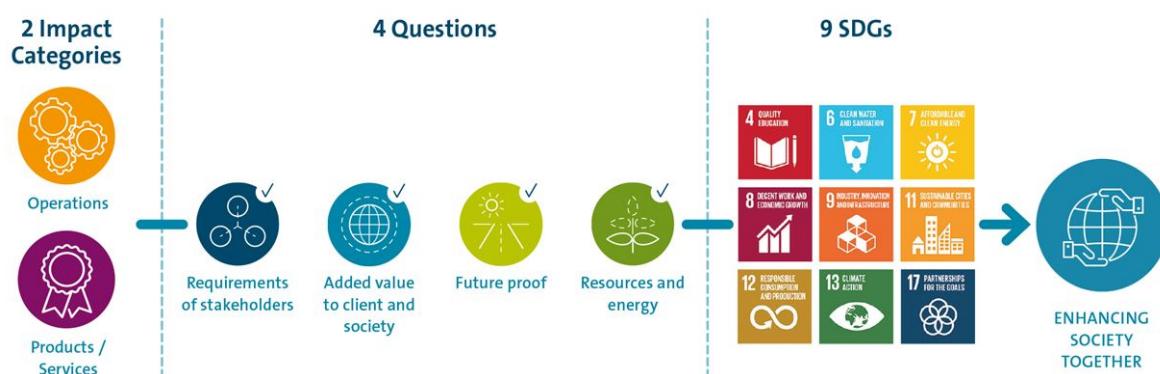


Figure How we Enhance Society Together

To facilitate reaching our ambitions in reducing our negative impact while adding value to society we have integrated Responsible & Sustainable Business (RSB) in the governance model of the company, including descriptions of the roles and responsibilities of our management, Business Line Managers Sustainability and The Workers Council. It is part of management targets starting at Board level and working downwards. RSB is a shared ambition of the Board, although it is a key responsibility of one Board member.

RSB is integrated in our way of working via our global Management System and covers our QHSE Management System, our Integrity Management System and our Information Security Management System. In some of our projects, a more extensive consideration is needed, when we keep in mind all our responsibility and sustainability goals. When there is a conflict of interest, this is carefully considered. Examples of these considerations that we have made are concerns about working in controversial countries and involvement in publicly disputed projects (for example the placement of windmills, working on military projects), about potential controversies, perceived conflicts of interest and third-party due diligence. In these situations, we are guided by the principles and standards of the UN Global Compact, UN Guiding Principles on business and human rights, OECD, ISO26000 (Guidance on Social Responsibility) and ILO.

It is our collective intention to continuously develop and improve how we embed our mission Enhancing Society Together in our strategy, ambitions and actions. In the first half of 2020, we will review and redesign our current measurement framework to allow a more integrated approach to driving social, economic and environmental impact within our operations and through services we deliver.

## 3.2 Our main key performance indicators (KPI's)

Material topic	Key Performance Indicator	Key results	Report section (for more information)
Health and safety	Integration of our QHSE Management System (incl. alignment with international standards)	Further aligned with international BIM standards + ISO certifications (valid until September 2022) + development of e-learning module	Integrity & Compliance Governance Structure
	Fatalities + Lost Time Injury Frequency (LTIF)	Zero fatalities Lost time injury frequency (LTIF) in 2019 was below target	Positive impact through our projects and innovations
Quality and sustainability in our products and services	Use of 4 Questions in conversations (target 2019 = used in 75% of our projects)	Target almost met: 4 Questions were actively used in 74% of our projects	Progress update on our prioritised UN Sustainable Development Goals
Integrity and ethical performance	Integration of our Integrity Management System (incl. alignment with international standards)	Further aligned with international BIM standards + ISO certifications + development of e-learning module	Integrity & Compliance Governance Structure
			Acting with integrity
Economic / financial performance	Net turnover, Operating income, Added value	See annual report on our website	Annual report 2019
Employability	Developing digital capabilities across our organisation	Increased use of Digital Academy and Innovation Hub	Our people
	Embed culture of innovation	Several trainings, workshops and co-creation sessions took place across the organisation to focus on development, vitality and inclusion.	
	Modern employment relationships and employment conditions Equal opportunities		
Emission reduction	Use of 4 Questions in conversations (target 2019 = used in 75% of our projects)	Target almost met: 4 Questions were actively used in 74% of our projects	Progress update on our prioritised UN Sustainable Development Goals
	Carbon footprint (reduction in % per employee compared to 2016) for office buildings (target 2019 = 33%), business travel excluding flights (target 2019 = 25%) and business travel by air (target 2019 = 2%).	Reduction target for office buildings met (reduction of 52.9%)	Positive impact through our operations
		Reduction target for business travel (excluding flights) met (reduction of 37.7%) Reduction target for business travel by air (flights) not met: In absolute numbers tonnes CO <sub>2</sub> eq. a slight increase has been realized (+ 1.9%) Together with a decrease in number of employees (- 2.9%) this causes a total increase of 4.9%	
Security & privacy	Integration of our Information Security Management System (incl. alignment with international standards)	Compliant with data privacy regulations	Integrity & Compliance Governance Structure
		Certification for ISO27001 was awarded in December 2019	Acting with integrity

A few examples of our contributions to the Key Performance Indicator 'emission reduction', are listed below.

#### Emission reduction examples

##### Positive impact through our operations:

- Carbon footprint (reduction targets)
- Sustainable Facility Management

##### Positive impact through our projects and innovations:

- First steps to a natural gas free town
- First energy-neutral station in the Netherlands
- Smart, energy efficient installations at new art depot to reduce consumption by up to 40%
- Routemap for CO<sub>2</sub>-neutral university sector in the Netherlands
- Data centre gains LEED Gold Certification
- Assisting a multi-national beverage company achieve sustainability targets
- FastLane: Accelerating sustainability in commercial buildings
- Flowtack: Optimising traffic flows for smoother journeys and cleaner cities

## 3.3 RSB and Integrity governance

Responsibility for RSB is fully integrated into our activities, led by senior management from strategy to delivery. CEO Erik Oostwegel spearheads our RSB commitment and discusses strategic relevance with the Supervisory Board. We walk the talk by including these aspects in our projects as well as our own operations. Business Line Directors and Corporate Group Directors all have responsibility to incorporate RSB into their activities, supported by sustainability managers in the business. In addition, we have a network of internal ambassadors who help to create awareness among our employees.

Our Sustainability Policy Statement, RSB Charter, and key ambitions for the development of the company are evaluated annually. The ambitions have been translated by businesses and corporate groups to address their specific contribution. Regional Management Boards and Resident Directors take responsibility for local RSB Plans and Actions which are also based on the RSB Charter.

RSB is managed at a functional level across our strategic and operational areas, with responsibility rolling up to executive level. The Responsible & Sustainable Business Working Group is co-chaired by our Corporate Director Communications & Brand and our Group Integrity & Compliance Officer. With representation from senior leaders and specialists, it serves as the central coordinating body for our responsible business strategy, benchmarking and reporting.

### 3.3.1 RSB Governance structure

RSB is integrated in our way of working via our global Management System and covers our QHSE Management System, our Integrity Management System and our Information Security Management System.

### 3.3.2 Governance and reporting

Responsible & Sustainable Business is integrated in the governance model of the company, including descriptions of the roles and responsibilities of our management, Business Line Managers and The Works Council. It is part of management targets starting at Executive Board level and working downwards. RSB is a shared ambition of the Executive Board, although it is a key responsibility of the CEO.

Documents that reflect our structure and target setting:

- Company strategy;
- Annual Plans;
- Annual Reports.

### 3.3.3 Integrity and Compliance governance structure

For our Business Integrity Management System, a separate Integrity & Compliance governance structure is active. This is integrated in our global Management System and independently audited externally. Our Integrity Management System explains core expectations regarding ethical conduct and business practices and includes guidelines to help employees deal appropriately with a broad range of topics like human rights, labour and social standards, anti-corruption, health and safety, environmental protection, privacy and data protection. Our global Management System ensures all employees follow common working practices. In 2019, the system was further aligned with international BIM standards to support and guide digital ways of working. As part of our global onboarding programme an e-learning module was created to provide a good introduction for new joiners.

### 3.4 Global Management System and certification

The global Management System is based on and certified against globally-accepted international standards (ISO9001, ISO 14001, ISO45001 and ISO27001) and covers QHSE, integrity, business continuity, knowledge management, information security and our business principles. To confirm ongoing compliance with these standards, internal and external audits were organised and executed in 2019. We conducted internal audits in all our Business Lines and offices, while the company **DNV GL** (our external certification body) conducted external audits in the following countries: Netherlands, South Africa, Oman and United Kingdom. As a result of the audits, our **ISO 9001:2015 (quality)** and **ISO 14001:2015 (environment)** certificates were renewed and we obtained the **ISO 45001:2018 certificate** for the first time, replacing our OHSAS18001:2007 certificate. All three certificates are valid until September 2022. The validity of these certificates can be checked in **the block chain**.



QHSE Team celebrating the obtained ISO 45001:2018 certificate of the global Management System

### 3.5 Opportunities for improvement and complaints

59 opportunities for improvement were submitted. All opportunities were reviewed and responded to, and several improvements to the QHSE management system were made. We registered and processed 3 external complaints globally during the year. Those who submitted complaints were contacted and measures taken to solve the complaints.

### 3.6 Subcontractor evaluations

During the year 339 subcontractors were evaluated on their performance regarding, quality, occupational health & safety and environment as well as on their adherence to our Business Principles for Partners & Suppliers. 6 issues that required further action were reported.

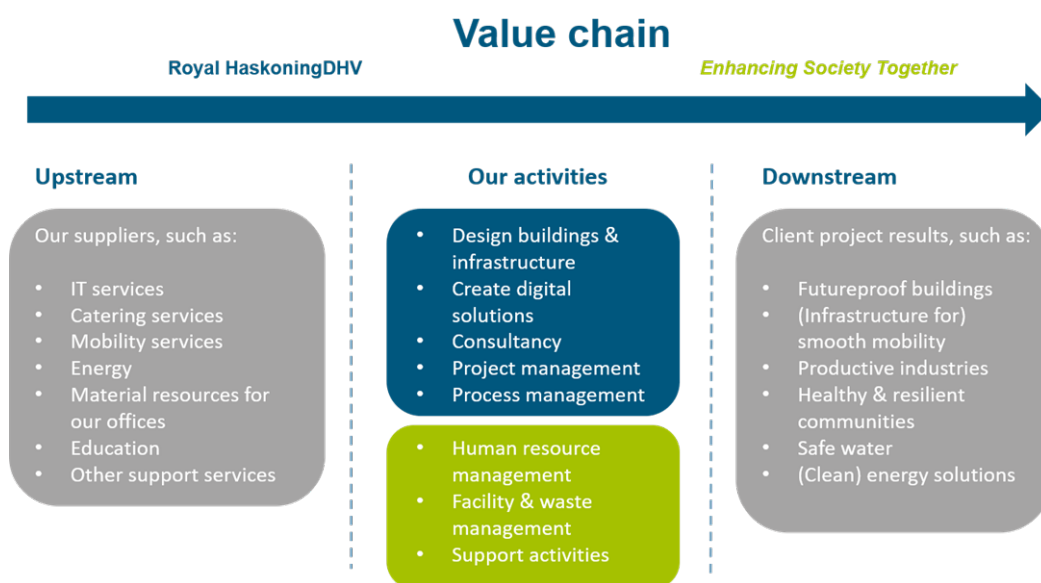
## 3.7 Principles and standards

As an international company, we are guided by the principles and standards of the UN Global Compact, UN Guiding Principles on business and human rights, OECD, ISO26000 (Guidance on Social Responsibility) and ILO.



## 3.8 Our Value Chain

Our mission to Enhance Society Together to help build a better, more efficient and sustainable society can be applied in all phases of our value chain: upstream, downstream and through our own operations. Our direct impact is through our operations and includes the use of offices, our business travel and the employment we provide. Upstream, we can influence our suppliers and subcontractors through selecting, contracting and by working together on more sustainable solutions. Examples of how we contribute to the SDGs through our operations are shown in the section '[Positive impact through our operations](#)'.



## 3.9 Creating value for society through our projects

Downstream, our clients have significant impact on society, as they are government organisations, large companies in a variety of sectors, small and medium enterprises and non-profit organisations. By designing future proof solutions for them, our services and projects influence their activities. Therefore, the greatest opportunity our company has to create value by enhancing society together is downstream with our clients. Examples of how we contributed to SDGs through our projects and innovations can be read in the section '[Positive impact through our projects and innovation](#)'.



SMART  
CITY

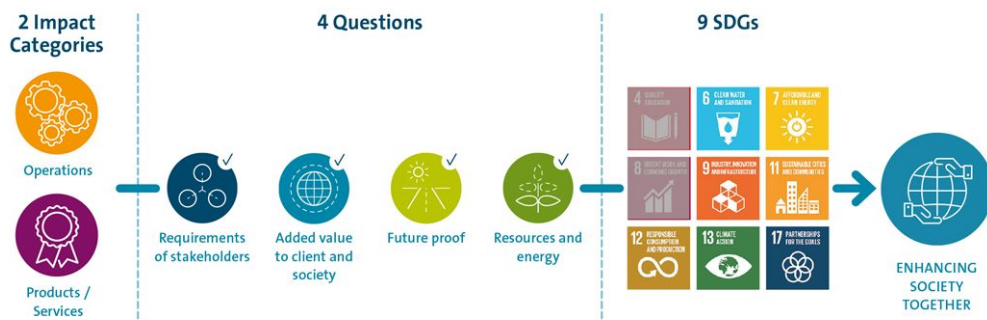
## 4 POSITIVE IMPACT THROUGH OUR PROJECTS AND INNOVATIONS

Our biggest contribution to inclusive sustainable development comes from our projects, integrating new ideas, innovations, technology and sustainability. We aim to create impact by connecting products and services key to SDGs for which we have scalable solutions. For our operations, partnerships and client projects, we focus on 9 relevant SDG's. For seven of those SDG's we make contributions together with clients and partners in our projects and innovations: SDG 6, SDG 7, SDG 9, SDG 11, SDG 12, SDG 13 and SDG 17.



We seek to motivate clients to make sustainable choices, embed Enhancing Society Together and contribute to the SDGs in our daily practice by using our 4 Questions. These guide our conversations with clients and partners to identify where we can add value for society. The SDGs are specifically mentioned as part of our 4 Questions conversations to maintain clear focus on areas where we are committed to make a difference. The questions are:

1. Does the output meet the requirements of most stakeholders involved?
2. Does the output serve added value for the client and society as a whole?
3. Is the result lasting, thus is it future proof?
4. Can we meet the client's demand while minimising the use of natural resources and energy?



### How we Enhance Society Together in our projects and innovations

To further embed sustainability into our solutions, especially in design assignments, we add sustainability experts to project teams which ensures it is considered as a design issue from the start of each project. As well as supporting our clients in achieving their sustainability goals, our aim is that sustainability will become an integral and indivisible discipline in our design process.

## Scaling positive impact in SDGs through innovation

Innovation has always been important in our business to identify new solutions to meet the needs of our clients more effectively and achieve positive impact. Increasingly we are looking to scale our impact far beyond individual projects and clients through innovations which use automation and digitalisation. At the heart of our innovation activities is our Innovation Hub, accessible to every employee for contributing new innovations or building on existing ideas. They can also visit the Hub to follow the development of innovations, how to get started, find best practices, tools and templates and discover more about the innovation process. As the Hub develops – and it now includes more than 120 innovations – we are exploring synergies to cluster innovations to provide a range of solutions within markets and build on various experiments and learnings. We are doing this with an outside-in perspective, talking to clients and partners to identify commonly-shared problems and desires. Our innovations are linked to our sustainability goals and the 4 Questions. For example, when 20 initiatives from the Hub were presented at an Innovation Breakfast event in 2019, the teams illustrated their ideas under development and included answers to the 4 Questions. The following examples show we can exponentially boost positive impact by using innovative solutions to challenges.

- FastLane: Accelerating sustainability in commercial buildings, shared in [this Progress Update](#) **SDG13**
- Flowtack: Optimising traffic flows for smoother journeys and cleaner cities, shared in [this Progress Update](#) **SDG9**
- Healthy Citizens Platform: measure, monitor and improve citizens' health and well-being, shared in [this Progress Update](#) **SDG 11**
- PedCast: Avoid crowding in urban areas and public spaces, shared in [this Progress Update](#) **SDG 11**
- BlueLabel: flood detail at your fingertips, shared in [this Progress Update](#) **SDG 11**

## Awards, nominations and rankings

We received many awards for our projects and innovations throughout the years. Our most recent obtained awards and nominations are shared on our [website](#). A selection of the awards, nominations or ranking highlights from 2019 are also shared in this Responsible and Sustainable Business Update 2019.

## 4.1 Progress update on our prioritised UN Sustainable Development Goals



We seek to motivate clients to make sustainable choices, embed Enhancing Society Together and contribute to the SDGs in our daily practice by using our 4 Questions. These guide our conversations with clients and partners to identify where we can add value for society. The SDGs are specifically mentioned as part of our 4 Questions conversations to maintain clear focus on areas where we are committed to make a difference.

During 2019, these 4 Questions were actively used in 74% of our projects. Our 2019 KPI was 75% usage in our projects.

We have many examples of how we use our expertise and experience to contribute to progress on the SDGs. Here is a selection.

### 4.1.1 SDG 6: Clean Water and Sanitation



Across the world 80% of wastewater is currently not treated<sup>1</sup>, raising risks to human health, compromising access to safe water and threatening freshwater ecosystems. The biological treatment power of our **Nereda® technology** is a more sustainable option for wastewater treatment. It delivers better water quality and avoids the need for chemicals in plants which are more compact and use 50% less energy compared to traditional treatment methods. Globally, 76 Nereda® plants are either in operation or under construction, of which eight are in the Netherlands, with three more in prospect, and the number is steadily increasing. For more information, see [our website](#).



Nereda® wastewater treatment plant in Utrecht, the Netherlands

<sup>1</sup> <https://www.unwater.org/water-facts/quality-and-wastewater/>

## Largest Nereda® wastewater treatment plant opens



Project team celebrating the obtained Global Water Award 2019

At Utrecht's wastewater treatment plant, 14 post-settling tanks from the old installation have been replaced by six compact Nereda® reactors, demonstrating one advantage of this revolutionary wastewater treatment technology – its smaller footprint. The new sewage treatment plant purifies wastewater from 430,000 inhabitants and, last April, it won the Global Water Award 2019 in the Wastewater Project of the Year category. It is the world's largest Nereda® installation providing cleaner results at a time when water purification is becoming more complex, particularly due to medicine residues and pesticides. As well as better water quality and a smaller footprint, it is a third more energy efficient compared to traditional installations.

## 15,000 residents connected to proper sanitation

The opening of an extended sewerage system in Bijeljina in Bosnia and Herzegovina connects 15,000 residents to proper sanitation, replacing previous on-site methods such as pit latrines and septic tanks. Royal HaskoningDHV designed and supervised construction of the €8.5m project which will vastly improve domestic sanitation and reduce the threat of contamination of drinking water resources. Previously wastewater from the town ran off untreated into the Saba River, so the scheme will also improve the health of the river and other connected waterways. The project received significant funding from the ORIO Programme administered by the Netherlands Enterprise Agency (RVO).

## 4.1.2 SDG 7: Affordable and Clean Energy



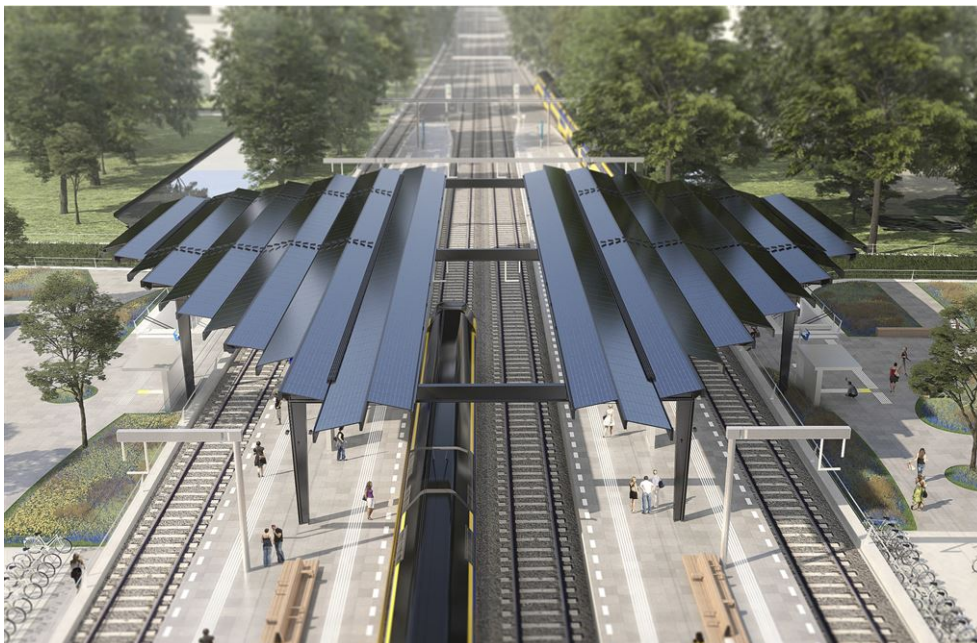
There has been positive progress towards increasing the renewable energy share of total consumption but faster change is needed towards clean energy sources. In the Netherlands, planning has already started on the considerable challenge of moving homes and businesses away from using natural gas for heating buildings and water. We are assisting with the transition and continue to innovate to introduce energy-saving measures and identify clean energy sources in our projects.

### First steps to a natural gas free town

To meet its commitment to reduce CO<sub>2</sub> emissions, the government in the Netherlands is to stop extraction of natural gas in Groningen in 2030 and wants all buildings to be gas free by 2050. This is a major challenge impacting every resident and commercial building currently using gas to heat their properties and water. To achieve it requires affordable, reliable alternatives. In the town of Capelle aan den IJssel near Rotterdam, for example, more than 25,000 homes and business premises are affected. We have undertaken a Heat Transition agenda for the municipality looking at what is possible and what is necessary to meet the objective. The route map examines starting points and what is required, available alternative heating sources for water and whether residents and entrepreneurs would invest in these alternatives. The next stage is to develop the route map into a plan to make Capelle aan den IJssel natural gas free.

### First energy-neutral station in the Netherlands

We are designing the first energy-neutral railway station in the Netherlands, Station Delft Campus, working together with Benthem Crouwel Architects, Witteveen+Bos, ProRail and the municipality of Delft. The project has arisen through the need to expand rail capacity in the area and aligns with the ambition of the municipality to be energy neutral by 2050. The station will function on energy sustainably generated on site via a platform cover of solar panels. The 808 panels will generate enough energy to power the lifts, provide lighting and operate equipment such as the public address system and check-in gates. It will ensure a CO<sub>2</sub> reduction of 105,000 kg per year.



Station Delft Campus, © Benthem Crouwel Architects

## Smart, energy-efficient installations at new art depot to reduce consumption by up to 40%

Boijmans Van Beuningen is an art museum in Rotterdam in the Netherlands. Wanting to share its world-famous art collection as widely as possible in a sustainable way, it is constructing a depot, where visitors can explore more than 151,000 art objects and watch conservation and restoration in action. Art collections require very stable and specific indoor climates in which the air is not too cold, warm, damp or dry. Regulating such an environment requires lots of energy. The climate system we designed uses about seven times less air than a standard climate system for art storage, saving lots of energy in the process. Other energy saving-measures include LED lighting in all rooms and smart switches and sensors to turn off all lighting and power when no one is present. Energy is generated as sustainably as possible with solar panels on the roof and heat-cold storage in the soil. Altogether we expect an energy saving of 30-40% compared to a traditional depot building.



Boijmans van Beuningen art museum: smart, energy-efficient installations at new art depot to reduce consumption by up to 40%, © MVRDV architects



Boijmans van Beuningen art museum: smart, energy-efficient installations at new art depot to reduce consumption by up to 40%, © MVRDV architects



Boijmans van Beuningen art museum: smart, energy-efficient installations at new art depot to reduce consumption by up to 40%, © MVRDV architects

## Routemap for CO<sub>2</sub>-neutral university sector in the Netherlands

As owners and managers of a large real estate portfolio, universities in the Netherlands have an important role to play in the energy transition. They want to align with the objectives of the climate agreement by achieving a CO<sub>2</sub> neutral campus by 2050 at the latest. To assist them, we have created a roadmap for the sector which operates on a set of key principles: major interventions in buildings will ideally take place as part of replacement or major maintenance programmes; energy demand is reduced as much as possible; energy required is generated as sustainably as possible; fossil energy is used as efficiently as possible; natural gas is phased out; and all buildings will ultimately switch to LED lighting. In the year ahead, all universities will work out their own individual roadmap. The expectation is for a 27% reduction in energy consumption in 2050 compared to 2005 and all energy generated or purchased sustainably. As a result, CO<sub>2</sub> emissions will be reduced by 84% in 2030 and 96% in 2050.

## Environmental and social audit of new greenfield power plant in Nigeria

The new Azuro-Edo Power Plant in Benin City Nigeria is helping to bring positive change to millions of people across the country by supporting commerce and industry and providing power for schools and hospitals. Before construction, we carried out an environmental and social audit of the greenfield gas turbine plant on behalf of the International Finance Corporation (IFC). We used the IFC's performance standards as a benchmark. These standards define responsibilities for managing environmental and social risks and, in this project, dealt with issues of economic and physical displacement. Our report contained an in-depth assessment of the site as resettlement took place and contained an action plan, which was agreed with the project developer. During construction we performed quarterly monitoring on compliance with standards and on-site health and safety. We continue to perform annual audits on environmental and social aspects now that the plant is in operation.

### 4.1.3 SDG 9: Industry, Innovation and Infrastructure



This goal focuses on building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation. Improving operational efficiency is one route for industry to become more sustainable and productive. The innovations around digital twins, predictive models and data analytics are supporting this by enabling companies to assess a wide range of 'what if' scenarios to make fact-based investment decisions and raise the efficiency of their operations. In 2019, we acquired Lanner, a hybrid software and consultancy firm in the UK which specialises in predictive simulation for industrial clients. Its simulation software connects physical assets, processes and resources into a single digital model that delivers actionable insights to make business operations and supply chains more resilient and efficient.

## Flowtack: Optimising traffic flows for smoother journeys and cleaner cities



Traffic flows in cities can be optimised

With road traffic forecast to grow at alarming levels across the globe, council planners and transport authorities must keep our towns and cities accessible and people moving without impacting the environment. Our award-winning traffic optimisation solution **Flowtack**, launched in 2017, does just that. Flowtack forecasts and optimises traffic flows at the network level, providing greater control to keep cities moving and therefore supporting SDG 11 in enabling sustainable cities and communities. By implementing Flowtack in Deventer, we have already seen a reduction in the number of vehicles having to stop at junctions across the city, which leads to CO<sub>2</sub> emission reduction between 7-18% and a reduction in NOx emissions by between 11-26%.

More cities across the world are introducing Flowtack to create cleaner cities where it's more pleasant to live and work. In the United Kingdom, feasibility studies are underway and the demonstrable impact on traffic flows has been recognised by two leading industry award schemes. Flowtack was awarded the Technology Innovation prize at the Chartered Institute of Logistics and Transport (CILT) Annual Awards for Excellence. Pitted against stiff competition, judges agreed that Flowtack led the field as a ground-breaking innovation with proven results. Flowtack also won the Roads Visionary Award at New Civil Engineer magazine's TechFest awards which recognise organisations that push boundaries developing pioneering ideas to effect major changes in the global roads sector.



Team celebrating the Technology Innovation prize

[Watch the video \(in Dutch\) of Flowtack in our iReport](#)

## Data centre gains LEED Gold Certification

A massive data centre in Amsterdam's Science park gained LEED Gold certification in 2019 following a project designed and managed by Royal HaskoningDHV. LEED (Leadership in Energy and Environmental Design) certification is one of the most prestigious globally-recognised symbols of sustainability achievement. The project for Equinix data centre AM4 drew together our expertise in green buildings, sustainable energy systems and data centre design. We were responsible for conceptual design, project management and building supervision for AM4 while also ensuring that the requirements for LEED Gold were met. Features leading to the gold certification include water and energy efficiency, reduced water usage, innovative design and a high-quality indoor environment. The building operates in-ground energy storage instead of mechanical cooling which results in significant energy savings and reduced CO<sub>2</sub> footprint. The setup also allows waste heat exchange with nearby university buildings.



Celebrating the obtained LEED Gold certification

## Predictive simulations help to future-proof investment decision

The market for consumer goods is growing in the Philippines and our client's manufacturing operation in the country has expanded to meet the increased demand. The global manufacturer of personal and home care items has already added extra distribution centres at its site. With a new phase of expansion planned, our client wanted to identify the best long-term logistics and warehousing solution. Using a predictive simulation study to analyse, quantify and evaluate the options in combination with our knowledge on material handling equipment and warehousing, we were able to evaluate multiple future scenarios. The logistics simulation model included production and inbound flows, warehousing, docking and shuttling operations to provide advanced insight for our client in guiding the investment decision to create a future-proof facility.



Simulations to help investment decision

## Apron electrification at Schiphol Airport to reduce air and noise pollution

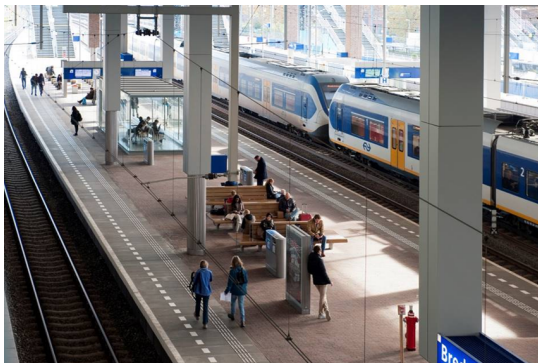
In the Netherlands, NOx emissions from civil aviation increased by around 140% between 1980-2015 and PM10 emissions by 25%. Schiphol Airport Amsterdam is striving to significantly decrease these emissions in line with its corporate vision, legal obligations and regulatory requirements. A significant proportion of its emissions are caused by kerosene auxiliary power units for stationary aircraft at the stand and its mostly diesel-powered vehicle fleet servicing aircraft. Since 2010, NACO has been assisting Schiphol Group with apron electrification to reduce use of the auxiliary power unit and convert the vehicle fleet. To date, around 60% of the fixed aircraft parking positions are equipped with a fixed power supply and electrical pre-conditioned air unit and more than half of all flights are handled electrically. This has significantly decreased emissions and noise on the aircraft apron, improving working conditions for ground crew and reducing impact on people living and working near the airport.



Electric powering unit, Schiphol Airport Amsterdam, the Netherlands

## ProRail Safety Culture Ladder

The Rail and Transport Hubs groups of HaskoningDHV Nederland B.V. have maintained on the fourth level of the Safety Culture Ladder. Transport Hubs is specialised in station buildings and related issues, Rail is specialised in rail infrastructure. The Safety Culture Ladder is a certification scheme, designed to measure and continually improve safety awareness and safe designs & operations. It was developed in the rail industry, but other industries are starting to use it too. The Ladder has five levels. The higher a company scores on its safety awareness, the higher its position on the Safety Culture Ladder. In the Rail Industry, ProRail (track manager in the Netherlands) rewards companies for safety awareness by taking their Ladder score into account in tendering procedures. In 2019 we further strengthened our position by involving the chain even more in our activities. In addition, good progress has been made in the safety walks & talks. Awareness of the importance of this is growing within the organisation. Our position on the Safety Culture Ladder proves that we work proactively and made safety an integral part of our work. The knowledge we gain within the Safety Culture Ladder, is widely distributed within the entire organisation. After all, we want to ensure that everyone returns home safely after each day's work.



Trainstation Breda, the Netherlands



Team celebrating the obtained ProRail Safety Culture Ladder certificate

### 4.1.4 SDG 11: Sustainable Cities and Communities



More than half of the world's population live in cities. By 2050, two-thirds will do so<sup>2</sup>. Sustainable development to respond to this rapid growth requires a transformation in the way we build and manage urban spaces. The city of the future will rely on climate resilient strategies, master planning and infrastructure to support the growing demands of urbanisation. Predictive risk and impact modelling, forecasting and automated alerts, as well as global industry-related expertise, are central to this reality. Prevention is cost-effective, but currently most disaster-related spending goes into emergency response, reconstruction and rehabilitation.

## Our vision for resilience in cities: driving awareness and growth

As climate change and urbanisation take hold, countries all over the world must focus on improving their climate and water resilience to deliver long-term benefits to society and the economy. To drive awareness and action, we are asking leading voices in the global resilience ecosystem to share insight, vision and future-forward methodologies to create **Resilience in Cities**. Our goal is to help industries, critical infrastructure owners and the financial sector reduce the impact of extreme weather, natural disasters and climate change before events occur.

2 <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>



Climate resilient and healthy city

## Healthy Citizens Platform: measure, monitor and improve citizens' health and well-being

The best economic investment a nation can make is to invest in the health of its citizens<sup>2</sup>. Their health is determined by personal lifestyles and behaviours and also by the social and physical environment<sup>3</sup>. A healthy physical environment is determined by multiple factors, ranging from air quality to safety and ecology. When these factors are considered in isolation, it is likely going to lead to incomplete insights and undesired interventions, as they are interrelated. Aspiring truly healthy environments for citizens, we are developing the Healthy Citizens Platform. This platform provides municipalities with visual insight on all environmental factors, including their interrelations. Factors included are air quality and noise levels, mobility and safety, ecology and climate. Complementing measurements and monitoring with extensive domain knowledge on all factors, we can assist municipalities in developing and implementing integrated policies and measures that truly secure and boost citizens' health.

[Healthy Citizens Platform – watch our video \(in Dutch\)](#)

## BlueLabel: flood detail at your fingertips

**BlueLabel** provides insight into flood risks through the first digital water vulnerability scan in the world that gives detailed information into rain induced flooding down to the square metre. This translates into a risk label on individual buildings, streets and infrastructure. The ultimate aim is to encourage and be proactive in preventing disasters, rather than devising recovery measures in the aftermath.

<sup>2</sup> <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

<sup>3</sup> European Commission

## Driving resilience for the Mekong Delta with digitally-based decisions

Royal HaskoningDHV has been selected to deliver the first integrated Master Plan for the Mekong Delta in Vietnam, funded by the World Bank. Digitally-based decision making is a critical component of this future-focused plan. The geographical situation of the Mekong Delta makes it highly vulnerable to the impacts of climate change, including rising sea levels, flooding during the wet season and water shortages during the dry season. Economically, the delta is vitally important for Vietnam. The purpose of the plan is to build a resilient Mekong Delta and help Vietnam make climate-smart choices which are long-term, integrated and adaptive. Priorities will be to deliver clean water and sanitation for all and take urgent action to combat climate change. As part of its role and working closely with the Ministry of Planning and Investment, Royal HaskoningDHV will develop a comprehensive strategic investment framework to help Vietnam use its resources effectively and develop its competitive advantage. The project involves creation of a digital decision support toolkit as part of a real-time information hub with transparent, accessible information for all stakeholders to support evidence-based decision-making. The toolkit includes a sophisticated database and analytical tools such as hydro-hydraulic modelling software.

## Adaptation strategy for Zwolle – towards a liveable and attractive blue-green city

Zwolle in the Netherlands is a delta city surrounded by water. National climate scenarios show that the city must be prepared for more water and for longer warm, dry periods. Working with the municipality of Zwolle and its partners, we explored how to make regional and urban water systems more robust. Solutions include a combination of dike reinforcement, increased discharge capacity, temporary water storage in overflow areas and water-robust, climate-resilient urban design. The Zwolle Adaptation Strategy is working towards a liveable and attractive blue-green city by strengthening green infrastructure and giving water more space in both the public and private domain. By combining blue-green design principles, the city will become sufficiently resilient to cope with the effects of climate change. However, solutions do not lie with the city authorities alone, so cooperation is being sought from private parties and residents through talks, meetings and workshops. In addition, a climate proof acceleration team has been set up to help.

## Sani Pass joint venture wins prestigious engineering award for community-based project



Project team celebrating the first place at the SAICE 2019 Awards

The Sani Pass project was awarded joint first place at the South African Institute of Civil Engineering (SAICE) 2019 Awards, for 'most outstanding civil engineering achievement' in the category Community-based Projects. The pass is the only road link between KwaZulu-Natal and Lesotho. It crosses the summit of the Drakensberg mountain range and the uKhahlamba Drakensberg Park World Heritage Site. Today it is an important revenue-generating tourist attraction for the region but inadequate road drainage, as well as gravel loss and erosion caused by storms and flooding, means the pass is often closed for expensive maintenance. Closures not only cut off the surrounding impoverished communities from basic services, but also result in loss of revenue to the tourism industry. We partnered with the KwaZulu-Natal Department of Transport to upgrade the pass in a project which created 79 job opportunities for members of the local community and involved support from local small and medium-sized businesses. To respect the heritage of the area, the team rescued and replanted indigenous plants, removed alien plants, and rehabilitated the road edges. The project contributes to the economic development of the area due to far fewer road closures.



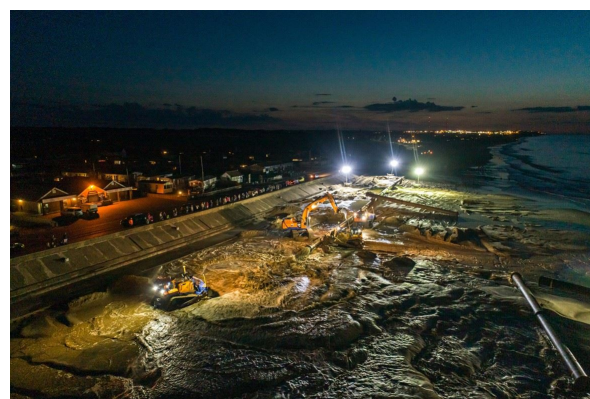
Sani Pass: the road link between KwaZulu-Natal and Lesotho, South Africa

## Sandscaping project completed to protect Norfolk coastline from erosion and flooding

An innovative flood defence concept and bold new approach to addressing the effects of climate change designed by Royal HaskoningDHV has been used for the first time in the United Kingdom. Sandscaping involves nourishing the shore with a large quantity of sand, which is then spread by natural processes to protect the coast from erosion in the event of major storm surges. Protecting local homes, communities, businesses and nationally important infrastructure from the full force of the North Sea, this innovative scheme, and a prime example of engineering with nature, has been designed to address coastal erosion and its devastating impact. It has been applied in an area where severe coastal erosion is threatening an important gas terminal and hundreds of homes and businesses in nearby villages. The sand was placed in a way that could initiate natural dune growth and boost biodiversity while providing a stunning beach for recreation and tourism. It can provide up to 20 years of protection, giving the community time to further adapt to coastal erosion and climate change.



Sandscaping - Completion event, © Chris Taylor



Sandscaping - during project, © Chris Taylor

## PedCast: Avoid crowding in urban areas and public spaces

Urban areas like malls, stations and airports are facing ever increasing volumes of people. Confronted with prospective overcrowding and safety issues, managers long for accurate insights into current and future people flows. To ensure such spaces remain safe and people can smoothly make their way, we have created PedCast. It is a service that provides real-time insight in the number and location of people, with the potential to also predict people flows in the hours to come. We do so by integrating WiFi data with computer visioning and machine learning into 'living models' that continuously learn and update themselves. As such, PedCast can analyse and foresee prospective bottlenecks in people flows. Blending such insights with decades of mobility expertise and human-centred design, we are well-positioned to help optimise spaces and processes to keep people moving. Using PedCast, it is possible to address crowded situations even before they ever occur. A city can re-route pedestrians, a station can switch entry barriers and an airport can add check-in desks. We are applying PedCast in Milano Centrale railway station and have already been asked to implement it in more stations.

### 4.1.5 SDG 12: Responsible Consumption and Production



Economic and social progress over the last century has been accompanied by environmental degradation that is endangering the very systems on which our future development and our very survival depend. We are focusing on solutions that enable sustainable consumption and production patterns, while helping our clients use resources more efficiently.

## Aquasuite®

Aquasuite®, our proven smart water technology, is helping organisations avoid water losses, meet effluent quality regulations, reduce operating costs and turn waste into a renewable energy source. It does this through monitoring, analysing, visualising and controlling the performance of water and wastewater infrastructure through predictive analytics and machine learning. In doing so, it provides full real-time visibility across water and wastewater networks and controls day-to-day operations.

[Watch the Aquasuite® video in our iReport](#)

## Water company turns to technology to meet ambitious leakage targets

A water company in the United Kingdom is working with three new technology partners to meet its ambitious leakage reduction target. SES Water has partnered with Royal HaskoningDHV, Vodafone and Technolog to create an intelligent water distribution network. It is implementing ground-breaking technology to cut leakage by 15% over the next five years, paving the way for more than 50% reduction by 2045. It will be achieved with Royal HaskoningDHV's network event detection solution using AI-powered Aquasuite® technology in combination with Technolog's remote-monitoring data logging solution Cello 4S. Vodafone is providing the platform to transmit data quickly and frequently from sensors and meters deployed in the pipe network. SES Water will be able to analyse vast amounts of data collected and make near real-time operational decisions. The project, as well as being one of the first of its kind in the water industry, is a real collaboration in the way it's managed and run, working in full partnership with all providers, with regular dialogue and constant feedback of information.

## Kaamera Nereda<sup>®</sup> gum: huge step forward in resource recovery and the circular water economy

A collaborative project involving Royal HaskoningDHV and stakeholders connected to the water industry has launched a valuable raw material extracted from aerobic granular sludge originating from the Nereda<sup>®</sup> wastewater treatment process. Called **Kaamera**, this sustainable biopolymer is a viable alternative to a variety of oil-based materials and has a wide variety of applications in agriculture, the building sector, textile and paper industries. A core feature is its ability to both repel and absorb water. The first large-scale Kaamera production unit was opened in October and a second will come online in Spring 2020. Kaamera has already won several innovation awards. Its introduction offers a huge step forward for resource recovery and the circular water economy. Using Kaamera as a sustainable biopolymer decreases the amount of fossil resources and first-generation biomass required. In addition, Kaamera production decreases energy use and greenhouse gas emissions in the wastewater treatment process. Each Nereda<sup>®</sup> installation has the potential to incorporate a Kaamera extraction unit and Royal HaskoningDHV will be working with its customers to make this a reality.



The production of Kaamera Nereda<sup>®</sup> gum at a Nereda<sup>®</sup> wastewater treatment plant

## Assisting a multi-national beverage company achieve sustainability targets

One of our beverage clients has made a significant public commitment to sustainability in its operations, with intentions to reduce its CO<sub>2</sub> footprint, save energy, move to sustainable energy sources and reduce water consumption. To support our client, we are developing a standardised, structured approach, applicable to all the organisation's greenfield and brownfield projects. It includes an evaluation system based on key indicators inspired by green building and infrastructure rating systems such as LEED and BREEAM.

## 4.1.6 SDG 13: Climate Action



Climate change is now affecting every country on every continent. It is disrupting national economies and affecting lives, costing people, communities and countries dearly. Weather patterns are changing, sea levels are rising, weather events are becoming more extreme and greenhouse gas emissions are now at their highest levels in history. We have a deeply-rooted understanding of the physical and social environment as well as understanding of risk and resilience measures.

In our everyday work we transform this ingrained knowledge to create efficient designs that both minimise negative environmental impacts and maximise positive social impacts and society's resilience to climate change. We create resilient strategies and systems for communities, businesses, infrastructure and the financial sector to reduce the impact of extreme weather, natural disasters and climate change before events occur. We look at the best combination of different measures at different timescales to fit local needs. Our integrated system approach combines structural and organisational measures with social inclusiveness and we empower people through local stakeholder engagement and community involvement.

### FastLane: Accelerating sustainability in commercial buildings



FastLane, the process to reach a high sustainability rating

Our FastLane innovation is a good example of how we have automated a process to enable more commercial buildings to reach a higher sustainability rating quickly and easily, supporting SDG 11 (sustainable cities and communities). FastLane was developed in response to regulations in the Netherlands which require every commercial building to achieve a level C sustainability rating by 2023. In practical terms, it was not possible for all the buildings in the country to be audited and advised by consultants in the time available. FastLane provides a solution by automating the process to provide business owners with the top 10 measures they can use to reach the required level. Building owners receive a quick comparison of costs and effects of various sustainability measures so

they can determine the optimal approach for the building portfolio without hiring a consultant. FastLane is in full commercialisation and has dramatically increased our ability to assist customers in this area. During 2019, we delivered more than 150 sustainability reports and over 30 portfolio roadmaps with a projected collective saving of 22 million kg CO<sub>2</sub>. We also developed a new model which acts as a digital twin for energy usage.

[Watch our video \(in Dutch\) of the FastLane process](#)

## Re-use of pavement material at New Mexico International Airport

One of the unique features of the new international airport in Mexico City is a vast paved airside area for runways, taxiways and aprons. Due to extremely soft soils, an innovative design approach was needed to achieve durable pavements compliant with International Civil Aviation Organisation regulations while limiting, where possible, the volume of materials and transport movements required. In preparing the site, huge quantities of crushed basalt had been used and a cornerstone of our engineering approach was to identify possibilities to re-use part of the basalt for pavement construction. By doing so, we avoided the need for around 250,000 truck movements in and out of the site, reducing the impact of the project on surrounding communities and providing cost savings of around US\$100 million.



Pavement at New Mexico International Airport

## Storm water harvesting and re-use at Kuwait International Airport

Storm water harvesting and re-use is an integral part of the drainage design of the new Terminal 2 facility at Kuwait International Airport. With its arid climate and average rainfall just 120mm per year, the country has limited natural freshwater resources. By collecting and storing water from large paved airside areas such as aircraft stands and taxiways, it is estimated that some 250,000m<sup>3</sup> of water can be captured each year. The water is harvested through two underground retention reservoirs, which also retain water during extreme storm events avoiding overloading the downstream drainage network and subsequent flooding. Our approach significantly reduces fresh water needed at the airport for cleaning, landscape irrigation and other purposes, making more efficient use of natural resources and lowering airport operating costs.



Harvested natural freshwater can be used for landscape irrigation in Kuwait

## Digital tools support increased collaboration during dike reinforcement project

Online presentations using our iReport tool are enabling increased participation and involvement from stakeholders in a 23km dike reinforcement project in the Netherlands. The innovative use of digital tools for the Gorinchem-Waardenburg project provides more insight into the complex project and improves decision making. The project is part of the National Flood Protection Programme and is expected to be completed in 2023. We are advising and supporting the parties working on the project in areas such as application of new water safety standards, stakeholder communication and participation, and engineering design work. Digital presentations are the natural next step from our digital designs. The availability of these online presentations, which are accessible to stakeholders across the community, increases collaboration and greatly contributes to the quality of participation. The digital NRD (Note scope and level of detail) is already online and the EIS (Environmental Impact Statement) is set to follow.

## A roadmap for stakeholder dialogues in spatial adaptation

The Dutch Delta Plan for Spatial Adaptation (DPSA) sets out the transition to a climate-proof and water-resilient spatial design in the Netherlands by 2050. Work is being done on design measures to reduce the vulnerability of cities to climate change risks of urban flooding, waterlogged soil, drought and heat stress. To achieve the common goal, the DPSA presents seven ambitions, and includes the need for risk dialogues between regional and local parties and stakeholders. The stakeholder dialogues follow the climate stress test and prepare for the implementation agenda. To support decentralised governmental institutions in particular, Royal HaskoningDHV and Infram have developed a roadmap for stakeholder dialogue connected with the spatial adaptation process. Working together with communication and web specialists, the first version of the interactive roadmap was made public in December 2019 on the web-based Spatial Adaptation knowledge portal. The interactive roadmap is a useful guide as well as a source of inspiration with tips and practical experiences for preparation, dialogue and completion.

## 4.1.7 SDG 17: Partnerships for the Goals



Unlike the other goals which focus on a specific topic, SDG17 is about the need for society as a whole to work together to deliver on the ambitions of the goals. Our mission to enhance society together is aligned with this goal. We value partnerships and co-creation as a way to identify and accelerate innovations at the forefront of key global trends, such as climate change, sustainability and digital transformation. By building a collaborative network across our areas of expertise, we can channel our insight, arsenal of products and local knowledge to strengthen our reach in the global market and our positive impact on society.



We engage with various bodies of the Dutch Government to support the international trade and sustainability agenda, participating in trade missions, round tables and the like. Knowledge development is key to our business and we continuously engage with knowledge institutes to tackle challenges such as urbanisation, resource optimisation, technology disruption and water issues. For example, we are the only private sector partner in the Netherlands Land Academy, LANDac, which works on land governance for equitable and sustainable development, with a key focus on land-

related conflicts, land inequality and the social impact of infrastructure projects. We also participate in a number of international bodies at advisory and committee level and embrace universal principles as part of our commitment to contribute to a better world. Participation in these platforms contributes significantly to our awareness of issues facing the world and regularly provides the opportunity for joint action. We regard this as an important aspect of maintaining close societal ties. See [memberships](#) on our website.



Co-Creation Center, Delft, the Netherlands

## Partnerships are shaping solutions for major global challenges

Ambiental, a company we acquired in 2019, also works in partnership with many leading organisations in the public and private sector, shaping solutions for some of the world's biggest challenges. It has extensive data partnerships with leading national authorities which form input parameters to its flood modelling algorithms. These partnerships include the Environment Agency for high resolution LiDAR data and flood defence information, the Centre for Ecology & Hydrology for national scale hydrological data, the British Geological Survey (BGS) for geological and sub-surface data and Ordnance Survey for surface features and national address records. Ambiental has been expanding its insights beyond flood modelling by partnering with leading providers in risk and exposure management to offer a complete risk management and underwriting tool kit. Alongside its existing financial services customers, in 2019 Ambiental established a new strategic, customer partnership with Groundsure, a leading environmental search authority in the United Kingdom, which has given Ambiental access to the conveyancing market there. Together they are developing the flood risk aspect of Groundsure's reports and co-creating new products to meet demand for decision support around flooding. Collaboration continues with land and property data experts, Landmark, which in 2018 resulted in the launch of FloodFutures<sup>®</sup>, a national flood map for Great Britain which focuses on the future through to the 2080s. Another partner is Hexagon Geospatial, a global provider of information technology solutions that drive productivity and quality across geospatial and industrial landscapes. Ambiental works with international resellers to expand its customer base: for example, with Aon the global professional services provider of risk solutions, Ambiental is integrating Australia FloodCat<sup>™</sup> into Aon Impact Forecasting's ELEMENTS platform. In partnership with the BGS Ambiental has developed a full groundwater risk map for Great Britain. It uses innovative methods to understand subsurface groundwater risk and route above-surface groundwater flows.

## 3D-printed bridge marks revolution in bridge construction and design

Another partnership which created waves in 2019 is our link with industry leaders CEAD and DSM leading a revolution in bridge construction and design. In 2019 it led to a prototype of the world's first lightweight 3D printed fibre reinforced polymer bridge which has a longer lifespan, lower lifecycle costs and improved sustainability. FRP bridges are already well known for having a longer lifetime expectancy with lower life cycle costs compared to steel bridges. What's new here is the use of a 3D printing technology, enabling us to print large scale continuous fibre reinforced thermoplastic parts. Using this new composite thermoplastic material, we will be ushering in a new era for sustainability and push the boundaries of bridge functionality even further. This project provides a great example of how leading companies are partnering to be at the forefront in the transition towards circularity – one that is innovative and competitive in transforming bridge construction for the future.

## Partnership with H2i to grow data-driven flood resilience services

In 2019, Royal HaskoningDHV acquired a minority share in Singapore-based Hydroinformatics Institute (H2i) in a strategic partnership which combines our companies' deep understanding of climate-related challenges and urban flood resilience to boost our flood resilience and climate change-related offerings. Since it started in 2014, H2i has garnered much attention in Asia for its innovative, data-driven approach to water challenges. Working together, we can provide faster and better insights in expected rain and flood risk for cities, businesses and residents using big data analytics, machine learning and advanced modelling. While Royal HaskoningDHV has the scale and reach, H2i is nimble, and being in a natural test-bed environment like Singapore, can quickly develop water-related digital solutions that can be scaled. The partnership was recognised in the Winsemius Awards 2019 for innovative and impactful achievements in business links between Singapore and the Netherlands.

## Shaping the debate around water governance

In 2019, we joined the Water Governance Initiative (WGI), a multi-stakeholder network of more than 100 experts, policymakers and practitioners from public, private and civil society sectors. It plays an essential role in informing the debate around water governance and sustainability and facilitating conversation between public and private bodies. Our involvement will ensure we can fill knowledge gaps, help shape debates and share best practice. Insights we will bring include our growing focus on the role of data and digital technology in the water sector and the essential role of new technology for effectively addressing challenges of urbanisation, circularity, climate change and sustainable energy. Having developed the OECD Principles on Water Governance, the WGI is now focusing on implementing the principles through further use and development of indicators and by adding a new element of capacity development. Our global experience and network can contribute to the success of this next phase of activity. We help disseminate the OECD's water governance principles throughout its international network.





## 5 POSITIVE IMPACT THROUGH OUR OPERATIONS

As an organisation committed to Enhance Society Together, we focus on the sustainable and efficient management of our own operations. It reduces risks and helps to ensure the long-term continuity of our business, while acknowledging our own role in contributing to the SDGs. Just as in our projects, we aspire with our partners to contribute to specific SDGs in order to focus our activities in the areas where we can achieve maximum impact. These SDGs are: SDG 4, SDG 8, SDG 13 and SDG 17.



### 5.1 Progress update on our prioritised UN Sustainable Development Goals

As an organisation committed to Enhance Society Together, we focus on the sustainable and efficient management of our own operations. Just as in our projects, we aspire with our partners to contribute to specific SDGs in order to focus our activities in the areas where we can achieve maximum impact. Our progress appears below.

## 5.1.1 SDG 4: Quality Education



This goal seeks to ensure inclusive and quality education for all and to promote lifelong learning. We are seeing how rapid technological changes present opportunities and challenges, but to reap the benefits, the learning environment needs to keep pace during every stage of life. We grow as a company and increase our ability to drive innovative sustainable development when people grow. To achieve this, we promote the development of our own people and strive to add value to local communities through contributing to quality education in the areas of engineering, technology and innovation.

### Community engagement – South Africa

In South Africa, Royal HaskoningDHV thrives on knowledge, skills and experience and we continually invest in our people and expect them to invest in themselves. Learning and development is part of our commitment to help our employees progress in their careers within our organisation and the industry. As a transnational organisation, we offer our people exposure to global learning and development initiatives (e-learning, talent development programmes), as well as local initiatives. We have been assisting the South African Government with professional development and registration of its engineering staff. We also explore joint venture opportunities to enable small and medium enterprises (SMEs) to participate in larger projects, giving them exposure to international best practice. An initiative by the Young Royals from our Durban offices donated refurbished laptops to the Qhakaza Girl Initiative which provides data literacy education, coding workshops and career development for young women aged between 12 and 21.

### Community engagement – United Kingdom

In 2019, we supported the 1851 Trust's maritime roadshow for girls from disadvantaged areas in three cities. The 1851 Trust is a government-funded initiative to attract more girls into STEM careers and maritime engineering. We also support WISE, a campaign for gender balance in science, technology and engineering. In partnership with Enabling Enterprise, we held two events with local schools to introduce children to the work of engineers and included an engineering challenge.

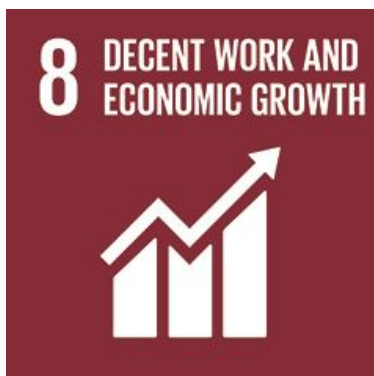
### Linking with engineering education

We collaborate closely with many universities to enrich and extend the student experience. Colleagues provide guest lectures and, in some cases, teach at universities. We also participate in various boards and are on a committee for TU Twente, Delft and Eindhoven which discusses education programmes and profiles of graduating civil engineering students and their match with business needs. In 2019, we have been active in assisting with initiatives enabling students to link their studies with real-world business cases. For example, we provided a case study on resilience to water and climate change risks for the 4TU Challenge Day in which 80 university students worked to brainstorm, develop and pitch their solutions. We provided similar input for an event at the University of Groningen. In 2019, we partnered with the Joint Interdisciplinary Project of TU Delft in which two student teams over a 10-week period designed a digital service which is enhancing resilience, mitigating business risks and reducing impacts caused by climate- and weather-related hazards. We are involved with an international research project at Wageningen University exploring with students the effect of social and environmental impact assessments 10 years on. It is focusing on how recommended measures are implemented and whether they are successful.



Collaboration with students from Delft University of Technology

## 5.1.2 SDG 8: Decent Work and Economic growth



Society as a whole benefits when more people are being productive and contributing to their country's growth. Productive employment and decent work are key elements to achieving fair globalisation and poverty reduction.

### Economic Growth

Our ability as a business to effect lasting positive change in society relies on our continued financial success. We are pleased therefore that we had a good year in 2019. Our business continues to grow organically with a steady operating margin and increasing order portfolio. Our operational result improved compared to 2018 and our focus on project management yielded significantly higher project results. We are pleased with the overall financial performance as we continue to invest in and transform our organisation. This transformation is guided by our strategy, with a clear focus on globally leading services and export services, new innovative services and digital engineering. Investments made in 2019 supported our strategy and strengthened our portfolio. We acquired simulation software expert, Lanner; flood resilience digital solutions provider, Ambiental; and took a minority share in Hydroinformatics Institute, H2i. We are confident that our strategy ensures our business remains relevant and enables us to assist our clients in a rapidly changing world as we enhance society together.

## Occupational Health & Safety

We are committed to the highest standards of health and safety across our operations for staff, visitors and partners. Our vision and policies are part of our Management System. They are implemented through our processes and procedures to ensure we maintain and continuously improve a healthy and safe working environment. Following successful audits in various countries, we achieved our objective of the new ISO45001 certificate for Occupational Health and Safety, making us one of the first international engineering consultancy firms to obtain this certification.

Other objectives for 2019 were zero fatalities and a reduction in lost time injuries to at least 0.18. During the year, no fatal accidents occurred among our employees and 136 accident and incident reports were submitted. From these reports, 96 related to accidents and incidents relating to employees. In total 7 accidents resulting in at least one day off work were recorded in 2019 (3 in 2018). Two of these occurred at an office location, three at out-of-office locations and two were traffic related. There were 89 other reportable cases.

- Lost time injury frequency (LTIF) per 200,000 workable hours in 2019 was 0.17. The figure has increased compared to 2018 (0.07) but is below the 0.18 target. This resulted from an increase in out-of-office and traffic related accidents in 2019.
- Total recordable cases frequency (TRCF) per 200,000 workable hours over 2019 was 2.39. This increased compared to 2018 (1.92) and provides a good indication that we take health and safety seriously, reporting not only accidents but incidents too.

Table: Accidents & Incidents

	2019	2018
Work related Accidents & Incidents of our staff	96	77
Lost Time Injuries (at least 1 day absence)	7	3
Lost Time Injury Frequency (LTIF) (target <0.18)	0.17	0.07
Total Recordable Cases Frequency (TRCF) per 200,000 workable hours	2.39	1.92

## UK office initiatives for health

To mark World Mental Health Day, we held an initiative across all our UK offices to break the stigma surrounding mental health. Open discussions took place about mental health and how we could be more supportive and considerate of one another and have more awareness of how it can impact the working life of colleagues. Another initiative took place to coincide with Movember which raises funds and awareness for men's health through growing moustaches in November. Fundraising events held in our offices during the month raised more than £1,600.



Personnel fundraising initiative "Movember" in the United Kingdom

## Travel Safety and Security

As an international company with projects in some 150 countries, we have a duty of care towards our staff travelling to different countries. In particular, where staff visit countries with high travel risk or extreme medical risk, an adequate risk management process needs to be in place. From a company and traveller perspective, we are prepared and able to respond to such risks. Our corporate policy puts people first and takes responsibility for our employees' wellbeing. Our Travel Safety and Security Policy reflects this commitment and addresses the health, safety and security management for employees of Royal HaskoningDHV while travelling abroad or during an assignment to a foreign country. In 2019 this policy and related documents were reviewed and adjusted where needed.

An induction programme on Travel Safety and Security was implemented and workshops held. The programme covers topics including duty of care/loyalty, awareness, behaviour, where to find relevant travel information and how to get relevant support. Furthermore, the Corporate Incident Management Teams in India, Indonesia, Vietnam and the United Kingdom were trained during simulation of a crisis scenario which tested policy, protocol, procedures and team cooperation.

The international emergency service provider International SOS (ISOS) assists our employees all over the world in the event of medical and travel security emergencies and provides a wide range of information and advice. In 2019 further improvements were made to our global International SOS Travel Tracker. The travel tracker enables us to trace and track all travelling employees worldwide so we can immediately support our travellers at very short notice in case of an incident abroad. We can use it to automatically send our travellers relevant pre-trip advice and alerts or notifications relating to their destination.

During 2020, we will continue our ISO45001:2018 certification across all entities. We will continue training Country Incident Management teams and will develop and implement an awareness campaign on safe mobility.

## 5.1.3 SDG 13: Climate Action



As greenhouse gas levels continue to climb, climate change is occurring at much higher rates than anticipated, and its effects are evident worldwide. By addressing climate change, we can build a sustainable world for everyone. But urgent action is necessary. Climate action has many focus areas but particularly important for our organisation is our carbon footprint. This is the key indicator of the impact of our activities on the environment and on climate change.

To contribute to SDG13 (Climate Action) we continued our carbon footprint reduction ambitions for our operations for 2019. The footprint covers CO<sub>2</sub> equivalent greenhouse gas emissions directly caused by our operations and greenhouse gas emissions related to energy and paper consumption in our offices and business travel.

### Key figures on our progress

Below are key figures on our progress based on raw data.



**CO<sub>2</sub> footprint**  
(tonnes CO<sub>2</sub> equivalent per employee)

**2019: 2.37**  
2018: 2.72     **-27.9%\***  
2017: 3.10



**CO<sub>2</sub> footprint in office buildings**  
(tonnes CO<sub>2</sub> equivalent per employee)

**2019: 0.26**  
2018: 0.29     **-52.9%\***  
2017: 0.39



**CO<sub>2</sub> footprint for business travel (car)**  
(tonnes CO<sub>2</sub> equivalent per employee)

**2019: 1.10**

2018: 1.46

2017: 1.68

**-37.7%\***



**CO<sub>2</sub> footprint for business travel (plane)**  
(tonnes CO<sub>2</sub> equivalent per employee)

**2019: 1.00**

2018: 0.97

2017: 1.03

**4.9%\***

*\*Reduction results 2019*

## Progress carbon reduction

*Table: Carbon footprint reduction targets 2019*

Reduction carbon footprint	Reduction target 2019*	Reduction result 2019	Reduction targets met? / evaluation / actions
Office Buildings	-33%	-52.9%	YES. Reduction was mainly achieved by on-going initiatives to switch to cleaner types of energy (wind and solar) and by reducing our number of offices.
Business travel (excluding flights)	-25%	-37.7%	YES. Reduction was mainly achieved through on-going initiatives like electrifying our lease fleet in the Netherlands and because we again drove fewer business kilometres by car.
Business travel by air (flights)	-2%	4.9%	NO. In absolute numbers (tonnes CO <sub>2</sub> equivalent), a small increase was realised (+ 1.9%). However, because of a reduction in the head count (-2.9%) this resulted in an increase of 4.9% per employee. Action: Implement flight reduction programme.

*\*Reduction in tonnes CO<sub>2</sub> per employee compared to base year 2016*

*Table: Carbon footprint reduction targets*

	2019	2020	2021*	2022*
Office buildings	-33%	-35%	-38%	-40%
Business travel excluding flights	-25%	-33%	-42%	-50%
Business travel by air (flights)	-2%	-4%	-7%	-10%

*\* Feasibility of targets for 2021 and 2022 to be reviewed annually in Q4 of 2020 and 2021 and to be adjusted (downwards or upwards) if needed.*

## CR data collection

The footprint is based on an international CR (Corporate Responsibility) data collection structure and reporting discipline. This tool uses a global emission factor data set based on DEFRA emission factors. In 2019, the reported data covered 85% of our staff (the Netherlands, South Africa, United Kingdom, Indonesia, Poland and India). The weighted average has been applied for remaining staff.

CR data is collected by a team of local staff appointed in participating countries who report annually to our corporate data-manager. Their report is based on measurements (provided by meters or bills, internal registration systems or reports from partners or suppliers, eg travel agencies). Data definitions and the procedure on how to deal with missing data are standardised. If data is not available in time, the previous year's data for that item and period is reported (temporary estimate). In the next quarter, actual figures are provided to replace the estimate. Data reports are screened for accuracy and completeness by one local data provider and by a team of corporate staff. Inconsistencies are reviewed with and by local staff for explanation or correction. This leads to continuous improvement of our data and an increased understanding of our actual impact for local and corporate staff.

## CO<sub>2</sub>-Performance Ladder

In the Netherlands, HaskoningDHV Nederland B.V. is certified at the highest level on the CO<sub>2</sub>-Performance Ladder. In 2019 we successfully renewed our CO<sub>2</sub>-Performance Ladder and retained our level 5 certification. This certification scheme stimulates CO<sub>2</sub>-reduction in our operations and in our projects, through implementing a management system based on four pillars:

1. Insight: To determine different streams of energy and the carbon footprint of the organisation.
2. Reduction: To develop ambitious goals for the reduction of CO<sub>2</sub> emissions.
3. Transparency: To structurally communicate organisational policies for CO<sub>2</sub> reduction.
4. Participation: To take part in business sector initiatives regarding the reduction of carbon emissions.

In the CO<sub>2</sub>-Performance Ladder Annual Report we present the CO<sub>2</sub>-footprint for the operations of HaskoningDHV Nederland B.V. In 2019, our progress towards our reduction targets and measures we take to reduce our emissions. This progress report (including an English summary) is available on our [website](#).

## Business travel/Mobility

Our focus on sustainable mobility is a key route to reducing carbon emissions. We are also reducing the need for travel by providing a virtual working environment enabling employees to work and collaborate independently from a physical location. When travel is necessary, we encourage employees to do so in a more sustainable way to reduce emissions/km and we have been promoting sustainable mobility measures through company-wide communications seeking to motivate people to travel using public transport, and to take part in the Low Car Diet. Among the active participants of the Low Car Diet (around 60), the (fossil) car use during the competition decreased by 51%. Instead, people cycled, carpooled or traveled by public transport.



Personnel activity during Low Car Diet

We are also encouraging the use of electric vehicles more widely by sharing our experiences with other companies. Discussions are under way to make our travel policy more sustainable.

## 100% electric cars

We have increased our electric car fleet by 230% compared to 2018 (124 in 2018 to 285 in 2019). We are on track to achieve our goal of a 100% electric lease fleet in the Netherlands by the end of 2021. Since 2017 we have almost doubled charging point sockets at our offices in the Netherlands to 104 and more than doubled parking spaces with charge points to 130.

We are a member of EV100, a global initiative bringing together forward-looking companies committed to accelerating the transition to electric vehicles. Its ['Progress and Insights Report 2020'](#) highlights the progress that has been made: 340,000 vehicles and 3,200 locations for charging are now committed across 67 member companies in addition to 2.3 million leasing vehicles committed to become net zero. More than 80,000 electric vehicles are already in use within EV100 member companies.



100% Electric lease fleet, Amersfoort office, The Netherlands

## Sustainable Facility Management

We have been working on a wide range of sustainable initiatives in 2019 and developed an office accommodation policy which incorporates ambitions to maximise sustainable possibilities for buildings, uses and control. We aim for our buildings to be CO<sub>2</sub> neutral by 2030 at the latest and to support at least one regional SDG. We did an office arrangement pilot in Amersfoort which incorporates a circular approach through re-manufacturing desks, refurbished chairs and reuse of cabinets. The base of the desks and their mechanisms are being re-used and sustainable products used for new parts, preventing nearly 65kg CO<sub>2</sub> for each duo-desk. Nearly 80 desks have been re-manufactured in the pilot with dimensions and design adapted to the requirements of new users. Around 40 cabinets have been constructed in the new design and include casing and built-in storage. In 2020 the renovation of the other floors will be completed based on the same principals. Chairs in meeting rooms at our Amersfoort and Utrecht offices are made from recycled PET bottles.

[Watch the \(timelapse\) video of our circular office pilot](#)

We have extended the sustainable solution for the disposal of PCs and laptops. We are working towards circular catering, reducing waste and promoting vegetarian food options. It is an ongoing focus for improvement and, as an initial step, we participated in a Don't Eat Animal day and have introduced one meatless day every two weeks. During Sustainability Day in the Netherlands, we presented vegetarian and circular catering products, such as tomato ketchup and soup from 'saved' vegetables, chocolates made from orange peel and products made from mushrooms grown in used coffee grounds.

We have introduced a single solution to recycle all paper from our offices including paper towels and cups. This reduces logistics movements and will still be used as raw material for hygiene paper. In 2019, we organised a Sustainable Week in offices in the Netherlands to communicate our new sustainable solutions, including initiatives in company restaurants and providing access to bicycle manufacturers.



Circular catering in our office



eBike-to-go: Sustainable office initiative

In 2019 we undertook a Fitwel scan of our Amsterdam office. Fitwel is a certification system for healthy buildings which supports the wellbeing of their occupants and encourage healthy communities. It acts as a valuable tool to create and improve the working environment and operates across 12 themes. Our scan indicated our building at Contactweg 47 is currently eligible for a 1-star Fitwel Certificate. It scored well on location, building access, stairs, workspaces, water supply, food and emergency preparedness. With a number of adjustments, a 2-star certification is easily within reach.

## Vietnam is Going Green

The rapid growth in Vietnam's economy is raising living standards for local people but also bringing environmental challenges. Air and plastic pollution are key issues as well as the country's carbon footprint. In our Vietnam office, a team of environmental enthusiasts have set up a Green Team to come up with practical ideas to make office operations more sustainable and contribute to a better future in Vietnam. The team identified four themes: carbon footprint, energy consumption, plastic waste and employee's physical and mental health. Initial action has involved banning single-use plastic water bottles from the office and introducing measures to reduce printing. In December, 200 trees were planted outside Ho Chi Minh city – one for each employee – in what is hoped will become an annual activity to help absorb carbon produced through office activities. The programme will be developed further in 2020 and includes plans to reduce air mileage through increased awareness.



Our staff planting trees outside Ho Chi Minh city

### 5.1.4 SDG 17: Partnerships for the Goals



This goal, as described earlier, seeks to revitalise the global partnership for sustainable development and needs everyone to come together – governments, civil society, scientists, academia and the private sector – to achieve the sustainable goals. We highlighted aspects of our partnerships and collaborative networks in the section '[Stakeholder dialogue](#)'. In addition, our colleagues are involved with organisations at a more local level.

Our employees have contacts with over 80 universities worldwide and we have intensified collaboration with Delft University of Technology (Netherlands), Imperial College London (United Kingdom), University of Cape Town (South Africa) and Institute of Technology Bandung (Indonesia).

We partner various research programmes funded by the Netherlands Organisation for Scientific Research (NWO) and the Technology Foundation STW in areas including flood management and protection and smart energy management, including:

- Secure Our Safety: Building Cyber Security for Flood Management
- All-risk: Implementation of new risk standards in the flood protection program
- SEAWAD: SEdiment supply At the WAdden Sea ebb tidal Delta
- From pollutant to power
- Salt Intrusion through urbanising deltas: Solutions (SALTISolutions)
- Smart Energy Management and Services in Buildings and Grids

We are members of the social advisory board of the [Copernicus Institute of Sustainable Development](#), the scientific institute for sustainability research and teaching of Utrecht University. It contributes to the transition to a sustainable society through scientific excellence in a multi-disciplinary environment.

## Partnership with Delft University of Technology

TU Delft is an important partner for Royal HaskoningDHV and its ambition to achieve impact for a better society is closely related to our mission to Enhance Society Together. Both organisations focus on engineers and engineering skills, disciplines and projects and both want to excel in what we are good at, demonstrate thought leadership, innovate and attract excellent people. We collaborate in many ways, including offering traineeships for students and guidance for master students during their thesis. Several of our colleagues are part time teachers at Delft University of Technology or present occasional courses at various faculties. For example, one colleague is guest lecturer in Fibre-reinforced polymer (FRP) composites in structural engineering. We are partners in R&D projects, innovation, fund requests and international proposals. We also partner the following initiatives:

- The Green Village, a living innovation lab. In 2019 the building of the Co-creation Center of the Green Village started, for which Royal HaskoningDHV is co-founder and played leading role in the design process. We are also members of the Inspirational Board and Steering Committee.
- Partner of YES!delft to encourage tech start ups
- Partner of [Delta Futures Lab for Sediment and Subsidence](#)

## Working together on a sustainable and livable Utrecht Central

We are part of the Green Business Club Utrecht Central which has a sustainable vision for Utrecht Central Station as a vibrant area with clean air and a green environment. In collaboration with local businesses in the station vicinity, we are working towards long-term objectives through projects seeking zero emission freight transport, zero emissions by people using and working at the station, zero waste and a lively atmosphere.

## Gro Together in Groningen

Gro Together is an initiative that was launched in 2018. It involves listening to the hopes and concerns of residents across Groningen to help meet their needs and contribute to a vibrant and liveable province. In 2019, we started working on key issues identified by the region's inhabitants - for example bicycle parking, mobility and availability of necessary facilities. In doing so, we are involving other organisations across the region. In November we participated for the second year running in Let's Gro, the city festival focused on the future of Groningen. This time, together with local healthcare experts, we explored solutions for sustainable care in the North in a design thinking workshop. Also, because Groningen has climate adaptation high on the agenda next year, we have set up an entertaining educational programme for young and old around this theme. Visitors were once again asked to share their ideas for the future of Groningen, which will inspire us for further innovations.



Hydrogen race court © Vrolijk Verbeeldt



Climate event © Vrolijk Verbeeldt



Climate game © Vrolijk Verbeeldt

## Together for Eindhoven

In May 2019, we started a collaboration with Samen voor Eindhoven which links companies with social organisations for corporate and individual volunteering activities. Our first partnership was initiated during a Corporate Social Responsibility dinner when we identified a very good match with the foundation Ervaring die Staat. The foundation cares for homeless people, supporting them in their personal development and exploring their talents. It also strives for sustainability and we will use our expertise to improve the sustainability of the foundation's new building.



CSR Dinner Together for Eindhoven, © Samen voor Eindhoven



City council member creating a match, © Samen voor Eindhoven

## Further worldwide rollout of the Orange Corners initiative in Mozambique

Orange Corners is an initiative of the Kingdom of The Netherlands that provides young entrepreneurs across Africa and the Middle East with training, networks and facilities to launch and grow their startups. Orange Corners Maputo (OCM) aims to create a thriving and connected entrepreneurship ecosystem in Mozambique which builds skills, confidence and economic empowerment for the country's youth and provides them with opportunities that extend beyond Mozambique's borders. Mozambique is one of the countries used as a blueprint for further worldwide rollout. Royal HaskoningDHV Mozambique designed the Orange Corners space in the embassy and supervised construction works. Now we are a partner to the incubation programme, providing masterclasses to young start-ups on Health & Safety, Business Ethics and Procurement. The reach of the programme and its related activities have been exceptional. Already more than 66 youth-led start-ups have graduated from the Orange Corners Maputo incubation program, 178 young people have been trained in entrepreneurship workshops and 1,024 have participated in events organised by OCM student ambassadors.



Orange Corners training



Orange Corners event



## 6 OUR PEOPLE

Our colleagues are delivering our strategic transformation and, in order to do so, they are continuously learning and developing. This is an ongoing effort promoted through an entrepreneurial and innovative culture. The culture encourages curiosity and the application of creativity, intellect and skills to develop new solutions that do not exist today but which will help to enhance society tomorrow. Alongside this is our commitment to integrate digital and data capabilities with our traditional engineering expertise. The capability of analytical intelligence – the ability to analyse and evaluate ideas and make decisions based on insights and data – is rising exponentially and will accelerate further, fuelled by the ever-increasing speed and capabilities that digitisation brings. To stay at the forefront of innovation and support our clients to make informed decisions based on data and actionable insights, we have a clear focus on developing digital capabilities across our organisation. It is this combination of smart brains, digital technology and physical solutions that are solving society's biggest challenges and which we are promoting within our organisation.



Our employees

### 6.1 Embedding a culture of learning

The past two years have seen initiatives launched to develop the skills needed to adopt digital ways of working, deliver digital services and establish a culture of learning across the organisation. During 2019 we maintained our focus on accelerating this skill development to transform our workforce and successfully deliver our strategy. Our Digital Academy is used by staff to build digital skills through online content and classroom training. The quality and standard of the Academy was reflected in its accreditation by the Royal Institute of Engineers (KIVI) in the Netherlands. To fast-track the development of new talent and accelerate technical and digital skills, we launched an 18-month traineeship for graduates which includes one-to-one mentor support, on-the-job training, talks, seminars and networking events. The vital role played by leaders in shaping the workforce of the future and high-performance teams was recognised in leadership reappointments which took place during the year.

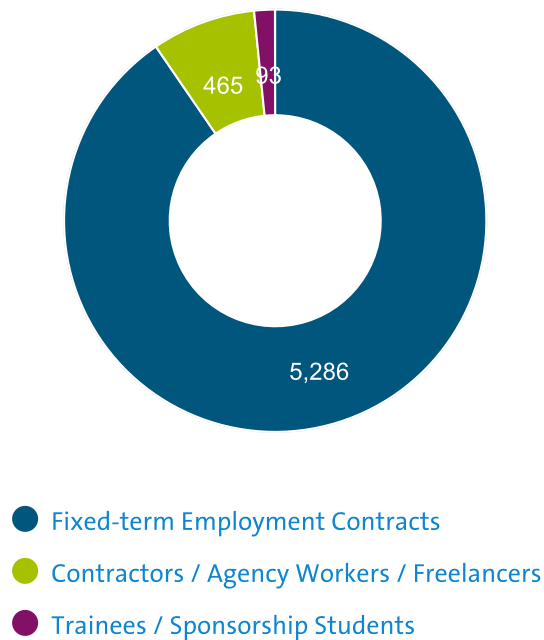
The culture of innovation, in which employees feel empowered and able to contribute ideas and innovations to develop our activities and our ways of working, is also key to our transformation programme. The Innovation Hub, through which we gather and build on innovative ideas, is becoming increasingly well-used across our business and helps embed the culture. Currently around a quarter of our entire workforce use the Hub and, every week, it attracts about 150 views or interactions. During 2019, more than 100 ideas were submitted to the Hub. Each is reviewed and a number selected which align with our strategic criteria and mission. In spring 2019, we selected eight initiatives for a discovery bootcamp. Every two weeks, the groups working on the innovations get

together to work through the steps required to develop a pitch deck and business plan. Between these sessions, our innovation space Area22 is open for additional coaching. At the end of the bootcamps, the groups pitch their innovations to an audience who provide feedback and select winners. From there they go on to pitch to the Innovation Board. To further embed the culture of innovation, workshops and co-creation sessions took place across the organisation and a monthly newsletter was launched to share innovation highlights and information about useful tools. To see more about the results of our innovations, see section '[Stakeholder engagement for innovation](#)'.

## 6.2 Employability

The world of work is changing. Across all sectors, new jobs are being created and others are being changed as a result of trends such as technological innovation, workforce demographics and increased competition. It is important that our employees continue to be employable in the long term which is why we focus on modern employment relationships and employment conditions, vitality and continuous development.

*Number of employees at the end of 2019*



During 2019 on average 5,142 (2018: 5,077) people were employed by the Group. The head count (excluding flexible workforce and minority interests) per end of year by geographical area can be broken down as follows:

	2019	2018
Netherlands	3,025	2,912
South Africa	568	520
United Kingdom	436	498
Africa, Middle East and India (excl. SA)	373	416
Asia Pacific (excl. ID)	336	361
Indonesia	198	214
Continental Europe (excl. NL)	134	140
Americas	80	73
	5,150	5,133

## 6.2.1 Diversity, equality and inclusion

The intelligence, innovation and passion of our colleagues as part of a diverse and inclusive organisation is at the heart of our success. Diversity and a culture focused on inclusion provide the breadth of viewpoints, experiences and ways of thinking that are essential for keeping pace with innovation and change. We are committed to equal opportunities and are proud of our increasingly diverse workforce which offers economic and social added value for our business and ensures our organisation remains relevant for the future. In 2019, we held unconscious bias training for everyone involved in recruitment. In addition, prior to leadership re-appointments, we conducted a talent survey of all current and potential colleagues for leadership positions. This enabled us to develop insights to run a neutral and inclusive appointment process.

In 2019 the topic of equality, diversity and inclusion was addressed globally with line managers and all employees. It highlighted the importance of the topic, initiatives taking place within our company all over the globe (as described below) and the increasing number of reports of behaviours such as discrimination and harassment.



National Inclusion Week event

In South Africa, we retained our Level 1 Broad-Based Black Economic Empowerment (B-BBEE) accreditation in 2019, having been one of the first engineering consultancies in South Africa to achieve this level. Our journey to transforming our organisation to meet the South African government's socio-economic development plan for the benefit of all citizens started over 10 years ago. This journey and our focus on developing a diverse organisation matching our country's demographics has ultimately led to the attainment of the highest B-BBEE achievable status. It reflects our long commitment to developing and upskilling emerging consulting enterprises as well as our own employees.

We implemented an Equality, Diversity and Inclusion policy in the United Kingdom and in the Netherlands are working towards diversity and inclusion goals. Our on-going diversity initiatives are derived from this and include:

- The management board in the Netherlands embraced a diversity programme which includes a target of 28% women in leadership positions. Initiatives in the programme include: dialogue sessions in at least 50% of the advisory groups to increase awareness of the importance of inclusion; include importance of inclusion in the on-boarding process; engage culture champions; invite Young Professionals to help explore how to improve; diverse selection teams; and language and leadership training targeting key groups.
- Regular reporting on inclusion to the Regional Management Board and an annual inclusion moment in every Advisory Group.
- We appointed an equality, diversity and inclusion (EDI) Lead in the UK – currently working with HR and compliance in the other regions across the world, to ensure consistency of our approach.
- During National Inclusion Week in the United Kingdom, every office discussed our understanding of inclusion over a cup of tea or coffee and pastries. We considered what inclusion meant to us on a personal level and what Royal HaskoningDHV could do to be more inclusive.
- A discussion and networking session was held with a group of women engineers in one of our South African offices. We spoke about the challenges women still face as aspiring and established engineers, and brainstormed solutions. By creating internal networking groups, women can find and give support to others.



Gender diversity session with female employees, South Africa

Currently 26% of staff in the Netherlands are female. We continue to encourage more women into engineering through initiatives including recruitment campaigns, career encouragement and greater flexibility following parental leave. We have tracked our progress on gender diversity for the past four years and report progress in the table below.

Table: Number of women in top positions in The Netherlands

	2019	2018	2017	2016
Number of employees	3,031	2,882	2,697	2,739
Number of female employees	777	720	677	704
Number of employees in top positions*	236	230	214	213
Number of female employees in top positions	26	26	23	22
Number of employees in sub top positions**	817	770	741	717
Number of female employees in sub top positions	114	103	101	98

\* top = from Global Positioning System (salary scale) 20

\*\* sub top = Global Positioning System (salary scale) 18 + 19

Members of the Executive Board	2	2	2	2
Number / percentage female members Executive Board	-	1 / 50%	1 / 50%	1 / 50%
Members of the Supervisory Board	5	5	5	5
Number / percentage female members Supervisory Board	1 / 20%	1 / 20%	1 / 20%	1 / 20%

Reference date 31-12: employees who left the company on this date are not included.

## 6.3 Knowledge sharing

Our business is a knowledge business and it is essential that our people continue to grow and develop personally and technically so we are not only an employer of choice but also the consultant of choice for our clients. Examples of how we encourage exchange of knowledge include:

### 6.3.1 Global onboarding programme and Royal Start

In 2019 we optimised induction programmes developed within individual countries with the introduction of a global online onboarding programme (New Joiners Programme). It is a learning programme in which new employees are guided through company information such as strategy, business principles, our way of working and many other topics. The information is relevant to every new colleague, regardless of their role or position. In addition, the Royal Start program was organised for new employees:

- In the Netherlands, the interactive Royal Start day was held 12 times in 2019. New employees were able to meet colleagues who recently joined and interactive games were used to introduce our ways of working.
- The 23rd of July 2019 marked the launch of the Royal Start program for Southern Africa. Seventeen new employees from various offices attended a full day of presentations, discussions and group activities at the Johannesburg office. The participants also had the opportunity to meet with members of the Management Team and representatives from different Business Units. It was an eventful and inspiring day, filled with knowledge sharing and networking.
- In 2019, four New Starter Induction programs were held in the UK with over 70 colleagues from various offices attending it. This program gave our new colleagues an overall understanding of the company and a speed dating session with the business lines to show the diverse projects and how the business lines work collaboratively.

## 6.3.2 Young Royal HaskoningDHV

Young Royal HaskoningDHV is the international platform that facilitates our 2000 young professionals worldwide. Through the events the young professionals get to know our company, improve their network, exchange ideas and learn from each other. With all of this the platform aims to create a stronger cohesion among our young staff by offering plenty of opportunities. In 2019 this included inspiring events such as talks on parametric design, the climate agreement, SDG's and diversity. The Young platform has organised a digital booster day, a personal development festival, a study trip, sporting events, an incredible international cross selling day, an interview (college tour) with our CFO and an inspiring young professional, international webinars, fundraisings and many more events to engage our young professionals.

The Young platform is used to raise awareness of opportunities that can impact the daily operations of the company, and collaborate with our senior management, corporate groups and business lines. Our management supports Young actively and also gives them the opportunity to contribute to the future (vision) of our company. Hereby Young Royal HaskoningDHV contributes to the personal development of all young professionals, and the alignment of Young with global company goals and challenges.



Young Royal HaskoningDHV



Young Royal HaskoningDHV



Activity of Young Roayl HaskoningDHV



Young Royal HaskoningDHV

### 6.3.3 Launch of our MEP Academy

In November our new MEP Academy was launched to focus on Mechanical, Electrical and Plumbing engineering, a key area of expertise. It is an initiative of the MEP community within our Industry & Buildings business line and represents a community of more than 200 MEP engineers. It will focus on knowledge sharing and the development of technical expertise through workshops covering both theory and application. The Academy's first module is Sustainable Energy Concepts in Design and includes eight workshops facilitated by our own experts. Future modules are planned on digital engineering and lab expertise. As well as developing technical skills, the workshops will support building client relationships, adding value and the ability to ask the right questions – including the 4 Questions on sustainability.

## 6.4 Training and development

We employ high quality individuals who understand that driving their own development is what really counts. As a company therefore, we aim to ensure we have the tools and support available to create the optimum learning and development environment for our people. We aim to create a culture in which people are constantly learning, which may be via digital features, on the job or through customised information. Our learning platform supports employees by providing the information they need to help them with their learning development.

*Table: Overview training and development hours from our employees (excluding spare time invested in training and development)*

	2019	2018	2017	2016
Average workforce	5,816	5,818	5,830	6,197
Average hours spent on training & development per person [1]	45	35	33	28

1 Definition: The number of hours booked by our staff for training and development. This includes internal and external training, workshops, symposia and online trainings, among others

## 6.5 Employee engagement

Our employee engagement at Royal HaskoningDHV has improved significantly over the past three years and was measured in an employee and client engagement survey, conducted by the Kantar research agency. In early October, 3,254 employees globally shared their opinion, feedback and ideas. This was done through an online questionnaire (quantitative survey) and through individual client interviews and in a couple of focus group interviews with employees (qualitative). Insights include:

- 85% of our employees say they enjoy their work
- Employee satisfaction is above benchmark at 80% and has increased (2016: 71%)
- 76% of our employees feel proud working for Royal HaskoningDHV
- 81% of our employees have confidence in direct management - an increase over recent years and high compared to benchmark
- 74% of employees feel they can freely express thoughts

## 6.6 Looking forward to 2020

In the year ahead, our main areas of focus will be on people and culture as we continue the workforce transition and the development of hard and soft skills. We want to instil a learning mindset across the organisation. We will use the insights and results from the employee survey and address areas identified for improvement.



Young Royal HaskoningDHV



Young Royal HaskoningDHV

## 6.7 Giving Back

Our colleagues choose to play an active role in 'giving back' to societies in which we work. This is done through fund raising initiatives, contributions direct from salaries and giving of time and skills. Some examples from 2019 appear below and are in addition to our work to enhance society together on a company level.

## 6.7.1 BrITE Foundation

The BrITE Foundation is a charitable fund set up and run by employees of Royal HaskoningDHV. It draws on our collective social responsibility to help create a brighter world. The foundation supports projects that make life more sustainable for people and our planet. Employees may choose to donate a proportion of their salary to the fund for small-scale charitable projects proposed by employees. In 2019, BrITE contributed to two projects:

### Mustard Seed Mobile Library, Xinjiang China

Rapid urbanisation in China has attracted many millions of migrant workers to Chinese cities. According to authorities in the country, one in six Chinese people is now a migrant. However, without a permanent urban residence, they are denied the right to public services like healthcare, housing and education so most choose to leave their children behind in villages. Studies show 7 out of 10 left-behind children in China suffer from mental trauma, depression or anxiety. The Brite Foundation has founded a small library for children in the rural village Xijiaoling in China providing books and cartoons for children every Saturday. This project supports SDG 4 (quality education) and SDG 11 (sustainable cities and communities).



Opening the Mustard Seed Mobile Library

### Queen of Peace High School, Mpigi Uganda

Queen of Peace High School is a secondary school in rural Uganda. It was set up to offer disadvantaged young people the opportunity to get better jobs and outgrow poverty in an area where there had been no secondary education available. About 250 students between the ages of 13 and 23 attend the school which also provides literacy training and information about HIV / AIDS in the village. Nearby land is used to grow crops for food and to provide income for school supplies. As a result, the school now has a water pump, school building, exam hall, teachers' and student residences. In the short term they need a laboratory and their toilet unit needs to be renewed. BrITE Foundation funded €7,500 to rebuild the toilet units, helping to ensure the health and hygiene of the students. The donation supports SDG 4 (quality education) and SDG 6 (clean water and sanitation).



Rebuilding of the toilet unit

## Royal HaskoningDHV Cycling Classic

Nearly 200 employees and clients took part in a cycling event to raise money for one of the BrITE Foundation charities. This year we raised €1,542 for the Queen of Peace High School.



Cycling Classic, The Netherlands, © Arno Lambregtse

## 6.7.2 Community initiatives in Europe

In the UK, staff across our offices were involved in fund raising activities for local charities in 2019 including contributing to food banks and providing 60 Christmas hampers for children moving from care into their own homes.

In the Netherlands, our colleagues collected winter coats for the homeless in Eindhoven and joined a waste collection competition at Utrecht station which gathered 142 kg waste. Our team won the golden stick after picking up 50 kg of waste in 45 minutes. The competition was organised by the Green Business Club Utrecht Central (described in section '[Working together on a sustainable and livable Utrecht Central](#)'). During the annual team day held for our Mission Critical Facilities colleagues, they linked up with a charity in Nijmegen dedicated to helping people in the community with practical tasks. They split into two teams to help a family and a single woman redecorate the living rooms in their homes. It was a satisfying day of work which was much appreciated by the households.



Waste collection with the Green Business Club Utrecht, © Green Business Club Utrecht



**ETHICS**

**HONESTY**

**INTEGRITY**

**RESPECT**

## 7 ACTING WITH INTEGRITY

Royal HaskoningDHV has a zero tolerance towards bribery and corruption. We aim to meet and surpass standards for international best practices in anti-corruption compliance and business ethics. See also our detailed [Integrity website](#).

Our integrity policy is embedded throughout the company and we have held the ETHIC Intelligence Anti-Corruption Certificate since 2010, the only company in the engineering consultancy industry with this certification. In 2019 we were re-awarded the prestigious certificate which recognises that our company meets and, in some cases, exceeds international best practice in doing business with integrity. The certificate was awarded following an extensive independent audit of our Integrity Management System and anti-corruption programmes which are robust and ensure compliant behaviour in our daily business.



There were no major integrity incidents during 2019 but reports of 134 issues and concerns were made. This is higher than in 2018 (98) and reflects increased transparency, awareness and openness across our business in all regions. Characteristics of the reports included: unwelcome workplace behaviour; financial inaccuracies; a substantial number of concerns about working in controversial countries and involvement in publicly disputed projects (for example placement of windmills, working on military projects). All issues were investigated, discussed when appropriate and concerns addressed to resolve and mitigate risks. Several requests for advice were received about potential controversies, perceived conflicts of interest and third-party due diligence.

There were no allegations against the company or its management for bribery and corruption, nor investigations on this by any authority in 2019.

We maintained a strong focus on learning and awareness during 2019 and will launch a new e-learning module for our Global Code of Business principles in 2020 for all employees. Our activities reflect the trend for integrity to be closely integrated with sustainable business, increased enforcement and accountability for a clean supply chain. In our tenders and offers, we actively show our commitment to the principles of the UN Global Compact which are integrated in our Global Code of Business Principles. Suppliers and sub-contractors in Vietnam and the Netherlands are invited to e-learning on integrity and compliance in our projects. In 2020, we will launch a new way of working with regard to Third Party Due Diligence, integrated in our project management and supplier selection processes.

### 7.1 UN Global Compact and our Global Code of Business Principles

The 10 principles of the UN Global Compact are embedded in our daily business through our Code of Business Principles.

## 7.1.1 UN Global Compact

Royal HaskoningDHV supports the UN Global Compact (UNGC) network since 2008. We embrace the 10 UNGC principles on human rights, labour, environment and anti-corruption and report our activities annually with our Communication on Progress (COP).



## 7.1.2 Our Global Code of Business Principles

As an international organisation, we operate in a variety of cultural, social and business environments. Within all these, we conduct our business according to a universal set of principles, as we believe that society can only be served when all stakeholders act ethically and adhere to the 10 principles of the UN Global Compact. These principles are embedded in our daily business through our Code of Business Principles. This is the way we can create inclusive sustainable development and contribute to SDG 8 (good jobs and economic growth).

The Global Code of Business Principles defines basic, globally applicable standards of conduct and what is expected from employees. We expect our employees to understand the standards of the Global Code of Business Principles as well as the respective local laws and corporate guidelines, to always abide by them and to attend all mandatory and necessary training sessions. Managers are responsible for supporting their employees in this endeavour. We also hold our business partners and suppliers to standards for labour practices, human rights, environmental responsibility and business integrity.

## 7.1.3 International Guidelines and Conventions

Besides the UN Global Compact, our Global Code of Business Principles follows guidance on anti-bribery and anti-corruption set out in the OECD Guidelines for multinational enterprises, the World Economic Forum Partnering Against Corruption Initiative, the Federation of International Consulting Engineers Code of Ethics and Business Integrity policies, the International Chamber of Commerce rules on Combating Corruption, Anti-Trust and Fair Competition and the Transparency International recommendations.

## 7.1.4 Laws and Regulations

In the execution of our projects we comply with local applicable anti-corruption legislation, EU legislation and rules for firms on competition, human rights and anti-corruption laws and regulations. The extra-territorial governance of the UK Bribery Act and the US Foreign Corrupt Practices Act apply in all our entities worldwide since they affect our entities based in the United Kingdom and United States, as well as staff originating from those countries and projects initiated in them.

The UK Modern Slavery Act sets the direction of our worldwide approach against child labour, any other form of forced labour and human trafficking. The EU General Data Protection Regulation applies to all our entities worldwide since Royal HaskoningDHV is organised in global operating business lines and our projects are executed globally.

## 7.2 Cyber security and personal data protection

Our vision is to protect our clients' and our company's information from security threats and to comply with data privacy regulations. To protect information, we have implemented an Information Security Management System (ISMS) conforming with ISO2700. Certification for ISO27001 was awarded in December 2019.

We take the issue of protecting our data and privacy very seriously because we work and provide digital cloud services in a world of open communication via the Internet, mobile working and mobile devices. We are constantly searching for weaknesses which could potentially provide unwanted access to our systems and data. We evaluate countermeasures to reduce risk and continuously improve our security measures to keep up with data privacy regulations and to increase protection against cyber threats. Our Technology Platform is constantly monitored for security threats and is kept up to date.

Information security is increasingly included within clients' requirements and we continue to be able to meet their needs by selecting the optimal mix of solutions. Therefore, the ISMS also supports our objective to ensure competitive advantage by providing secure digital services to our users and customers. Our digital business transformation is driving profound changes in our Technology Platform with its focus on extending access for clients to our digital services, online engineering work and online data science insights. Our awareness of the cyber security risks means we have been able to respond adequately to any request or risk and we are confident we will continue to do so.



## 7.2.1 Personal data protection

We operate within a privacy and personal data policy and information security strategy approved by executive management and reviewed by the Privacy Protection Steering Group and Operational Excellence Committee. The policy and strategy unify and drive proactive action across businesses to protect Royal HaskoningDHV from data breach and maintain trust from our stakeholders.

Our Privacy and Personal Data Protection Policy and Information Security policy, the Key Controls, provides a strong foundation for protecting our information assets and confidential client information. The Key Controls also support ongoing compliance with external reviews and regulatory requirements, such as GDPR and ISO standards. The policy and approach are supported by effective and robust governance processes, risk management activity across three lines of defence (eg regular key risk indicator reporting, compliance testing and internal audits of information security policies and systems) as well as periodic and comprehensive risk reports to management- and Board-level committees responsible for these areas. In addition, we regularly conduct internal and external assessments to evaluate current performance and risk reduction measures against industry standards. These assessments have consistently confirmed Royal HaskoningDHV's personal data protection and security posture as stable and mature, while helping us identify key risks and opportunities for improvement.

## 7.2.2 Internal awareness campaigns

Our awareness campaign regularly updates our employees on security relating to our systems as well as the new GDPR legislation that came into effect in May 2018. Information on how to keep systems secure, (eg phishing emails, not sharing details with others) and being aware of data security (eg keeping ID-documents safe, sharing of Box links) and the consequences of failing to act on data security was shared.







## 8 STAKEHOLDER DIALOGUE

Collaboration, co-creation and partnerships are integral to the way we work. It is through sharing ideas and working together that we build momentum and accelerate innovation. These form the basis of the way we approach Responsible and Sustainable Business and structured stakeholder dialogue is one of the ways we achieve this, based on:

- client feedback;
- round tables and client events;
- employee feedback;
- meetings with local and international NGOs and governmental agencies.

We evaluate feedback and incorporate conclusions, where appropriate, into our strategic development plans, sustainability programme and annual action plans.

Our strategy is also discussed and reviewed with stakeholders and shareholders. The annual Shareholder Meeting is attended by the Board Members of the Foundation HaskoningDHV, the Board Members of the Trust Office HaskoningDHV, the Supervisory Board, the Executive Board, the depository receipt holders and (on invitation of the Chairman) the representatives of the Works Council. This enables a dialogue between the Executive Board and various groups of stakeholders.

### 8.1 How we identify stakeholders

We identify stakeholders on the basis of their relevance to our supply chain, business environment and activities. Our understanding of their relevance has developed over years through meetings with academic institutions, NGOs, clients and public agencies and will continue to develop on our international stakeholder base.

We recognise three modes of influence of stakeholders:

1. Strategic corporate level: every year, the Executive Council reflects on consolidated input and draws conclusions for the strategic planning process
2. Operational level: Corporate Groups and Business Lines benefit from specific dialogue with their relevant stakeholders to continuously refine their focus and check the effectiveness of their actions.
3. Project level: stakeholders are involved at this level as much as is feasible. They are an important factor in the delivery of a successful project result and their input is taken into account by the project team. Stakeholder involvement at this level is part of our 4 Questions to Enhance Society ([Progress update on our prioritised UN Sustainable Development Goals](#)).



Our 4 questions focus on stakeholders, added value, the future and resources and energy

## 8.2 Our stakeholders and how we engage

By working together, we are smarter, stronger, faster and create more lasting positive impact on society. Our main stakeholders are clients, employees, suppliers, partners & associations, communities, shareholders, governments, knowledge institutes and NGO's.



### Our stakeholders

We engage with our stakeholders on many different levels in ways which are an integral part of how we work. For example, management maintains an open dialogue with external stakeholders through interviews and events. Our HR managers are in regular contact with colleagues through staff surveys, polls and open table sessions. Leading professionals in our business lines take part in public and professional debates, write articles for professional publications and attend conferences. Examples of stakeholder engagement sessions include:

## 8.2.1 Board2Board sessions

During 2019, members of the Executive Council and/or Executive Board participated in several meetings and dialogues with partners and companies. Board2Board sessions and meetings with organisations like Amnesty International, HTM, the Netherlands Development Finance Company (FMO), the Netherlands Organisation for Applied Scientific Research (TNO), Siemens and several other engineering firms were held with the purpose of sharing knowledge, discussing strategy and business interests.

Open dialogue across these meetings covered for example human rights (in dialogue with Amnesty International), and topics such as: our strategic investments; (social impact in relation to) the energy transition; our innovative services including **BlueLabel** and **FastLane**; our project management health check reporting; taking safety awareness to the next level; sustainability monitoring and reporting; accelerating innovation in the construction sector; industrial automation; artificial intelligence; and digital twins.



Co-creation Center, Delft, The Netherlands

## 8.2.2 Trade missions

In 2019, we joined Dutch trade missions to Vietnam and India. The focus in Vietnam was on climate resilience and socio-economic development through improved port and inland waterways. Agreements signed during the mission included a World Bank funded project to improve the resilience of the Mekong Delta while delivering clean water and sanitation (see [SDG 11](#) in the section 'Positive impact through our projects and innovations'). We are involved with an Airport city concept and port improvements for the city of Da Nang and developing a public-private partnership for sustainable flood protection in greater Ho Chi Minh City. During the trade mission to India, our specialists shared insights into smart port development, highlighting opportunities to address challenges facing ports. Experts from our water business explored collaboration for tackling issues relating to rapid urbanisation and extreme weather events while maximising the economic potential of cities.

## 8.2.3 Sharing our innovations for the water circuit of the future

A safe and secure water circuit is ultimately about improving the quality of people's lives and of systems, as cities and infrastructure become ever-more complex. We believe that the Smart Places of the future require a Smart Water Circuit, and that a holistic vision is needed to plan for future development. In addition to global sector expertise, this includes using technology to increase operational efficiency of services, processes, people and things by connecting humans and systems with data. In a [digital round table](#), our water team invited public and private sector leaders and frontrunners to share their perspectives, experiences and methodologies around opportunities facing the water sector and their vision of what the water circuit of the future could be. We also shared our experiences and innovations in creating a virtuous water cycle at Amsterdam International Water Week, a biennial event that gathers experts from cities, industries, and utilities from around the world to showcase innovative solutions and real-life water cases.

## 8.2.4 Aviation sustainability festival

The Aviation Sustainability Festival held by NACO, a company of Royal HaskoningDHV, highlights the importance placed on internal stakeholder engagement to embed sustainability into projects and activities. Around 80 colleagues attended the Festival which took place in 2019. They listened to speakers from companies including Schiphol, Aegon and ABN Amro talking about how sustainability is incorporated into their companies and how they try to make a difference. Attendees were then challenged and inspired during discussions about which sustainability solutions and resilience measures are most suitable during every stage of the process of planning and constructing a new airport project.



Aviation sustainability festival

## 8.2.5 Nereda® Community Days event

Key representatives from the Nereda® team were joined by licensees and preferred suppliers from across the globe at the third Nereda® Community event for three days of learning, insights and best practice sharing. In 2019 the event saw the launch of Nereda® Community Days Awards across three categories: Best Nereda® Design: Aesthetic was won by Fleury WWTP (Sources); Best Commitment to Nereda® Development was won by Aqua-Aerobic Systems Inc; Most Nereda® Plants Sold by a Licensee was won by BRK Ambiental.



The third Nereda® Community Days event

## 8.3 Stakeholder engagement for innovation

On innovation and co-creation, we have held open discussions with Fortune 500 companies to talk about their challenges, how they go about innovation and what we can do through our mixture of digital capabilities and engineering expertise to create solutions to address their increasingly complex problems. Co-creation workshops were also held with organisations including the Ministry of Internal Affairs, NACO (a company of Royal HaskoningDHV), Google and Rabobank. Feedback from these sessions indicated that Royal HaskoningDHV is at the cutting edge of co-creation and leading in terms of innovation and digitalisation.

### 8.3.1 Hacking health event

We facilitated the “Hacking Health” event in Amsterdam by making our open office space available along with innovation coaches, data scientists and workshop facilitators. The event provided an open invitation to anyone associated with health and attracted doctors, policymakers, engineering consultants, data hackers, students and members of the public. Lots of people pitched ideas and teams were formed which collectively came up with nearly 20 pitches at the end of the two-day event which was full of energy and excitement. Some of these ideas have now moved into our innovation funnel.

## 8.3.2 Helping stakeholders understand the impact of engineering projects with iReport

As part of our digital ways of working, we have been pioneering the use of technology to help stakeholders better understand the impact of engineering projects where engagement and impact assessment are key. Our iReport is a digital tool which presents information in a visual and dynamic way to lead to highly informed decision making. It was launched in March 2017 as a digital Environmental Impact Statement, developed with the Ministry of Infrastructure & Environment in the Netherlands. It has since been updated based on client feedback and has been revolutionising stakeholder engagement in projects across the world. In 2019, it won the Innovation in Impact Assessment Award in the IEMA Sustainability Impact Awards, designed to celebrate people and businesses that are driving sustainability initiatives worldwide. Judges noted how collaboration with multiple stakeholders had ensured a robust and consistent approach which can withstand the scrutiny to which Environmental Statements are subjected. It replaces long, complex documents with a platform which enables people to navigate through the information in their own way and uses a broad range of tools to drive faster and clearer understanding.



Celebrating the obtained Innovation in Impact Assessment Award

### 8.3.3 Aligning stakeholders and boosting decision-making with augmented reality

Augmented reality is providing a new method of engaging stakeholders and demonstrating the reality of future plans. We are using it to project lifelike holograms of future structures into existing environments. As such, stakeholders are much more capable of grasping the implications of a design. Our holograms are bringing stakeholders together and speeding decision-making. In the future we will be able to enhance and modify them on the spot, based on stakeholder feedback. In Heerlen, we transformed thousands of residents into excited ambassadors for their new railway station. For Waternet, we enabled senior decision-makers from various organisations to approve a complex water installation in a single afternoon.



Virtual Reality

## 8.4 Feedback from our client survey and its impact on our plans

There are various ways through which we gather feedback from our clients. The most extensive feedback is gathered via 1) client engagement survey that is done once a year and 2) client feedback that is obtained after a project is finished, throughout the year. The client engagement survey was conducted by independent external research agency Kantar in 2019 among nearly 1,000 clients. Our (project) client satisfaction survey focuses on our performance as a company in projects.

## 8.4.1 Client engagement survey

Results of the client engagement survey indicated further increase in the strength of our relationships with clients and emphasised the necessity of our strategy for reinforcing our market position. On qualities valued by clients, our score for technical knowledge is considerably above competitors and our score for ease to work with is much better than average. Clients praise our rich expertise across markets. Overall, clients indicate that we have a lot to be proud of but that we are too modest in broadcasting our achievements. Based on our dialogues we identified several opportunities for improvement on themes including: digital transformation, marketing, aligning purpose and strategy with goal setting and creating joined-up offering to clients that will allow for deeper and wider engagement with clients and society. These insights will be used to support and shape initiatives in 2020 and beyond.

## 8.4.2 Client satisfaction in projects

Our clients' overall satisfaction and Net Promoter Score (NPS) are two vitally important indicators of our performance as a company and are measured through client satisfaction surveys. Clients are invited to provide feedback via these surveys on or near the completion of a project. Our NPS in 2019 was +37% (2018 +38%). The average overall client satisfaction score during 2019 was 8.27 (8.23 in 2018) on a scale from 1-10 and based on a response rate of 60%. Comments from clients who scored us 10 on overall project satisfaction include:

- **Sasol, engineering, procurement & construction management (EPCM) for a housing project to provide accommodation, supporting infrastructure and amenities for employees (Mozambique):** "Royal HaskoningDHV was instrumental in providing technical solutions to problems that could not have been foreseen during the design phase. We were assigned a team of Royal HaskoningDHV professionals, all highly skilled in their areas of expertise. They are solutions driven, they know the local environment and they know how to excel under local conditions – with the appointment of Royal HaskoningDHV the project gained a definite advantage."
- **North Holland Environmental Federation, study into the opportunities for trains to substitute short distance flights (Netherlands):** "The end result was an excellent combination of technical research with practical recommendations. An enthusiastic and expert research team that thinks along with you and delivers on time!"
- **Balfour Beatty, expert review of overall design, drainage detail and construction workmanship of Anchorsholme Sea Defence Scheme (United Kingdom):** "The team's expert support has been technically excellent, getting to the root of and explaining the problem, which has helped to inform and progress the final solution."
- **Weavind & Weavind, NACO acted as expert witness in an arbitration for an airport design project (South Africa):** "Excelled in every possible aspect and went above and beyond what was requested and/or expected."
- **SM Prime Holdings, Pasay Paranaque development project to design the reclamation and the horizontal development works (Philippines):** "Royal HaskoningDHV was able to deliver the expertise; the report produced was excellent and considered all environmental aspects of the site."
- **AVIC International Holding Corporation, design of iconic air traffic control tower, new third runway and taxiways, and renovation of existing runway (Kuwait):** "Based on the experience of Kuwait runway project, we believe NACO is one of the best designers of airports in the world."
- **NS Fiets BV, improvement of self-service bicycle parking entrances, (Netherlands):** "Royal HaskoningDHV has succeeded in delivering the product on time and within budget in a complex environment with many and demanding stakeholders. A unique achievement within this domain."

# SUSTAINABILITY

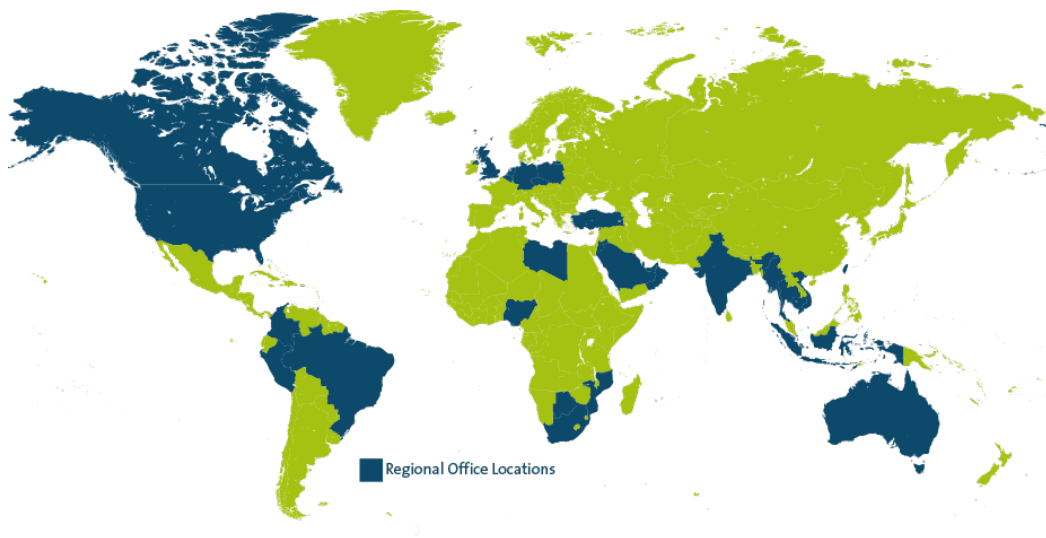


## 9 GLOSSARY

TERM / ABBREVIATION	DEFINITION
CR data	All collected relevant office and business related travel data used to define our carbon footprint
CSR	Corporate Social Responsibility; the responsibility of a company towards society, the environment and the economy
EcoVadis	A global supply chain & purchasing index which assesses Corporate Social Responsibility (CSR) practices
Employability	Employability refers to a person's capability for gaining and maintaining employment
ETHIC Intelligence Certificate	Anti-corruption compliance certificate, awarded by ETHIC Intelligence Executive Board
Executive Board	Highest executive body for the daily management of the company
Executive Council	Management platform with Executive Board and Businessline Directors, Group Compliance Officer, Corporate Director HRM
GDPR	The EU General Data Protection Regulation is the EU-wide legal framework for the protection of personal data.
GRI	The Global Reporting Initiative, an organisation that publishes international guidelines for CSR reporting
HR / HRM	Human Resources / Human Resources Management
ICT	Information and Communication Technology
ILO	International Labour Organization
ISO	International Standardisation Organisation
ISOS	International SOS; An emergency service provider for business travellers worldwide
KPI	Key Performance Indicator
Management system	Management system: Describes the Royal HaskoningDHV way of working. Ensures all employees follow common working practices. It is based on and certified against globally-accepted international standards (ISO 9001, ISO 14001 and ISO 45001) and also covers integrity, business continuity, knowledge management, information security and our business principles.
Material topic	Topic that is relevant to understand the development, the results and the position of the company
Materiality Analysis	Analysis that defines the material topics of an organisation, based on significance of various CSR topics for stakeholders and for the company
MVO Register	MVO Register is an Assurance provider with a Sustainability Platform and verifies CSR performances of companies and organisations
OECD	The Organisation for Economic Co-operation and Development
ProRail Safety Culture Ladder	Certification scheme designed to measure and continually improve safety awareness and safe operations within the rail sector
QHSE	Quality, Health, Safety and Environment
Resident Director	Country manager; responsible for the local affairs of an Royal HaskoningDHV entity within a country
RSB	Responsible & Sustainable Business: integrated programmes that embed, action and measure the positive role a company needs to play in society, supporting a healthy environment and prosperous economy (previously known as CSR)
SDGs	The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice.
Stakeholder	Stakeholders are people and organisations with an interest in the company and its activities
Supervisory Board	Supervising body; a group of individuals chosen by the shareholders of a company to promote their interests by supervising the executive board
Sustainable Development	Development that meets the needs of the present without compromising the ability of future generations to meet their needs
Sustainable Procurement	Procurement process whereby organisations meet their needs for goods, services or capital projects
Transparency International	International non-governmental organisation devoted to combat corruption
UK Bribery act	Act of the Parliament of the United Kingdom that covers the criminal law relating to bribery, including measures that commercial organisations are required to take to prevent bribery within and outside the UK
UN	United Nations
UNGC / UN Global Compact	UN Global Compact is a critical platform for the UN to engage and partner effectively with enlightened global business
Walk the Talk	Apply the same principles in our business practices as we advise our clients to apply in theirs

# 10 GENERAL INFORMATION

Royal HaskoningDHV's mission is to Enhance Society Together. We are an independent, international engineering and project management consultancy with over 139 years of experience. Our professionals deliver services in the fields of aviation, buildings, energy, industry, infrastructure, maritime, mining, transport, urban and rural development and water.



Backed by expertise and experience of around 5,200 colleagues across the world, we work for public and private clients in over 140 countries. We understand the local context and deliver appropriate local solutions.

We focus on delivering added value for our clients while at the same time addressing the challenges that societies are facing. These include the growing world population and the consequences for towns and cities; the demand for clean drinking water, water security and water safety; pressures on traffic and transport; resource availability and demand for energy and waste issues facing industry.

We aim to minimise our impact on the environment by leading by example in our projects, our own business operations and by the role we see in “giving back” to society. 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.

Our head office is in Netherlands, other principal offices are in the United Kingdom, South Africa and Indonesia. We also have established offices in Thailand, India and the Americas; and we have a long standing presence in Africa and the Middle East.

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