



VolkerWessels



Sustainability Report 2017

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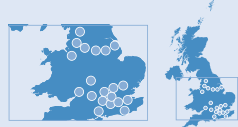


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Koninklijke VolkerWessels is a leading integrated and diversified listed construction group with a “think global, act local” mindset. VolkerWessels’ operating model combines a local sales and client focus with a control and support structure at divisional level that optimises scale and expertise across its operating companies. VolkerWessels operates primarily in the Netherlands, the United Kingdom, North America and Germany. Operationally, its business is organised in six segments. In the countries in which VolkerWessels operates it has over 120 local operating companies, which have national and regional offices and management.

This report focuses on our activities in the Netherlands although we also report figures for a small number of indicators in the United Kingdom. Our activities in North America and Germany are not included in the scope of this report and will be given no further consideration, apart from the safety figures. For further information please refer to the ‘About this report’ section.

The Netherlands	United Kingdom	North America	Germany
 <p>Construction & Real Estate Development</p>			
<ul style="list-style-type: none"> ■ Construction and renovation for residential and non-residential real estate including industrial and logistic facilities ■ Real estate development ■ In-house technical installations services capabilities ■ Industrial production and supply of construction materials, including pre-fabricated building supplies 	<ul style="list-style-type: none"> ■ Industrial and Commercial building and infrastructure construction ■ Civil engineering and infrastructure ■ Railway infrastructure renewals and enhancements, rail systems and maintenance ■ Construction and maintenance of water and energy infrastructure including ports and harbour infrastructure, flood risk management, utilities and waste facilities ■ Highway and airport infrastructure construction and maintenance 	<ul style="list-style-type: none"> ■ Active particularly in the Alberta and British Columbia provinces with focus on municipal road and highways maintenance and underground utilities (sewage and water construction) ■ Active in the north-west of the United States (broader Seattle area) in roadwork construction and maintenance, civil engineering (such as bridge construction and flood risk management) and underground utilities ■ Asphalt and gravel production 	<ul style="list-style-type: none"> ■ Construction for residential housing ■ Real estate development ■ Focus on selected major urban areas in Germany, in particular Berlin, North Rhine-Westphalia, Frankfurt and Munich regions

* Segment includes Belgium.

The crucial step in the transition to sustainability is behaviour change, both by clients and by our own employees and management. Guidelines and covenants alone are not going to enable us to change the world. The process will only gain traction once people are passionate about and genuinely convinced of the importance of sustainability.

In 2017 we saw a number of developments that will help make this happen. The Material Passport is an example of an important success which we expect to make a major contribution to behaviour change in both the short and the long term.

As a construction group we can make a positive contribution by developing new solutions such as circular housing concepts, energy-neutral infrastructure and sensing systems to improve interior air quality. In so doing we work on realising our vision: 'Building a better quality of life.'

Our role as a knowledge partner

We are seeing that people both within and outside our group are increasingly regarding sustainability as an opportunity rather than an obligation. This can be on a large scale, although smaller workplace initiatives, such as organising a fuel-efficient driving competition for employees, are also important.

This change in mentality provides us with an opportunity because we want to act not just as a contractor but also as a knowledge partner. Once again the Material Passport is a good example: instead of waiting for a new guideline to arrive on the market we helped make it happen.

Material Passport

The Madaster Material Passport is a register for materials. VolkerWessels was an investor in this initiative by the independent Madaster foundation. The material passport of a structure, for example a building or a bridge, lists which materials were used in its construction and how they can be disassembled and reused.

The passport has a major impact on behaviour change because it makes circularity tangible. The question 'How does this viaduct score in the Material Passport?' is a more specific question than 'Is this viaduct reasonably sustainable?' Compare it to the CO₂ Performance Ladder: a concrete tool that has boosted sustainability within businesses. Passports we launched in 2017 included those for our MorgenWonen concept and for our tunnel renovation project at Schiphol Airport.

Quality of Life Ambassadors

Another development for which we have high expectations in terms of changing behaviour is our designation of thirteen Quality of Life Ambassadors. These VolkerWessels employees are eager to convey our vision on quality of life both within and outside the group. They received training in November and with the explicit support of the CSR Platform are entitled to give solicited and unsolicited advice about quality of life in relation to our projects and management.

Substantiating our promises on quality of life

As we set out in previous sustainability reports, over the past few years we have determined that want to fulfil the role of knowledge partner in the area of quality of life. For us, quality of life can be divided into three key topics: health and wellbeing, the natural environment and social activities. These are the topics we will focus on in the coming years because this is where our influence is greatest. In previous years we invested a great deal of time in 'getting our house in order', monitoring KPIs such as waste and CO₂ emissions and working in accordance with guidelines and management systems; now it is time to take the next steps.

We want to demonstrate that we make a measurable contribution to these topics. In a world of vague promises about sustainability we want to be able to substantiate our claims. For example, can we demonstrate that a home built by us will make you healthier? We use data, scientific research and stakeholder dialogue to substantiate tricky claims like this.

Our Social Advisory Council, comprising external experts from the fields of science and business, has an important role to play here. It advises us on how to deal with the challenges we encounter and how we can increase our impact on quality of life.

Collaboration with knowledge institutes

It is impossible for us to gather all the knowledge we need to act as a knowledge partner all on our own and so we need to approach other parties. In terms of scientific research we work with various research institutes, including TNO, Delft University of Technology, Eindhoven University of Technology and Saxion University of Applied Sciences.

In 2017 we enabled the realisation of the circular viaduct concept. The Circular Design Consortium was officially launched in September and comprises VolkerWessels, the Dutch department of public works (Rijkswaterstaat), chain partners and knowledge institutes. Construction work on the first circular viaduct will commence in 2018.

Climate change and energy transition

Developing innovative solutions and concepts enables us to fuel the energy transition and contribute to the ambitions of the Paris climate agreement. In 2017 we started the first project using new shallow geothermal heat technology. Also known as Low Temperature Geothermal Heat (LTG), it uses sustainable geothermal heat for heating instead of fossil fuels.

We are also maintaining our focus on carbon reduction in our own organisation. Between 2014 and 2017 our CO₂ emissions relative to revenue fell by 23%, meaning we are well on track to achieve our 2020 reduction target. In 2017 the construction of new zero-energy bill homes according to our PlusWonen and MorgenWonen housing concepts resulted in the generation of 1.4 million kWh of sustainable energy, saving 751 tonnes of CO₂.

Social enterprise

We aim to contribute to inclusive entrepreneurship. Our central Social Return Counter helps our companies employ people who are at a disadvantage on the labour market by sharing knowledge and best practices within the organisation and in our chain. In 2017 we did this for example on the Rotterdamsebaan road project in The Hague. In collaboration with work projects organisation GEJA and the employer service point we deployed 12 asylum seekers with a residence permit and refugees with residence status. They were given training and placements to ensure they were well prepared for joining the Dutch labour market. Some have successfully gone on to work on the project.

We are proud of having achieved a PSO score of 2.3% in 2017. The Social Enterprise Performance Ladder (PSO) is an external benchmark that measures to what extent an organisation engages in sustainable social enterprise compared to other organisations that employ people from the social return target group. This score puts us on level 2 of 3, and means we are well on the way to achieving our target of being a frontrunner by 2020 by achieving the highest level of 3.

Quality of life is a challenge

The issues surrounding the honesty of claims show that we still have a long way to go to realise our vision on quality of life. For example we are still struggling to present a clear picture of the chain impact of our asphalt products and the impact of our concepts on health.

In 2018 we will therefore continue to develop a new housing concept in which sustainability, circularity and health will become the norm. But it is also important that we take the next steps towards improving quality of life at organisational level. In view of this in 2018 we want to formulate further-reaching goals regarding impact on society so that we have a benchmark to measure ourselves against.

Management Board of VolkerWessels

- Jan de Ruiter
- Dick Boers
- Henri van de Kamp
- Jan van Rooijen
- Alfred Vos

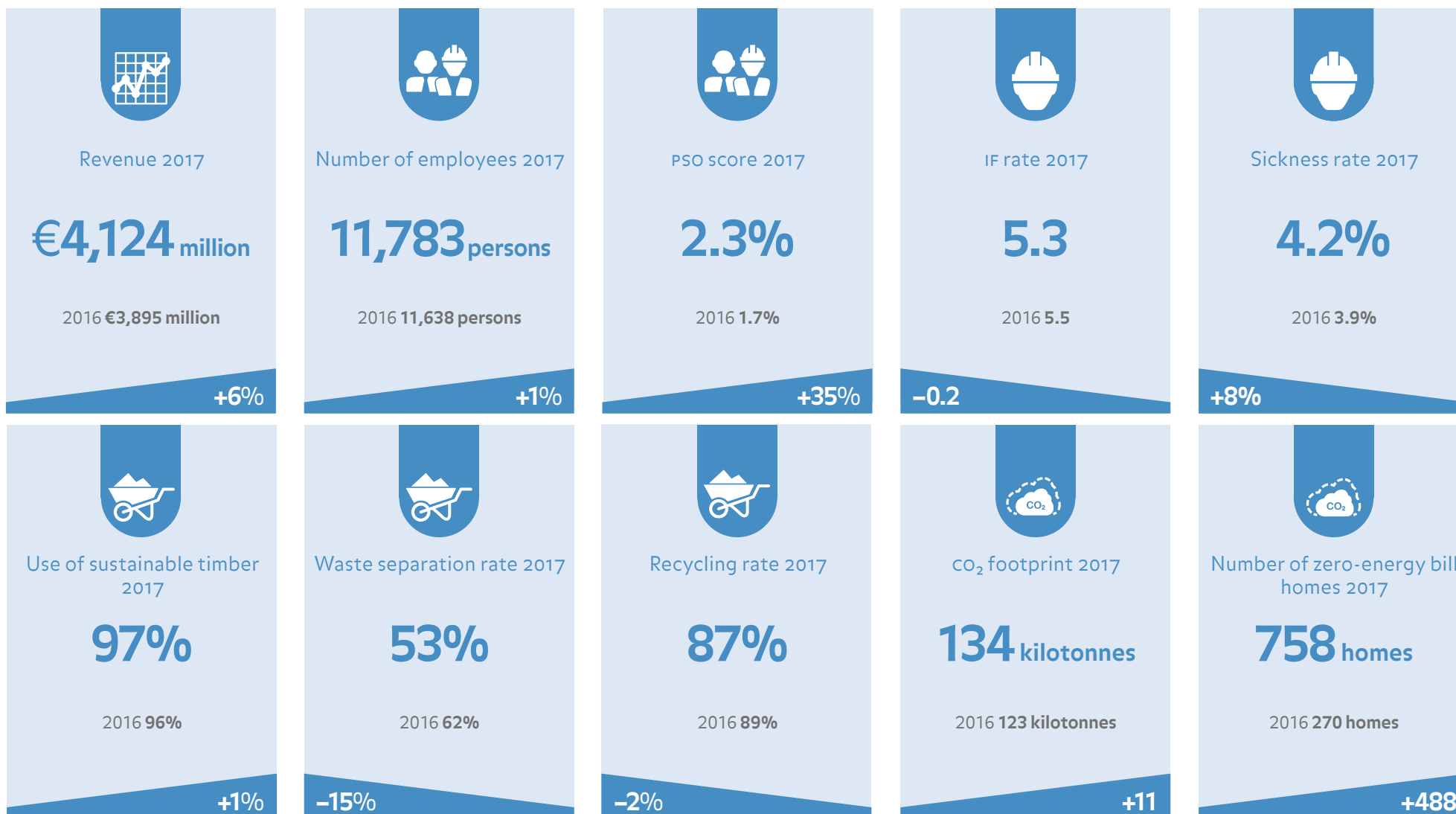


From left to right: Jan de Ruiter, Dick Boers, Alfred Vos, Henri van der Kamp en Jan van Rooijen.

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Summary





* VolkerWessels Netherlands includes the foreign branches of our Dutch companies and therefore deviates from the legal structure of VolkerWessels Nederland B.V.



Health and wellbeing – VolkerWessels Netherlands


 SAFETY	2015	2016	2017	INITIATIVES IN 2018	TARGET FOR 2020	PROGRESS
IF rate	5.1	5.5	5.3	<ul style="list-style-type: none"> Further rollout of WAVE app and in-depth investigation into serious accidents resulting in absence from work 	0 accidents	✘
Accidents resulting in absence from work	113	129	129	<ul style="list-style-type: none"> Training of internal safety experts in supervising culture change 		
Sickness rate	3.9%	3.9%	4.2%	<ul style="list-style-type: none"> Development of dashboard aimed at making safety performance of subcontractors more visible More companies certified on the Safety Ladder 		



✔ Achieved
➤ On track
✘ Not on track



Natural environment – VolkerWessels Netherlands


 RAW MATERIALS	2015	2016	2017	INITIATIVES IN 2018	TARGET FOR 2020	PROGRESS
Use of sustainable timber	97%	96%	97%	<ul style="list-style-type: none"> Completion of Material Passports for PlusWonen homes, Schiphol Airport tunnel and many other projects and buildings Construction of first circular viaduct Development of PlasticRoad pilot Launch of new circular healthy housing concept 	100% of timber use is sustainable	➤
Volume of waste (in kilotonnes)	60	66	72		-25% per € revenue	✘
Waste separation rate	65%	62%	53%		100%	✘
Recycling rate	89%	89%	87%		97%	✘
Secondary materials in concrete products (% recycled)		5%	10%		-25% primary materials in concrete	✘
Secondary materials in asphalt products (% recycled)	39%	41%	41%		-10% primary materials in asphalt	➤



✓ Achieved
➤ On track
✘ Not on track



Natural environment – VolkerWessels Netherlands

 CO ₂ AND ENERGY	2015	2016	2017	INITIATIVES IN 2018	TARGET FOR 2020	PROGRESS
CO ₂ footprint (scope 1 and 2 in kilotonnes)	135	123	134	<ul style="list-style-type: none"> Placement of largest-ever ONE system at a greenhouse farming company in Zevenbergen Establishment of benchmark to measure fuel consumption of large equipment within the Het Nieuwe Draaien Green Deal Further expansion of use of BouwHub at existing and new sites Expansion of monitoring and assurance of CO₂ emissions in our resources chain (Scope 3) 	-10% reduction in CO ₂ per € of revenue	✓
CO ₂ emissions of concrete products (scope 3) in kg of CO ₂ per m ³		149	154		-5% reduction in CO ₂ per m ³	✗
Zero-energy bill homes	448	270	758		2,000 per annum	➤

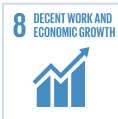


✓ Achieved
 ➤ On track
 ✗ Not on track



Work and social activities – VolkerWessels Netherlands

EMPLOYMENT	2015	2016	2017	INITIATIVES IN 2018	TARGET FOR 2020	PROGRESS
Total average number of employees	11,632	11,638	11,783	<ul style="list-style-type: none"> Focus on labour market communication Launch of new leadership course for new managers and executives Development of quick scan on 'Social Return in tenders' Several internal knowledge-sharing sessions with project organisation to share Social Return best practices 	<ul style="list-style-type: none"> Focus on internal succession planning Invest in long-term employability 	
Netherlands – Construction & Real Estate Development	3,478	3,627	3,716			
Netherlands – Infrastructure	4,890	4,900	4,983			
Netherlands – Energy & Telecom Infrastructure	2,955	2,819	2,789			
Other	309	292	295			
Percentage of people at a disadvantage on the labour market (PSO score)	1.2%	1.7%	2.3%		3.7%	➤



✓ Achieved
 ➤ On track
 ✗ Not on track



Key financial figures¹

FINANCIAL		2015	2016	2017
Revenue (in mln euro)	Netherlands – Construction & Real Estate	1,747	1,946	2,043
	Netherlands – Infrastructure	1,378	1,371	1,474
	Netherlands – Energy & Telecom Infrastructure	590	649	674
	United Kingdom	1,174	1,071	995
	North America	301	317	351
	Germany	214	207	244
	VolkerWessels Total (including 'Other' and eliminations)	5,318	5,490	5,714
Order book (in mln euro)	7,712	8,157	8,091	
EBITDA (in mln euro)	234*	254	265**	
Operating expenses (in mln euro)	5,178	5,335	5,563	

* Excludes the positive impact of €12 million fair value adjustment related to the acquisition of the (remaining) interest in Biesterbos B.V., G&S Vastgoed B.V. and PCB Holding B.V.

** Excluding €13 million third party result and €5 million share incentive charge.

¹ The focus of this report is on our activities in the Netherlands. This summary therefore includes the key sustainability figures of VolkerWessels in the Netherlands. Elsewhere in this report we also include figures for a small number of indicators in the UK. Our activities in North America and Germany are not included in this report and will be given no further consideration, with the exception of the safety figures reported elsewhere in this report and the key financial figures above. For further information please refer to the 'About this report' section. Figures for 2015-2017 are in accordance with IFRS with the figures for 2015 having been converted from Dutch GAAP to IFRS for comparison purposes.

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VolkerWessels

The bottom of the page features several horizontal white lines of varying lengths and thicknesses, some with rounded ends, creating a modern, abstract graphic design.

Our society is changing rapidly. Our ideas about housing and mobility are different from what they were ten years ago. These changes are being accelerated by developments such as increasing urbanisation, the upturn in the economy and the housing market and big data. For example the transition to sustainable energy sources has led to government policy aimed at creating a gas-free society by 2050. Another trend is the increase in socio-economic differences between cities and regions, making affordable and accessible housing a point of concern for the Dutch government. All these changes bring both risks and opportunities.

In order to keep up with this changing landscape VolkerWessels makes innovation a priority. We collaborate with various disciplines and new parties. In doing so we focus on technological innovation but also seek to create added value at a social, ecological and economic level.

DEVELOPMENT		WHAT DOES THIS MEAN FOR VOLKERWESSELS?		TOPIC
		RISK	OPPORTUNITY	
Demographic	Changes in the working population	<ul style="list-style-type: none"> Ageing population means not enough young talent coming through Lower labour participation by vulnerable groups Shortage of specialist technicians 	<ul style="list-style-type: none"> Pursue social return policy Promote social interaction Improve labour market communication Invest in long-term employability 	Work and social activities
Sociocultural	Individualisation	<ul style="list-style-type: none"> A different approach to employment relationship, employment practices, social security Demand for more self-reliance Growing shortage of space per person/household More individual customer requirements 	<ul style="list-style-type: none"> Put the client's wishes first Greater focus on marketing 	Work and social activities
	Growing importance of health/wellbeing	<ul style="list-style-type: none"> New customer requirements for existing properties Knowledge gathering on a new topic New factors play a part in the price 	<ul style="list-style-type: none"> Develop new housing concepts in which sustainability, circularity and health are the norm 	Health and wellbeing
Ecological	Scarcity of raw materials	<ul style="list-style-type: none"> High (fossil) energy prices High raw material prices Increasing competition for land use 	<ul style="list-style-type: none"> Use sustainable energy Energy-neutral and circular construction 	Natural environment
	Climate change	<ul style="list-style-type: none"> Loss of biodiversity Damage to infrastructure Current consumption patterns are unsustainable 	<ul style="list-style-type: none"> Facilitate energy transition Accelerate transformation to circular economy Nature-inclusive construction 	Natural environment
Technological	Hyperconnectivity	<ul style="list-style-type: none"> Data security and data fraud Cyberattacks Technology abuse 	<ul style="list-style-type: none"> Contribute to safe, reliable infrastructure Enable Internet of Everything Develop smart networks 	Work and social activities

Input

What we need in order to perform our activities

Activities and output

What we do: design and build an entire living environment

Results

A living environment that contributes to quality of life

Economic



Financing and capital goods such as equipment

Social



Knowledge and experience of employees and subcontractors

Environment



Resources, building materials and energy



Health and wellbeing

Safety, physical health and wellbeing



Natural environment

Raw materials, CO₂ and energy, biodiversity



Work and social activities

Work and education, mobility, recreation, social interaction

This visual depiction of the living environment shows a simplified version of our business model: the activities we perform, what we use in the process and the result we ultimately achieve for the living environment. We are not just interested in the physical buildings and networks that we create than in how they contribute to quality of life. We achieve this by using comprehensive collaboration to combine the local knowledge and expertise of our companies.

What input do we require for this?

In order to realise our projects we need economic, social and environmental input, for example:

- **Economic** financing and capital goods such as equipment.
- **Social** knowledge and experience of employees and subcontractors.
- **Environmental** resources, building materials and energy.

To support our building sites we aim to make our supply and logistics as safe, economical and efficient as possible, for example by means of the BouwHub or by using sustainable materials.

Our activities

We operate in three sectors in the Netherlands with a very diverse range of activities. From development and design to construction and even financing, management and operation:

- **Construction & Real Estate Development** from property development to residential, industrial and non-residential construction.
- **Infrastructure** civil engineering, road and railway construction, traffic systems.
- **Energy & Telecom Infrastructure** infrastructure for energy networks and telecommunications.

In the United Kingdom, North America and Germany, VolkerWessels has leading positions in selected markets.

Our company is an ecosystem of entrepreneurs and more than 120 local operating companies, with approximately 16,000 employees. The majority of our 25,000 projects a year are locally sourced, small scale, with low complexity and high repetition.

This solid backbone enables us to take a selective approach towards additional large-scale, complex projects. VolkerWessels acts primarily as the lead contractor, specifically focusing on activities such as project, contract and risk management. Whilst subcontracting the majority of the actual construction work, it maintains strategic and tactical positions across the entire value chain.

Our core values of safety, sustainability and integrity are key in performing our work. This means we pay attention to such things as a tidy, safe and sustainable construction site, economical use of our equipment and thorough separation of waste to optimise recycling.

What output do we realise with this?

In collaboration with our employees, chain partners and other stakeholders we are able to realise not just individual structures such as homes, roundabouts or masts but even design and build an entire area. Working together with companies from all sectors we have the ability to design a complete living environment, for example a whole residential area complete with roads, green areas, sewage system and internet connection. Or a modern business area such as Strijp-S in Eindhoven, comprising a mix of offices, homes, cafes, pubs and restaurants, and cultural venues.

What result do we aim for?

We expressly focus not just on the physical living environment but on the impact of the living environment on people's quality of life. It is about the living enjoyment, happiness, health, accessibility and greenery. We put this into practice in three key areas in which VolkerWessels has a great deal of influence and therefore the ability to contribute to quality of life:

1. [Health and wellbeing](#)
2. [Natural environment](#)
3. [Work and social activities](#)

Main clients

Construction & Real Estate Development

- Housing corporations
- Real estate managers
- Project developers
- Private parties

Infrastructure

- Central government
- Local governments
- Rail, road and waterway companies

Energy & Telecom Infrastructure

- Energy and network companies
- Industry
- Telecom providers

What do these developments mean for our sector?

The construction sector has been picking up again in the last few years with the recovery in the housing market providing a boost to the construction and real estate segment in particular. Conditions in the infra market have improved somewhat. In the energy market we are seeing growing demand for transport and other energy infrastructure as a result of the energy transition. Our outlook for the medium term is positive. At the same time we continue to face rising construction prices.

Main suppliers

Project level

- Resources and building materials
- Subcontractors in Construction & Real Estate Development
- Subcontractors in earthworks, road and waterway construction
- Equipment
- Waste processing
- Logistics

Company level

- Mobility
- Energy
- Business services

Sustainability, innovations and digitalisation are set to transform the sector in the coming years. We are already seeing this in the requests made by clients. Quality and long-term management and maintenance are accounting for a growing share in tenders. Sustainable construction has become the norm for newbuild, with BREEAM 'Excellent' currently being the minimum level that our investors require of us. For us, this means that we must invest in sustainable innovations that mutually reinforce each other. This ambition is supported by our unique reputation for

quality, sustainability and innovation combined with a sound financial position and a focus on margin over volume.²

Developments that impact our sector and our activities include urbanisation, growing traffic congestion, more attention to meaningful participation in the labour market and health, robotisation and the Internet of Things. These bring new challenges that require our sector to come up with smart and sustainable solutions.

What do these developments mean for our projects?

Our traditional way of thinking in terms of the technical process is changing into thinking based on the needs of society and the end user. We are broadening our horizon by looking at the contextual factors and asking ourselves: how can we contribute to the end users' quality of life?

The decentralised business model of VolkerWessels works to our advantage. Our companies operate independently and locally, close to the customer. They are given space to take the initiative to cater to the local market. Entrepreneurship, personal involvement

² For a detailed market analysis for the various sectors please refer to our Annual Report, which is published on our website.

Sustainable Development Goals

The Sustainable Development Goals (SDGs) were formulated by the United Nations in order to set out targets for the whole world to work towards in the coming years. This development has also turned out to be relevant for businesses, with many businesses monitoring their contribution to the SDGs and reporting on this. VolkerWessels has also analysed its contribution to achieving the SDGs. It has emerged that there are many areas where these

global objectives correspond with the targets we have formulated in the context of our sustainability policy. In this report we indicate (in the summary and in the target headers) the areas in which the correspondence is greatest. The SDGs can help us to further develop our targets for and impact on quality of life.



and responsibility are the most important principles for understanding and responding to changes in the landscape and the sector.

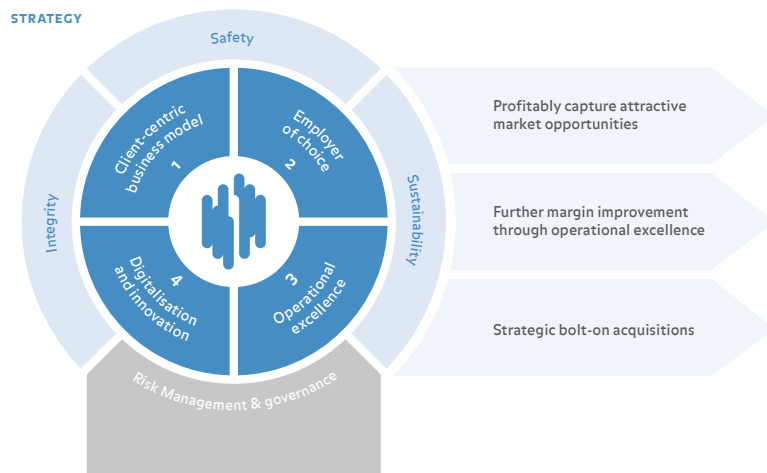
At the same time we set ourselves apart with our broad knowledge and expertise. Intensive knowledge exchanges and an integrated project organisation enable us to execute large-scale complex projects. A clear and structured way of working allows us to manage risks effectively.

Strategic pillars³

Our updated strategy is aimed at long-term value creation and consists of four focus areas:

1. Client-centric business model
2. Employer of choice
3. Operational excellence
4. Digitalisation and innovation

³ For a detailed description of the focus areas and tactical priorities of our strategy please refer to our Annual Report.



These focus areas translate into three tactical priorities: (1) to profitably capture attractive market opportunities, (2) to improve margins through operational excellence and (3) to pursue strategic bolt-on acquisitions. Everything we do is guided by our core values of safety, sustainability and integrity. These core values are our top priority, always and everywhere, from the boardroom to the concrete mixer. They are our licence to operate.

Risk management

Effective management of risks and opportunities is essential to the successful achievement of our strategic objectives. The Management Board holds overall responsibility for identifying, prioritising, managing and controlling risks, for example through quarterly meetings with the boards of operating companies and specific indicators for monitoring risks over time.

These include our safety indicators relating to risks surrounding health and safety and indicators for CO₂ and consumption of primary resources to measure our dependence on resources and fossil fuels. These indicators can be found in the various topic sections of this Sustainability Report. You can read more about risk management within our organisation in the Risk Section of our Annual Report.

What do these developments mean for our chain?

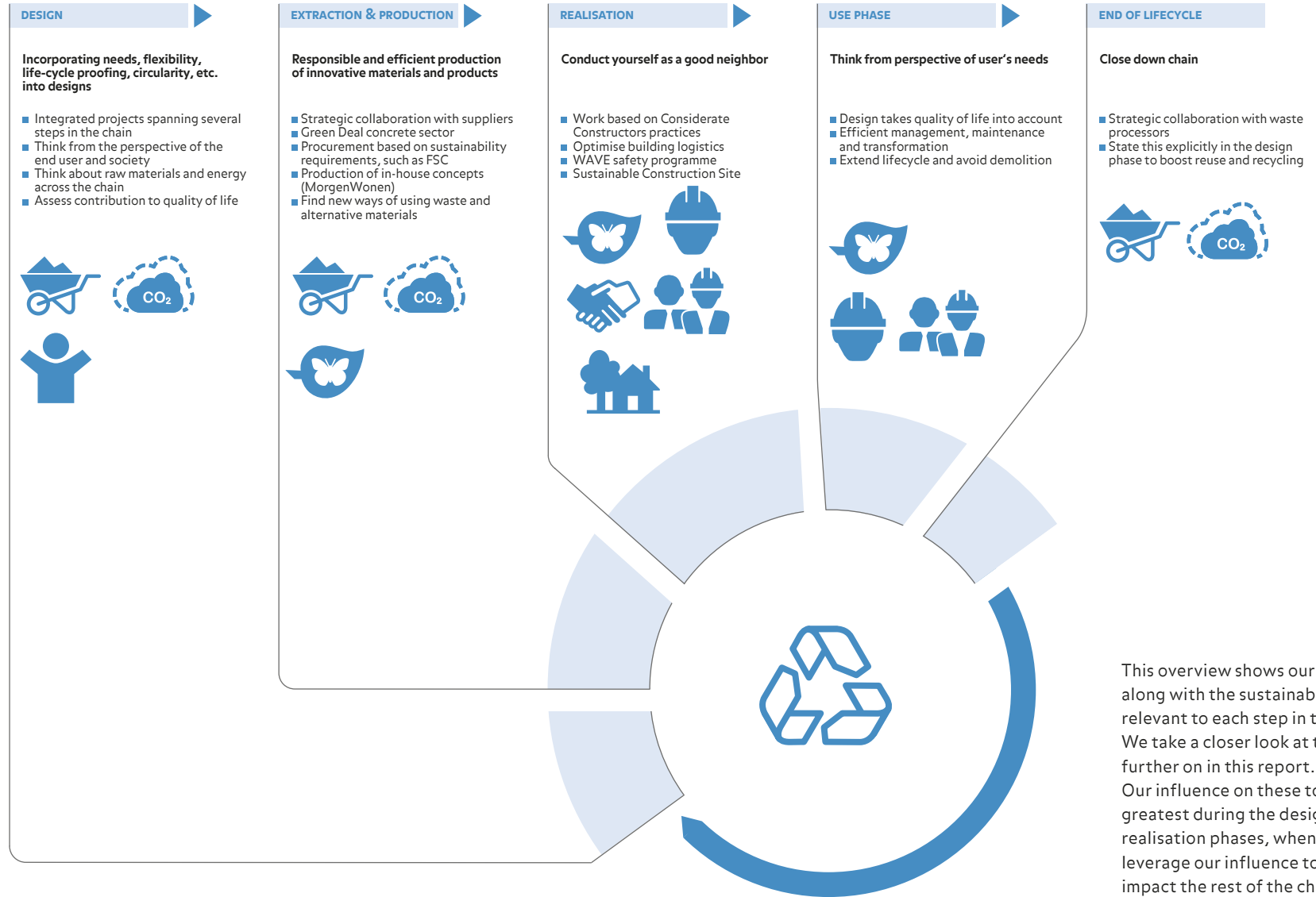
One of the consequences of these developments is that more and more new parties are joining the chain. Sustainable and circular construction that is focused on the end user requires a shift in focus to the front end of the chain. Which is precisely where the biggest challenges lie: reducing consumption of primary resources and energy, designing based on the user's needs, and extending the lifespan and improving the reusability of objects. At VolkerWessels we focus most on innovations that accelerate this transition in the

chain. We study new ways of designing, new techniques and ways of applying big data.

In 2017 we opened DigiBase, our own BIM centre in Nieuwegein to facilitate the digitalisation of VolkerWessels. In addition to knowledge in the area of BIM systems the centre also focuses on other aspects of digitalisation, such as the Internet of Things, GIS, reality capturing, and virtual and augmented reality.

Our role is changing as a result of this shift of focus to the front end. Increasingly we are becoming a knowledge partner rather than just an executing party. We are cooperating more closely with parties such as our suppliers, and their knowledge is also increasingly important in this. Furthermore our role in terms of service provision, management, maintenance and operation, and financing is also growing. As a result we are more involved in all stages of the life cycle, from planning to utilisation.

Value chain



This overview shows our value chain along with the sustainability topics relevant to each step in the chain. We take a closer look at these topics further on in this report. Our influence on these topics is greatest during the design and realisation phases, when we can leverage our influence to positively impact the rest of the chain.

As a group we believe in a living environment where quality of life is key. Quality of life is about the people behind our projects. Our ambition is to contribute to the health and happiness of users and residents.

Our vision

As a construction group we believe we have a positive contribution to make. We are building a better quality of life.

The living environment of the future is a smart living environment with socially and technologically advanced areas that enhance people's connectivity. An environment that is all about comfort, health and biodiversity. In short, a nice place to be.

It is essential that we work consciously on building our living environment. Our sector is on the eve of a drastic transition. Increasingly scarce raw materials, climate change but also increasing concerns about growing old in good health are examples of challenges our society is facing.

As a construction group we can make a positive contribution by developing solutions to these challenges such as circular housing concepts, energy-neutral infrastructure and sensing systems to improve the air quality in buildings. We need to address these challenges together by basing our reasoning on this common interest – safeguarding quality of life, now and in the future.

We understand increasingly well what is needed to create a living environment with a high quality of life – and what part we can contribute to this. One of the things it means for us is that we have to change the way we design, build and manage, with quality of life forming the basis for everything that we do and based on prior consultation with the parties involved,

primarily the end user. And build in a smart and economical way; smart in terms of logistics and use of materials.

Our key topics

We know that we are unable to directly influence all aspects that determine quality of life. We have consciously selected three key topics where we can exert influence. This makes for a focused approach. Together with our companies, our stakeholders and external experts we have established the following key topics:

1. Health and wellbeing
2. Natural environment
3. Work and social activities

Our approach

In recent years VolkerWessels' sustainability policy has developed into an approach that makes our social added value visible. Increasingly we use our vision on quality of life, elaborated in the three topics listed above – health, natural environment and work and social activities – as a guideline both in our projects and in developing innovations.

We are constantly looking at how we can maximise social added value on the three quality of life topics. Next, we determine the strategic course by forming a clear picture of the existing local environment. What are the main environmental factors and what specific sticking points offer scope for improvement? In this way we analyse the requirements in a particular area and how these relate to quality of life.

It is important to us that social added value is demonstrable, and specific and measurable claims in relation to our solutions are an important prerequisite for this. The promises we make in connection with our projects, products and innovations must be honest and ambitious. By honest we mean reliable and substantiated.

We test the honesty of our claims by means of data, scientific research and dialogue with stakeholders. Are we able to demonstrate that a home built by us will make you healthier? This has proven to be a tricky claim. So what can we promise? This is an example of the kind of issue we looked at during the course of 2017, for instance in our meetings with our Social Advisory Council.

Added value in projects

We are already realising projects that will create the living environment we envisage for the future, such as The Valley project in the Amsterdam Zuidas district. The City of Amsterdam is developing and improving this area with multifunctional destinations and public spaces. Award-winning architect Winy Maas is responsible for the innovative and natural-style design. With an area of around 75,000 m² The Valley will be a building with mixed functions centred on sustainability and healthy working and living. The Valley takes its name from the landscape which covers the building, which is reminiscent of a valley. Internationally renowned landscape architect Piet Oudolf made the design for the planting of the valley and the terraces. The presence of greenery contributes to quality of life, for example by lowering the temperature, reducing stress and improving air quality. It can also promote biodiversity in the surrounding area.



At the four-day Building Holland conference at Amsterdam's RAI exhibition centre we set up our own interactive innovation boulevard.

Another example is the Nieuw Bergen project in the Dutch city of Eindhoven, where we are transforming three municipal buildings and a car park into a residential area with a completely new look. The aim is to make many different target groups feel at home here. To ensure it blends in with the neighbourhood we have opted for a design with unique architecture featuring light, air and greenery in and around the buildings. Construction work will start in 2019. We know from speaking to local residents that the new look of this street will be given a positive reception: it will be a nicer place to live.

In 2005 we established a public-private partnership with the City of Eindhoven for the development of Strijp-S. This 27-hectare former Philips site is being transformed into the city of the future. All kinds of different parties, such as housing corporations, are collaborating in this live testing ground. It is a location for start-ups and companies that develop Smart City innovations and concepts, such as smart parking meters and lampposts fitted with sensors. Data suggests that this will greatly reduce the number of parking spaces needed compared to a normal situation.



“Employers, educators and the entire real estate community recognize that since we now spend **90% of lives inside buildings** it is critical we elevate our built environments to healthier, higher performance places for people.”

Phil Williams
President of Business Development at Delos

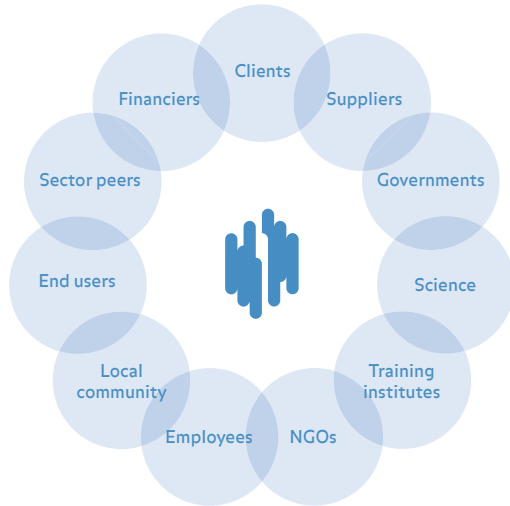


It's good to talk

We regularly sit down together with our various stakeholders. These sessions help shape our shared ambitions and goals and to achieve these. It is also a way of telling the outside world more about our projects and innovations.

In addition we are working on ways to engage in dialogue with end users. One example of this is the BouwApp ('Building App'), a platform developed to measure the quality of life of local residents during building projects and to inform those in the vicinity. This gets the local community more involved in the building process and enables us to encourage local residents to play an active part and provide valuable input and feedback. Initial testing took place in 2017 and one of our infra companies is set to introduce the app at all its sites and projects in 2018.

OVERVIEW OF KEY STAKEHOLDERS



TYPE OF DIALOGUE	WHO	WHAT	WHY	KEY FINDINGS
Strategic dialogue (annual)	Board members and external stakeholders	Social trends, topics and expectations	Input for vision and strategy	<ul style="list-style-type: none"> Map out the innovation ecosystem. Engage more with the end users. We cannot do everything alone. As a knowledge partner you really need your 'friends for change'.
Operational dialogue (semi-annual)	Representatives of companies and external stakeholders	Concrete implementation of strategy	Input for actions and programmes	<ul style="list-style-type: none"> Smart logistics: measuring transport movements is important to gain a good insight into efficiency. Circular design process: <ol style="list-style-type: none"> 1) Ensure that knowledge from pilots is shared internally. 2) Ensure timely testing of new designs and products.
End-user dialogues (annual)	Survey of wellbeing and productivity among end users of office buildings in the Netherlands	Contribute to quality of life	Input for further development of quality of life	<ul style="list-style-type: none"> Meaning and perception of health and comfort can vary enormously from person to person. Investigate which aspects you can demonstrate your influence on.
External Review Committee (annual)	Three independent experts at the interface of science and business: Jacques Reijniers, Wim Pullen, Marko Hekkert	Contribute to quality of life	Input for further development of quality of life, vision and strategy	<ul style="list-style-type: none"> Increase external communication about projects and innovations. Gain a better understanding of where your influence begins and ends. Focus on, and investigate, the end-user experience. Work with competitors to create a market for new technologies.

Awareness

Clients expect us to organise and execute our work well. Safety, integrity and sustainability of execution forms the basis for our everyday work.

66 As a knowledge partner, you need 'friends for change'

Safe working is not only necessary on the building site or in traffic, but also relates to safe handling of our information and equipment. Rules, guidelines but also tips and successes are communicated via internal programmes, such as our WAVE (Wees Alert! Veiligheid Eerst! – Be Alert! Safety First!) safety programme. VolkerWessels Veilig (VolkerWessels Safe) is our own programme to promote awareness of integrity. In the spring of 2018 we will be launching an internal programme about the core value of sustainability.

These programmes are aimed at making our employees aware of and alert to our operating conditions, which are grounded in the three core values of VolkerWessels: safety, integrity and sustainability.

Setting targets

We are proud of the projects we realise and the innovations we develop. But we also need to organise our own activities in a responsible way. That means a working process based on safety, sustainability and integrity. As well as working on raising awareness amongst our staff we set targets for our own companies' results in these areas.

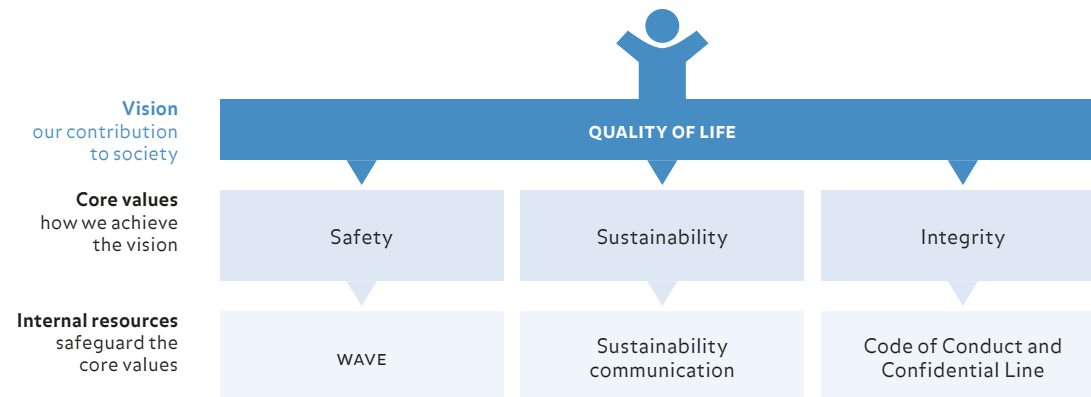
The results are expressed in KPIs for the sub-topics Safety, Raw Materials, CO₂ and energy, Integrity and Employment. For example, our safety results are measured in terms of the injury frequency rate. In 2017 we also started setting targets in the area of social return. This provides us with an insight into the proportion of people who are at a disadvantage on the labour market employed at our own organisation and by subcontractors and suppliers. All these KPIs give us handles for providing direction and shaping new policy. This is important and essential to the sustainability of our work.

In 2017 we further improved our internal reporting process on our sustainability performance, including in the area of data quality. We are also developing additional analyses aimed at giving the management more insight into underlying causes and trends. The results and trend analyses are reported to the Management Board on a quarterly basis, both at company and group level. An additional tool that we use are the In Control Statements, in which each company reports annually to the Management Board on how sustainability is safeguarded within the organisation.

The CSR (Corporate Social Responsibility) department coordinates the registration process, the quarterly reporting and the monitoring of the CSR results. Decisions regarding sustainability policy are taken by the CSR Platform, which comprises representatives of the Management Board and board members from our three segments. The Management Board bears ultimate responsibility for the policy and achieving the targets.

Developing our approach

In recent years we have made good progress in our approach to our vision 'building a better quality of life'. We have consciously selected three key topics to provide greater focus as we work towards a positive impact. We are professionalising by increasing the innovative power of our organisation and developing new knowledge in close cooperation with our research partners. Once a year we ask an External Review Committee to take a critical look at our policy. And finally we deploy our internal quality of life ambassadors. In so doing we are increasingly translating our vision into practice.



Further development of innovations

Many innovative concepts and products are developed in our three segments. In 2017 we started to professionalise our innovations. The central linking of knowledge of technical innovations to new and existing market opportunities is an important step towards upscaling the innovations. For instance, we have invested in an internal digital innovation platform called HeliX. This will be launched in 2018. This is the responsibility of the central innovation managers, who have been appointed for each segment. For each sector we are also designating strategic topics for innovation at which we excel. Within these topics we will collate best practices and lessons learned and disseminate these to other parts of the organisation.

These actions ensure that innovative concepts are structurally given a place in our organisation. Moreover it accelerates the innovative processes in our organisation, putting us in the best possible position to meet the needs of our clients and end customers.

Our research partners

As a group we are growing in the role of knowledge partner rather than just a contractor. This means that we must constantly supplement our knowledge with insights from outside our organisation. We aspire to innovative solutions which are scientifically based and have a demonstrable impact on society. We cannot come up with all of this on our own, which is why we work with research partners to develop new knowledge to allow us to devise the best sustainable solutions.

We work with various research institutes, including TNO, Delft University of Technology, Eindhoven University of Technology and Saxion University of Applied Sciences. In addition each year we have our policy reviewed by an External Review Committee consisting of scientists from the network of sustainability organisation Het

“We need to gather, analyse and publish ‘real time’, ‘open’ and intersectoral data. In addition I propose that every municipality appoint a ‘Chief Resources Officer’ to cleverly manage its resource stocks”

Richard Klein
Director of Building Holland



Groene Brein. Elsewhere in this report you can read all about what we have been up to in the past year.

A new partner this year is Delos, an American organisation with a strong focus on the transformation towards a healthy built environment. Delos specialises in administering the WELL Building standard, a tool that sets out performance requirements for healthy buildings. It takes health and wellbeing as the basic principles for designing buildings such as homes, offices and schools. The Delos Living Lab studies the impact of a wide range of factors on the health of end users. Together we are working on opportunities to apply its building and measuring methods at VolkerWessels, with regular discussions being held to this end.

External Review Committee

We believe it is important to test our vision, approach and our questions with our stakeholders. Is our vision and working method the best possible match with the changing living environment, sector and chain?

A very valuable way of doing this is to have our policy reviewed annually by an External Review Committee. We have been doing this since 2015. The purpose of this procedure is to conduct a critical dialogue and agree specific next steps. The independent advice helps us to further develop our strategic approach and translate it to our organisation and projects, where we are faced with diverse questions and dilemmas. How can we further increase our contribution to quality of life? And what obstacles do we need to overcome?



During the annual strategic stakeholder dialogue we engaged with our clients about quality of life in practice.

Each of the members of the External Review Committee is an expert in a specific scientific field and has knowledge of the business world. They are attached to Het Groene Brein, a foundation that brings together science and business in the interests of sustainable enterprise. Each member of the council is attached to a specific VolkerWessels project and presented with our questions. The External Review Committee presents its critical reflections and advice during the annual strategic stakeholder dialogue in the autumn and in this report.

Looking back at 2016

In 2016 we asked the Social Advisory Council for advice on our questions about quality of life in relation to Park Stijp-S in Eindhoven, the BouwHub and the underground car park at Jaarbeursplein in Utrecht.

Over the past year a lot of progress has been made in terms of the BouwHub. The BouwHub is a collection point on the outskirts of the city where all the transport flows for the building site in the city centre are brought together. All suppliers deliver their materials here. Driving to and from the building site with full loads of materials and waste makes for more efficient logistics, with savings of up to 95% being measured on transport between the Hub and the building site in 2017. New projects have been launched involving the use of a BouwHub and more data has been gathered and linked to big data and BIM, providing a new insight into the social added value. For example, we use data on rush-hour traffic congestion to plan routes and deliveries so as to avoid putting extra pressure on the roads and prevent dangerous traffic situations.

Our study of measures which have the potential to promote quality of life at the future new Jaarbeursplein square in Utrecht has taught us a great deal about measuring subjective quality of life indicators. This is an issue that we studied in greater depth with the Social

Advisory Council in 2017, for example in relation to making honest claims.

A lot has happened at Strijp-S in terms of Smart City applications and their implementation in projects, including in the area of smart mobility. For example a car park has been opened featuring hi-tech solutions such as smart navigation, smart charging infrastructure, subsystems and area Wi-Fi. 'Old-fashioned' hospitality staff will be on hand to ensure a hospitable welcome. In 2017 we also built an apartment complex which is based on direct current and therefore able to use solar energy without the need for conversion. Read more about this in our CO₂ and energy section. The earlier plans for measuring the positive impact of these smart innovations have been tightened and will be followed up again in 2018. We are no longer involved in the PhD study into subjective perception of quality of life.

Composition in 2017

In 2017 the composition of the Council was as follows:

- **Jacques Reijniers** (Nyenrode Business University, Emeritus Professor):
Expert in the field of sustainable procurement management
- **Wim Pullen** (Director of the Center for People and Buildings, Delft University of Technology):
Expert in the field of the healthy work environment
- **Marko Hekkert** (Director of the Copernicus Institute for Sustainable Development, Utrecht University):
Expert in the field of innovation science

PROJECT 1

Low Temperature Geothermal Heat (LTG)

VolkerWessels has a unique and innovative drilling technology for Low Temperature Geothermal Heat (LTG). The temperature of the water that is tapped into is much lower than is the case with standard drilling and is sufficient for low-temperature heating of homes. Heat pumps are used to raise the temperature for greenhouse farming.

This ground-breaking technology is being used for the first time on a project in Zevenbergen and contributes to the energy transition. Geothermal heat is a sustainable energy source because it can be used instead of energy from fossil fuels. This has a positive impact on CO₂ emissions as it renders the existing, gas-fired CHP plants obsolete. However, VolkerWessels is facing a dilemma here: given the innovative and sustainable nature of the technology its commercial feasibility is still reliant on subsidies.

Advice from Council member Marko Hekkert

“What is unique about this project is that drilling takes place at much shallower levels than is the case with regular geothermal projects. Drilling is also horizontal rather than vertical. The big advantage of this technology is the small drilling installation and less risk of unsuccessful drilling.

It extends the knowledge of horizontal drilling to a new market: sustainable energy. By applying this technology on a large scale and thus contributing to sustainable heat production VolkerWessels can make a good contribution to quality of life.

This new technology is not applied in the normal market. Demand for the technology will depend very strongly on the rules that the government establishes for the energy transition in the built environment and which technologies it will subsidise. This means that the future of LTG depends on the trust the government places in this technology.

Obtaining trust and legitimacy is a challenge in itself. Research widely shows that new technology gains legitimacy fastest when it is supported by a large number of parties. This requires a co-competition strategy: first cooperating with competitors to create the market for the new technology and then competing against each other in the market that has been created. Co-competition is a great game, but it does require a certain cultural change in the organisation. There lies the challenge for VolkerWessels.”



PROJECT 2

ZuiverWonen

We see opportunities to contribute to a healthier built environment, for example by incorporating aspects that are good for people's health, such as light, air, space and comfort into the design of buildings. How do we make knowledge about positive health effects applicable in the further development of real estate?

VolkerWessels is struggling with the gap between the scientific facts about healthy design and its applicability. We chose the sustainable housing concept ZuiverWonen as a case to look at how we can use scientific knowledge to clearly formulate our ambition for a healthy built environment.

Advice from Council member Wim Pullen

"ZuiverWonen ('pure living' in Dutch), the beauty of the combination of words alone is deserving of not just the factual claims but also the expectations and experiences of buyers being brought together in honest claims. In addition to critical buyers VolkerWessels also has professional clients in the non-residential construction sector. In this day and age they are very mindful of the health of the people who work and learn in and visit their buildings. Here, too, expectations regarding the ability of buildings to promote health need to be looked at with a critical eye and 'honest claims' rather than excessive pretensions are of the essence.

Given the price bracket for ZuiverWonen homes, potential buyers are most likely to belong to a select group of savvy, critical and affluent housing customers. As is the case for other buyer groups, information given out to this group of buyers must be devoid of suggestion and unrealistic promises, or – as Princeton professor Harry Frankfurt stated in his famous and very readable essay 'On Bullshit' (1986) – of 'pretentious word or deed'.

We know that the interior environment of buildings has an impact on human health. Even ZuiverWonen homes require cleaning. The interaction between the building materials used and cleaning products can impact the interior environment and hence health. The honesty of the claims does not normally form a part of a reason to buy. Honesty is felt and judged once the home is actually being lived in. Good aftercare – contact with the residents, the end users – could turn out to for shaping the ZuiverWonen concept."



PROJECT 3

Sustainability in tenders

We want to distinguish ourselves in the area of sustainability and be rewarded for this when we subscribe to tenders. To this end in 2017 we collaborated with our partner Stichting Natuur & Milieu, a Dutch environmental organisation, on a study to analyse sustainability requirements in tenders.

The study showed that sustainability is not always a major factor in tenders in our sector. Furthermore it transpired that it is difficult to distinguish ourselves based on the sustainability tools requested by the client, such as the CO₂ Performance Ladder. There is also a pressing need to discuss sustainability with the client, for example with regard to applying innovations. We have asked ourselves the critical question: what can we do better in order to realise our projects more sustainably?

Advice from Council member Jacques Reijniers

“To promote sustainability in VolkerWessels construction projects and enable the company to make a bigger contribution to improving quality of life going forward, we have four pieces of advice in relation to tender processes.

1. Prior to the tender process, make a visible and explicit strategic choice stating the ambition level. Formulate the strategic choices of the roles of VolkerWessels in the various project stages. Also make a link to the new government’s agenda. This means that VolkerWessels needs to raise its external profile through communication. Some great examples have already been successfully implemented. Abandon modesty and go for it!
2. Develop solutions not only within VolkerWessels, but in collaboration with chain partners in the early strategic phase of the ‘purchase/sale’ process. Above all, don’t lose sight of the added value to the business. Involve suppliers’ innovation experts in this process. Make sure that the client’s strategic priorities with regard to sustainability are clear in advance, along with how sustainability is defined by all the parties involved. Be sure you know who the decision-makers are, along with their external advisers and their objectives.
3. Make sure the organisational context is clear. That means: sustainability expertise throughout the organisation, clear responsibilities and reinforcing comprehensive cooperation. Organise periodical reviews to establish progress on projects and make outline agreements at the highest level. Continue to promote yourself both internally and externally.
4. European tender regulations do not impede these measures in any way. It is important to make strategic choices early on. Focus on life-cycle costs and revenue and decide the scope for developments during the execution in the earliest strategic phase.”





VolkerWessels partners Building Holland!

VolkerWessels is the main sponsor and partner of the prestigious Building Holland conference at Amsterdam's RAI exhibition centre. The four-day conference, which is held in April each year, brings together all the links in the chain for knowledge sharing, concept development and collaboration. Last year VolkerWessels built its own Innovation Boulevard to showcase how we are building the living environment of the future. We presented our broad range of innovations and our vision, in order to inspire each other as well as our clients and chain partners: from noise barriers with solar panels to FloWithdGlow energy-independent glow-in-the-dark road marking to a local sewage treatment plant.

Follow-up in 2018

In the past year we have made a lot of progress in terms of developing our approach and will continue to do so with great confidence in 2018. Our ambition is to have a sector-wide debate in 2018 about the next steps in terms of sustainability in tenders, in line with the changing sector.

We have already launched initiatives in connection with our ambition to develop healthy buildings. In 2018 we are going to work with Delft University of Technology on making honest promises with regard to health. We are going to develop a new housing concept in which health will be a priority, along with sustainability and circularity. Lessons learned along the way and from the ZuiverWonen concept will be taken on board. We will go in search of new partners for structural cooperation in the area of healthy buildings. Furthermore in the new year we will continue to discuss upscaling the application of the innovative drilling technique for low temperature geothermal heat.

Last year we initiated a study in collaboration with the University of Amsterdam into the transfer of sustainability knowledge between the various levels of our decentralised organisation. The findings have been fed back to our Management Board. The most important conclusion is that we need to invest more in knowledge, and the ambitions and skills level of our employees in the area of sustainability. One of the ways in which we are working on these recommendations is through the initiatives of the ambassadors mentioned earlier. The internal awareness campaign to be launched in 2018 will also help put this into effect.

Quality of Life Ambassadors

In 2017 we appointed 13 VolkerWessels employees with a strong passion for sustainability as Quality of Life ambassadors. Their job is to disseminate our approach and attitude to quality of life further into the organisation. These ambassadors feel a strong connection with our vision of quality of life and are prepared to go the extra mile to promote it both within and outside VolkerWessels.

While the ambassadors are employed by their companies, this is a group-based role that entitles them to give solicited and unsolicited advice about the application of quality of life in relation to projects and management. Because we consider it important that they feel they have the space to actually do this the CSR Platform has pledged its express support to them. They are being facilitated with a joint training programme, the first stage of which they completed in 2017. In 2018 the ambassadors will put forward a proposal for concrete quality of life targets for VolkerWessels.

These are our 13 ambassadors:

Jaap Hulshoff

VolkerWessels Telecom

"For me quality of life stands for unlimited freedom of choice. Freedom to do the things I really want to do. And to have the time to do so. Without limiting that freedom of choice for future generations."

Ronald Hennekeij

HOMIJ Sustainable Energy Concepts

"As a leading construction group we determine what the built environment looks like, on the outside as well as the inside. We can make our buildings nicer for people to work and live in."

Anne Koudstaal

KWS

"It is my dream and personal mission to work with everyone at VolkerWessels to ensure that every VolkerWessels project makes a positive contribution to our world and to quality of life at all times!"

Ron Timmermans

VolkerWessels iCity

"Building quality of life should be our motto. This is the principle based on which we should tackle every request with gusto, and aim to achieve the maximum result in terms of providing quality of life. My goal is to get VolkerWessels to do business based on this perspective."

Esther van Eijk

Van Hattum en Blankevoort and VolkerInfra

"However much we think we can mould people and the world, nature is our natural capital and the foundation of our existence. It is my personal mission to bring nature back to us, precisely in the technical infra world."

Peter van Leent

Visser & Smit Hanab

"Health is more than having a few extra days. Sustainability is more than limiting damage to nature. Let's work together to create added value that makes us feel enthusiastic as end users!"

Zeger Schavemaker

Vialis

"The Quality of Life Ambassadors play a small part in raising awareness at VolkerWessels and among our clients. This leads to big changes."

Annette Pasveer

De Bonth van Hulten

"Genuine social entrepreneurship only has long-term winners: the society we work in, the people who deserve a hopeful chance and inspiring prospects for our company."

Thomas Heye

Boele & van Eesteren

"Doing things better, rather than 'less badly'. That's a great thing, right? With our activities we can set so much in motion. We're going to show what we are capable of!"

Joris Schillemans

VolkerInfra

"If today you can change the world through innovation so that you are able to meet more obligations tomorrow, then your obligation today is to innovate."

Marianne Davidson

VolkerWessels Vastgoed

"Quality of life is about connecting people, interests and topics. As a Quality of Life Ambassador and a real estate developer I have the ability to fulfil this connecting role. This is not about the short term, but about achieving maximum social returns."

Christine Wortmann

VolkerWessels csr department

"As an ambassador I want to show others just how much is possible in terms of sustainability. By inspiring them to find ways to contribute to quality of life we can together see to it that we leave the world a better and happier place."

Lars van der Meulen

VolkerWessels csr department

"Real change comes from within. VolkerWessels' appointment of 13 people, for whom sustainability is close to their hearts, from amongst its own staff is a first step towards real change. I am proud to play a part in this!"

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Sustainability topics

The bottom of the page features several horizontal white lines of varying lengths and positions, creating a modern, abstract graphic design. Some lines are straight, while others have rounded ends or are slightly offset from each other.

“We dream of a built environment in which people can live **longer, healthier lives.** Our long-term goal is a **new standard** for healthy homes”



Sustainability is a key focus in the redevelopment of the Nieuw Bergen district of the Dutch city of Eindhoven: solar panels, green roofs, a collective thermal energy storage system for newbuild and all-electric homes.

Health and wellbeing

The way our living environment is designed can have a positive impact on our health

For example it can be laid out in a way that encourages people to be outdoors and to exercise. Another example is the use of indoor greenery, which can boost productivity.

Scientists are devoting more attention to the positive perception of health, partly because more and more is becoming known about how environmental and other factors affect our health. For example, poor working conditions and environmental factors each account for 5% to 6% of our illnesses. In light of this development, are we able to say what makes a building a healthy building?

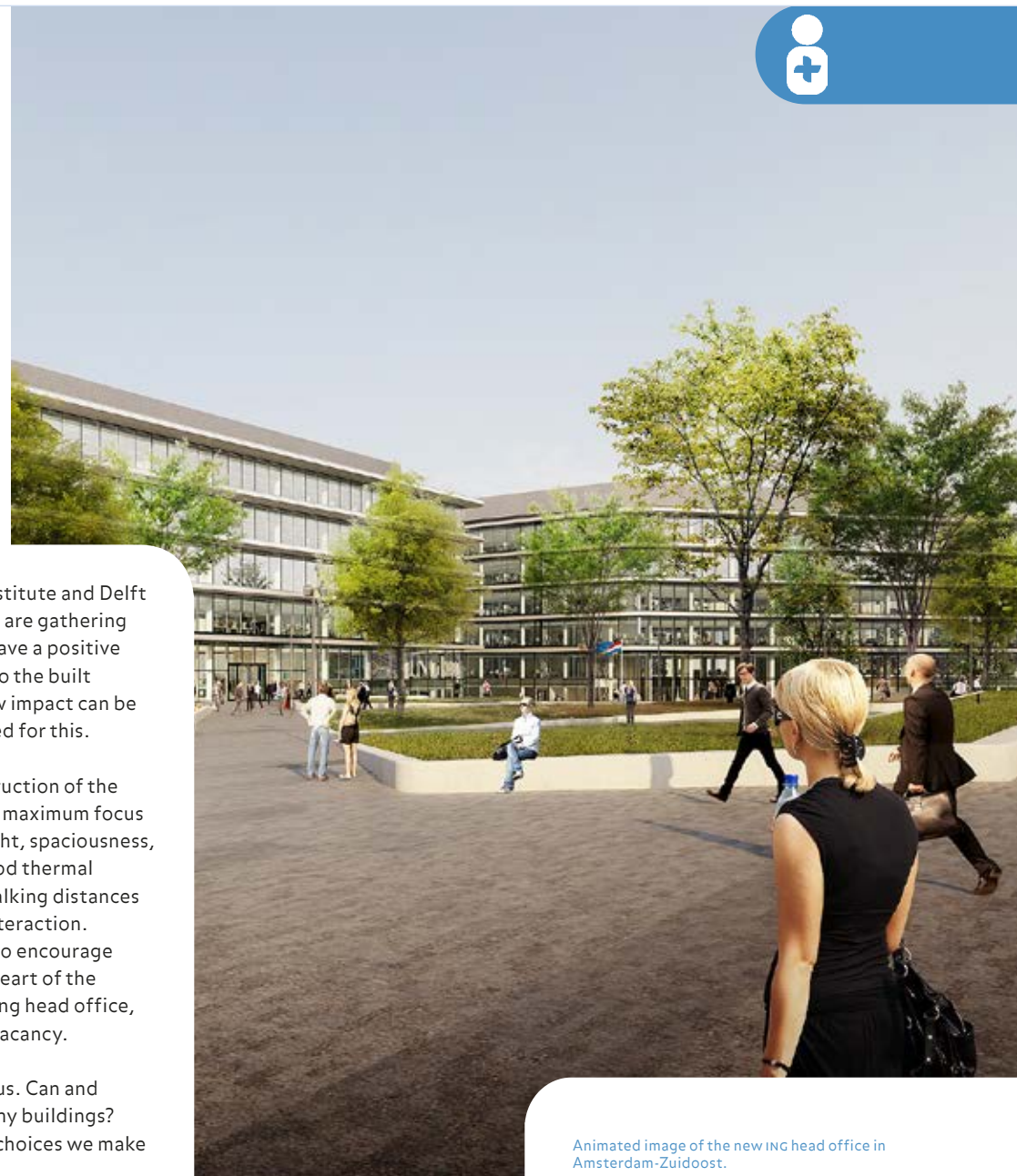
We know that as a construction company we can have an impact on people's health and safety, given that we are involved in building their living environment every day. This is why we are committed to research into healthy buildings. We dream of a built environment in which people can live longer, healthier lives. Our long-term goal is a new standard for healthy homes. In 2017 we started to develop a new housing concept with particular emphasis on sustainability, circularity and health.

First we need to get a sense of the extent and scope of our impact on health. We work with various knowledge

institutes, such as the WELL Building Institute and Delft University of Technology. Together we are gathering scientific evidence for measures that have a positive impact on people's health, in relation to the built environment. We are also studying how impact can be measured and what tools are best suited for this.

In 2017 work commenced on the construction of the new ING head office. The design places maximum focus on user wellbeing with plenty of daylight, spaciousness, contact with the outside world and good thermal comfort. The efficient design keeps walking distances short which stimulates spontaneous interaction. The central atriums include platforms to encourage spontaneous encounters in the social heart of the building. We have purchased the existing head office, which will be redeveloped to prevent vacancy.

This ambition also poses dilemmas for us. Can and should we take responsibility for healthy buildings? How do we scientifically underpin the choices we make in this regard?



Animated image of the new ING head office in Amsterdam-Zuidoost.

Health and wellbeing – Safety

We make no concessions to safety

We work safely or not at all. We will always keep on repeating this message. Safe working means more than just complying with legislation and regulations: it is a culture.

Working on this culture is a process of growth that takes several years. We will only have succeeded once we are in constant dialogue about safer working and are consistently taking accident prevention measures that have demonstrable results. Our policy is aimed at reinforcing our culture in various ways, for example through good training of our safety professionals, our wave (Wees Alert! Veiligheid Eerst! – Be Alert! Safety First!) safety programme and the annual VolkerWessels Safety Day.

New measures

We must always maintain a sharp focus on our way of working. The fact that we have been using a work method for years does not mean that there is not a better or more logical way.

For example in the past year we worked with BAM to establish a new guideline for the safe transportation of digging buckets. In practice this was not always done as it should have been. The swinging or dropping of these heavy buckets can result in fatal accidents or other serious injuries. The new guideline provides instructions to prevent this, for example by making an extra journey back and forth.

The guideline was established in collaboration with the operators of the excavators. The guideline has been adopted by the Safety in Construction Governance Code, an initiative in our sector aimed at facilitating uniform rules, guidelines and working methods in order to enhance the safety culture across the chain.

The guideline came into force across the entire sector on 1 September 2017.

The three focus areas

Developing the safety culture in our organisation takes time. And so it should. Improvement processes are done one step at a time. We believe we are moving in the right

Safety rules



Use the right personal protection equipment (PPE)



Make sure the building site is safely cordoned off



Use the correct (approved) equipment and tools



Keep the workplace tidy



Perform an LMRA (Last-Minute Risk Analysis)



Do not work or drive under the influence of alcohol and/or drugs



Do not smoke outside the designated areas

Safety values

Core value

Safety	I work safely or not at all
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Values

Consistency	Safety is part of everything we do
Responsibility	I am responsible for my own safety and that of others
Willingness to learn	I want to learn from accidents and near misses
Openness	I alert others to unsafe behaviour and safety issues
Action	I put a stop to unsafe working, if necessary I down tools
Respect	I accept that others alert me to safety issues
Honesty	I report all accidents and near misses

direction, but we could and should do better. We devote a lot of time to three focus areas:

- Awareness of how we do our work
- Reporting accidents and near misses
- Sector-wide cooperation with colleagues, subcontractors and suppliers

Training

Training our safety experts is a priority. They help our people in assessing risks. In the past year 77 of the 95 safety experts received training in how to conduct risk assessments, as is required during a Task Risk Assessment. In 2018 we expect to train 10 safety experts



At our safety conference in December 2017 we worked on the future of our safety policy.

in supervising culture change. This will mainly concern change processes related to attitude and behaviour, and the motives and obstacles that come into play.

Annual Safety Day

An important aspect of our policy is the annual Safety Day, which is organised by the Safety Platform in March. In 2017 the topic was 'Risk awareness at work'.

We worked with employees to list the ten most common safety risks that we encounter in our work. A poster listing these was distributed to all companies in the group.

In addition we devoted extra attention to the safety risks 'working at height' and 'vehicle accident risk at the

building site'. A different type of risk is presented by timewasters –activities that distract us from the quality of our work or from the work that really needs to be done. The timewasters hard to say no and small jobs have been included in a practical toolkit that has been distributed to staff.

Reporting made easier

In 2017 we worked on the WAVE app, an application for reporting accidents, near misses and unsafe situations. The app was launched at the presentation of the half-year results on 30 August. All companies were given instructions to enable them to use it straight away.

The great thing about the WAVE app is that it makes reporting much easier, enabling us to analyse incidents resulting in absence from work much more rapidly. This is very important because it helps us to prevent accidents from being repeated in the future.

The WAVE app has also been available to external users since the end of 2017 and the results of workplace inspections can now also be entered.



Healthier, more productive, less stressful

Health is an increasingly important topic for VolkerWessels and therefore took centre stage in a number of innovations and projects in 2017. For example VolkerWessels is involved in developing the Rotterdamsebaan tunnel and will install features such as particulate filters. These filters will reduce particulate levels in the air in the tunnel by 50% – an important step towards healthier air. Health is also a spearhead in The Edge. One of the health features of this building realised by VolkerWessels is a system that allows employees to use an app to control the temperature in their workplace. Research has shown that this not only boosts comfort levels but also productivity, by as much as 2.1%.

Targets for 2020

- Reinforce the safety culture
- Further rollout of central registration of accidents
- Involve subcontractors in WAVE
- WAVE and Samen Slimmer Bouwen ('Building Smarter Together') as mutually reinforcing programmes
- Active cooperation to develop products arising from the Safety in Construction Governance Code



Lessons learned from accidents: WAVE Alert

By now we can state that in-depth learning from accidents is fully embedded in our organisation. In the event of serious incidents involving our own staff or employees of subcontractors an accident investigation specialist is always added to the investigation team from the company where the accident happened. The specialist helps the teams to uncover the underlying causes of the accident. They use the Tripod incident analysis method (or Tripod Beta): short and snappy formulation of the lessons learned provides focus on what could and should be done better.

If the lessons learned are also useful to other companies we issue a WAVE Alert: a request from the Safety Platform to take immediate action in relation to the risk case. The WAVE Alert is sent to all directors and safety experts in our organisation. In 2017 we issued four WAVE Alerts. One example concerned the instruction to use a

radial arm saw rather than a circular saw for cutting material such as chipboard to size.

Another alert concerned the placement of digging buckets. In addition, following investigation into an accident one of our companies decided to only allow access to building sites to machinery with 360-degree vision and equipped with vehicle reversing alarms. This guideline has also been adopted by the Safety in Construction Governance Code.

While we believe it is very important to take a positive stance, sometimes it is alright for the message to be confrontational. This is the case with a film we made in which an employee talks about the accident that happened to him in February 2017.

Training our safety experts is a priority

Safety Ladder

The Safety Ladder is becoming increasingly important in the market. The tool provides an insight into the level of safety awareness at work and helps raise awareness at our own operations, our subcontractors and our suppliers. It is managed by the Netherlands Standardisation Institute NEN, an independent foundation. A major client will ask their contractors to apply the Safety Ladder, while the Safety in Construction Governance Code is also encouraging clients to use the Safety Ladder as a selection criterion from 2020.

The Safety Ladder helps us to further professionalise our safety culture and that of our subcontractors and suppliers. The Safety Ladder has been the go-to tool within our Infrastructure segment for some time. Several of our companies already have safety ladder certification. In 2017 we performed a pilot audit at three companies in the Construction & Real Estate Development segment and at one company in the Energy & Telecom Infrastructure segment. We took a baseline measurement and identified specific points to follow up. This will result in more companies being certified.

Safety for all in the chain

In the past year, based on the Safety in Construction Governance Code, we collaborated on the further development of the Generic Site Safety Instructions, a uniform set of standard safety instructions applicable to all building sites, projects and companies. It is expected to be ready in early 2018. In addition as mentioned earlier we worked on establishing a number of official best practices for 360-degree vision and vehicle reversing alarms and the safe transportation of digging buckets.

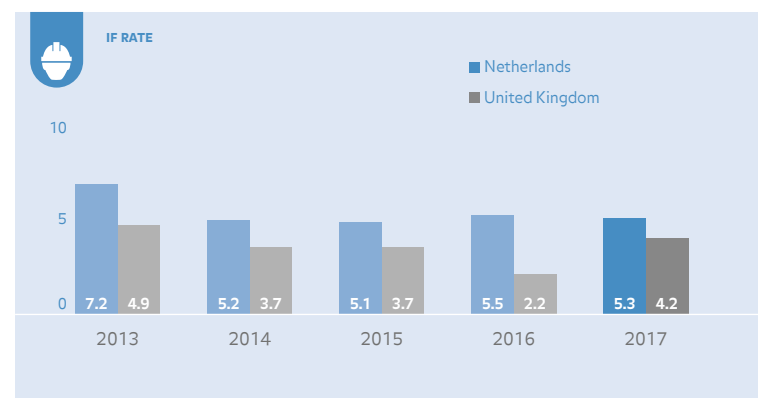
A lot of our work involves subcontractors and so it is important that they too are structurally provided with information on our guidelines and expectations with regard to safety. There is still room for improvement here, given for example that safety is not yet a standard criterion in the selection of and procurement from subcontractors. The discussion about the importance of and compliance with our safety rules and values needs to take place even more often, with particular focus on our feedback regarding safe and unsafe behaviour. Mutual agreement and understanding on this are essential. We already provide clear instructions for the commencement of the work, which is just as important as close supervision of the work.

In the year under review we were not yet able to make any progress on a dashboard for subcontractors. It is important to us that they also gain an insight into their safety performance. We are going to make a start on this in 2018.

Monitoring

Besides monitoring the reported situations and accidents and near misses using the WAVE app we analyse the results centrally. It is important that the figures are interpreted accurately. But demonstrating the impact of our work in terms of behaviour and culture is tricky. Eventually we should be able to see this reflected clearly in the figures.

The IF rate in 2017 was 5.3, slightly lower compared to 2016 and a break in the slight upward trend of recent years. It is too soon to speak of a downward trend. We aim to reduce the indicator towards the sector average of 4. The drop is the result of the constant focus on the topic of safety at the annual Safety Day, the quarterly sessions of the Management Board and the companies and the many intranet publications. The drop can also be explained by the consistent



“I really value the open and transparent cooperation. VolkerWessels and TenneT should **keep on challenging each other** to achieve a safe workspace and the shared goal of zero accidents.”

Ben Voorhorst
COO of TenneT





In August 2017 we laid the first-ever surface made from 100% recycled asphalt in a lane for motorised traffic in Ouderkerk aan den IJssel.

conduct of in-depth investigations into the serious incidents at VolkerWessels. This creates a learning culture which is essential to the prevention of accidents. In 2017 there were 129 accidents resulting in absence from work at VolkerWessels in the Netherlands, with falling from a height being a particularly prevalent cause, which is why 'working at height' has been chosen as the subject for the 2018 Safety Day. Finally the figures show that the average number of absence days for each accident is 35. We find this unsatisfactory. The IF rate for the United Kingdom rose, mainly due to an increase in the number of accidents resulting in absence (20) compared to 2016 (10). This is the highest number in the last four years and is hence a point for attention. We registered a fall in the average number of absence days as a result of an accident, from 52 in 2016 to 22 in 2017.

Responsibilities

Led by the Management Board the Safety Platform is responsible for the further development and implementation of the safety policy and the WAVE programme. Safety is a standard item on the agenda for all management meetings. The safety figures and the safety policy are also standard agenda items at the quarterly meetings between the Management Board and the boards of the operating companies, at which reasons behind and measures for the improvement of the safety performance are discussed. Safety, like the core values of integrity and sustainability, is an integral element of the remuneration of the management and the boards.

Highlights of 2017

- Our guideline for the safe transportation of digging buckets is adopted across the sector
- Delivery of WAVE app for easy reporting of accidents, near misses and unsafe situations
- Successful annual Safety Day: Staff helped identify 10 most frequent safety risks
- Pilot audits for Safety Ladder certification at our companies in the Construction & Real Estate Development and Energy & Telecom Infrastructure segments

Challenges in 2017

- Engaging in dialogue with and giving feedback to our subcontractors
- Reinforcing the safety culture
- Making the impact of efforts in the areas of behaviour and culture measurable

Action items for 2018

- Further roll-out of WAVE app and in-depth investigation of serious accidents resulting in absence
- Provide training to around 10 internal safety experts in supervising culture change
- Develop dashboard to raise visibility of safety performance of subcontractors
- Increase number of companies with certification on the Safety Ladder

“We want to **build** a green living environment with a **healthy ecosystem**”

The Watervilla Friese Meren project is located on the Tjeukemeer lake in the province of Friesland. Designed with thatched roofs and weathered brickwork to harmonise with the natural environment, the water villas were delivered in 2017.

Natural environment

Towards a circular, climate neutral economy that contributes to healthy ecosystems

Our natural environment is under great pressure from factors such as climate change, the exhaustion of scarce resources and the loss of biodiversity. VolkerWessels strives to find solutions to these problems.

Our current consumption patterns are no longer sustainable. A healthy natural environment is a prerequisite for our quality of life and that of future generations. Enhancing nature value, developing renewable energy technologies and finding a solution to the exhaustion of resources are therefore of the essence.

There are opportunities for the built environment, for example in facilitating the energy transition or the transformation to a circular economy. By paying attention to nature-inclusive, energy-neutral and circular construction we can make a positive contribution to solving these societal issues.

We want to build a green living environment with a healthy ecosystem. We want to achieve positive effects by taking the natural environment into account in our designs, by taking additional measures to promote biodiversity and by using natural materials. We are contributing to the transition from a linear to a circular

economy, by high-grade recycling of waste and minimising the use of primary resources and materials.

In 2017 we put this into practice by investing in the development of the Madaster Material Passport. Giving the materials in a real estate object an identity, including information about their value, represents an important first step towards a circular economy.



In 2017 we built the first entirely prefab roundabout (also called 'protonde' in Dutch) in Ermelo. Thanks to its design, featuring modular concrete elements, we were able to complete the roundabout in two days.

Changing the way we think about raw materials

The construction sector is still too reliant on primary resources. The Dutch government has therefore made it a priority to make the construction and real estate sector more sustainable. VolkerWessels is contributing to the transition to a circular economy.

In order to achieve this the built environment needs to be seen not as a source of building waste but rather as a resources bank full of valuable materials. In January 2017 we signed the National Raw Materials Agreement to work on this joint task. In addition we are the only construction group involved in developing the Dutch transition agenda towards a circular construction economy, in the context of the government-wide programme Netherlands Circular in 2050. VolkerWessels is part of the transition team for the construction sector with the aim of contributing towards the practical implementation of the Raw Materials Agreement.

Once we are easily able to trace raw materials in our built environment and know what the residual value of released materials is, then what used to be waste has now become a resource. This is the idea behind our involvement in developing the Madaster Material Passport.

Material Passport

By documenting materials in the design phase we will really be able to start reducing the use of primary

resources. We believe that recording materials in real estate objects and making circularity measurable are essential factors in the transition to a circular economy. In February 2017 VolkerWessels therefore joined the Material Passport initiative by Madaster. Madaster is an independent platform that works as a public online library of materials in the built environment. In the past year we have devoted a great deal of attention to the further development of the Madaster platform.

The Material Passport provides information on the materials used in for example a building or a bridge. Because this information gives the materials an identity the materials retain their value and become easier to recycle.

Madaster focuses on the documentation of real estate. During the year under review we made our first Material Passport for our MorgenWonen housing concept and are now working on a Material Passport for PlusWonen homes; this will be completed in 2018. We expect to provide Material Passports for several projects and buildings in 2018.

Targets for 2020

- Raise percentage of waste separated to 100% high-grade use
- Complete reuse in high-grade applications: 97% recycling
- 25% reduction in waste for disposal for each euro of revenue
- Reduction in procurement of resources
 - 25% reduction in timber procured
 - 25% reduction in steel procured
 - 25% reduction in concrete procured
 - 10% reduction in asphalt raw materials procured
 - 100% sustainable timber procurement

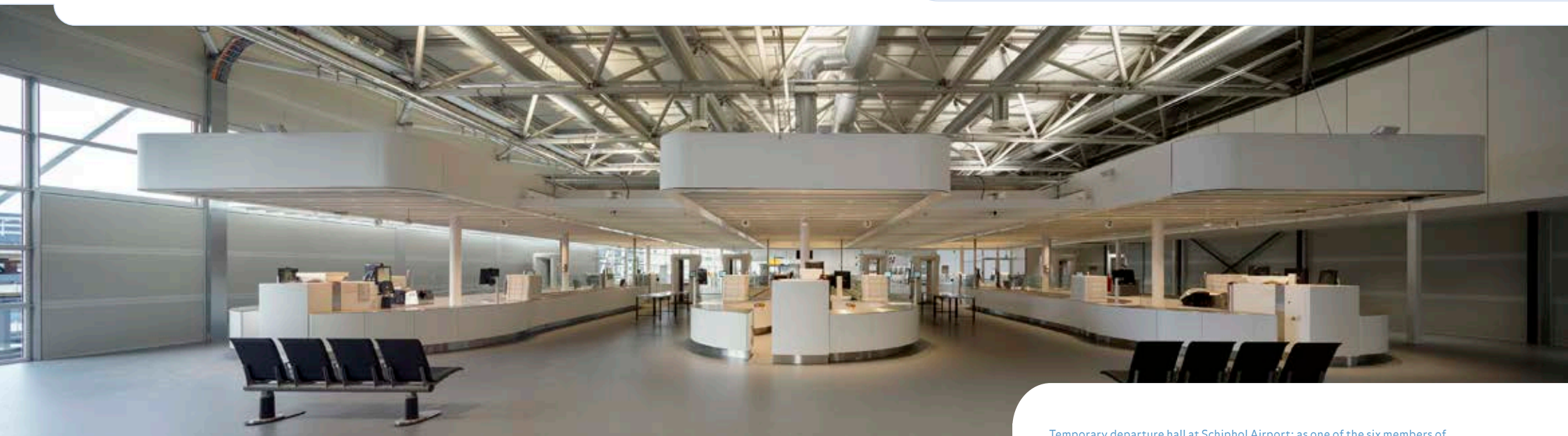


We are helping to develop Material Passports for infrastructure objects. In 2017 we started exploring and testing a Material Passport for a tunnel renovation project commissioned by Schiphol airport. We expect to deliver a version based on this design in the spring of 2018. Once the tunnel is finished in 2019 an 'as built' version will be made.

Circular designs

Our designs are getting smarter all the time, focusing not only on recycling but also on dismantlement or being based on modular or adaptive principles.

An example of a modular design is the first entirely prefab roundabout we built in Ermelo. This pilot project was the starting point for the further development of modular roundabouts. Our objective is to develop a



Temporary departure hall at Schiphol Airport: as one of the six members of the construction team VolkerWessels was responsible for coordinating design, planning, safety and community engagement.

roundabout that can be moved to another location and in which individual elements can be replaced. The modular design also meant we could build the roundabout quickly. Normally it takes four to eight weeks to build a roundabout; in Ermelo the traffic only needed to be diverted during one weekend, minimising the disruption for local residents as well as reducing CO₂ emissions.

The ample technical possibilities are showcased by the temporary departure hall for Schiphol airport, which we delivered within six months. Choosing good materials was essential to the success of the project. The departure hall will remain in place until the end of 2019 and is a modular product in its own right. The sections are easy to dismantle after use and many of the materials can be recycled.

Another design we are proud of is the now Building we delivered at Park 20|20 at Hoofddorp near Amsterdam. The building was designed with dismantlement in mind. A conscious choice was made to use natural materials, with wood for example being used in the main load-bearing structure. In addition the green roofs and facades and interior materials have been chosen in such a way that they contribute to a pleasant and healthy work environment.

Working together on further research and development

The transition to a circular economy requires a great deal of cooperation with other parties on development, research and testing. We already have the techniques for high-grade reuse. But the development of new circular concepts also requires a new type of organisation involving more intense cooperation with other parties both in and outside the chain. For example we have seen it become increasingly important to use

the expertise of our suppliers in the initial phase of projects.

We sought close cooperation with parties including the municipality of Kerkrade for the development of the Bleijerheide area in the southern Dutch province of Limburg. Three complete living units were lifted from an apartment building. We will use the sections that have been lifted out along with other demolition material to create a show building, which will be delivered in early 2018. The project will demonstrate whether reusing the units and the demolition materials released is worthwhile, and whether large-scale recycling of such living units is possible.

Our ambition is to take circularity in the infrastructure sector to a high level. In 2016 we launched a unique initiative to build a circular viaduct. This means that instead of destroying of all the necessary materials

when the viaduct reaches the end of its lifespan, they are reused. This is taken into consideration right from the design stage and can be achieved by designing in such a way that objects can be wholly or partially reused elsewhere, or by using natural materials which can be fully reabsorbed into the biological cycle. In 2017 we took major steps towards realising the viaduct, which will consist of individual modular building blocks that are completely reusable over several lifecycles. September saw the official launch of the Circular Design Consortium, which comprises VolkerWessels, the Dutch department of public works, chain partners and knowledge institutes. Construction work on the first circular viaduct in the Netherlands will commence in 2018.

Every innovative concept has to go through several testing stages before it can be approved according to the standards and requirements. We have been working on the development of the PlasticRoad for some time.

In the past year we had to devote a lot of attention to all the technological, environmental and safety requirements. In 2017 we installed a short stretch of plastic cycle path track on which to conduct tests. We have now reached the point where we are ready to realise a pilot road in early 2018.

Bio-based materials

Building materials nowadays are increasingly about the use of bio-based materials. Advantages of these renewable materials include avoiding the exhaustion of scarce raw materials and lower CO₂ emissions during extraction and production.

An example is one of our noise-reducing asphalt mixes that contains bio-based bitumen. In addition to cutting noise levels the innovative surface structure has the effect of lowering rolling resistance on the roads and reducing carbon emissions. Another example of highly effective innovation is the GeoWall, a simple technique

that involves using dredged material from ditches and canals to create waterbank protection.

The use of bio-based materials is also on the rise in the built environment. Launched in 2016, our ZuiverWonen housing concept uses a high proportion of natural materials such as wood, flax fibre and thatch. Construction work on the first homes commenced in Ter Aar in 2017, which are scheduled for delivery in January 2018. Another 22 are already planned for later in 2018.

Another example of an innovative concept using natural raw materials is circular water treatment.

Our Biomakerij project is based on a closed biological cycle for the purification of wastewater. We are building the first one in the Netherlands at a Trappist abbey in Berkel-Enschot. Wastewater from the abbey will be purified by organic ornamental plants in a greenhouse containing microorganisms. Installation is taking place on-site and all the raw materials will be completely reused.

The installation of the Biomakerij, which is based on technology developed by Hungarian firm BioPolus, will reduce the amount of wastewater produced by the abbey to zero. Prior to the installation of the Biomakerij the abbey produced 3,400 PUS (pollution units) per annum. Each pollution unit equates to a cost of €48.48 for processing the wastewater. The fact that the abbey is no longer discharging wastewater will save the local government an annual €164,832 in purification charges.

Examining our own use of resources

The construction sector uses large quantities of primary resources. We take our role in the various chains seriously and are helping to make them more sustainable. Our four main resources are concrete, timber, steel and asphalt.

“Real estate is simply a collection of real materials. Madaster, the materials register”

Thomas Rau
Madaster initiative-taker



Making concrete more sustainable

Making concrete more sustainable has long been a priority in the Netherlands. VolkerWessels is a signatory to various covenants. Through our involvement in the Green Deal on Concrete we are participating in the establishment of a national concrete agreement.

cost indicator. We are working towards setting an upper and lower limit for the use of concrete granulate. Accepting a lower limit enables us to achieve a more targeted focus on the reuse percentage. The next step is to challenge suppliers to include these mixes in their product range.

Aiming high in the National Concrete Agreement

Various experts from our organisation are involved in the negotiations aimed at reaching a chain agreement. Our two objectives are to secure a highly ambitious agreement and as much support as possible in the chain.

We also want to help realise ambitions at a regional level. In January two of our infra companies signed the 'Concrete in a circular economy' covenant. We worked with the City of Utrecht and other parties on this to set ambitious targets for the concrete chain. The result is the City of Utrecht's target of reusing 100% of the concrete granulate released from demolished buildings and infra works in the concrete chain by 2020.

Last year we took our first central measurement of the reuse percentage of in situ concrete. In 2017 the percentage of secondary material incorporated in our own concrete products was 10%. This is an increase of 5% compared to 2016, caused by a heightened focus on the use of recycled materials by both our clients and ourselves.

In order to raise this percentage we are currently working on a project-specific code list for concrete mixtures, which besides technical specifications also includes a carbon emissions indicator and environmental

Asphalt

In recent years we have worked on developing new, more sustainable types of asphalt, such as the aforementioned type with biobitumen and asphalt mixtures with the highest possible reuse percentage. In Ouderkerk aan den IJssel we collaborated with the local district water board to build a 700-metre long pilot road made from 100% recycled asphalt, including the road surface. This project was realised using our HERA (Highly Ecological Recycling Asphalt) system, which enables us to recycle up to 100% of old asphalt millings. This is the first time the system has been used to create a completely recycled road surface for motorised traffic. An organic substance derived from pine oil has been added to the recycled asphalt to make it equivalent to normal asphalt. The project is being monitored closely to see whether this type of asphalt can be made available on a larger scale.

Details on the percentage of reused materials in asphalt are monitored centrally in the same way as for concrete. In 2017 the percentage was stable compared to 2016: 41%.

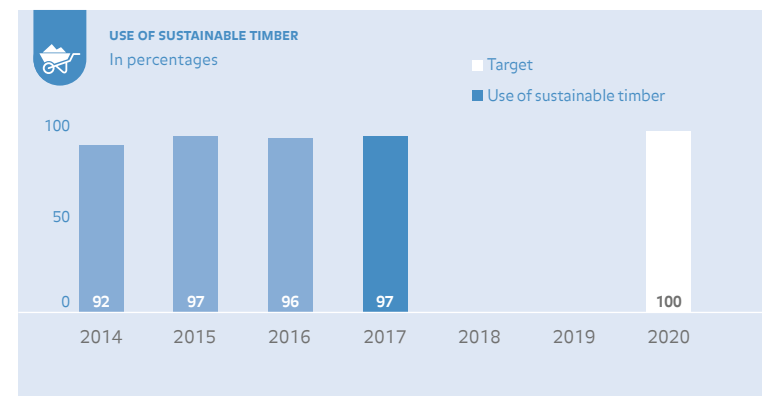
Timber as a primary resource

Wooden structures are increasingly being used as a sustainable alternative to concrete and steel. The Finch Buildings wooden living modules are an example of this. In 2017 we delivered 16 of these studio homes in Leiden. The studio homes are a good example of how we move with the market. In addition to using timber and applying modular principles we are responding to the

growing demand for smaller homes in the Netherlands as well as meeting the need for temporary housing.

As a partner of FSC Nederland's Construction and Wood Covenant, VolkerWessels aims to use sustainable timber wherever possible. The FSC system promotes responsible management of the world's forests to ensure their preservation for the planet. In 2017 individual development companies in the construction and real estate segment were awarded FSC certificates of their own, in addition to the existing certificates for the sector. Furthermore in 2017 we achieved second place in the Dutch Forest 50 ranking of companies that purchase and use sustainable timber and the extent to which they communicate on the importance of sustainable timber. We have been in the top three for several years now.

A total of 97% of our timber was sustainably procured in 2017, up 1 percentage point compared to 2016. The result is in line with the target we have set ourselves for 2020.

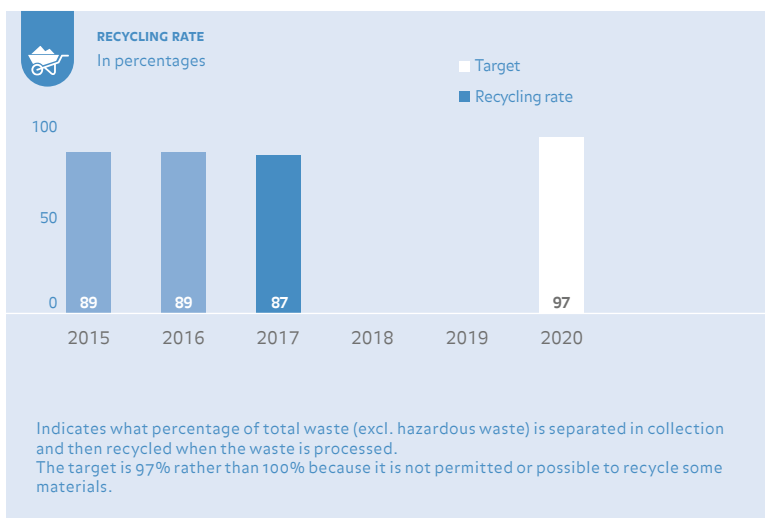


Recycling methodology

In the past year we continued to work on the central targets relating to the share of secondary materials in the resources we use. The KPIs formulated in 2016 for the recycling percentages for concrete and asphalt give us insight and therefore handles for providing more direction. For concrete, the calculation methodology has been documented and approved by KPMG. The KPI secondary material in concrete has therefore been added to the assurance scope in 2017. We have not yet managed to do the same for asphalt.

Our own waste

Amid all the developments in the area of circular design and innovative solutions it is important that we continue to focus on good waste processing. Simply because a great many waste streams are still being released every day. How do we ensure that as little of this waste as possible ends up in the incinerators?



Waste containers are usually emptied at fixed times. This means that some containers are too full for too long, with the risk of the waste littering the surrounding area. Three of our infra companies have launched a pilot for a maintenance project in Buren that involves fitting fill rate sensors in the lids of the waste containers. The sensor indicates when the container is full, resulting in a more efficient way of working and a clean environment. Similar smart maintenance techniques are also being developed at Park Strijp-S in Eindhoven. VR technologies and autonomously communicating objects can help make waste management more efficient.

VandeBouwplaats ('From the building site'), another successful initiative, was made a new private limited company on 1 September 2017. This is the perfect example of the circular economy of the future: a small initiative that has grown into a business. VanDeBouwplaats involves taking residual products that come from the building site as waste and making them into new products. An example of residual waste is old work clothing, which is used to make waste bags for use in cars.

Over the past years we have seen a steady fall in our waste separation rate and this trend continued in 2017. Effective separation of the waste released from our building sites remains a major challenge. In the year under review we chose to change how we define our separation rate. The commercial waste category now comes under unseparated waste. This is because this waste, which is largely generated by our offices, is in many cases unsorted. The new change provides a more realistic picture of our actual separation rate. In so doing we want to encourage our companies to adopt waste separation as standard practice at the office sites as well. This has led to an even sharper fall in our waste separation rate, to 53% (56% under the old definition). This is the lowest rate ever and we are not satisfied with

it. The figures show that we must sharpen our focus on waste separation. This is a priority in 2018. Despite the change in the definition we are retaining our waste separation target for 2020 as we believe that it should be ambitious.

Fill sensors in waste containers help towards more efficient waste management

The total weight of waste in the Netherlands increased by around 10% in 2017 compared to the previous year. The increase was mainly attributable to our Construction and Real Estate Development companies, with a 20% increase in the volume of waste in this segment. The waste streams of building and demolition waste and rubble in particular rose sharply. This was due to an increase in the type of activities that generates these waste streams, such as demolition for newbuild and renovation projects. In addition the German office of one of our companies was included in our scope for the first time this year. The volume of waste in the United Kingdom was in line with previous years and lower compared to 2016. This was because of a reduction in ground engineering work on projects, which accounts for a very large share of the waste in the United Kingdom.

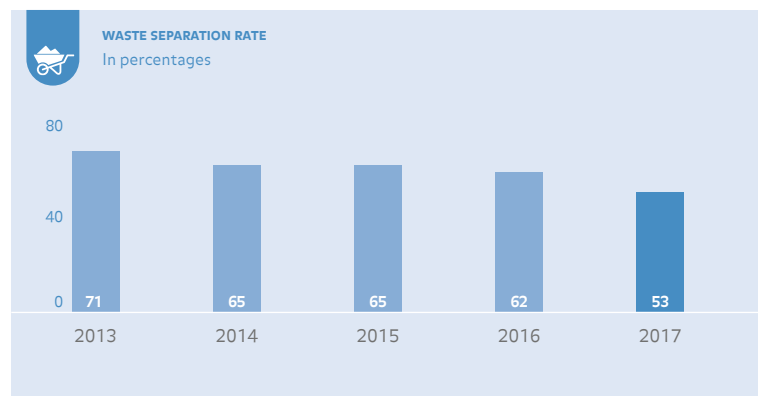
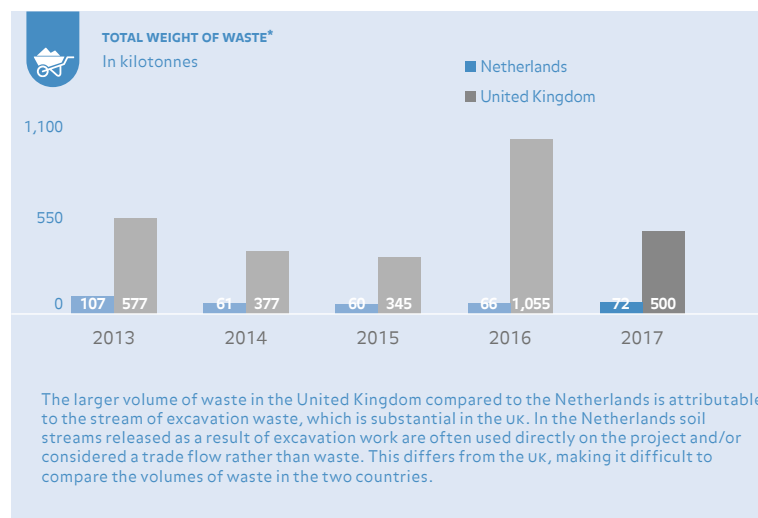
We want as little waste as possible to end up in the incinerators. The recycling rate is an important indicator because it shows that the waste is processed. Recycling of resources avoids incinerating waste. This reduces CO₂ emissions and prevents materials being lost. Most recycling is done by our waste-processing parties. In 2017 the recycling rate was 87%. The drop in the indicator was the result of poorer waste separation.

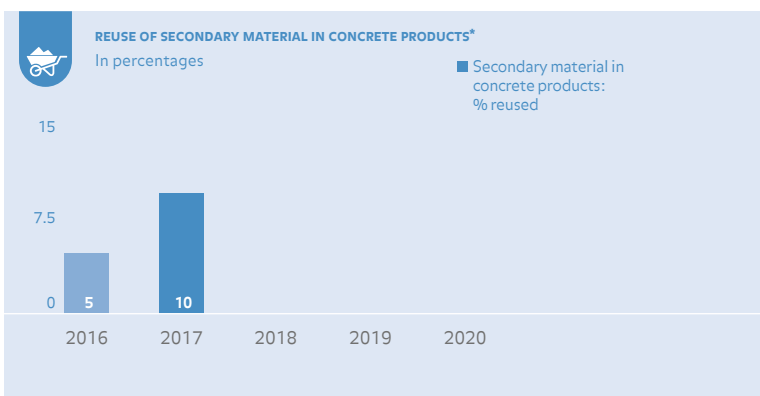


Drilling system installed at greenhouse farming company GreenBrothers in Zevenbergen. The aubergine farm is supplied with sustainable energy in the form of low temperature geothermal heat – a first!

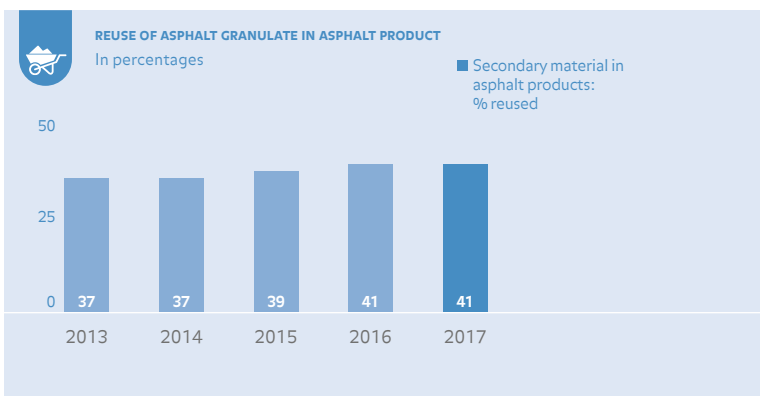
Responsibilities

Given the great diversity in both materials used and residual streams the knowledge with regard to optimum use and reuse of resources resides with our companies. At group level we have set central targets for our four main resources (timber, concrete, steel and asphalt).





* Contains some of the activities of Van Hattum & Blankevoort, for further details please refer to the 'About this report' section.



Companies that use significant quantities of these resources must comply with these targets. They are also responsible for fleshing out the measures, entering into partnerships and developing innovations that contribute to hitting our targets. They do so in regular consultation with the CSR department and the various suppliers.

We have central framework agreements with waste processors which set out agreements on monitoring and processing of waste streams, for example with regard to the high-grade reuse of materials from the construction process wherever possible. Progress with regard to the targets for resources and waste is monitored centrally.

Our role in the FSC Covenant is implemented centrally. The contracts with our timber suppliers contain agreements with regard to the use of sustainable timber and the monitoring of our timber procurement. All our wood-processing companies are FSC/PEFC certified and monitor their own certification.

High-grade reuse of materials from the construction process

Highlights of 2017

- VolkerWessels co-founder of the new Madaster platform, delivery of first Material Passport
- Official launch of Circular Design Consortium for the construction of a circular viaduct
- Delivery of first completely prefab roundabout
- Only construction group to work on drafting Transition agenda for a circular construction economy

Challenges in 2017

- Bringing knowledge of suppliers and other chain partners in on the initial phase of projects and designs
- Raising the waste separation rate at building sites
- Time spent on required test stages and technical inspections of innovations such as the PlasticRoad

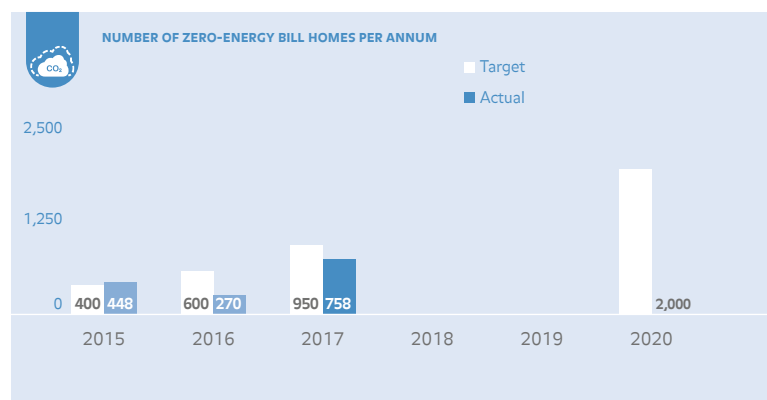
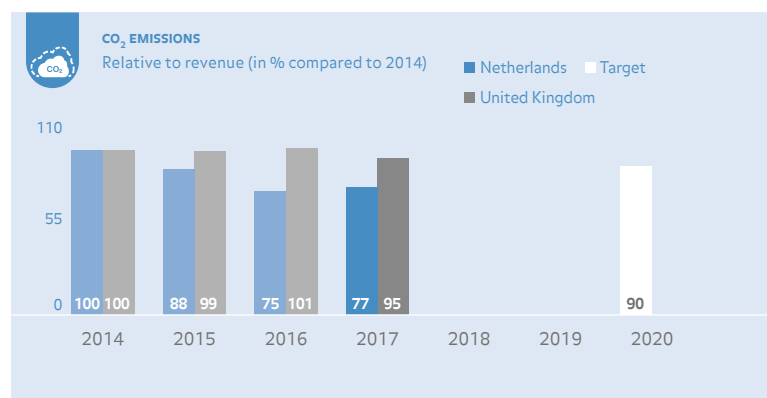
Action items for 2018

- Delivery of Material Passports for PlusWoning concept, Schiphol tunnel and many other projects and buildings
- Construction of first circular viaduct
- PlasticRoad pilot
- Launch of new circular and healthy housing concept

Natural environment – CO₂ and energy

Energy transition as a driver for sustainability

The Paris climate agreement and ambitions arising from it have a major impact on the way we organise our built environment.



The built environment accounts for a large share of total energy consumption and the associated carbon emissions. Most of these emissions are generated in the chain, as a result of the use of buildings and infrastructure and the extraction and production of the necessary resources. Our approach is therefore expressly targeted at these two sources of CO₂ emissions. In addition our own process also causes emissions, which we must seek to minimise.

We are working hard to develop sustainable and innovative solutions to reduce the energy consumption and emissions of the built environment. We do so for example by developing energy-neutral buildings, by means of new techniques for sustainable energy generation such as shallow geothermal heat, and by applying smart logistics and Smart City solutions to reduce traffic emissions. In so doing we contribute to the transition to sustainable energy and the reduction of CO₂ emissions.

Energy-generating buildings

We are pleased that we are now able to build increasing numbers of energy-neutral buildings and neighbourhoods. In the Dutch Energy Agreement the government set an objective to achieve an energy-neutral built environment by 2050. We are seeing that

Targets for 2020

- 10% CO₂ reduction per euro of revenue compared to 2014
- 5% CO₂ reduction per m³ from concrete products (Scope 3) compared to 2014
- 5% CO₂ reduction per tonne of asphalt from asphalt products (Scope 3) compared to 2014
- Level 5 on CO₂ Performance Ladder for the Construction & Real Estate Development segment



the application of energy-saving and energy-generating features is gradually becoming the norm. This development does not only apply to the Randstad conurbation but also to other regions of the country.

In more and more places in the Netherlands we are building homes according to our MorgenWonen concept. It takes us a single day to build these zero-energy bill homes. Consisting of various modular construction elements, the homes are low-maintenance. We built 411 of these homes in the year under review. Homes built according to our PlusWonen concept are also zero-energy bill and we built 160 of these in 2017. Together these homes generated 1.4 million kWh of sustainable energy in 2017, equivalent to a reduction of 751 tonnes of CO₂ emitted and direct savings of €285,500 on the residents' energy bills. We have started up a second production line for these homes, meaning that we are now able to build up to 450 of them a year. The concept has been expanded with a slightly

smaller version, aimed at housing corporations, and a version for elderly people.

In 2017 we delivered the first energy-neutral apartment complex in Limburg, comprising 28 homes: a first for the region. In case of average use these low-energy homes generate the exact amount of energy needed for heating, hot water and the operation of domestic appliances. The homes are no longer connected to the gas grid, they are all-electric.

At Strijp-S we built the first smart direct-current apartment in the Netherlands. Using direct current means that solar energy can be used or stored in batteries without the need for conversion. Furthermore the lofts will be equipped with self-learning, interactive systems that communicate with each other and with residents and ensure optimum energy management. The systems are operated by the user by means of an app. The first 14 Smart DC homes are a testing ground. Together with the residents and our collaboration

In 2017 we built 758 zero-energy bill homes

partners we are studying the new technologies and the efficiency and user-friendliness of these applications.

In the municipalities of Rijswijk and Schiedam we also worked on building energy-neutral residential areas. In Schiedam work started on the construction of 58 energy-neutral family homes out of a total of 156 homes and apartments planned in the new Park Harga. This residential area will also be 100% gas-free.

Another project we are proud of is the delivery of Westland town hall in Naaldwijk. The public and

“Living comfortably whilst retaining a healthy climate makes us feel good.”

Ria Wolsing-Ceulemans
Resident of Paleiskwartier, Belvédère, Den Bosch



administrative centre and office building was opened on 27 September. We are responsible for the design, construction, financing, and 25-year maintenance and servicing. The buildings were completed to high sustainability standards. Various techniques and materials were applied to reduce the energy requirement; for example the environment responds when people are in the rooms. Phase Change Materials technology has been used to buffer heat and cold. The technology exploits the phase changes from solid to liquid and vice versa to buffer energy.

We have a lot of knowledge aimed at making existing residential buildings more sustainable in renovation projects. In 2017 we developed a unique way of working to start off a renovation. Using a laser scan we can supply a BIM 3D model with an elaboration of the renovation plan for the preparation phase. Every year

we carry out a number of renovation projects according to the very latest standards. For example in 2017 we started on a unique project to renovate the international NATO Communications and Information Agency (NCIA) in The Hague. The new building is fully compliant with the latest requirements in terms of sustainability, energy conservation, working conditions and data security.



One of the two Westland town hall buildings delivered in Naaldwijk.

Sustainable energy systems

VolkerWessels is committed to large-scale generation of sustainable energy, for example by building all-electric homes. This means that our installation companies are increasingly invited to join the table as energy directors. Their knowledge is decisive when it comes to making homes and non-residential buildings more sustainable.

In 2017 our installation companies formed a new partnership with other large technical service providers with the aim of accelerating the energy transition. Various energy and network companies have joined,

including UNETO-VNI, the Dutch trade association for installation companies and technical retailers. The energy consumption of buildings is monitored through the development and use of energy scans. This reveals where there is potential for energy conservation, so that we can work together to take energy-saving measures. As a sector we are working on a uniform implementation of the EU Energy Efficiency Directive. Under the directive all large companies must analyse all their energy streams to help meet the 2020 European energy reduction targets.

VolkerWessels builds all-round concepts to give our clients complete peace of mind. For example the ONE (Own New Energy) sustainable energy system, of which we have been asked to install several in the past years. The system, which supplies heating and hot and cold tap water, is built on a plug & play basis in the factory and takes just one day to install. The latter feature is a real innovation given that the process previously took months. In 2017 we installed the largest system to date on the campus of Amsterdam's Vrije Universiteit.

A ONE system has also been installed in a different setting at a greenhouse farming company in Zevenbergen. Here for the first time the ONE system will be coupled with low-temperature geothermal heat. The new shallow drilling technique developed by a VolkerWessels company is a cost-effective way of extracting low-temperature geothermal heat. Installation of what will be the largest-ever hot water pumping system, will take place in January 2018.

We also work on designing, developing and improving the access to solar farms. In addition our subsidiary VolkerWind, which comprises three companies from our Infrastructure and Energy & Telecom Infrastructure segments, is involved in realising onshore wind farms. In 2017 work started on turbines in the Slufterdam area, where the old wind turbines were due for replacement. The 17 existing turbines will be replaced with 14 modern ones.

In collaboration with Allied Waters, Delft University of Technology and the kwr Watercycle Research Institute we are researching various issues surrounding sustainable energy storage. In particular in 2017 we worked on an EU-subsidised project looking at large-scale buffering of sustainably generated energy at regional level. For example how can water be used to help us store sustainable energy? Could we use hydrogen or can we store energy underground? This is a



A Geographic Information System (GIS) map. Using available open data we are able to provide clients with relevant area information. This map for example shows heat stress.

crucial missing link in the transition to a 100% sustainable energy economy.

Smart and sustainable infrastructure

The digital transformation in our sector is proceeding at a rapid pace. The latest technological solutions have been applied at Park Strijp-S, our own testing ground in Eindhoven. From smart lampposts to sound cameras and personalised signposting. Incorporating smart solutions like these in the infrastructure has a positive effect on the living environment, including in the form of CO₂ reduction.

There is huge scope for carbon reduction in relation to mobility in particular. A good example is the installation of smart traffic lights in the Schiphol area. We launched a test here in the past year involving HGVs using the 4G network to communicate with traffic lights. This prevents unnecessary braking and accelerating by the thousands of trucks that use this route every day.

This in turn reduces emissions and delays, and makes for more reliable journey times. The pilot was conducted in collaboration with the province of Noord-Holland and various haulage companies, in the context of the Dutch government's Beter Benutten ('Optimising Use') programme.

We travel a great many kilometres in order to do our work: to and from our offices and project sites, and in some cases at the project sites themselves. At the same time the roads and inner cities are getting busier all the time. Transportation to and from city-centre building works can be done a lot more efficiently by using a hub on the outskirts of town. The BouwHub ('Building Hub') we realised in Utrecht provides the solution.

By working with Dutch research institute TNO and various Universities of Applied Sciences to measure the transport movements we are able to gain an insight into how much carbon reduction we achieve by using a

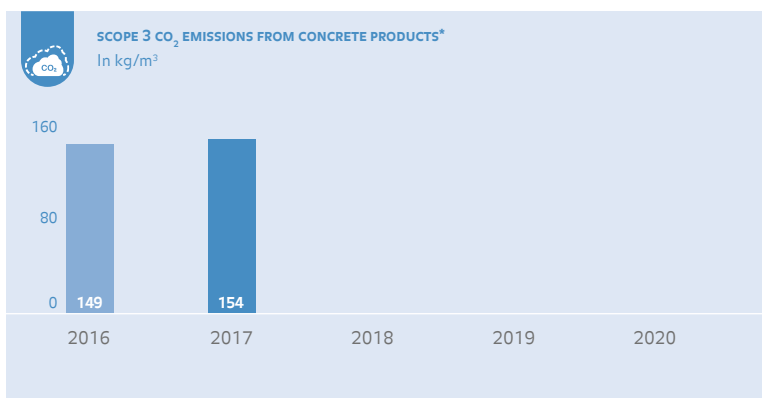


"New logistical concepts in the construction sector benefit from cooperation between businesses and governments. The open and inquiring attitude adopted by VolkerWessels is demonstrably helping to take smart building logistics in Utrecht to the next level."

Taco Jansonius
Logistics intermediary in the Utrecht area



**ANOTHER
PERSPECTIVE**



* Contains some of the activities of Van Hattum & Blankevoort, for further details please refer to the 'About this report' section.

BouwHub. In 2017 we further expanded our measurements, for example with mobility scans based on publicly available geographical data. This enables us to determine the ideal route into the city centre, avoiding busy cycle routes, bottlenecks and accident hotspots wherever possible. In future we want to make real-time data available to our lorry drivers.

In addition in 2017 we gathered more data about the projects that make use of the Hub, to deepen our current insights. This resulted in a 70% reduction in the number of journeys in the completion phase and hence a reduction in carbon emissions by our suppliers to the Hub. The reduction on journeys between the Hub and the building site was as much as 95%, thanks to smart bundling and just-in-time delivery of loads. These results show how great the scope for improvement is by using smart logistics compared to traditional ways of working.

In 2017 the BouwHub previously situated in Nieuwegein was moved to another location in Utrecht. We are pleased to now have five projects and 11 different

companies using the Hub at the same time. These are not only VolkerWessels companies but also peers and suppliers. We applaud this development because the bigger the scale, the greater the potential benefits of logistical optimisation.

We are also investing in the development of different types of sustainable asphalt mixtures. For example, we have already laid a large amount of noise-reducing asphalt that also has a lower rolling resistance. The lower rolling resistance reduces fuel consumption by the vehicles using the road by 3%, helping us to lower carbon emissions from traffic.

Extraction and production of materials

Another way of reducing emissions in the chain is by establishing a more sustainable production process for resources. Our efforts in this area are mainly focused on two streams of resources that we use a lot: concrete and asphalt.

The composition of concrete has a major impact on its ultimate CO₂ emissions. We therefore use a mixture code list for different concrete mixtures, which besides technical specifications also includes a carbon emissions indicator and environmental impact indicator. This makes it easier to opt for low-carbon mixtures. The next step is to challenge suppliers to provide concrete mixtures with lower CO₂ emissions and to take this sustainable performance into account in the procurement process. High-grade recycling of concrete and selecting sustainable types of cement can also contribute towards reducing carbon emissions in the chain.

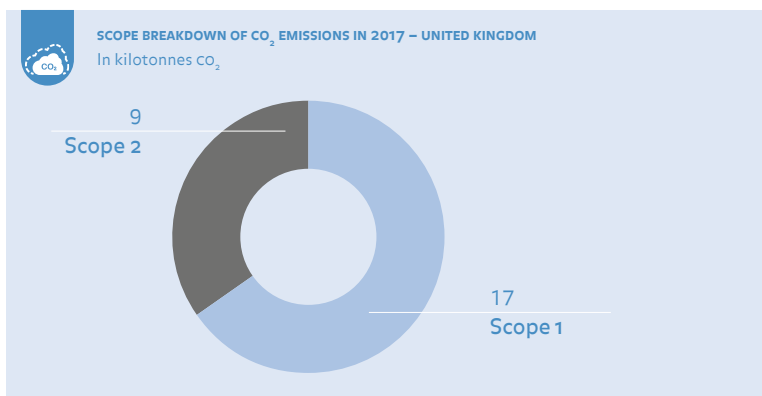
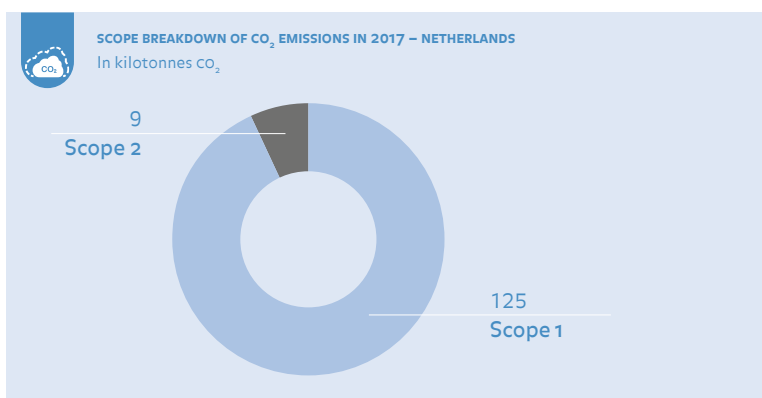
We also focus on reducing the emissions caused by asphalt, first and foremost by developing sustainable mixtures. Recycling asphalt also reduces CO₂ emissions in the chain. One of the ways we do this is by means of our HERA system, which enables a recycling level of up to

100%. In addition we have innovative mixtures which are produced and processed at lower temperatures, and we use bio-based resources. Asphalt production accounts for a significant proportion of the emissions produced, which is why we are working on a more efficient production process at our asphalt plants and why we use sustainable energy such as green electricity in our production process. All our asphalt plants have been included in the multi-year agreement since the mid 1990s. The multi-year agreement targets an annual energy efficiency improvement of 2%.

Last year's report included a new indicator for CO₂ emissions in the chain (Scope 3) for concrete production. In 2016 this equalled 149 kg CO₂ per m³. In 2017 the indicator was included in the assurance scope for the first time. This has increased the data quality for this KPI, resulting in a figure of 154 kg CO₂ per m³ of concrete for 2017. We have restated the figure for 2016, because additional data for 2016 became available in the last year. The new figure is 149 kg CO₂ per m³ (old figure: 138 kg CO₂ per m³). The increase in the Scope 3 CO₂-emissions compared to 2016 is due to a demand for a special type of concrete in a few large projects. It is too early to consider this increase a structural trend.

We have been working on quantifying emissions in the chain for asphalt for some years now using the life-cycle analysis (LCA) method. This involves using an environmental cost indicator (ECI) to analyse emissions and other environmental effects. This led to a pilot in 2016 in which we calculated the emissions resulting from asphalt production for a number of our production sites. However, collecting the right chain-specific data for the resources we use is time-consuming and this data is not always very accessible. This means that we have not been able to generate reliable figures for our entire production. Although it is our ambition to work towards externally audited results, for now this remains a bridge too far.

In both cases it has proven to be a great challenge to get hold of the right data from the chain that is necessary for a reliable and complete calculation of the relevant CO₂ emissions. We are working on raising awareness in the chain of the need for such data, for example by means of the various covenants aimed at making the concrete chain more sustainable. In the coming years this dilemma will continue to play a decisive role in how successful we are in quantifying our chain emissions.



Reducing our own CO₂ emissions

Our emissions, relative to revenue, have fallen consistently in recent years. In 2017 relative CO₂ emissions rose by 2% compared to 2016. This is still well within our target, which is positive. The increase was attributable to the Energy & Telecom Infrastructure segment, which saw an increase in fuel consumption on projects.

CO₂ emissions in the United Kingdom were lower compared to 2016. This was due to a reduction in the amount of work performed at construction sites, particularly in the Construction & Real Estate Development segment, compared to the previous year. This led to a reduction in fuel consumption by equipment in particular.

Reducing our own CO₂ emissions starts with a good understanding of the emissions, knowledge of both the reduction potential and effective measures.

Reducing emissions from equipment

All machinery and vehicles we need to do our work affect our carbon footprint. Making our equipment more sustainable is a process that will take several years, given the investment and replacement cycle. In 2017 our rail company purchased environmentally friendly rail welding vans that meet the highest environmental standard. These specially developed welding vans, which are used for welding work on the railways, are equipped with a compact, lightweight generator that supplies all the power for the welding machines and other tools.

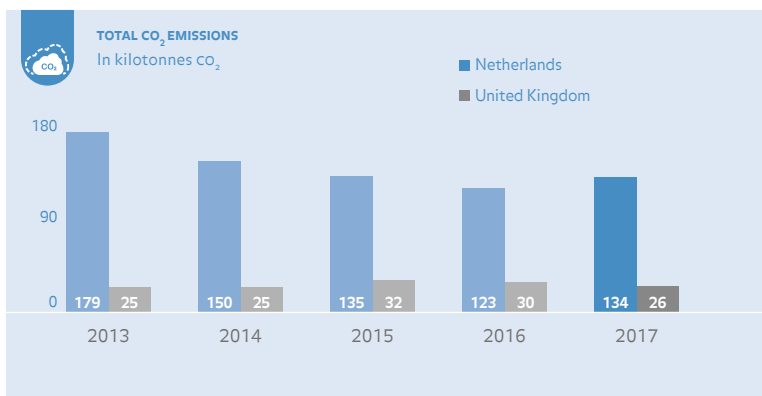
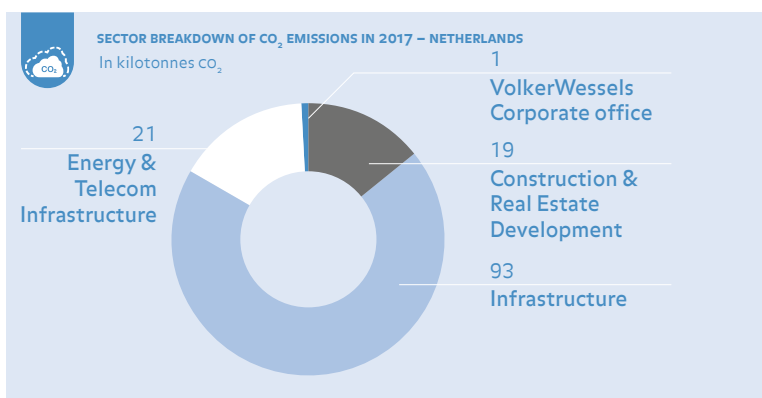
There is also scope for reducing carbon emissions while operating equipment and it is essential to be aware of this. One of our companies represents us as a participant in Het Nieuwe Draaien, a fuel-efficient way of operating equipment introduced by the independent Dutch environmental organisation Natuur & Milieu.

“Solar Power to the People,
delivering energy from the sun to
the people at the right time and
place, that’s what a completely
sustainable energy system is
about.”

Ad van Wijk
Professor at Delft University of Technology



This Green Deal involves working with other parties in the industry to measure and monitor vehicle emissions and gives us an insight into the consumption of large machinery such as excavators, tractors and bulldozers. The goal is to develop an industry benchmark and it is expected that this will be achieved in 2018. We are also providing input on how the Green Deal can be implemented effectively in tendering tools.



Measuring, monitoring and managing

All the companies report their CO₂ results on a quarterly basis. We have given more priority to managing this topic at a central level and so have expanded the reporting method as of this year to include additional statements and analysis of the figures.

The responsibility for gathering data and pursuing an active reduction policy rests with the companies themselves. Each company holds a CO₂ Aware Certificate for the CO₂ Performance Ladder, which provides us with a CO₂ management system enabling us as an organisation to engage in the ongoing cycle of insight, monitoring, reduction and improvement.

In 2017 we entered into talks with the boards of all our companies in the Construction & Real Estate

Development segment about the scope for carbon reduction, following on from the evaluation of the CO₂ Aware Certificate. The talks proved to be successful: we discovered that almost all the companies were facing the same type of questions. It also increased support for this topic.

We know that there is plenty of room for improvement with regard to knowledge sharing between the various companies within and between the various regions. This is where the biggest opportunity lies. By organising knowledge sharing about developments, appealing and proven reduction measures and contacts differently we will be able to take bigger steps to reduce CO₂ more effectively. This applies not just to CO₂, but also to other sustainability topics.

Highlights of 2017

- Installation of largest sustainable ONE system to date at the VU Campus in Amsterdam
- Delivery of first energy-neutral apartment complex in Limburg province
- Contribution to study into using water for the large-scale buffering of sustainably generated energy at regional level
- Construction of 758 zero-energy bill homes
- External assurance of CO₂ emissions in the concrete chain (Scope 3)

Challenges in 2017

- Making the best possible use of our influence in the chain to realise CO₂ reduction potential
- Availability of chain-specific data on CO₂ emissions and environmental impact of important resources such as asphalt and concrete

Action items for 2018

- Installation of largest-ever ONE system at greenhouse farming company in Zevenbergen
- Establishment of an initial benchmark for fuel consumption of large machinery within the Het Nieuwe Draaien Green Deal
- Further expansion of the use of the BouwHub at new and existing sites
- Expansion and assurance of CO₂ emissions in our resources chain (Scope 3)

Natural environment – Biodiversity

Connecting nature and the built environment

Unfortunately a focus on biodiversity and nature is still too often prompted by requirements in legislation and regulations. We are increasingly greening our designs.

Nature-inclusive construction

In organising our built environment we need a greater focus on water and natural capital. Our work always brings us into contact with nature, be it water, surface, soil or forests.

Some places in the Netherlands have seen a sharp deterioration in biodiversity, which has suffered from the construction of new residential neighbourhoods and

the expansion of urban areas over the past century. Modern houses have very few cracks and crevices, while these provide shelter and breeding space for many animals. Animals have to look for alternatives, which are becoming increasingly hard to find.

Recognising the importance of protecting biodiversity, our clients are increasingly calling for nature-inclusive construction. This means integrating nature in the

Targets for 2020

- Rollout of internal campaign to promote biodiversity
- 20 projects a year, in which we take at least two biodiversity measures
- Two inspiring projects a year



construction of homes and residential areas, but also roads and viaducts, for example by incorporating living and nesting spaces for animals on the outsides of homes or by covering buildings with vegetation.

This integration of nature in buildings does not apply only to new buildings but also to existing or even temporary buildings. For example in 2017 we first placed 12 temporary nesting boxes and a few breeding boxes for bats at a project site for housing renovation. On completion of the renovation permanent boxes were built into the walls.

Water

Given the growing demand for expertise with regard to water safety, climate-adaptive and biodiversity-promoting measures we are developing our knowledge in the area of water.

In 2017 we worked with two local district water boards and the City of Eindhoven to deploy a specially developed application on projects in order to assess flooding problems. Using publicly available data will enable us to take effective measures.

“We are looking forward to being able to use the cooperation with VolkerWessels to talk about dealing with the **dynamics of nature** and the **opportunities of new economies**, in order to develop innovative earnings models, from seaweed to algae to plants, around the world.”

Marc van Rijsselberghe:
Organic farmer and serial entrepreneur at Salt Farm Foundation



The Biomakerij was described earlier in the Resources section. This first circular water purification system incorporates a greenhouse. But we know there are a great many more possible applications for this initial concept. After all, it is all simply based on the micro-organisms which are needed to purify wastewater. We are looking into whether this can be done in a wall. This could lead to a home of the future incorporating the principles of a closed water purification system.

We are also researching possibilities for storing rainwater underground. If this becomes possible on a



HIGHLIGHTED

Demand for nature-inclusive construction is on the rise

larger scale it would boost the freshwater supply which would allow us to improve the supply of drinking water in the future. We are developing our services in the areas of water safety in the Netherlands and general supply of fresh and drinking water. In 2016 we formed a partnership with Allied Waters. In 2017 we participated in research into new types of fresh and drinking water supply in collaboration with various knowledge institutes.

FSC partner

We have been a partner of FSC Nederland's Construction and Wood Covenant for some years now. Timber production must be done in a sustainable way. We help FSC to protect tropical forests and promote responsible forestry by procuring and using FSC tropical hardwood.

VolkerWessels signs sponsorship contract with Salt Farm Foundation

In December 2017 VolkerWessels signed a cooperation agreement with Salt Farm Foundation under which the company will sponsor the foundation's research into saline agriculture. Globally 1.5 billion hectares of land has already become salinized and this area is increasing by 3 hectares every minute. Salt-affected soil is difficult to farm.

Salt Farm Texel researches and develops saline agriculture. The company is looking at whether salt-tolerant crops can be used for food production in salt-contaminated soil. In doing so the company is responding to the growing demand for food supply and the global issue of salt-affected agricultural land. Farming communities in salt-affected areas have poor food security and are often forced to migrate. If farming of salt-affected land were to become possible it would create a serious alternative for traditional agriculture in the Netherlands. Using brackish water (water with a significantly lower salt content than seawater) for irrigation would ease the pressure on the dwindling supply of fresh water.

The objective of Salt Farm Foundation is to make the knowledge of saline cultivation gleaned at the scientific test location on Texel available to farmers in other areas of the world being affected by salinisation on an open-source and not-for-profit basis. VolkerWessels believes that Salt Farm Foundation is making an essential contribution to food security and water management.



Ecologists check whether bats are using cavities in trees as roosting places. If this is the case then the tree is given protected status under the Dutch Nature Conservation Act.

Natural Captains

In 2016 we became affiliated with Natural Captains, an initiative of the Confederation of Netherlands Industry and Employers (VNO/NCW) and the Dutch national committee of the International Union for Conservation of Nature (IUCN NL) focusing on natural capital. Our involvement is centred on testing new methods for measuring biodiversity. The Natuurpunten Systeem (environmental points system), which can be used to determine the biodiversity score of a specific area, is still in its infancy. This means we are as yet unable to test the methods: the scale of our projects is too small. Once the measuring system has been developed we will be able to move on to the next step of calculating the biodiversity of small areas in urban and semi-urban surroundings.

Monitoring and steering

Biodiversity is a topic that does not yet occupy a central position in our organisation, mainly due to the specific professional knowledge it requires. Furthermore in 2017 we chose to steer our focus towards the most material topics.

We are working on sharing and disseminating knowledge within our organisation. Biodiversity will also be a part of the central communication campaign on sustainability that we will be launching in the spring of 2018.

Promoting awareness of biodiversity opportunities among our staff

Highlights of 2017

- Development of application to assess problems such as flooding and heat stress
- Research into new types of fresh and drinking water supply
- Signing of sponsor contract with the Salt Farm Foundation
- Prominent use of nature in inner-city projects such as Valley (Amsterdam Zuidas) and Nieuw Bergen (Eindhoven)

Challenges in 2017

- Awareness of opportunities to use biodiversity and nature to enhance quality of life
- Clarifying the possibilities for highly urbanised sites

Action items for 2018

- Knowledge transfer on nature-inclusive construction
- Further development of circular water purification
- Highlight biodiversity in the new internal sustainability campaign
- Use quality of life ambassadors to raise awareness, for example from the perspective of Natural Captains
- Development of a biodiversity toolbox

Work and social activities



A pleasant workplace is important. This open-plan office encourages social interaction.

“We want to be a **good employer**, both for our own people and for subcontractors and suppliers”

Work and social activities

The power of 'working together'

In addition to the income it generates work provides people with purpose, an identity and opportunities to socialise. As a major employer we have a great deal of influence on how our employees experience work.

People with more social connections consider they have a better quality of life, given that the majority of enjoyable activities relate to forms of social interaction. Our ambition is to be an 'employer of choice'. We want to be a good employer, both for our own people and for subcontractors and suppliers. But also for those for whom work is not something they can take for granted. Our organisation features a wide range of activities, which means that there are plenty of opportunities to offer such people a job.

Furthermore we see opportunities for helping to promote social participation. As a construction group we are able to organise the living environment in such a way that it encourages social interaction. We do so for example at the Strijp-S project in Eindhoven, by providing unlimited connectivity in the homes and offices. With our BouwApp ('Building app') we have

developed a platform to measure the quality of life of local residents during building projects and to inform the local community. This increases the involvement of those around us in the building process and enables us to encourage local residents to get actively involved and provide valuable input and feedback.



We help people at a disadvantage on the labour market, like Justin Smit of care organisation Baalderborg Groep pictured here, to find meaningful jobs.

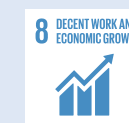
Work and social activities – Employment

Being and remaining an employer of choice

Our employees are the bedrock of our organisation. By having the best people we are able to make a difference. This is crucial in an age when the markets are changing rapidly and the world is becoming increasingly complex.

Targets for 2020

- Focus on internal succession planning
- Invest in long-term employability
- Certification on level 3 of the Inclusive Employment Performance Ladder
- Education to boost equal opportunities

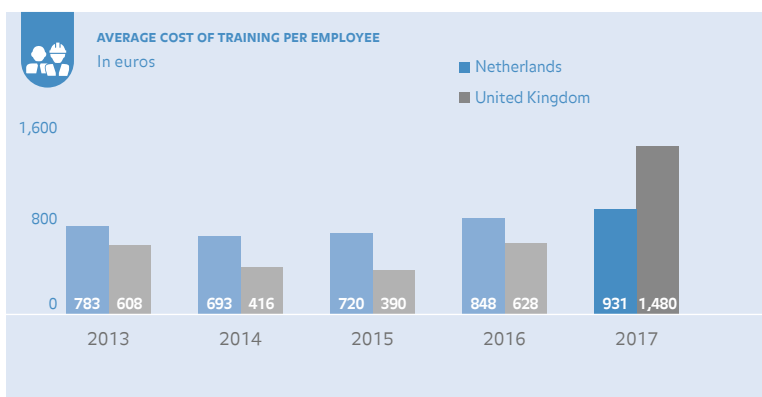
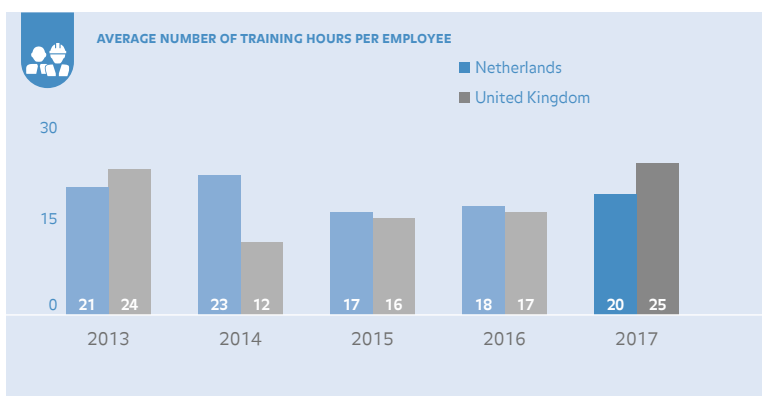


serve these stakeholders. The central HRM department is responsible at group level for defining the prerequisites for being an attractive employer and developing the strategic vision, for example by developing training sessions.

By having the best people we are able to make a difference

Being and remaining an employer of choice

The shortage of staff in our sector means that it is a challenge to find good professionals. In 2018 we will further increase our focus on labour market communication. For example we will launch a targeted search for BIM and GIS candidates at group level. By pooling our resources in this way we will improve our companies' chances. We are also working on our social media visibility.



Remaining successful

To be and remain successful we have to respond to this changing world, constantly improve ourselves and adopt a different way of working. This requires a different mindset from that of a traditional contractor. We therefore aim to be an organisation where innovations are key, where mistakes can be made and where there is the space to learn from these mistakes. It is crucial that we know our clients, suppliers and partners well. It's all about 'working together'. In order to realise this in the way we present ourselves to the market it is our ambition:

- to have the role of employer of choice: this we want to be and remain for our existing and future employees;
- to retain motivated, agile and well-trained staff for our organisation;
- to reinforce a culture that is consistent with our mindset;
- to encourage colleagues to stand up for each other and demonstrate leadership.

Responsibilities

Because we are active in many different markets it is our companies that have the most knowledge about their own market, clients and employees. And so we leave it up to our companies to work out how they can best

Furthremore we will seek more active collaboration with educational institutions including primary and secondary schools, institutes for intermediate and higher vocational education, universities and student organisations to raise enthusiasm for a technical career among future employees. These initiatives are a way of introducing them to VolkerWessels as a potential employer.

We consider it important to have diversity and a range of different cultural backgrounds in our organisation. We mean diversity in the broadest sense of the word: gender, age, education, background, skills, values, standards and beliefs. We believe in the power of teams whose members complement and make each other better.

The VolkerWessels Academy

VolkerWessels has its own training institute, the VolkerWessels Academy, which offers a range of modular training programmes and focuses on learning about VolkerWessels, project management and leadership. The training sessions were developed in-house and are given by our own VolkerWessels teachers. This gives us an edge over other parties in the market as it means our employees have access to the latest insights from the market. As a result our people remain agile and able to engage consciously with changes in the market and constant improvement of the organisation.

An example is the Good Talk training session we have been offering since 2015 aimed at coaching employees on how to conduct a good conversation. It has proved a success and so we launched a follow-up in 2017.

The VolkerWessels Academy focuses on the constant changes in the market. In 2017 all our employees in the Construction & Real Estate Development segment took part in a BIM course, learning about the BIM philosophy

“Geja helps candidates get back to work and I supervise them in the workplace together with a VolkerWessels manager. **We work together closely** to ensure we successfully meet the sROI (Social Return on Investment) requirement.”

Jeffrey Timmer
Project coordinator at Geja work projects



and working method. The four additional training sessions on the subjects of attitude, conduct and skills have been postponed. In 2018 we are introducing a Contract Management 2.0 course. After all, we want to be a leader in the area of contract forms which means we need the best contract managers in our business.

We have a vision of what leadership is and believe that our leaders and their teams are decisive for our success. We assist, coach and train our managers and executives according to this vision and make a conscious choice to do so in-company. In 2018 we are launching a new leadership course for new managers, ‘Stronger Together’.

Culture

Culture change is necessary but challenging. We are a company with a history going back more than 160 years. On the one hand we have 120 independent companies and on the other a deep-rooted organisational culture.

But we are aware that the world is changing and that we must change with it.

It is important to us that our employees conduct themselves in accordance with our core values: integrity, safety and sustainability. In light of this we have placed emphasis on various internal awareness programmes in the period 2017-2020. We invest a lot of time and effort in various communication campaigns, workshops and inspiration sessions to raise awareness of our three core values amongst our employees. We also use the Samen Slimmer Bouwen (‘Building Smarter Together’) programme, which is aimed at ongoing process improvement based on ideas from people from all parts of the organisation.

In 2018 we will be following this up with a newly developed induction course for all our employees which uses interactive methods to teach them about our core values, history and code of conduct.



New healthy head office for ING

In 2017 work commenced on the construction of the new ING head office in Amsterdam-Zuidoost. Together ING and VolkerWessels are constantly working on innovations to ensure ING is ready for the future and the ever-changing world. The existing head office building has been purchased by us for redevelopment. In this way, we prevent vacancy of the old building. ING wants the new head office to raise awareness of sustainability issues among its users. The starting point was the BREEAM-NL Excellent certificate and the ambition is to work together closely to achieve the very highest level: Outstanding. This level means placing maximum focus on the wellbeing of users and so this unusual design puts people first: not just ING's own people but also local residents and passers-by, who are welcome to drop into the Pavilion (see picture) for a coffee or a healthy lunch.

The smart design contributes to ING's corporate social responsibility practice and at the same time encourages sustainable use of the building. The new head office will be a 'healthy' building with plenty of natural light, spaciousness, contact with the outside world and good thermal comfort. It also features short walking distances. The central atriums include platforms to encourage spontaneous encounters in the social heart of the building.

The design focuses on four aspects:

- a pavilion for everyone;
- limiting the energy requirement to the actual need;
- circular construction with smart and efficient use and reuse of concrete from the old head office;
- maximum use of technology and innovations to help future-proof the building and enhance its comfort.

Leadership

The success of our company is to a large extent dependent on the conduct, values and beliefs of our leaders and managers. In light of this in 2017 we introduced a special leadership programme for our top 200 managers.

A leadership profile was drawn up for the course, with one of the most important characteristics being a strongly developed instinct for entrepreneurship. Another is a sincere focus on people. Both are necessary to maintain a sense of what is going on in the market. Our managers and leaders focus on growing and developing their team and departments.

66
We make a conscious choice
to train our people in-company

Our future managers and talented leaders are subsequently offered a leadership training course and the Management Development Course, meaning that we are working on leadership development at all levels of the organisation.

Contributing to social entrepreneurship

Work and social participation are important aspects that influence people's quality of life. But work is not something that everyone can take for granted. VolkerWessels wants to give a chance to people who are at a disadvantage on the labour market, for example people on sickness benefits, those with a physical or mental handicap or those who have been living on benefits for some time.

The topic Social Return has been attracting increasing attention in our society in recent years and this is reflected in demand from the government and from our clients. Our companies are already doing a lot in this area. We are keen to demonstrate and continue to grow in the role of social entrepreneur.

It is important to us to achieve the best possible match between a project or company and the person. Our organisation features a wide range of activities, which means that there are plenty of opportunities to offer such people a nice place to work, either at our companies or on our projects. We aim high. Our objective is to train people and give people work experience in such a way that they no longer revert to a benefits situation. In doing so we structurally increase their labour participation rate.

the man discovered that he really liked working in this sector and he was good at it. And so in the spring of 2018 he is starting a BBL vocational course in Civil Engineering.

On the Rotterdamsebaan construction project in The Hague we are working with work projects organisation GEJA and the employer service point to deploy 12 asylum seekers with a residence permit and refugees with residence status. They are being given training and placements to ensure they are properly prepared to join the Dutch labour market. Some of these people are successfully going on to work on the project while the others have taken a big step towards reducing their disadvantage on the labour market.

Programmes such as these have a big effect on society. In addition to the fact that we help candidates who participate move on a step, which means a lot to them, it also produces positive effects for our society in general. Studies have shown that people who are at a disadvantage on the labour market and are covered by the Work-incapacitated Persons (Participation) Act and are able to go back to work represent a positive

contribution of on average €35,000 per FTE according to the building block method. In the example of the Rotterdamsebaan pilot, that equates to a social value of €420,000 for 12 FTEs.

Cross-project approach

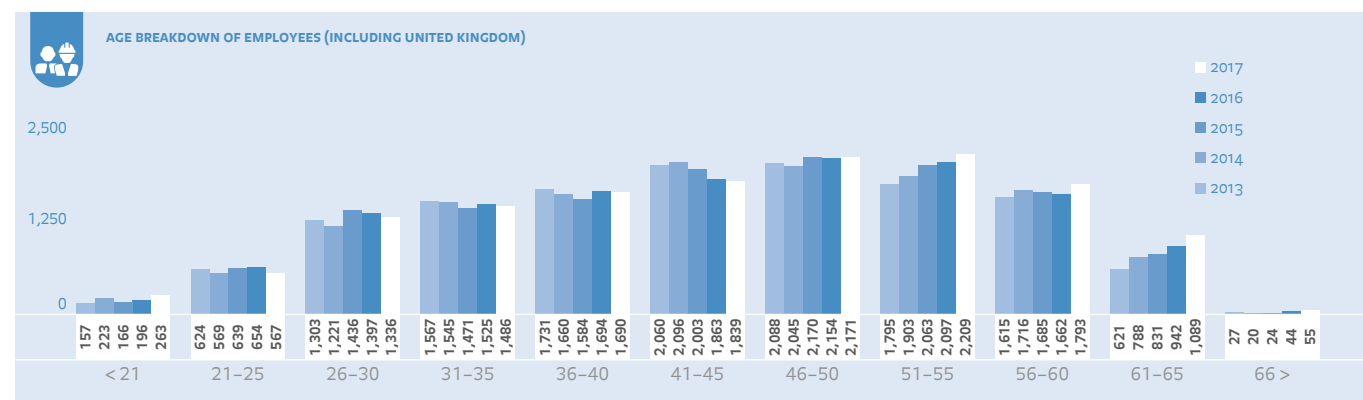
With our cross-regional and cross-project insight we are able to help clients with requests in this area. In 2016 we established a central VolkerWessels Social Return Counter which collates all information related to social enterprise.

In the past year the Counter provided a great deal of support with putting social return into practice, for example by giving advice and help on the requirements in tenders and projects in progress. The Counter gave advice on the practical implementation in tender and execution stages and held talks with clients. We are working on tools to facilitate our companies as effectively as possible. For example we have started work on a quick scan approach for the social return requirement in tenders. We will complete this in 2018.

66 Culture change is necessary but challenging

For example one of our companies works with care organisation Baalderborg Groep to employ people with an intellectual disability in the canteen and for office cleaning duties. This has proven successful, not just for the candidates, who feel valued as fully-fledged colleagues, but also for the employees who work in the building, who are very positive about their canteen staff.

A great success deserves reporting this year relating to one of our companies in the Infrastructure segment. Under good supervision a Wajonger went to work as a building site assistant on two projects (a Wajonger is someone who has had an occupational disability from a young age and therefore receives benefits.) Over time



“Genuine social enterprise only has long-term winners: the society we work in, the people who deserve a hopeful chance and inspiring prospects for our company.”

Annette Pasveer
De Bonth van Hulsten



Social Enterprise Performance Ladder

The Dutch Social Enterprise Performance Ladder (ps0) is used nationwide as a hallmark for social enterprise. Our performance in this area is expressed in a ps0 score. The ps0 methodology recognises various stages of social enterprise and stimulates their development: from the intention to do business in a more social way to frontrunner level. Organisations with a ps0 level 3 designation, the highest level, are among the frontrunners in terms of the number of jobs they provide for the target groups.

We are ambitious: our objective is to reach level 3 of the ps0 ladder by 2020. That is the highest level with a Social Return percentage of 3.7%. In 2017 we achieved a ps0 score of 2.3%. We are satisfied with this score, which was above average. We are well on our way to achieving our objective of being a frontrunner in 2020 and reaching the highest level.

In 2017 two companies were promoted to a new level on the ps0 ladder. One of our companies in the Construction & Real Estate Development segment achieved the highest level (level 3), while a company in the Infrastructure segment was certified for level 2.

Raising awareness of the topic

At the Building Holland trade fair we propagated our ambition and role as a social entrepreneur. The conference was strongly focused on technology, innovation and sustainability. As a building group we demonstrated that the social enterprise topic deserves to be given priority in our sector. We hope that we inspired our sector peers to move the topic higher up the agenda.

Organising social return is not something we can do alone. We need to get to know as many executing parties as possible which can help us to recruit and support people at a disadvantage on the labour market. Over the past year we spent a lot of time meeting new partners. We are critical before we enter into a structural partnership. A common vision on the shared objective is a prerequisite for us: to provide people with suitable work on a structural basis and not allow them to go back to relying on benefits.

A good example of a new cooperation agreement reached in 2017 is the Social Impact Factory. This is a platform that VolkerWessels can use for ‘social procurement’, helping us to meet outstanding commitments. ‘Social procurement’ means purchasing products and services from organisations that do business with a ‘social mission’, for example to work exclusively with early school leavers.



The Social Enterprise Performance Ladder (ps0) measures the way in which an organisation operates in a sustainable, more social way compared to other organisations that employ people from the social return target group. The yardstick is the weighted number of people who are at a disadvantage on the job market in relation to the total number of FTEs, expressed as a percentage in a ps0 score.

We also worked on raising awareness of the central Counter within the organisation and employees are now increasingly finding their way there. We worked on communication channels that are easily accessible by the right people within the organisation. These include:

- A website with communication material in the internal communication environment
- A promotional film about the Counter
- Giving presentations and workshops to tender managers

In 2018 the rollout of the communication will continue with a focus on sharing best practices.

Central monitoring is paying off

In 2017 we started central gathering of social return data on a quarterly basis. This gave us some valuable insights. We know which regions have the greatest demand for the mediation of people at a disadvantage on the labour market. This helps us to take a more targeted approach in these regions in looking for possibilities for suitable work. This makes the deployment of people in our company less ad hoc and more structured. In addition we have seen that it has raised awareness of this topic among our staff.

Organising the data collection is a major task. Over the past year we devoted a lot of time to setting up this reporting process. We have not yet reached the stage where we can set targets based on the figures, although that is an objective for the near future.

Highlights of 2017

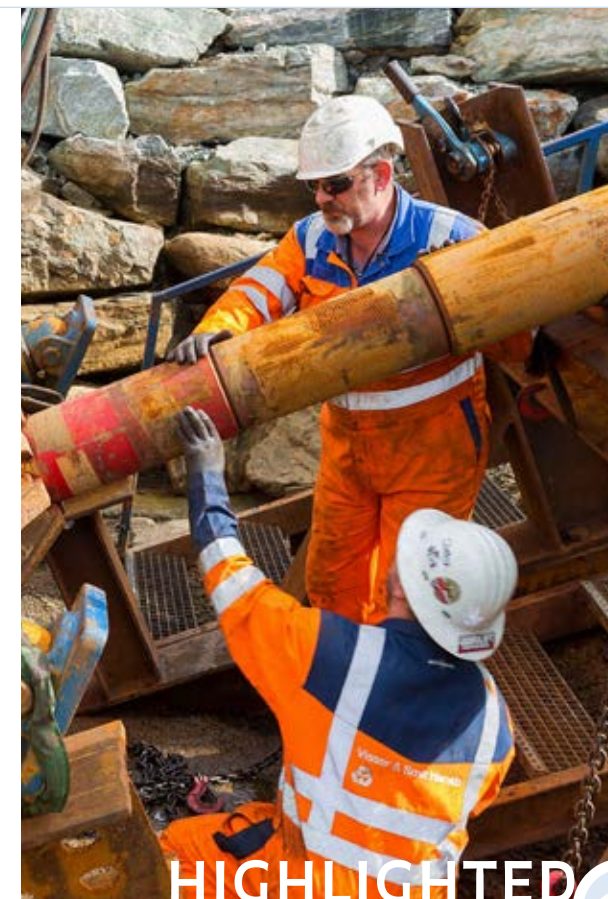
- All employees in the Construction & Real Estate Development segment took part in a BIM course
- Leadership programme launched for Top 200 managers
- Two of our companies obtained new PSO certificates, one on the highest level (3) and one on level 2
- Successful start of retraining programme for refugees with residence status on Rotterdamsebaan project

Challenges in 2017

- Group-wide awareness of opportunities that social return offers to our projects
- Attracting and retaining technical and other talents

Action items for 2018

- Focus on labour market communication
- Launch of new leadership training course for new managers and executives
- Development of quick scan on 'Social Return in tenders'
- Several knowledge-sharing sessions with project organisation to share best practices in the area of Social Return



HIGHLIGHTED

Electrification of Norwegian building site results in major CO₂ saving

New equipment can have a very positive impact on the CO₂ emissions of a building site. VolkerWessels invested in fully electric drilling equipment for the installation of cables and pipelines as an alternative to petrol-driven drilling equipment. This electric drilling equipment was deployed in Mongstad, Norway, for drilling the extremely hard surface on a long-term project. This reduced fuel consumption on the project by up to almost 70%, equivalent to a saving of 4,344 tonnes of CO₂.

A good neighbour during both preparation and execution

When we develop a new residential area or redevelop an existing area we look carefully at the direct project environment. What are the plans, the wishes and the requirements? But also: what does publicly available data tell us?

Listening ear

With so many interests in play in the highly urbanised parts of the Netherlands, realising plans is quite a task. An important voice is that of the local residents, that is, the people behind the projects. Clients and the government are increasingly focusing on involving local residents, during both the development process and the construction phase. And rightly so, in our opinion: after all, it is their living environment that we are building.

We believe that the construction sector should have a good listening ear for people. Increasingly often we are trying to give the local community a say in how their living environment is organised, both during and after construction. This gives them a greater sense of purpose.

What is more: measures that are supported by the local people can help us do our work. For example they might have good ideas about limiting disruption.

Reliable communication with local residents is an important prerequisite. Communication is no longer just a means of informing the local community. When redeveloping a street in Dordrecht we developed a special community app to communicate with local residents, which enabled us to provide them with real-time updates on plans and possible disruption.

In the past year we worked on creating a single uniform application for contact with local residents during construction works. This BouwApp ('Building app') is now ready and will be rolled out across the organisation as the standard means of communication. Access can be granted to clients and contractors but also to local and future residents. It also enables us to measure local

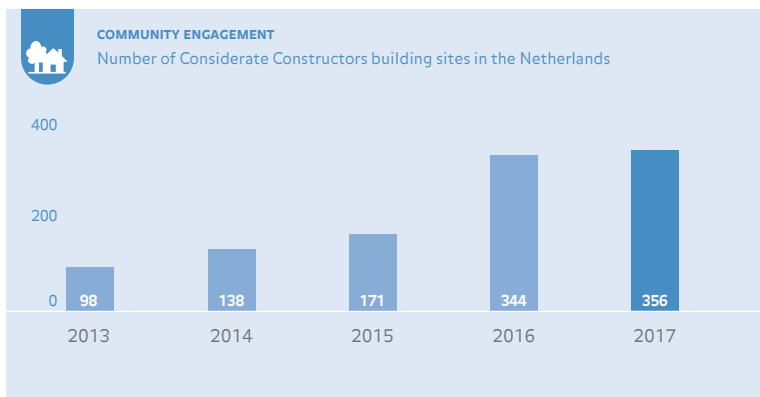
Targets for 2020

- 100% of projects must comply with Considerate Constructors guidelines
- At least 150 projects a year must be registered with Considerate Constructors
- 15 projects in which we take two measures under the Sustainable Construction Site guidelines
- 15 projects in which we take two measures from the Construction Logistics Menu



satisfaction levels, which aids our transparency towards the client. Moreover we use the information to improve our work.

Our contractors are playing a growing role in terms of community engagement as they are in direct contact with local residents. An example of successful project communication is the refurbishment of the offices of the Limburg district water board. In a personal tone the contractor provided information about the construction works, the building site and the disruption to all neighbours and parties involved. We presented the construction schedule in a simple visual, which was very well received. The project was given a Best Practice designation by Stichting Bewuste Bouwers, the considerate constructors organisation that is the initiative-taker of the certificate which assesses building sites for safety, sustainability and community engagement. The visual proved to be a simple but effective tool.



In the year under review we worked on a cycle route in a complex environment between Apeldoorn and Deventer. The route passes by two primary schools, a shopping centre and a residential neighbourhood. The contractors along with the municipality visited the schools to get the children involved in the project. The children learned about asphalt production and the activities involved in building a road.

Realistic impression thanks to virtual reality

Virtual reality (VR) is one way of showing what an area will look like in the future. The latest VR technology enables us to experience offices, homes, roads and other objects as if they were real, giving a realistic impression of our designs.

BouwHub results in a time saving of 45 minutes and less disruption in the city centre

A show home is the traditional way of displaying what a future house will look like. At an information evening about the planned recreation park Parck Kaatsheuvel we decided to use virtual reality rather than a show house. Thanks to a digital model and VR glasses potential buyers were able to get an impression of the park's layout as well as take a look at a virtual bathroom.

We want to further expand our use of VR resources in the future as an effective way of involving local residents in the process, for example for getting their approval for the design. But also for clients, such as the Limburg district water board, for whom we made a 3D model based on drone measurements. In this way we were able to present a virtual image of the future dam to be built in the river.

Big data

Using publicly available data sources makes it easy to build a picture of environmental factors at almost any site. Thanks to government policy an increasing amount of data has been made publicly available at national, provincial and local level. We use this data to better enable us to help devise solutions for our clients. For example building a picture of which locations in a neighbourhood have a high degree of heat stress. We analyse the current and new situation and can almost immediately explain the social impact.

In 2017 we pooled the knowledge on geographical data in our organisation and set up a Geoportal featuring data specialists from all our infrastructure companies. This provides scope for better leveraging of data. For example we use interactive geographical maps (GIS) to produce environment analyses and devise good climate-adaptive measures for dyke reinforcement projects.

Impact of smart logistics on the surrounding area

We know that optimising construction logistics has a positive effect on the surrounding area. Smart logistics makes our building process more efficient. Not only does this reduce traffic and hence emissions; it also creates less nuisance for the surrounding area. This is an increasingly important requirement, especially in inner cities.

We have been doing research into the social impact of smart logistics for some years now. All the positive effects of smart logistics motivate us to continue our research. Our objective is to develop a logistics menu that enables logistics to be set up in the best possible way at any given building site.

In 2017 we expanded the research by using geographical and other openly available data. This enables us to increase safety for the surrounding area by organising

our transport away from busy junctions or busy times. It also minimises waiting times for lorries in the city centre, along with the noise nuisance and traffic congestion this causes. Last year we measured a total time saving of almost 45 minutes from supplier to building site on projects using the BouwHub.

Our own community engagement day

Community engagement is a real expert field and one that is continuing to develop rapidly, as is evident from the latest technological developments and applications described above. Which is why we organise our own annual community engagement day. The second edition took place on 16 May. The day is aimed at all community engagement managers in the Construction & Real Estate Development and Infrastructure segments.

In 2017 we worked on an internal online community engagement platform to connect community engagement managers. The platform is ready and will be launched in our own organisation in 2018. We will explain to our companies how it works.

Considerate Constructors

Considerate Constructors in the Netherlands focuses on good community engagement during construction

Five pillars of Considerate Constructors code of conduct

- | | |
|--------------------|---|
| 1. Local community | Considerate Constructors limit the disruption and inconvenience to the local community |
| 2. Safety | Considerate Constructors work in a way that is safe for local residents, passers-by and visitors |
| 3. Professionals | Considerate Constructors pay consideration to the development, health, wellbeing and safety of their professional staff |
| 4. Environment | Considerate Constructors are environmentally conscious in their work |
| 5. Tidiness | Considerate Constructors are tidy in their work |



VolkerWessels is investing in the redevelopment of the pier at Scheveningen, which reopened in 2015.

works. The organisation aims to further professionalise safety and responsible business practice on and around the building site. After all, a building site is a part of our society, albeit it only a temporary one. Considerate Constructors names five pillars in their code of conduct, all of which we fully support as an organisation. The basic principle should be that together we see to it that we always act as a good and reliable neighbour.

In 2017 we had 356 registered construction sites, a small increase compared to the year before. It was the third year in a row in which we exceeded the minimum target of 150 registered projects a year. In the United Kingdom we register building sites with the Considerate Constructors Scheme, the sister organisation of the Dutch scheme. In 2017 24 building sites were registered in the United Kingdom.

Monitoring and steering

Since last year we require the companies to report based on qualitative descriptions of the policy pursued. We took a conscious decision not to add quantitative measuring as the widely divergent nature of the activities within our organisation makes it difficult to express them in KPIs. This way of reporting says more about the actual effects and satisfaction levels of clients and the local community.

Highlights of 2017

- 380 building sites registered with Considerate Constructors in the Netherlands and the UK
- Establishment of Geoportal by infrastructure companies
- Development of BouwApp

Challenges in 2017

- Growing number of inner-city projects in very close proximity to the local community
- Measuring impact on and satisfaction of the local community

Action items for 2018

- Launch and rollout of internal online community engagement platform
- Third edition of community engagement day
- Continued research into social impact of smart logistics of the BouwHub
- Rollout of BouwApp

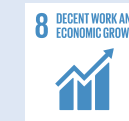
Highest priority for integrity

We highlight this in various ways, including internal newsletters, workshops and by disseminating posters. Because conducting business with integrity is an important prerequisite for all our business activities.

Targets for 2020

All employees must know:

1. how to deal with integrity dilemmas in their field of work
2. who to turn to if they wish to consult with someone about this
3. who to report any breaches of the code of conduct to



VolkerWessels Veilig ('VolkerWessels Safe')

Integrity, information security and privacy are very different topics which are nevertheless closely connected. In order to raise awareness among our staff we launched the internal awareness campaign VolkerWessels Veilig ('VolkerWessels Safe'). In addition



to awareness the programme focuses on rules and guidelines.

In addition we worked on several new tools in the past year to raise awareness about acting with integrity. Initiatives in 2017 included:

- KPMG performed a quick scan of the compliance structure at VolkerWessels. Based on the recommendations resulting from this a Compliance Charter has been compiled for VolkerWessels.
- In 2017 we introduced a new monthly bulletin called Melding op Maandag ('Monday Report'). Citing actual real-life examples it highlights desirable and undesirable conduct (and the consequences of undesirable conduct).
- We communicated centrally on two Code of Conduct topics by means of our internal newsletter, news bulletins and the dissemination of posters: social media usage and using business assets.
- As from 1 January 2017 all new employees are obliged to take an e-learning course on Integrity. As a result all new employees are aware of the integrity rules at VolkerWessels.
- In October we rolled out the e-learning course 'Working together on data security'.

Compliance at VolkerWessels

The quick scan of the compliance structure by KPMG showed that compliance at our organisation is well-organised. However, not much was available in writing.

In order to improve our compliance we followed up the recommendations from the quick scan, for example compiling a Compliance Charter. A Compliance Annual Plan will be drafted for 2018.

As part of the Compliance Annual Plan for 2018 we will put on a training course for our compliance officers. The purpose of this course is to explain to the compliance officers what their role is under the Compliance Charter. They will also receive training on what to do in the event an integrity dilemma is reported.

In 2017 there were 32 reports of misconduct to the Confidential Line or to compliance officers in the Netherlands. Twelve of these reports resulted in 13 dismissals, including discontinuing the contracts of self-employed staff. The number of reported cases is slightly lower than in 2016 (39) but still in line with the



trend seen in previous years. In the United Kingdom 43 incidents were reported.

It is difficult to draw conclusions about integrity awareness based solely on the number of incidents reported. In 2018 we will therefore measure the culture of openness and trust in our organisation. We expect this to give us a more complete picture of integrity awareness in our organisation.

VolkerWessels Hotline

In light of the Wet Meldplicht Datalekken (Dutch Act on Data Breach Notifications) in 2016 we set up a central hotline to enable employees to quickly and easily report any actual or suspected data breaches. In 2017 we changed its name to Meldpunt VolkerWessels ('VolkerWessels Hotline'). This general hotline has been incorporated into the VolkerWessels Veilig programme and is designed to deal with all information security incidents, including data breaches within the VolkerWessels group.

Information security incidents reported are dealt with centrally and investigated where necessary. In 2017 a total of 183 incidents were reported, the vast majority concerning theft or loss of equipment. The Management Board responded with the publication of another notice, stressing to all employees the great importance of acting responsibly in relation to phones, laptops and other business assets that contain or may contain confidential and sensitive information and personal data.



Code of Conduct

We made a conscious choice to present the Code of Conduct as a small booklet with limited explanation of the rules and guidelines ('principle-based'). This layout is more readable than an extensive set of regels ('rule-based'). Anyone who is unsure about how a certain principle should be applied or explained in a certain situation should ask their manager.

Melding op Maandag ('Monday Report')

We want to provide our employees with real-life examples showing what behaviour is desirable and what is not – and what the consequences of undesirable behaviour can be. And so in 2017 we published the bulletin 'Melding op Maandag' (Monday Report) on the first Monday of every month. The bulletin is published in the VolkerWessels internal newsletter. Each edition of the bulletin described a dilemma that arose within VolkerWessels. Highlighting recognisable dilemmas makes it easier for employees to identify with the situation in question. The question: what would you do? is essential to creating awareness of acting with integrity in this context. For each dilemma we described what the VolkerWessels Integrity Platform considered to be the desired course of action.

Some of the topics dealt with in this bulletin in the past year are shown in the table at the top right.

Monday Report topics in 2017

- Falsification of documents
- Workplace bullying
- Conflict of interest
- The challenges of social media
- VolkerWessels Hotline
- Accepting and offering gifts
- Reporting misconduct
- Use of business assets
- The VolkerWessels Code of Conduct applies to us all

Workshops and training sessions

In 2017 529 VolkerWessels employees took part in a training session or workshop about integrity, a slight increase compared to 2016. Following the Integrity e-learning in 2016 last year we visited companies whose score was lower (in some areas) than the average for their segment or for VolkerWessels as a whole. The visits were at the request of the relevant boards. The scores were analysed and where desirable the central compliance officer helped several companies to organise tailor-made courses, workshops and training sessions on integrity.

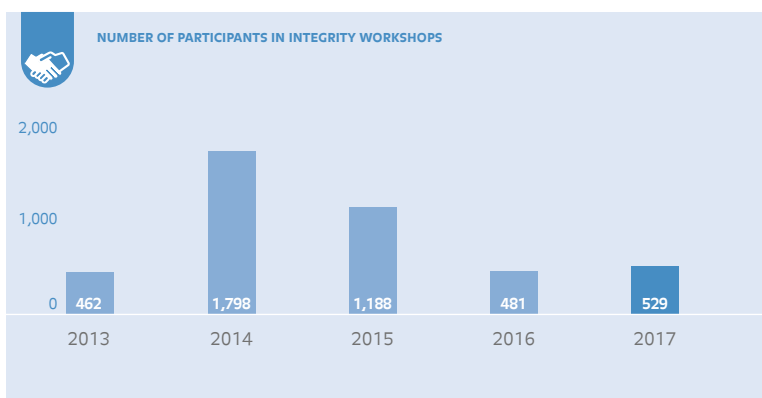
A new topic since the IPO is the ban on insider trading. This relates to the buying and selling of shares in quoted companies (including those of VolkerWessels) and the relevant regulations on insider trading. The boards of all the companies have attended a workshop on this topic. This included providing them with a tool for making their staff aware of the risks for employees associated with trading in shares in their own and other companies. Following requests, the workshop was also given at various companies, to the Central Works Council and during the Works Council theme day.

Our VolkerWessels Code of Conduct deals with various aspects of integrity in conduct and business. Every six months we communicate actively on a specific topic; the two topics for 2017 were social media usage and using business assets. The communications focused on the relevant rules and guidelines in the Code of Conduct.

In the autumn of 2017 an e-learning on data security was rolled out to all VolkerWessels employees with a company email address. The e-learning focused on safe and unsafe situations in digital information processing and digital communication.

Interacting with integrity

All the parties we cooperate with in the chain must be able to trust that we will respect the agreements we have made. These include clients, subcontractors and suppliers. We expect our employees to act with awareness and integrity, and expect the same from others.



Oppe Brik project: a new residential area in Limburg province including 28 zero-energy bill apartments. The net-zero energy building is not connected to the gas main.



HIGHLIGHTED

VolkerWessels opens DigiBase BIM centre in Nieuwegein

The transformation towards digitalisation is progressing rapidly in the real estate sector and working in 3D is becoming the norm in the construction world.

VolkerWessels has been using Building Information Management (BIM) and other forms of digitalisation and data application for a number of years now.

In 2017 VolkerWessels invested in upscaling the application of BIM. In December we opened our own DigiBase BIM centre in Nieuwegein. This hi-tech centre brings all the knowledge, data and expertise about Digital Building together in one place. These digital services are necessary to professionalise our processes in the digital transformation.

Around 70% of all Construction and Real Estate Development projects, and all new projects are already executed using BIM. Our target is to execute all Construction and Real Estate Development projects using BIM in 2018. DigiBase plays a crucial role in maximising our focus on converting opportunities into added value and earnings models for ourselves and for our clients.

Highlights of 2017

- Mandatory e-learning on Integrity for all new employees
- Introduction of internal bulletin 'Monday Report'
- Two times internal theme communication
- Communications on two Code of Conduct topics: social media usage and using business assets
- Rollout of e-learning course 'Working together on data security'

Challenges in 2017

- Documenting how compliance is structured at our organisation
- Accurate measuring method to determine effect of measures on integrity awareness

Actions items for 2018

- Draft Compliance Annual Plan
- Train compliance officers
- Measure organisational culture for openness and trust
- Communications on two Code of Conduct topics
- E-learning integrity

Our Code of Conduct unambiguously sets out our conditions for cooperation. We subscribe to the Guiding Principles for Commissioning Construction Companies, drawn up in consultation with six other large Dutch construction companies. We are also committed to the 10 principles of the United Nations Global Compact. Our membership of the UN Global Compact Network Netherlands helps us to further raise awareness of the four topics of human rights, labour, the environment and anti-corruption.

Responsibilities

The Integrity Platform at VolkerWessels is responsible for promoting awareness about doing business with integrity at the organisation. The Platform consists of board members of various companies, a representative of the HRM function, the central compliance officer, a member of the group communications department and two members of the Management Board. All companies have their own compliance officer and there is a Chief Compliance Officer (cco) at group level. Final responsibility for the integrity policy rests with the Management Board.

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About this report



Scope

The primary target group of this report is our stakeholders who are interested in the activities of VolkerWessels – primarily in the Netherlands and the United Kingdom – where we are active in a wide area in various sectors. We have reported on the performance of all our operating companies in the United Kingdom since 2013. The data on our companies in the United Kingdom is gathered separately and presented for each individual topic.

In 2017 we did not consolidate our activities in North America and Germany because the reporting process is not yet sufficiently equipped for this. We have, however, incorporated the safety figures. This year we adjusted the safety figures for each country to align them to the sector breakdown featured in the financial reporting. The performance of the United States and Canada was consolidated in 2016. The appendix on the sustainability figures includes the performance in North America from 2014 and the figures for Germany from 2017.

To gain an insight into the CSR performance in North America and Germany we are taking stock of the available data. The data being collected pertains to the CSR results in the first quarter of 2018. In 2018 we expect to structure the reporting process and report on the CSR performance of these three countries externally. The foreign branches of our Dutch operating companies are included in this report.

One of our operating companies has its own incineration plant where waste wood is processed. We did not include this in our current CO₂ footprint. In 2017 approximately 120 tonnes of wood was incinerated, equating to 56 tonnes of carbon emissions (this is the same amount as in 2015 and 2016).

In 2017 we changed the way we define the waste separation rate. The waste category ‘Commercial waste’ is now incorporated in unsorted waste. We made this change to have a more realistic picture of our waste separation. This applies from 2017 onwards. Commercial waste comes from our offices and is not always sorted. We have nevertheless decided to maintain our current waste separation rate target to keep pushing ourselves to meet this ambitious objective. This is the only change in the policy and targets.

In this report we include subcontractors and suppliers if we work together to develop innovative solutions. In principle we do not report on the quantitative performance of subcontractors and suppliers. We have, however, included quantitative chain data on a number of topics:

- Raw materials: recycling rate and application of secondary materials
- CO₂ and energy: Scope 3 carbon emissions of concrete products
- BouwHub case: emissions and health effects of transport savings throughout the chain

Our insights into our performance within the chain on these topics has continued to improve in recent years. In the future we aim to formulate more relevant KPIs for our chain, in keeping with the three quality of life topics (see Vision and Strategy chapter).

Consortiums, companies and new entities

In this report we consolidated consortiums or companies in which we have a controlling say. Interests in entities in which VolkerWessels shares control with third parties and whereby VolkerWessels and other parties have a right to the assets and are liable for the debts, are proportionally consolidated (as joint operations) in the financial reporting. This approach is in accordance with IFRS accounting principles for financial reporting. The material topics for

VolkerWessels have been determined based on various rounds of stakeholder dialogue and an employee survey. More information on this can be found in the Materiality Analysis appendix on our website. Acquired companies or consortiums in which our interest increased to more than 50% in 2017 will be involved in the reporting process in 2018 and consolidated as from 2018.

CSR strategy

Our CSR strategy is based on market research, best practices and VolkerWessels’ strategy. We comply with the internationally recognised guidelines of the Global Reporting Initiative (the GRI Standards). The GRI table can be found on the website.

Data collection

We have created a reporting manual for our companies to collect data in a uniform manner. We adopt the guidelines and emission factors applied by the Dutch Foundation for Climate Friendly Procurement and Business (SKAO) to calculate the carbon footprint of our operations. The CO₂ emission factors stated in the SKAO Handbook 3.0 have been applied in our calculations. Any recalculations and changes in definitions are explained in the text and the footnotes. Since 2015 all data is internally validated on a quarterly basis to increase the reliability of the figures and raise awareness throughout the organisation. VolkerWessels uses this data to carry out comprehensive internal audits on the sustainability figures. These enable us to constantly improve the reliability of our sustainability figures. Furthermore, we use Cumulus to register our financial data, employee data and safety data.

Monitoring

In the past few years we have focused on making our monitoring system more robust. More and better data results in more reliable figures. This is evident in our waste, CO₂ and safety figures. We are increasingly working with accurate figures instead of conservative

estimates. That means that the improving figures are partly performance-related and partly the result of the improved monitoring system. Furthermore, with effect from 2015 the key indicators are monitored and evaluated every quarter instead of annually. The figures are discussed by the Management Board. In 2017 we started collecting social return data on a quarterly basis. VolkerWessels' Social Return Counter is responsible for collecting and monitoring this data.

Future of reporting policy

This year was the first year that we have included a Corporate Social Responsibility chapter in our annual financial report. In the future we will expand the scope of this CSR report with information on our operations in North America and Germany. As stated above, we will start taking stock of the data in 2018. In this report for 2017 we have made the three quality of life topics more prevalent. We will continue to focus on this in 2018. In 2017 we appointed 13 quality of life ambassadors at VolkerWessels. This group will work to pursue these quality of life targets in 2018.

External Assurance

To safeguard the reliability of our figures we commissioned KPMG to verify our reporting on the Netherlands and the United Kingdom and to issue an assurance report for the Dutch version of our Sustainability Report. KPMG has done so for specific data on the topics of safety, CO₂, resource management and integrity. For more information, see the Assurance Report in the Dutch Sustainability Report. In 2017 we added two KPIs which have been granted assurance. These are KPIs relating to the chain performance of concrete: CO₂ emissions in the concrete value chain (scope 3) and the percentage of reused concrete. Reporting on environmental impact in the concrete chain is still a relatively new exercise. For these KPIs we are dependent on data from our suppliers. Not all of our suppliers were able to supply the necessary data in time

in 2017. For the Scope 3 CO₂-emissions data was available for 77% of the concrete procured by Van Hattum en Blankevoort, our most important company when it comes to concrete. For recycled material in concrete this percentage was 60%. In 2018 we will actively pursue complete availability of the necessary supplier data, for instance by involving suppliers in an earlier stage of project development for this topic. As yet we have not yet been able to get assurance granted on the KPIs relating to the use of asphalt.

Monetising

Monetising the impact of our operations both on society and on VolkerWessels provides reliability, support and a framework for discussions on making our policy and our projects more sustainable. Our focus this year was on a few of the most sustainable projects and objectives. The amounts are indicative and based on several assumptions. The assumptions, calculations and sources used can be found on our website.

Feedback

If you have any feedback or questions about our sustainability report, please contact csr@volkerwessels.com.

Health and wellbeing

	2017	2016	2015	2014	2013
SAFETY					
Sickness absence percentage					
VolkerWessels	3.3%	3.1%			
– Netherlands	4.2%	3.9%	3.9%	4.8%	5.6%
– Construction & Real Estate Development	4.1%	3.7%	3.7%	5.8%	7.3%
– Infrastructure	4.3%	4.2%	3.8%	4.1%	5.0%
– Energy & Telecom Infrastructure	4.0%	3.9%	4.3%	4.9%	4.9%
– VolkerWessels group head office	4.6%	2.8%	2.6%	1.6%	1.8%
– United Kingdom	1.1%	1.1%	1.4%	1.0%	1.4%
Accidents resulting in absenteeism					
VolkerWessels	174	150	155	145	
– Netherlands	129	129	113	115	125
– Construction & Real Estate Development	39	53	46	30	32
– Infrastructure	49	55	47	57	67
– Energy & Telecom Infrastructure	37	20	20	28	26
– VolkerWessels group head office	4	1	0	0	0
– United Kingdom	20	10	16	15	16
– North America	18	11	12	15	
– Germany	7				
Number of fatal industrial accidents					
VolkerWessels	0	1	0	1	2 ⁴
– Netherlands	0	1	0	1	2 ⁴
– United Kingdom	0	0	0	0	0
– North America	0	0	0	0	
– Germany	0				
IF rate					
VolkerWessels	5.5	5.0	5.3	5.2	
– Netherlands	5.3	5.5	5.1	5.2	7.2
– United Kingdom	4.2	2.2	3.7	3.7	4.9
– North America	8.8	5.6	6.9	8.3	
– Germany	13.1				

⁴ One of the two fatal accidents occurred at a subcontractor.

Natural environment

	2017	2016	2015	2014	2013
RAW MATERIALS					
Percentage of sustainable timber used	97%	96%	97%	92%	70%
Separation rate for building and demolition waste	52.6%	61.9%	64.8%	65.0%	70.9%
Total weight of waste (in tonnes)					
Netherlands	71,673	65,742	60,450	61,410	107,466
United Kingdom	499,696	1,055,000	345,000	377,120	577,205
Hazardous materials collected and processed (in kg)					
Netherlands	282,144	289,860	375,610	550,780	649,248
United Kingdom	15,154,949	15,350,000	1,290,000	9,410,000	20,321,359
Use of secondary material					
Concrete (% reused)	10%	5%			
Asphalt (% asphalt granulate)	41%	41%	39%	37%	37%
CO₂ AND ENERGY					
CO₂ emissions per scope (in kilotonnes)					
Netherlands	133.6	122.7	134.6	150.4	178.9
Scope 1	125.1	114.5	124.7	140.4	160.0
Scope 2	8.5	8.2	9.8	10.0	18.9
United Kingdom	25.8	29.6	31.9	25.3	24.7
Scope 1	17.1	20.8	23.3	19.1	17.5
Scope 2	8.7	8.9	8.6	6.2	7.2
CO₂ emissions per sector (in kilotonnes)					
Construction & Real Estate Development	18.9	18.8	19.2	18.4	21.1
Infrastructure	92.6	84.3	91.1	99.3	124.5
Energy & Telecom Infrastructure	21.4	19.0	24.3	32.7	33.3
VolkerWessels group head office	0.7	0.6	0.0	0.0	0.0
CO₂ emissions in the value chain (scope 3)					
Concrete (kg CO ₂ / m ³)	154	149			
Number of zero energy bill homes	758	270	448		

Work and social activities

	2017	2016	2015	2014	2013
EMPLOYMENT					
Breakdown of staffing levels by age and gender (male/female) (including United Kingdom)					
<21	212 / 51	158 / 39	132 / 34	179 / 44	136 / 21
22-25	467 / 100	537 / 117	530 / 108	479 / 90	528 / 96
26-30	1,090 / 246	1,156 / 241	1,219 / 217	1,044 / 177	1,122 / 181
31-35	1,295 / 191	1,313 / 212	1,267 / 204	1,305 / 240	1,313 / 254
36-40	1,453 / 237	1,464 / 231	1,407 / 177	1,426 / 233	1,493 / 238
41-45	1,605 / 234	1,621 / 242	1,782 / 222	1,784 / 312	1,765 / 295
46-50	1,881 / 290	1,880 / 274	1,981 / 188	1,826 / 219	1,866 / 222
51-55	2,008 / 201	1,900 / 197	1,935 / 129	1,764 / 140	1,669 / 126
56-60	1,681 / 112	1,552 / 110	1,594 / 90	1,633 / 83	1,507 / 108
61-65	1,025 / 64	877 / 65	782 / 49	729 / 58	581 / 40
65<	50 / 5	32 / 12	16 / 8	14 / 6	23 / 4
Total number of employees by gender (male/female)	12,766 / 1,731	12,488 / 1,740	12,645 / 1,427	12,183 / 1,603	12,003 / 1,585
Percentage of fulltime / part-time by gender Netherlands					
Male fulltime / part-time	92.5% / 7.5%	91.7% / 8.3%	93.7% / 6.3%	93.1% / 6.9%	94.1% / 5.9%
Female fulltime / part-time	40.5% / 59.5%	42.5% / 57.5%	41.6% / 58.4%	33.8% / 66.2%	32.2% / 67.8%
United Kingdom					
Male fulltime / part-time	98.9% / 1.1%	98.5% / 1.5%	99.7% / 0.3%	99.0% / 1.0%	98.1% / 1.9%
Female fulltime / part-time	84.8% / 15.2%	83.0% / 17.0%	84.3% / 15.7%	81.4% / 18.6%	81.1% / 18.9%
Inflow and outflow of males and females in the Netherlands					
Male inflow	79.1%	83.0%	82.4%	81.3%	84.3%
Female inflow	20.9%	17.0%	17.6%	18.7%	15.7%
Male outflow	82.8%	83.7%	81.0%	82.9%	85.5%
Female outflow	17.2%	16.3%	19.0%	17.1%	14.5%

	2017	2016	2015	2014	2013
Breakdown of years of service and gender (male / female) (including United Kingdom)					
<2	2,011 / 471	2,329 / 508	139 / 390	2,073 / 447	1,806 / 390
2-5	2,228 / 392	2,307 / 433	2,820 / 370	2,315 / 428	2,521 / 424
6-10	2,133 / 381	2,394 / 325	2,550 / 255	2,226 / 295	2,147 / 258
11-20	2,908 / 356	2,424 / 294	2,370 / 250	2,208 / 308	2,499 / 332
21-30	1,753 / 117	1,627 / 120	1,647 / 73	2,159 / 110	1,864 / 110
31<	1,677 / 71	1,401 / 65	3,159 / 50	1,163 / 55	1,307 / 90
Input Social Return target group					
People employed who are at a disadvantage on the labour market (PSO score in the Netherlands)	2.3%	1.7%	1.2%		
Average number of hours of training per employee					
Netherlands	20	18	17	23	21
United Kingdom	25	17	16	12	24
Amount spent per employee (in euros)					
Nederland	931	848	720	693	783
United Kingdom	1,480	628	390	416	608
Percentage of women who participated in the Management Development course (MOL)	9.4%	6.3%	6.3%		
Number of participants in VolkerWessels Academy	1,180	739	278	199	573
COMMUNITY ENGAGEMENT					
Number of building sites registered with 'Considerate Constructors' Projects certified via the Considerate 'Constructors Scheme' in the United Kingdom	356	344	171	138	98
	24	33	44	61	47

	2017	2016	2015	2014	2013
INTEGRITY					
Total number of reported suspicions of a breach of integrity and suspicions of wrongdoing					
Netherlands	32	39	33	49	50
United Kingdom ⁵	43	20	11	8	13
Number of reported cases resulting in dismissal	12 reported cases resulting in 13 dismissals	8 reported cases resulting in 11 dismissals	13	16	10
Number of reported suspicions of a breach of competition law	0	0	0	1	0
Use of the whistleblower's scheme					
Netherlands	8	0	3	3	1
United Kingdom ⁵	1	2	1	3	2
Number of employees enrolled in integrity workshops, such as the induction programme and other gatherings	529	481	1,188	1,798	462

⁵ The United Kingdom reports on grievances. The definition of grievances differs from what is defined as acting without integrity in the Netherlands. Furthermore complaints in the Netherlands cannot be compared to complaints in the UK due to cultural differences.

A

Asphalt granulate

Secondary material derived from the destruction or routing of hard asphalt surfaces. Asphalt granulate can be reused in various products, such as in the production of new asphalt.

Average number of employees

The average number of employees at the end of a certain period, in this case a year.

B

BIM

Stands for Building Information Modeling. BIM is a digital representation of all physical and functional aspects of a building. A BIM model is a shared source of knowledge or file containing information about a building that serves as a reliable basis for making decisions during the entire life cycle of the building.

Biodiversity

Biodiversity is defined as the variety of life forms within an ecosystem or even on the entire planet.

BREEAM (Building Research Establishment Environmental Assessment Method)

Assessment method to establish the sustainability performance of buildings. BREEAM sets a standard for a sustainable building and then determines the performance level of the building. The objective is to analyse buildings and issue a sustainability label (pass, good, very good, excellent and outstanding).

Building

A property used permanently (and not for a specific project) by a company as an office, storage unit, production site, etc.

Building and demolition waste

Consists of the unsorted fraction of resources released during activities on a construction or a demolition project. This fraction of resources still needs to be sorted to create pure materials which can be immediately used by the final processor. Building and demolition waste does not include materials containing asbestos and asbestos-like materials, eternit materials, waste from rooftop renovations, sand, soil and rubble.

C

CO₂

A gas emitted for example by burning fossil fuels (i.e. fuels including coal and products made of crude oil). CO₂ is the type of gas that makes a substantial contribution to the greenhouse effect.

CO₂ footprint

The total amount of CO₂ emitted in a certain period, in this case by VolkerWessels.

Community engagement

Actions aimed at the local community in which external parties are involved and consulted, such as residents, road users, companies, the media, environmental movements, etc.

Considerate Constructors

A quality label promoting the relationship between building sites and the local community. The quality label encourages communication with the community near the building site and makes the professionalism at building sites transparent. The Dutch initiators of Considerate Constructors are VolkerWessels, BAM, Ballast Nedam and Strukton.

Conversion factor

The conversion factor of each energy flow and every type of fuel is different. The factor is used to calculate the carbon emissions. The conversion factors used by VolkerWessels are based on the CO₂ performance ladder in the SKAO Handbook 3.0.

CSR

Stands for Corporate Social Responsibility

CSR platform

Internal advisory body at VolkerWessels in the field of our policy on Corporate Social Responsibility.

E

Employee

A person employed by a VolkerWessels operating company, including people seconded to another VolkerWessels operating company.

External Review Committee

External advisory body of VolkerWessels. The External Review Committee reflects and advises on our CSR policy. The composition of the committee changes annually. The External Review Committee has no legal liability or responsibility.

F

Flow of raw materials

The flow of raw materials from project to project (i.e. trade flows between own work projects). For example: rubble, asphalt (with the exception of tar asphalt), concrete.

FSC wood

Wood/paper that carries the FSC quality label of the Forest Stewardship Council (FSC). This proves that the timber comes from a forest that has been assessed independently by the FSC and is found to be a well-managed forest according to standards relating to the environment, social conditions and the economy.

G**General procurement terms**

The general terms that stipulate the conditions under which VolkerWessels procures products and/or services from its suppliers. These terms apply as much as possible from the moment that agreements are concluded with other parties.

GRI (Global Reporting Initiative)

Internationally recognised standard for sustainability reporting.

H**HERA system (Highly Ecological Recycling Asphalt)**

Technology developed by kws Infra used to recycle asphalt

Home

A single dwelling, including a flat.

Hours of training

Total number of hours of training that an employee has had, both in-house and externally.

HR/HRM

Stands for Human Resources/Human Resources Management.

I**Industrial accident**

An accident that occurs during the performance of paid labour, with the exception of accidents that occur while commuting. That means that industrial accidents happen during working hours, but not all accidents that occur during working hours are considered to be industrial occupational accidents. We only speak of an industrial occupational accident if the accident was caused by work. Industrial accidents include both fatal accidents and accidents resulting in sick leave. Note: accidents that occur during business trips are considered to be industrial accidents.

Industrial accident resulting in death

An industrial accident resulting in death is an industrial accident that results in the death of the person concerned immediately after or within calendar 30 days of the accident. An industrial accident resulting in death only concerns VolkerWessels employees or temporary employees.

Industrial accident resulting in sick leave

This refers to an industrial accident resulting in sick leave longer than one day, not including the day that the person concerned (being either a VolkerWessels employee or a temporary employee) suffered the accident. Note: Saturdays and Sundays are not included. If an industrial accident occurs on a Friday and the employee reports back to work the following Monday, it is known as an industrial accident not resulting in sick leave.

Injury frequency (IF rate)

Injury frequency (IF rate) is the number of industrial occupational accidents resulting in sick leave (or death) multiplied by one million (hours) divided by the number of hours worked.

Innovation

The development of a new or improved product, concept or service. The innovation is pioneering for both the company and the market for which it is intended. A sustainable innovation also adds value to the environment.

N**NGO (non-governmental organisation)**

An organisation that is independent of governments and focused in some way on an assumed public interest.

Number of hours worked

The number of hours worked is the total number of hours worked by VolkerWessels employees including hired personnel. The number that is registered consists of (1) the number of hours worked by own employees and (2) the number of hours worked by temporarily hired employees. If companies that do not register the actual number of hours worked (by their own employees and temporary employees), then the number of own employees must be multiplied by a standard number of 1,600 hours per year.

P**PlusWonen home**

Sustainable home built as part of the 'PlusWonen' home construction concept and label developed by VolkerWessels.

Project

A temporary location where a job is carried out.

PSO

The Dutch Social Enterprise Performance ladder

PSO score

Measure of sustainable and social enterprise in which people employed in the social return target group act as the indicator. The score is the average weighted number of people who are at a disadvantage on the labour market in relation to the total number of FTEs, expressed as a percentage.

R**Recycling rate**

Indicates which percentage of the total amount of waste (excluding hazardous waste) is separated when gathering waste and subsequently recycled when processing it.

Residual flow

That part of the waste flow from private individuals, institutions and companies that remains after all usable and recyclable waste flows have been removed from the main flow. The residual flow at VolkerWessels is the flow that remains after the customary resources (e.g. concrete granulate, metal, paper, cardboard, sand and timber) are removed from the main flow.

Resource management

The manner in which we as a company deal with our resources. Reducing and separating our waste flows so that they can be reused by ourselves or another party is given priority.

S**Scope 1, 2, 3 (SKAO)**

Scope 1 – Direct emissions by the own organisation, such as emissions from own gas consumption and emissions caused by the own fleet of vehicles.

Scope 2 – Indirect emissions caused by the generation of electricity consumed by the organisation, such as emissions from the plants that supply this electricity.

Scope 3 – Relates to other indirect emissions. These are a result of the activities of the organisation but arise from sources that are not owned or managed by the organisation. Examples include emissions generated by the production of procured materials, waste processing, and the use phase of workproducts or, services or supplies provided by the company.

Secondary material

Material emitted after the end of the life cycle which is reused after being processed by including it in a product instead of primary materials.

Sickness absence rate

Indicates which part of working capacity was not utilised in a certain period due to sick leave. This is the most common measure of sick leave within an organisation. The rate is based on calendar days. The sickness absence rate is calculated based on the average number of VolkerWessels employees/ FTEs excluding temporary employees.

SKAO

Stands for the Dutch Foundation for Climate-Friendly Procurement and Business. This foundation is responsible for all aspects of the CO₂ performance ladder (its usage and further development, managing the certification schedule and expanding the number of participating sectors).

Social Return

For VolkerWessels, social return is defined as every effort taken in its operations and in the execution of projects that enables people with an occupational disability or who are at a disadvantage on the labour market to participate in the labour market.

Supply chain

This is defined as the chain of all business activity needed to meet demand for products and services, from the extraction of raw materials to ultimate delivery to the end user.

T**Temporary employee**

Examples include temps and seconded employees working under the direction of VolkerWessels but who do not have an employment contract with VolkerWessels or a subcontracting agreement.

Training amount

Total amount (excluding VAT) spent on internal and external training, including material costs, hours, etc., excluding travel expenses.

V**VCA certificate**

Stands for a Dutch health, safety and environmental (HSE) checklist for contractors. A company that is VCA certified has an internal plan for HSE aspects.

W

Waste

A combination of residual waste flows which are reused, recycled, processed, incinerated with energy being recovered, or sent to landfill. In other words, the flows that go to the waste processor.

Waste separation rate

Indicates which percentage of overall building and demolition waste is separated in the process of gathering and processing waste (on site). This does not include hazardous waste. The waste separation rate is determined as follows:

$$\frac{\text{total waste (tonnes)} - (\text{commercial waste (tonnes)} + \text{building and demolition waste (tonnes)})}{\text{total waste (tonnes)}} \times 100\%$$

total waste (tonnes)

This new definition applies from 2017 onwards. For previous years, commercial waste was considered as separated waste, instead of unseparated waste.

Legenda

-  Quality of life
-  Health and wellbeing
-  Natural environment
-  Work and social activities
-  Safety
-  Raw materials
-  Employment
-  CO₂ and energy
-  Community engagement
-  Biodiversity
-  Integrity

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We look forward to receiving your reactions to our
Sustainability Report at csr@volkerwessels.com

The Dutch version of the Sustainability Report is the
audited, leading version. In case of textual
contradictions, the Dutch version shall prevail.

Composition
VolkerWessels | Corporate Social Responsibility
Primum, Amersfoort
Domani BV, The Hague

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