

ANNUAL REPORT

2018

**CREATE
THE FUTURE**

TBI Annual Report 2018

This integrated Annual Report provides a cohesive insight into TBI's financial and non-financial performance for the year 2018. It has been prepared in accordance with the guidelines of the Integrated Reporting Framework and the GRI Standards.

The GRI content index and supplementary information is available on our website at www.tbi.nl.

The main target groups of this Annual Report are our shareholder, clients and potential clients, employees and potential employees, partners, suppliers and NGOs.

We welcome your comments, suggestions and questions by email at communicatie@tbi.nl.

This is an English translation of the original integrated Annual Report 2018 written in Dutch. In the event of inconsistencies between the English and the Dutch version, the latter shall prevail. This Annual Report is also available on the internet at: www.tbi.nl.

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Cover: European Patent Office opened by King Willem Alexander (June 2018) and realised by J.P. van Eesteren, Croonwolter&dros and Voorbij Funderingstechniek

Contents

Letter from the CEO	4	Composition of the Executive Board	67
		Composition of the Supervisory Board	68
About TBI	7		
TBI's field of operations	7	Scope and accountability	69
Profile	8		
Five-year key figures	10	Appendix: Performance indicators	72
How TBI creates value	12	Annual Accounts	73
Vision	12	Consolidated balance sheet as at 31 December 2018	74
Mission	12	Consolidated profit and loss account for 2018	75
Business model	13	Consolidated statement of total recognised gains and losses 2018	75
TBI in a changing society	13	Consolidated statement of cash flows for 2018	76
What stakeholders identify is material	16	Notes to the consolidated accounts	78
Strategy	17	Notes to the consolidated balance sheet	85
Key performance indicators	19	Notes to the consolidated profit and loss account	91
Implementation of the strategy in 2018	20	Company balance sheet as at 31 December 2018	96
		Notes to the company accounts for 2018	97
Financial	26	Other information	102
Market prospect	26		
Operating revenue and results	26	Independent auditor's report	103
Orders received and order book	27		
Balance	27	Assurance report of the independent auditor	105
Financing	27		
Engineering, Construction & Development and Infrastructure results	28	Management boards of the TBI companies	109
Prospects	30		
Themed section: In dialogue with stakeholders	31	Operational structure of TBI	110
Governance	56	Glossary	111
Risk management	56		
Risks	56	Credits	112
Corporate governance	61		
Report of the Supervisory Board	63		



2018 was a good year for TBI. The housing market remained strong and conditions on the non-residential and infrastructure markets improved. The Marine & Offshore market, by contrast, remained under pressure. Operating revenue advanced by 4 per cent to €1,773 million; the operating result from ordinary activities increased by 30 per cent to €36.2 million. Our order book is well filled and has significantly strengthened our position for the current year, being worth 10 per cent more than at the end of the previous year. We also reduced our risk profile by selectively tendering for and winning new projects. Our financial position remains strong and we are in a position to invest in smart, sustainable and future-proof solutions for the built environment.

Letter from the CEO



Daan Sperling
CEO of the Executive Board
TBI Holdings B.V.

Farewell to a fantastic company

After more than 17 years, I shall be bidding farewell to TBI Holdings on 1 May 2019. I will be standing down from a fantastic company, a company I would describe as enterprising, adventurous and with both feet firmly on the ground. The decentralised group structure and the high degree of autonomy enjoyed by our companies enable us to operate close to the client. We know our clients and we know how to create value for them. Moreover, our operations benefit from short decision-making lines. I greatly appreciate the interaction between the individual companies and the group. The group's Executive Board not only oversees the companies but also acts as a sounding board for the individual businesses. This combination of local enterprise and the economies of scale afforded by a large group is our key to knowledge sharing, innovation and cooperation.

In recent years we have given priority to being better and smarter at what we do. Our strategy is founded on three pillars that are closely related to each other: economic value creation, social significance and personal development and growth. The key word is connection. The connection between our companies when they share their knowledge and work with each other. The connection with our clients. The connection between our skilled professionals as they work with advances in the digitisation and industrialisation of the construction process. The connection between old hands and young talent. We have successfully positioned ourselves as an exceptional company that offers its people opportunities to grow and realise their potential.

My own personal drive to work in this industry is that I believe we truly do make a difference. We are making a lasting and tangible contribution to the spatial organisation of the Netherlands, in all respects from housing and non-residential construction to building services, engineering and infrastructure. Construction and technology are not a goal in themselves, they are a means to an end. Our companies are playing an increasingly important role developing affordable housing, keeping the Randstad accessible and ensuring that the built environment is sustainable. Our portfolio provides all the tools we need to achieve these ambitions, from housing concepts such as lekkerEIGENhuis to green ships, and from smart buildings to the renovation of locks, bridges and tunnels. From monumental repurposings to sustainable energy solutions. We are at home in every market!

The six roundtable discussions presented in this report show what we are capable of in the fields of affordable and sustainable construction, circularity, alliances and safety at work. They highlight the undeniable changes in our approach and how we work with other parties and clients. We operate more as partners and are courageous enough to rise to new challenges. The dialogues provide a good insight into this new way of working. They are good examples of how we get the most out of our professional skills, entrepreneurship and innovative strength.

A helping hand in sustainability

The construction industry is a key player in the transitions to a circular economy and renewable energy. But who is going to pay the bill for sustainability? The government, the public or the industry? This is a thorny question. I accept that we have to strike the right balance but I also firmly believe that we will not make any significant progress until we bring down the cost of the energy transition.

This will be possible only if we achieve a critical mass to invest more in innovative solutions that reduce the realisation costs. We therefore support Bouw Agenda for the construction industry, with its call for an upscaling of our efforts and the bundling of initiatives and projects. National guidance is needed if the Netherlands is to meet its future housing requirements at both urban and exurban development sites.

Proud of TBI, proud of our people

I will certainly miss TBI. Despite the decentralised structure and the diversity of companies, I always experience the same TBI feeling, the same TBI style, the same TBI heart. That's fantastic. And it's important, because dedicated and enthusiastic people are the touchstone of a company's success.

I can look back with pleasure and satisfaction at the interesting times in which I have had the honour of working with my colleagues on the development of TBI. I am proud of what TBI has become today, but I am even prouder of our people. Without your inspiration, enterprise and energy, TBI would not be able to live up to its promise to Create the Future.

I wish Bart van Breukelen, Emiel Roozen and all the other TBI staff every success, and would like to thank all of you for your loyalty and commitment. It goes without saying that I also thank our clients, partners and shareholder for the trust they have placed in me and I wish TBI the very best for the future.

Rotterdam, 19 March 2019

Daan Sperling

CEO of the Executive Board
TBI Holdings B.V.



Bouwfotografie

Eefde Lock building

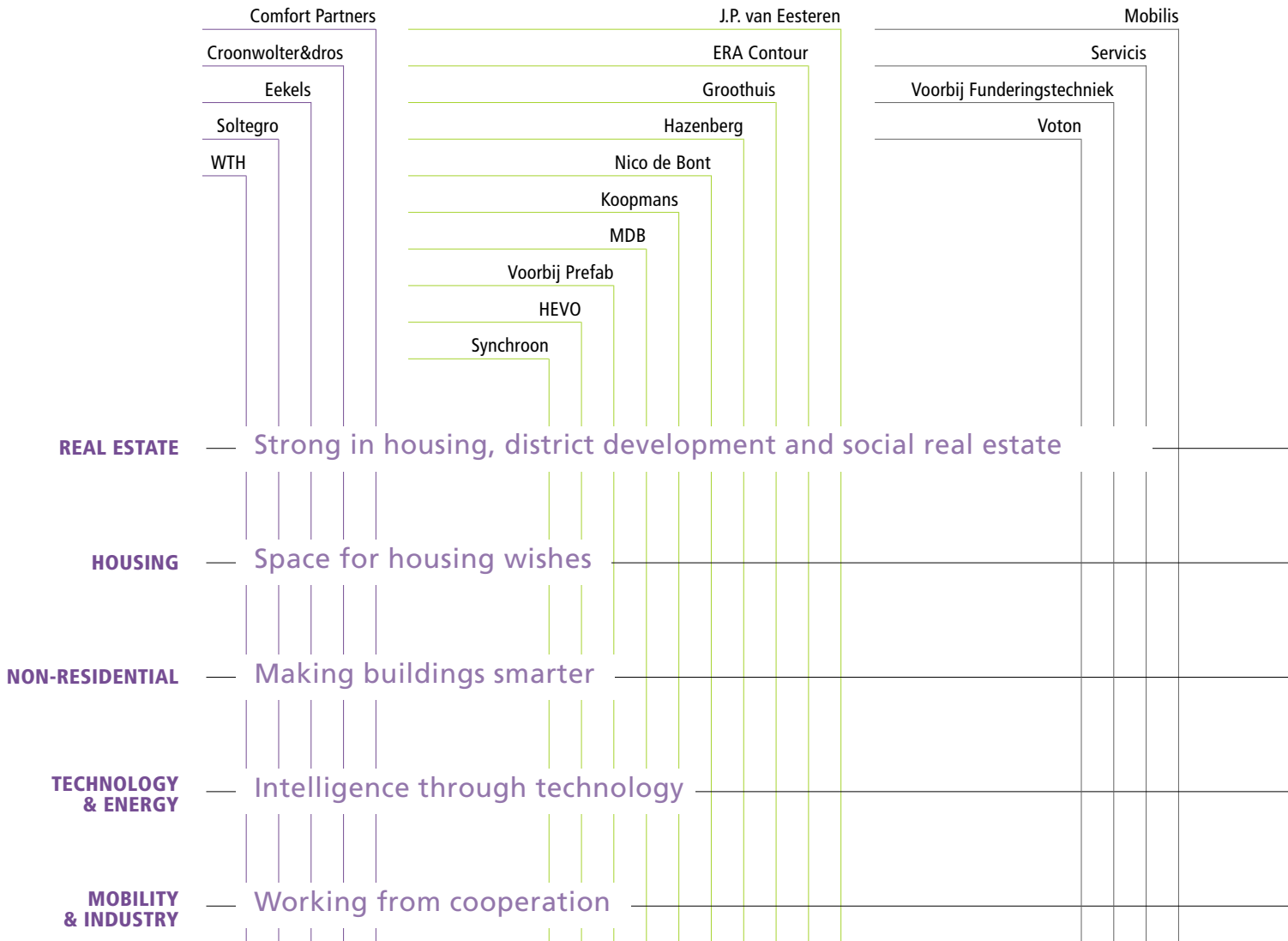
About TBI

TBI's field of operations

ENGINEERING

CONSTRUCTION & DEVELOPMENT

INFRASTRUCTURE



Profile

TBI consists of a group of companies that create sustainable solutions to renew, design and maintain the built environment. The group has a mixed portfolio of construction and engineering operations. Houses, offices, schools, hospitals, roads, tunnels, bridges, locks, factories and marine installations: our work can be seen throughout the Netherlands, from modest initiatives to major, high profile projects for public and private clients. TBI has five market-based clusters in the Engineering, Construction & Development, and Infrastructure segments. In each of these segments its companies serve the market from their own disciplines, work together and share their knowledge. The five clusters are:

Real estate – Housing – Non-residential – Technology & Energy – Mobility & Industry

With an average workforce of 5,733 FTEs, TBI achieved an operating revenue of €1,773 million in 2018.

Solid foundations for business

TBI is a private limited company subject to the full dual-board regime in the Netherlands. Its sole shareholder is Stichting TBI. The Stichting's objects are to secure the group's long-term continuity, preserve the built heritage and contribute to the education of our employees' children through Stichting Studiefonds TBI. These ambitions provide stability and freedom to do business, take judicious decisions and set goals for the short and the long term. This is how we create the future.

Market leadership

The TBI companies operate close to the client and are leaders in their markets. We have all the disciplines within TBI (property development, construction, technology, engineering and infrastructure) necessary to make a real contribution to the spatial organisation of the Netherlands. The composition of our portfolio is so wide that we are able to fulfil this social challenge and meet our clients' wishes.

We combine the professionalism of our companies with a generous measure of entrepreneurship within our network organisation. We welcome our clients' challenges and we in turn enjoy challenging them. We are proud of the mutual trust and respect we place in each other. We understand our clients, share the same ideas and keep asking questions until we find the best solution. The individual companies are thus close to the client but offer the group's economies of scale. Together if we can, alone if we must.

Each TBI company operates under its own name but also works with the others. Together, they form a flexible network organisation. For TBI, such cross-fertilisation is a source of innovation and synergy. Moreover, it strengthens our effectiveness and expertise when working on multidisciplinary development, construction and maintenance projects.

Together we span the entire supply chain, from concept to operation, and we are capable of playing the required management and operational roles throughout the process. In particular, the cooperation between our engineering companies and our construction and infrastructure companies provides a telling competitive advantage.

Circular entrepreneurship

All our decisions are based on economic and sustainable considerations. Circular entrepreneurship is becoming an integral part of our day-to-day work. The challenge of re-using buildings, products and raw materials demands that we develop a built environment that has lasting value and reduces our ecological footprint.

Attractive workplace

Our ambition is to offer talent an attractive workplace where they enjoy working on our projects and continuously improving themselves, fully aware that construction is not an end in itself but a means. Good personal development opportunities, training and education, healthy labour relations and favourable working conditions in a safe and healthy workplace are preconditions for success.

Building on values

Responsibility, passion and connection make up our organisation's DNA. They define our culture and determine how we work with each other, our clients and other stakeholders. They underpin our conduct and our decisions, and enhance our clarity and transparency.

Technical skill, entrepreneurship and innovative strength are our core competences. They make a telling difference when we apply them in our day-to-day work. Our clients recognise these qualities as the hallmarks of the TBI companies.

We safeguard our core qualities by:

- investing in leadership and culture
- firmly anchoring the core qualities in our management development policy and TBI academy programmes
- retaining and developing technical skills (including support for vocational institutions)
- encouraging innovation through the TBI Innovation Fund
- cooperating and sharing knowledge within the clusters.



Presentation of the TBI Innovation Award 2018

Five-year key figures

	2018	2017	2016	2015	2014
Market					
Orders received	2,581	1,711	1,833	1,508	1,491
Order book	2,630	2,374	2,136	1,795	1,743
Housing units sold	1,731	1,251	1,671	1,707	1,059
Housing units handed over	1,785	2,345	1,649	nb ²	nb ²
Financial¹					
Operating revenue	1,773	1,708	1,573	1,557	1,603
Operating result before depreciation and amortisation (EBITDA) ¹	54.7	46.0	11.7	32.7	31.0
Operating result (EBIT) ¹	36.2	28.0	-7.3	14.2	8.0
Net result	18.2	10.6	-16.7	1.3	1.4
Total assets	812.6	779.9	707.7	766.8	746.9
Shareholder's equity	255.1	240.1	229.7	247.0	245.9
Interest bearing long-term loans	71.3	66.1	66.5	52.5	24.7
Interest-bearing short-term loans	10.5	14.6	13.2	14.1	18.5
Net working capital	-2.6	28.0	65.3	47.7	72.4
Cash and cash equivalents	229.3	186.7	138.3	166.5	123.4
Ratios					
Operating result before depreciation and amortisation (EBITDA) : operating revenue ¹	3.1	2.7	0.7	2.1	1.9
Operating result (EBIT) : operating revenue ¹	2.0	1.6	-0.5	0.9	0.5
Net result as a percentage of:					
*operating revenue	1.0	0.6	-1.1	0.1	0.1
*shareholder's equity	7.1	4.4	-7.3	0.5	0.6
Total assets as a percentage of guarantee capital	34.5	34.0	36.0	32.2	32.9
Employees³					
Number of full time employees as at year end	5,758	5,746	5,677	5,744	5,981
Training costs per full time employee in euros	744	692	702	578	nb ²
Breaches of the TBI Code of Conduct	17	9	16	14	18
Health and safety					
Lost time incidents	36	39	37	33	73
Incident frequency (IF)	3.1	3.5	3.6	3.1	6.1
Sickness absenteeism (%)	4.7	4.5	4.4	4.1	4.4
Environmental impact					
CO ₂ emissions (ktonnes)	33	32 ⁴	29	29	32
CO ₂ emissions per million € revenue (tonnes)	18,7	18,5	18,4	18,9	20,0
Waste sorted (ktonnes)	31	33	28	25	21
Waste sorted per million € revenue (tonnes)	17,4	19,3	17,9	16,1	13,0
Percentage waste sorted	59,6	51,5	66,5	nb ²	nb ²
Percentage sustainable timber	94	95	91	95	92

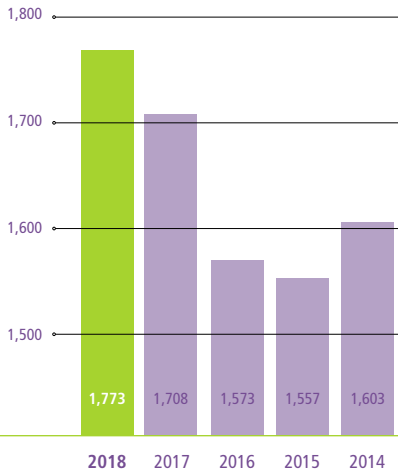
1 Operating result from ordinary activities (before reorganisation costs and impairments in value).

2 Not available.

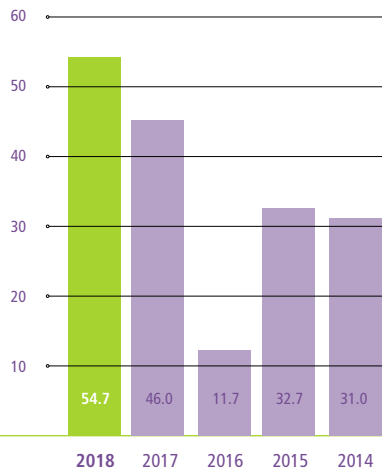
3 Excluding foreign entities for the years up to and including 2017.

4 The total CO₂ footprint in 2017 has been adjusted for changing insight into the application of the scope definition in relation to refrigerant gases.

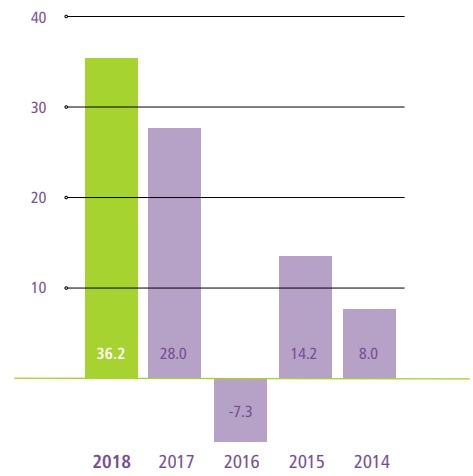
Operating revenue
(in millions of euros)



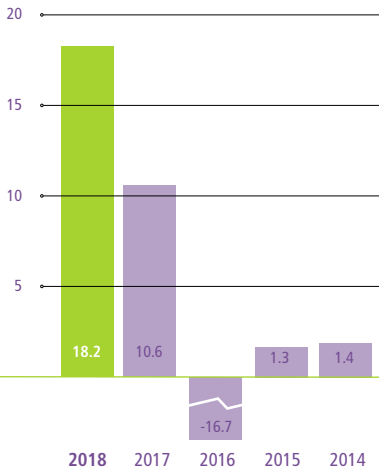
Operating result before
depreciation and amortisation¹
(in millions of euros)



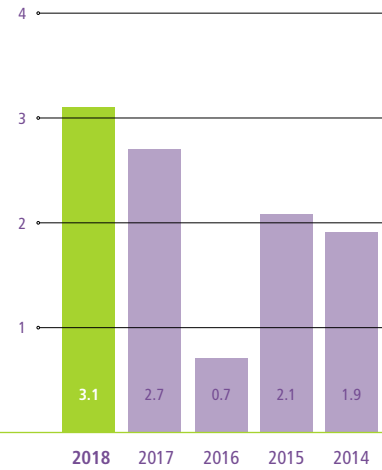
Operating result¹
(in millions of euros)



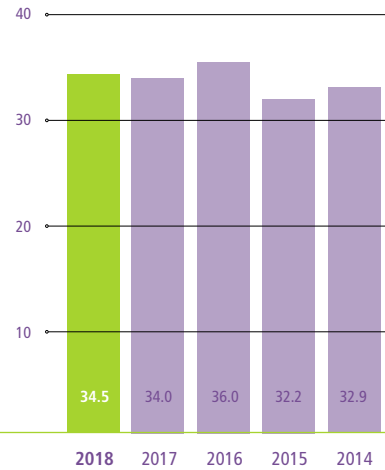
Net result
(in millions of euros)



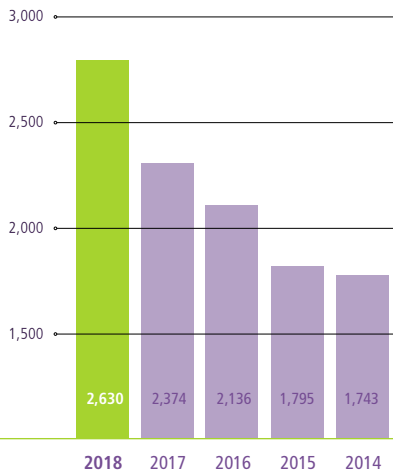
Operating result before
depreciation and amortisation
(EBITDA) as a percentage of
operating revenue¹



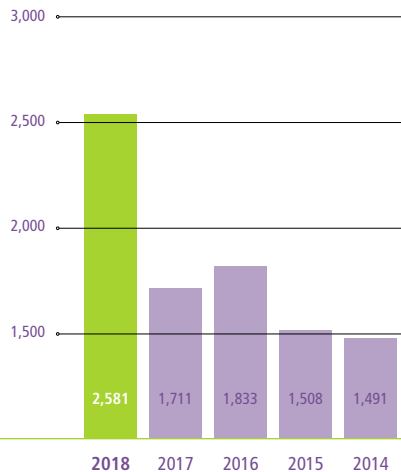
Total assets as a percentage
of guarantee capital
(in %)



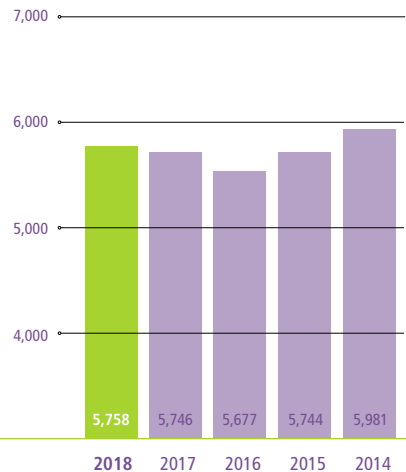
Order book
(in millions of euros)



Orders received
(in millions of euros)



Number of full time employees
(as at year end)



How TBI creates value

Vision

The spatial organisation of the Netherlands faces many social challenges. Society and our field of work are being transformed by demographic changes in the population and labour market, mobility trends, urbanisation and the required sustainability of the built environment. Rapid digitisation and smart technologies are beginning to dominate our homes and our workplaces. These technological advances are essential to overcome the environmental and mobility challenges we face and that will be instrumental in the transition from centralised fossil fuels to renewable energy.

We are building a society with a strong infrastructure, smart offices, and factories and homes that generate energy rather than consume it. Technology will improve the quality of our lives and work. We build safe tunnels, bridges and locks and realise ground breaking projects. But we also want to preserve existing and historic buildings for future generations by rebuilding and renovating them and making them more sustainable. We cherish our built heritage.

To realise our vision, our strategy is based on three pillars:

- market leadership
- circular entrepreneurship
- attractive working environment

Mission

TBI wants to improve the quality of housing, work and mobility

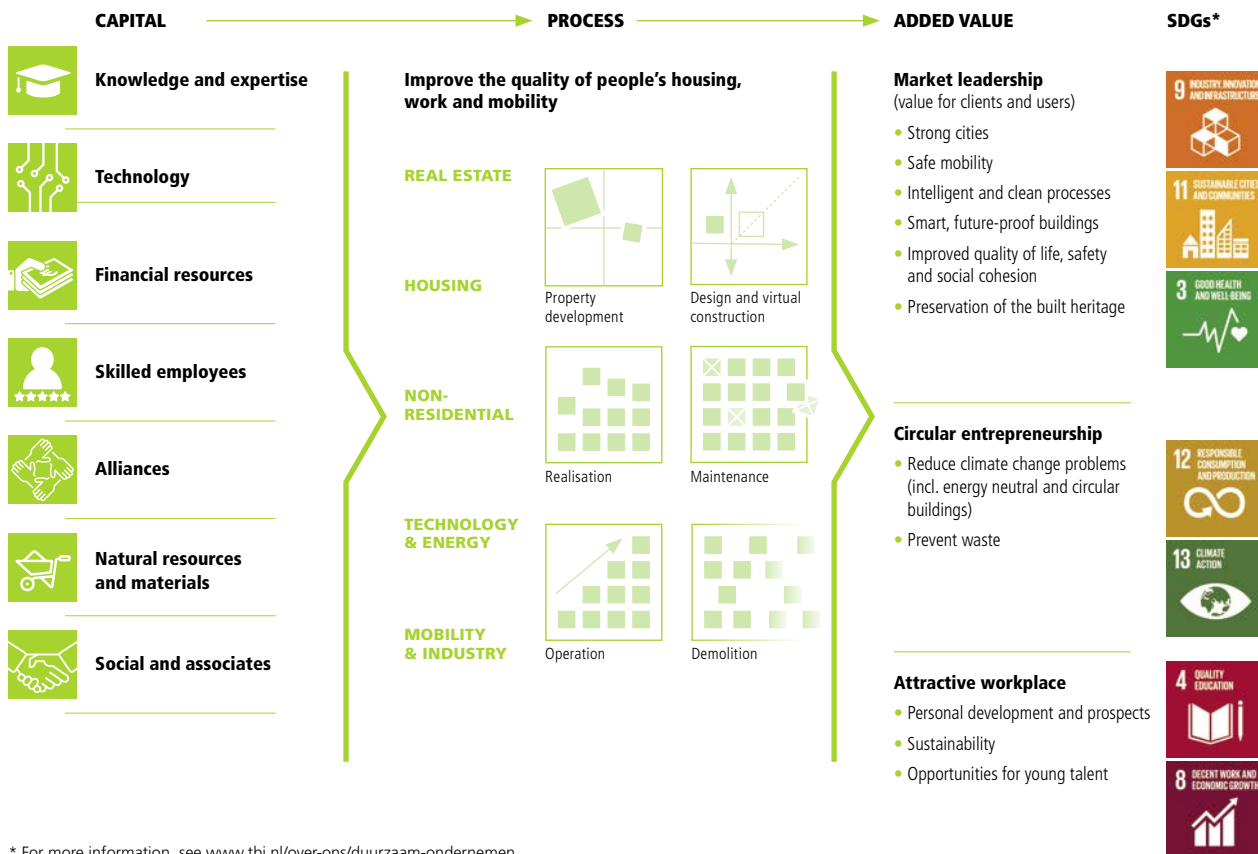
We can realise our mission by sustainably renewing, organising and maintaining the built environment. Together with our partners, we are building the Netherlands of the future in the belief that things can always be better: more attractive, smarter, more efficient, more sustainable. To live up to our ambitions we need the best people. That is why we value personal development and encourage entrepreneurship and initiative.

TBI. Create the future



TBI's business model

Our business model reflects how our mission and vision create value for our clients, our people and society.



* For more information, see www.tbi.nl/over-ons/duurzaam-ondernemen

TBI in a changing society

Major social issues are having a defining impact on our industry and our own operations. Those issues lie at the heart of our strategic decisions because they present opportunities to grow our business in tandem with our contribution to the built environment.

Formidable challenge to the construction industry

The population of the Netherlands is projected to rise to 18 million by 2030. An additional 900,000 homes will have to be built over the next 12 years to house them all. House builders will therefore have to complete between 80,000 and 85,000 new, climate-neutral dwellings every year. A substantial proportion will have to be built in the main cities without compromising the quality of life.

Energy transition: An energy-neutral and gas-free Netherlands by 2050

In addition, we must overcome the challenge of sustainability. The entire housing stock must be energy neutral by 2050. The government has set an annual target of improving the sustainability of 200,000 homes in due course, with 50,000 a year no longer being connected to the gas network. Housing associations are seeking to transform 102,500 existing dwellings into gas-free homes by 2021.

The sustainability of both new buildings and the current housing stock is laid down in international treaties and laws, including the Paris Climate Agreement and the EU Energy Performance of Buildings Directive (EPBD), which will be transposed into the BENG requirements for near-zero energy buildings in the Netherlands.

The Netherlands presented its own climate agreement on 10 July 2018. It will have a major impact on the real estate market. It requires all municipalities to draw up plans by 2021 explaining how and when they will ensure that every neighbourhood is sustainable. The energy transition will demand major investments in:

- 1) the supply of sustainable energy,
- 2) the adaptation of the current energy infrastructure, and
- 3) the insulation of homes and buildings and their adaptation to receive and consume sustainable energy. The availability of sufficient, skilled technical personnel will be a critical success factor for the climate goals.

Accelerated sustainability of the built environment (Delta Plan for sustainable renovation)

Offices, shops, logistics centres, schools, hospitals and other buildings must also become sustainable. The “Delta Plan” presented by the Dutch Green Building Council (DGBC) has thrown down the gauntlet to make up for lost ground and have all buildings in the Netherlands “Paris-proof” by 2040. Apart from sustainability, it also highlights the importance of healthier working and living environments.

Transition to a circular construction economy

To make the built environment even greener, we are also changing our approach to the building process and how we use building materials. We are introducing demountable and remountable buildings, materials passports and giving use higher priority than ownership. The aim of this “circular construction” is to develop buildings that hold their value and to reduce waste and CO₂ emissions.

The Transition Agenda for a Circular Economy in Construction has also been launched to complement the Materials Agreement and the government-wide programme for the Netherlands to become a circular economy by 2050. It requires all public authorities (national, provincial and municipal) to award only circular contracts as from 2023. Other measures include:

- a decision on the introduction of compulsory materials passports in 2020;
- amendments to the building regulations;
- a measurement system for circular construction;
- awareness and activation programmes.

Reducing the carbon footprint of construction

The circular agenda also sets challenging targets to reduce the carbon footprint due to the extraction, production and transport of building materials. It matches the Bouw Agenda for the construction industry ambition of halving CO₂ emissions in the construction industry by 2030 and completely eliminating them by 2050: from production and manufacture to use and transport.

Guaranteed access and safety

The government wants to invest additional funds to replace and renovate existing infrastructure to ensure accessibility in the years ahead. To manage the increase in traffic flows, it is also making additional investments in the capacity of roads, railways and shipping lanes. Climate resilience and, by extension, flood protection, are important issues.



Sustainable shipping

To achieve the worldwide climate goals, the shipping industry must make more and better use of energy-efficient vessels. International shipping must halve its greenhouse gas emissions by 2050 in comparison with 2008. En route to this goal, ships must emit 40 per cent less CO₂ by 2030. Eventually the industry must be completely climate neutral.

Tight labour market

The building and engineering market needs 55,000 new workers over the next five years to achieve the construction targets. The workforce in the industry will therefore have to increase sharply if even longer completion times for new development projects are to be avoided. Apart from retaining skilled workers, we must recruit new ones and seek to maximise the number of people joining and successfully completing training courses. We must also attract labour migrants and career changers from other industries. Increased efficiency, digitisation, industrialisation and robotisation can eventually increase the volume and quality of work using fewer people. But by themselves they are not the solution. Maintaining the technical skills of building supervisors and carpenters, electricians and calculators is at least as important.



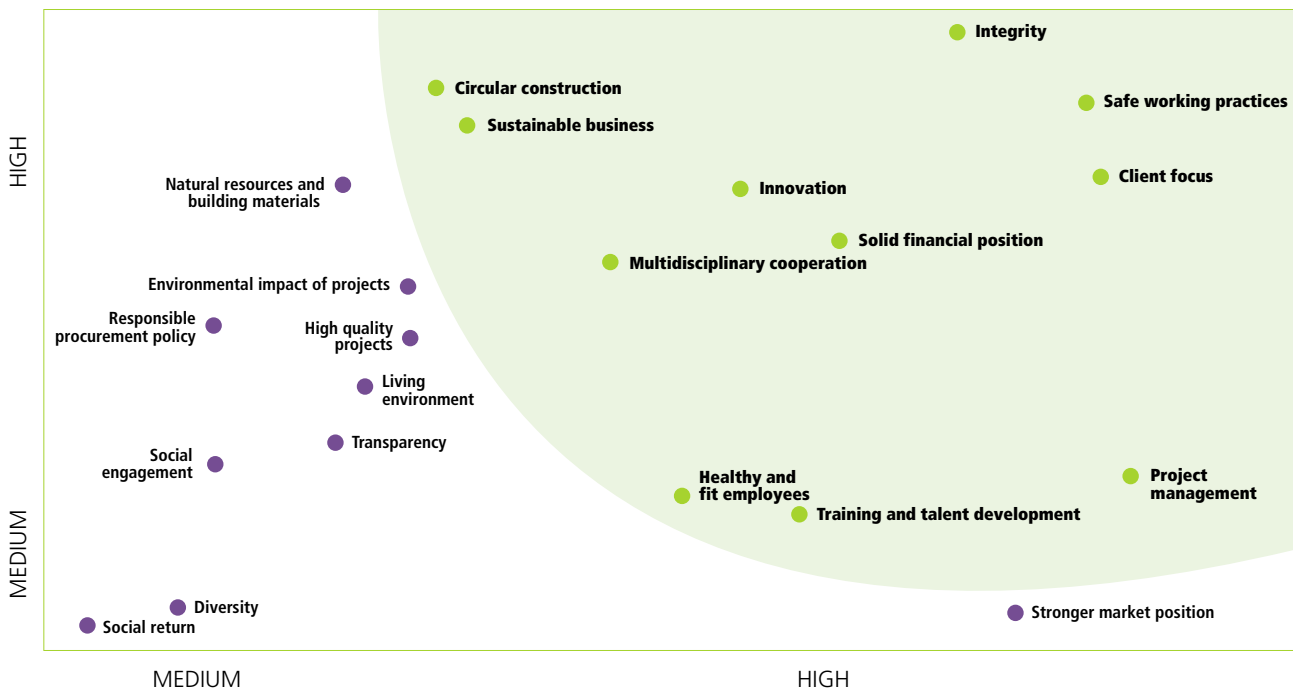
Voorbij Prefab factory

What stakeholders identify as material

TBI is in good contact with a wide spectrum of parties who have a stake in our activities or who are affected by them. We carried out an extensive materiality analysis based on input from more than 150 internal and external stakeholders in 2017 in order to align our strategic priorities more keenly with those of our stakeholders. Meetings were then held with 80 of TBI's "future-makers" in October 2017 and February 2018. The issues were reassessed as their relevance and validity for this annual report. We concluded that the material issues originally identified in 2017 were still relevant.

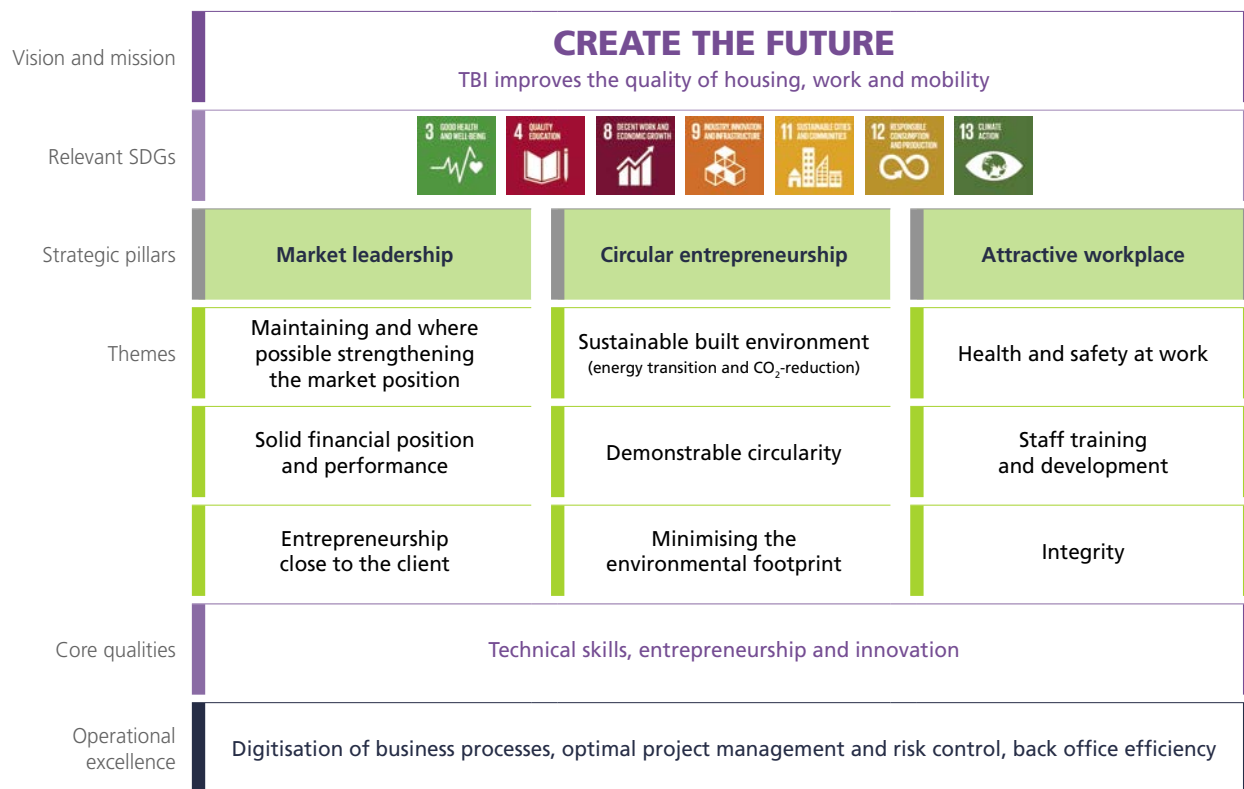
The materiality matrix shows both the issues of material importance to our stakeholders and their impact on TBI's ability to create value. The materiality matrix below sets off the themes our main external stakeholders think are important (on the y axis) against the influence TBI can bring to bear on them (on the x axis). The themes in the green area are linked directly to our strategy.

Materiality matrix



Strategy

Strategic framework



Three strategic pillars

Our strategy is based on three interrelated pillars: economic value creation, social impact and personal development. Our goal is to improve TBI's profitability so that we have sufficient investment resources. Investments are important because more and more clients are demanding sustainable, innovative solutions. We have identified themes to implement each of the three pillars.

Market leadership

Ambition: through continuous investment in innovation and digitisation and by focusing on entrepreneurship close to the client, we want to at least retain our position in the market and strengthen it wherever possible. We seek robust financial results based on our attention to the quality of operating revenues, strict risk management and optimal project management.

We put our entrepreneurship and our skills at our clients' service. By standing in their shoes, we facilitate their success and results. We propose solutions that solve their problems.

We invest in trust and stand out for client satisfaction. TBI is a firm believer in a flat decentralised group structure and operating as close to the client as possible.

We create value for our clients by meeting their demands and responding to their wishes. We challenge ourselves every day with new, complex projects that require smart cooperation, both among our own companies and with partners, and smart techniques. Our clients know they can trust the solutions we propose.

We want our work to stand out. We challenge each other to realise the best results on time, on budget and of the right quality.

Circular entrepreneurship

Ambition: we are firm believers in a circular economy in the construction industry, with the ultimate goals of an energy-neutral built environment and fully circular operations.

Circular entrepreneurship is becoming an integral part of our day-to-day work. The guiding principles are CO₂ reduction, energy neutrality on the one hand and re-usable buildings, products, materials and natural resources on the other in order to create a built environment with lasting value that reduces our ecological footprint. In our vision, circular entrepreneurship is inseparable from innovation. We join forces with other links in the value chain to work beyond our own profession. By encouraging our staff to be entrepreneurial, creative and critical and by looking beyond the beaten path, we deliver the products and services that society needs, maximise our re-use of materials and build circularly wherever possible. All TBI companies are alert to the circular solutions they can offer their clients. They are opportunities to create extra value.

Attractive workplace

Ambition: TBI offers a safe and healthy workplace to talent and retains and develops their skills. We want to be one of the most attractive employers in our industry, one where staff can perform to the best of their ability and where we can recruit and retain the best talent and successful professionals.

The renewal of the construction industry makes different demands on our employees and on us as their employer. We want to attract highly skilled people with a wide range of competences, people who can take a fresh look at our business and apply their digital know-how to strengthen our companies. We are constantly on the look-out for people with technical skills. That is why we will continue to invest in vocational training.

TBI offers talent an attractive workplace. We are constantly on the look-out for enterprising professionals, for skilled craftsmen with a passion for construction and engineering who can work together and connect. We put the conditions in place for our employees to develop to the best of their ability: every TBI company must offer a safe and healthy workplace, good labour relations and appropriate development opportunities. We expect our people to understand their professions but we attach at least as much value to their attitude and conduct. Integrity is one of the mainstays of our organisation and a guiding principle in all our actions.

NEW GOEDE DOELEN LOTERIJ OFFICE COMPLETED

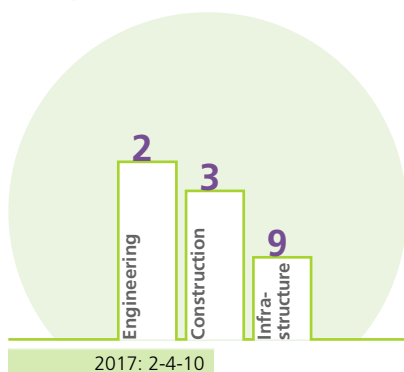
Most sustainably renovated building in the Netherlands



Key performance indicators*

Market leadership

Top 5 in our core markets**

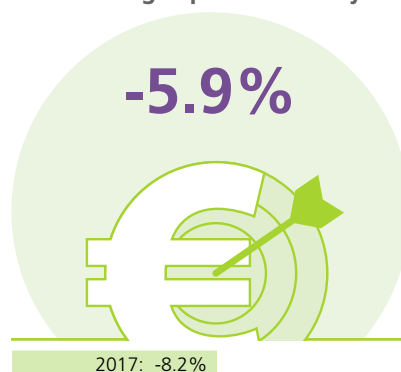


** Source: © 2017 b&b info

Operating (EBIT) margin

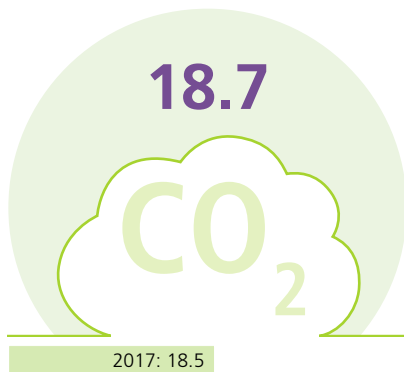


Working capital efficiency

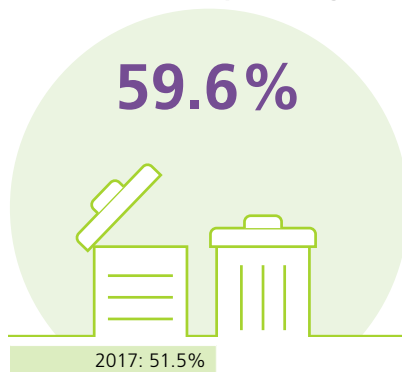


Circular entrepreneurship

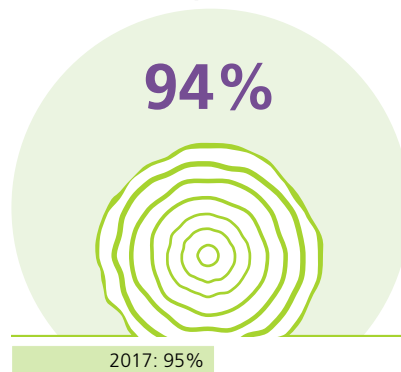
CO₂ emissions per million € revenue (tonnes)



Sorted waste percentage



Percentage sustainable timber purchased

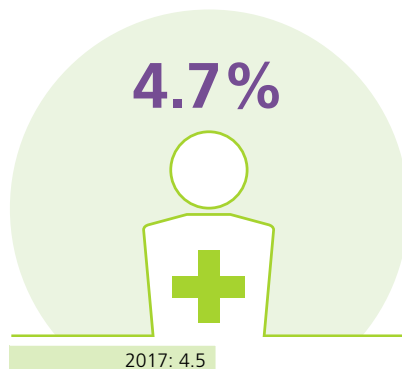


Attractive workplace

Incident frequency (IF)



Sickness absenteeism



Breaches of TBI Code of Conduct



*A list of all our key performance indicators can be found on page 72.

Implementation of the strategy in 2018

Market leadership

Maintain and strengthen our market position wherever possible

TBI is seeking a position in the top 5 of its self-defined core markets by focusing its knowledge-based business on margin in preference to volume.

Initiatives and actions

In 2018:

- improved our design and build processes and made them more efficient by means of digitisation and prefabrication;
- prepared a digitisation agenda with BIM maturity as a key theme;
- also invested in our innovation ecosystem, both within the TBI companies and in cooperation with complementary parties and specialists.

Achievements and facts

In 2018:

- we maintained our position in the Engineering market and improved our position in the Construction and Infrastructure markets;
- we strengthened our order book in both quantitative and qualitative terms: at €2.6 billion, the order book is 11 per cent higher than at the end of 2017 and represents approximately 18 months' worth of scheduled work;
- we completed 728 prefabricated carcasses (2017: 1,057). In 2018 the TBI companies built fewer concept dwellings owing to delays in permit awards and building plan assessments. The number of carcasses we built for third parties, however, was higher;
- we acquired Soltegro, a leading design consultancy (50 employees) specialising in technical systems for the infrastructure and energy sectors;
- we participated in startups, including Concr3de (3D printing) and Sustainer Homes (modular building systems);
- we provided €1.5 million from our Innovation Fund to fund innovative process and product improvements proposed by the TBI companies;
- ten ideas and nine innovations were submitted for the TBI Innovation Award. The award winners were TagBI as the best idea (Koopmans) and Base FT as the best innovation (Voorbij Funderingstechniek).

TBI has solid foundations to build further on its market leadership in the years ahead by introducing innovative product-market combinations and investing in digitisation and operational excellence.

Solid financial position and performance

Our solid financial position allows us to invest in products and processes, circular construction and new alliances. Our management processes focus on a number of KPIs to ensure our financial strength.

Initiatives and actions

In 2018:

- gave margin higher priority than volume and made the growth of operating revenue subordinate to an improvement in the project results;
- sharpened our focus on eye-catching projects with returns that matched their risk profiles;
- drew up a strategic agenda and adopted the following financial KPIs:
 - operating margin (EBIT) from ordinary activities: 2 – 4 per cent
 - operating margin (EBIT) from ordinary activities: 2 – 4 per cent
 - trade working capital efficiency: ≤ -5 per cent
 - reduction of development investments: \leq €150 million
 - ROIC (EBIT / invested capital): ≥ 10 per cent
 - solvency (based on guarantee capital): ≥ 30 per cent

Achievements and facts

In 2018:

- in the long tail of the credit crisis, we achieved an operating margin (based on EBIT) of 2 per cent (2017: 1.6 per cent);
- we reduced the risk profile of several older projects with a poor return;
- trade working capital efficiency deteriorated from -8.2 per cent to -5.9 per cent as a result of a higher average trade working capital in 2018 than in 2017 on slightly firmer operating revenue. This improvement was due in part to measures we took to strengthen working capital, such as cash calls and better contractual agreements;
- our total cash and cash equivalents improved further, closing the year €43 million higher than as at year end 2017;
- we reduced net working capital to €-3 million (2017: €28 million) by reducing our investments in development projects;
- our ROIC came to 10.7 per cent.

The KPIs we have adopted are effective management tools to monitor our financial strength and achieve our financial targets.

Entrepreneurship close to the client

TBI consists of autonomous companies whose management boards have the freedom to conduct business as they think appropriate. For many years, TBI's business philosophy has been: entrepreneurship from the bottom up. We encourage market-driven enterprise with room for "couleur locale" and a regional presence.

Initiatives and actions

In 2018 we:

- concentrated on improving quality by reducing the number of outstanding works on completed projects;
- selected a series of benchmarks to improve client appreciation / client satisfaction based on the Net Promoter Score (NPS). Greater use is already being made of benchmarks in the infrastructure sector (Rijkswaterstaat, ProRail).

Achievements and facts

In 2018:

- 10.4 per cent of the housing units we handed over had zero outstanding works.

We will continue to apply external benchmarks to increase client satisfaction in 2019.

Circular entrepreneurship

Sustainable built environment

One of the most pressing challenges to energy transition is the sustainability of the built environment. All TBI companies contributed to the transition to low-energy homes, smart buildings, sustainable infrastructure and affordable sustainable energy solutions in 2018.

Initiatives and actions

In 2018 we:

- advanced the energy transition by building / renovating near-zero energy, zero carbon and gas-free housing units;
- developed the beterBASISHuis and lekkerEIGENhuis gas-free housing concepts (TBI WOONlab);
- developed SmartPack into an energy-neutral renovation concept for the thorough renovation and sustainability of older properties (Hazenberg);
- developed sustainable energy projects in-house (Croonwolder&dros Smart Energy) and with third parties (Switch Energy);
- developed a tunnel that will return as much energy to the transmission network as it consumes each year (Croonwolder&dros).

Achievements and facts

In 2018 we:

- built 307 BENG near-zero energy, 22 NoM zero carbon and 756 gas-free housing units (2017: 25 BENG, 122 NoM and 467 gas-free). The sharp fall in NoM units in 2018 was due to the national debate regarding the affordability and financing of the energy transition;
- delivered 3.8 MW in solar projects;
- completed the largest solar roof in Amsterdam: 9,660 solar panels producing 2.4 MWp of energy every year (Croonwolder&dros in cooperation with Switch Energy).

In 2019 priority will be given to developing new energy concepts, products and services in collaboration with clients and other parties in order to further upscale and accelerate the energy transition.

Contribution to circularity

We are just at the beginning of the transition to a fully circular construction process. Both TBI and the client often feel like pioneers. To re-use materials, we must reconsider not only the way we design, develop, build and engineer but also how we arrange the logistics, business models and financial solutions. Our first experiences with circularity have given us a taste for more. Re-use offers opportunities to become (and remain) a leader in our markets and have a positive influence on the environmental impact of our activities. More important, our client are increasingly asking us for circular solutions.

Initiatives and actions

In 2018 we:

- concluded a partnership agreement with Madaster, the independent public platform that generates materials passports with a view to eliminating waste worldwide;
- signed the Concrete Agreement for the circular use of concrete;
- increased our staff's circularity knowledge and skills. We organised a raft of meetings and workshops and supported students graduating in such this areas as how to measure the circularity of the built environment;
- began to develop a fully circular housing concept (TBI WOONlab).

Achievements and facts

In 2018:

- developed a Madaster materials passport for the Lelystad Airport project (J.P. van Eesteren);
- worked on the remountable circular head office of Triodos Bank using a Madaster materials passport;
- offered Rijkswaterstaat a circular solution by giving camera surveillance systems a second life (Croonwolter&dros).

We will continue to prioritise circularity in the coming year. We expect a great deal from our new circular housing concept and look forward to completing the first units in 2019. We also expect a great deal from Madaster and its development of a version of its platform for the infrastructure market.

Minimising our own ecological footprint

TBI wants to circularise its own operations. To do so, we will have to adapt our working methods, our energy and materials consumption and our procurement policy.

Initiatives and actions

In 2018 we:

- adapted our lease scheme to encourage the use of electric vehicles;
- drew up an action plan to place sustainable procurement more firmly on the agenda within the organisation;
- became the only large construction group to join the Green Deal for Circular Procurement 2.0. As a member of this network, we will implement two circular procurement projects;
- worked on an extensive analysis of sustainability measures for our own premises. As a result, the first solar panels will be fitted on suitable roofs of our office premises in 2019.

Achievements and facts

In 2018:

- TBI emitted a total of 33.1 ktonnes of CO₂ (2017: 31.6 ktonnes), equal to 5.8 tonnes per FTE and 18.7 tonnes per million euros of revenue. In comparison with 2017, the total carbon footprint increased by 4.8 per cent. This was due to the higher volume of activities;
- 1.8 per cent of our vehicle fleet was electric (2017: 0.3 per cent);
- our activities produced 30.8 tonnes of waste, 59.6 per cent of which was sorted before disposal (2017: 32.9 tonnes, of which 51.5 per cent was sorted);
- we took third place in the annual Forest50 Ranking of FSC Nederland. The percentage of sustainable timber we purchase has been stable at around 94 per cent for many years (2017: 95 per cent).

We will again take measures to reduce our ecological footprint even further in 2019. We will continue to encourage our people to drive electric vehicles and make our materials flows more transparent in order to prevent waste and re-use valuable resources. We will also sharpen up our sustainable procurement policy and initiate a dialogue on sustainability and circularity within the supply chain.

Attractive workplace

Safety

Safety at work is a key priority at TBI. All companies work in accordance with the group-wide TBI Safety Regulations. The regulations are based on safe behaviour and safety awareness, and increasingly on the way we work with our clients.



Initiatives and actions

In 2018 we:

- rolled out the TBI Safety App to increase safety awareness. The app enables TBI's staff and subcontractors to report safe and dangerous situations;
- continued the Learning from Maps campaign so that the staff can learn from incidents;
- took part in the National Safety Day for the building industry under the slogan "From having to, to wanting to";
- endorsed the Safety Governance Code for the Building Industry; the company was represented in the "leading group" of CEOs of the Central Government Real Estate Agency.

Achievements and facts

In 2018:

- three TBI companies were certified at level 3 on the Safety Culture Ladder, an assessment method to improve safety awareness and conscious safe behaviour in organisations. The three companies were Croonwolder&dros (Industry division), Mobilis and Servicis;
- the number of lost time incidents involving our own staff and external workers totalled 36 (2017: 39), including 10 serious incidents (2017: 6). The incident frequency (IF) came to 3.1 (2017: 3.5). Apart from lost time incidents, there were 152 incidents without lost time (2017: 129). The improvement in the safety culture is reflected in the increased number of reports of near incidents, dangerous situations and dangerous conduct;
- we implemented the General Site Safety Instructions (GPI).

To embed safety even more firmly in our culture, we will define TBI-wide safety values as a basis for further measures in 2019.

Health

The health and fitness of our people throughout their working lives are exceedingly important. Our health expertise centre, TBI Vitaal, advises all our companies on the vitality of our people and their fitness for work.

Initiatives and actions

In 2018:

- TBI Vitaal turned its attention to preventive measures to promote discussion of the staff's physical and mental health;
- the Central Works Council commissioned a study of sustainable fitness for work and the workload within TBI.

Achievements and facts

In 2018:

- the sickness absenteeism rate increased fractionally to 4.7 per cent (2017: 4.5 per cent). This is outside our target of < 3.8 per cent, owing in part to the high proportion of long-term sickness absenteeism, which increased from 2.6 to 2.9 per cent.

TBI Vitaal will continue with its curative strategies in 2019 but will also take a more preventive approach and work with the TBI companies on the staff's fitness for work.

Staff training and development

We expect our people to adapt to changes in the industry and to continuously work on their personal development. TBI academy supports them with training courses on personal and leadership development, project management and social skills.

Initiatives and actions

In 2018 we:

- rolled out the newly developed project management courses (basic and advanced). These programmes teach the Prince II Principles and show students how they can be applied in practice. Experienced project managers share their knowledge and best practices learnt from prestigious projects;
- launched the TBI Introduction programme for new members of staff to meet each other, learn about TBI in a broader perspective and start to build their own internal network. Young professionals were also invited to the "Meet the Executive Board Lunch" to exchange thoughts with the Executive Board.

Achievements and facts

In 2018:

- we invested 102,049 hours (an average of 17.7 hours per FTE) and more than €4.2 million in staff training and personal development (101,135 hours and €3.9 million in 2017);
- 234 members of staff took part in training programmes organised by TBI academy (55 in 2017). The increase in numbers was prompted by the addition of a project management course to the programme;
- we invested in young talent by recruiting a new group of management trainees. Twelve university graduates are taking turns at various TBI companies. They are being introduced to the engineering, construction and infrastructure professions and following personalised training courses to help them develop further within TBI;
- Stichting Studiefonds TBI received 2,462 applications for study grants in the 2017/2018 academic year and honoured 2,185 of them. The TBI Studiefonds had a budget of €1.4 million in 2017/2018.

Integrity

The TBI Code of Conduct lays down rules on the integrity and transparency of our actions. The values and standards set out in our Code of Conduct must be recognisable in our day-to-day work. The TBI Code of Conduct is a specific element in the individual contracts of employment we sign with each employee.

Initiatives and actions

In 2018 we:

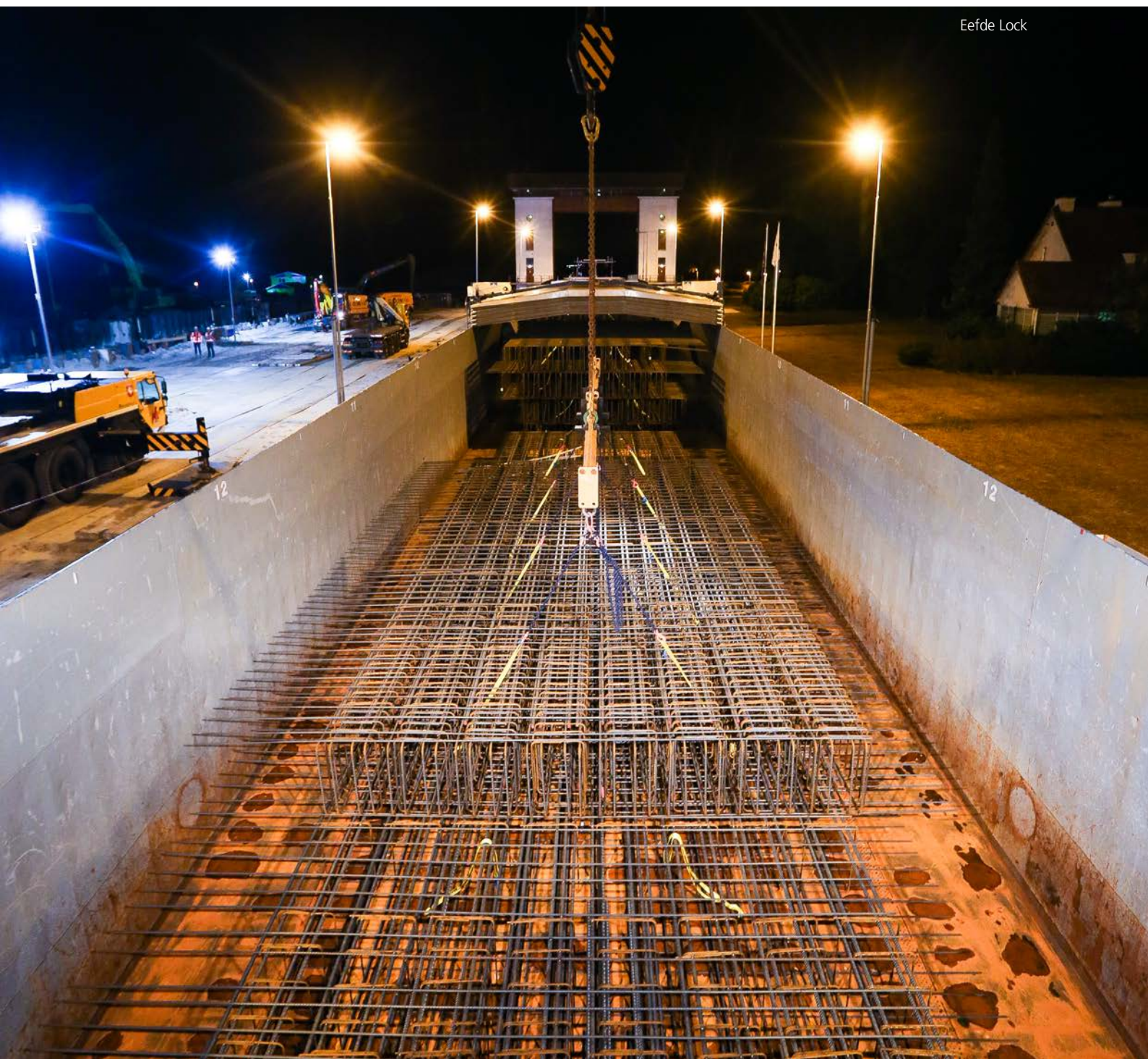
- took measures to increase awareness of the need for and importance of integrity in our work. The compliance programme defined in the TBI Code of Conduct is the key to integrity. Its goal is to have all TBI's staff understand and observe the content and scope of our rules of conduct;
- organised meetings for all compliance officers within the organisation. The compliance officers are responsible for the implementation of the compliance programme at their own companies;
- developed the Integrity e-learning module and highlighted the need to prevent undesirable behaviour, such as bullying, aggression and intimidation. Such behaviour is at the root of unhealthy and excessive psychosocial work stress and is not appropriate in a safe and healthy working environment. The integrity of our operations therefore also contributes to health and safety at work.

Achievements and facts

In 2018 we:

- received 308 reports concerning the TBI Code of Conduct (2017: 253). In total, 17 involved breaches of the Code (2017: 9);
- received four reports concerning breaches of laws and regulations (2017: 1).

All compliance officers will introduce the Integrity e-learning module in their compliance programmes in 2019.



Financial

Market prospect

TBI earns more than 95 per cent of its revenue in the Netherlands. The Dutch economy continued to grow strongly in 2018. Consumer confidence remained positive and, in combination with historically low interest rates, has been underpinning the housing market (both rented and owner occupied) for several years. The redevelopment, renovation and maintenance markets also performed well. These favourable conditions are reflected in the results of the Construction & Development segment. The Engineering segment was initially held back by pressure on volumes and prices in the non-residential market but recovered rapidly in the course of the year. In the Marine & Offshore market, a segment served chiefly by our engineering companies, we are still having to contend with low investment volumes brought about by overcapacity. The Industry market, by contrast, continued the previous year's strong performance. The Infrastructure segment benefited from the ample volume of new projects coming onto the market at firmer prices and the segment reported an increase in its order book.

Operating revenue and results

TBI improved its profitability in 2018. The Engineering, Construction & Development and Infrastructure segments all posted higher results than in 2017.

TBI's total operating revenue increased by 3.8 per cent to €1,773 million (2017: €1,708 million). The operating result from ordinary activities jumped from €28.0 million in 2017 to €36.2 million in 2018. Our order book advanced by 11 per cent. The TBI companies accept new engagements only if the potential return on a project matches its risk profile. We tightened up our project management further during the year and improved the cost structure. We are now in a better position to pass on project-related costs.

The business processes were streamlined again in 2018 and a series of organisational changes were made at a cost of €5.2 million (2017: €7.1 million).

The operating result before depreciation and amortisation (EBITDA) increased by 19 per cent to €54.7 million. After adjustment for non-operating costs, the operating result from ordinary activities (EBIT) rose by 29 per cent to €36.2 million (2017: €28.0 million).

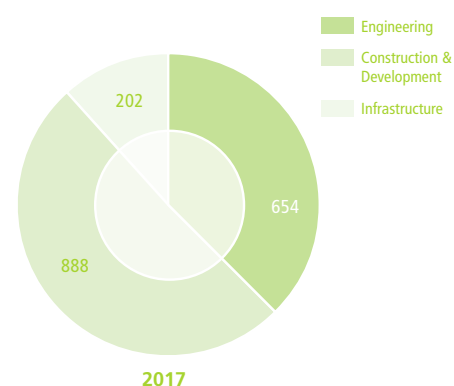
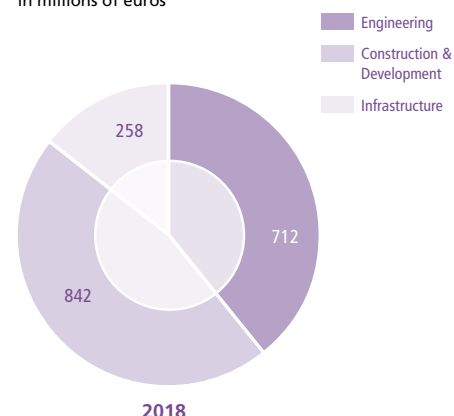
Results

(in millions of euros)

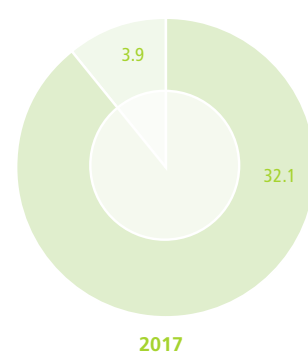
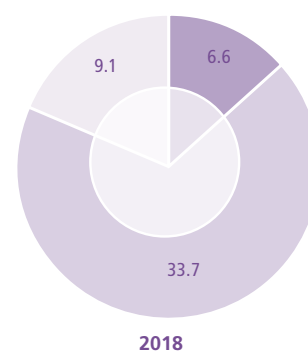
	2018	2017
Operating revenue	1,773	1,708
Operating result before depreciation and amortisation (EBITDA)*	54.7	46.0
Operating result from ordinary activities (EBIT)*	36.2	28.0
Reorganisation costs	-5.2	-7.1
Impairments in value	-3.0	-2.6
Operating result (EBIT)	28.1	18.3
Net result	18.2	10.6
Operating margin (%) based on EBITDA	3.1	2.7
Operating margin (%) based on EBIT	2.0	1.6

* Operating result from ordinary activities (before reorganisation costs and impairments in value).

Operating revenue segments
in millions of euros



Operating results segments
in millions of euros



Net financial expense improved from €4.3 million in 2017 to €3.7 million in 2018. The effective tax rate for the year was 27.6 per cent (2017: 28 per cent). The result from participating interests came to €0.5 million (2017: €0.5 million). The net result was 68 per cent higher at €18.2 million (2017: €10.6 million).

Orders received and order book

At €2.6 billion, the value of confirmed orders received was 51 per cent higher than in 2017 (€1.7 billion). The order book (the contract value still to be performed and contracts still to be awarded) increased by 11 per cent to €2.6 billion (year end 2017: €2.4 billion). Of the total order book, €1.4 billion (approximately 53 per cent) is expected to be completed in 2019. The remainder is available for production in 2020 and subsequent years.

Balance sheet

TBI's financial position remains strong, with shareholder's equity being equal to 31.4 per cent of total assets (2017: 30.8 per cent). After allowing for the €25 million subordinated loan contracted in 2016, guarantee capital was equal to 34.5 per cent of total assets (2017: 34.0 per cent).

Key balance sheet figures (in millions of euros)

	2018	2017
Non-current assets	121	118
Investments in real estate portfolio	196	213
Net working capital	-3	28
Net cash and cash equivalents	229	187
Shareholder's equity	255	240
Subordinated loan	25	25
Total assets	813	780
Total assets : shareholder's equity	31.4%	30.8%
Total assets : guarantee capital	34.5%	34.0%

Non-current assets were slightly higher at €121 million (2017: €118 million). Net investments (investments less divestments) in tangible and intangible non-current assets were higher than depreciation and amortisation in 2018. Net investments amounted to €24.9 million (2017: €18.8 million), in comparison with depreciation and amortisation of €18.5 million (2017: €17.9 million). Financial assets declined by €4.5 million, partly because of a decrease in deferred tax assets.

Investments in the real estate portfolio (land positions, building rights, unsold housing under construction and unsold housing completed) amounted to €196 million as at year end (2017: €213 million).

The €17 million decline was due entirely to a fall in property development investments to €178 million (2017: €205 million). The stock of unsold housing under construction and completed housing increased to €17 million (2017: €9 million).

Net working capital was lower, chiefly because of the fall in property development investments, and came to €3 million negative as at year end (2017: €28 million).

Net working capital (in millions of euros)

	2018	2017
Engineering	-8	10
Construction & Development	-141	-135
Infrastructure	-21	-26
Investments in project development	178	205
Other	-11	-26
Total	-3	28

Total cash and cash equivalents accordingly advanced by €43 million to €229 million. Net cash and cash equivalents of current liabilities payable to credit institutions amounted to €219 million as at year end (2017: €172 million).

Shareholder's equity totalled €255 million as at balance sheet date (2017: €240 million). On balance, shareholder's equity increased by €15 million, including the profit for the year of €18 million.

Financing

TBI can draw on a €75 million committed revolving credit facility provided by three banks. The facility was amended and extended by agreement on 1 November 2018 and will now expire on 1 November 2023 at the earliest or, alternatively, on 1 November 2024 or 1 November 2025. The latter is possible owing to the optional maturities of 5+1+1 allowing TBI to extend the term by one year on the facility's first and second anniversary. In addition to a lower interest surcharge, the amended facility is more favourable to TBI on a number of points in comparison with the 2015 facility. Not insignificantly, the facility is greener. Compliance (or non-compliance) with certain non-financial KPIs named in the annual report can have a positive (or negative) impact on the interest surcharge for TBI.

The facility had not been drawn upon to the end of 2018. The interest rate is based on Euribor, with the interest rate period being determined by the duration of the draw-down, plus a surcharge. Financial covenants have been agreed to this end. TBI comfortably satisfied the financial covenants in 2018.

TBI also has current account facilities with three banks to a total of €30 million. Interest is payable on these facilities at Euribor plus a surcharge. These facilities are drawn down only to meet acute liquidity requirements. They had not been drawn upon to the end of 2018.

Furthermore, TBI can draw on two non-recourse financing facilities with Rabobank. The first is a six-year €35 million facility for Synchron Locaties B.V., with the rate of interest based on three-month Euribor plus a surcharge. This facility was first drawn upon in 2018. The second non-recourse financing facility is an €18 million facility to acquire land and buildings in Utrecht, with a term to 1 January 2023 at the latest and bearing a fixed rate of interest until 1 July 2020.

Sidese B.V. has concluded three non-recourse financing facilities (together worth €2.2 million) with ASN in respect of solar projects in Nieuw-Vennep, Amsterdam and 's-Hertogenbosch. The projects are being carried out by three separate limited companies and separate financing arrangements have been concluded with each company. The agreements have terms of 15 years (Amsterdam and Nieuw-Vennep) and 20 years ('s-Hertogenbosch). The fixed interest rate period is based on the eight-year IRS rate plus a surcharge (Amsterdam and 's-Hertogenbosch) and ten-year IRS rate plus a surcharge (Nieuw-Vennep). The surcharge is reduced by a "green discount".

The shares in Sidese B.V. are held for 50% by Duurzame Energie B.V. (a wholly owned subsidiary of Croonwouter&dros) and for 50% by Switch Energy B.V.

TBI has six guarantee facilities with a total commitment of €455 million (2017: €445 million). The commitment is available to the TBI companies. The facilities are spread over six providers and offer the TBI companies a generous headroom. With respect to bank guarantees, the TBI companies are subject to TBI's guarantee policy. This policy includes guidance on the maximum amounts and terms of the individual guarantees. Departures are permitted only with the prior approval of the Executive Board.

Engineering, Construction & Development and Infrastructure results

The composition of the operating result from ordinary activities is as follows:

Operating result (EBITDA)* (in millions of euros)	2018	2017
Engineering	10.8	6.1
Construction & Development	38.9	37.2
Infrastructure	11.0	5.9
Holding Company	-6.1	-3.1
TBI**	54.7	46.0

* From ordinary activities (before the deduction of reorganisation costs, depreciation, amortisation and impairments in value).

** The provision for the EPO project was charged to the holding company.

The Engineering segment achieved a clear increase in its operating revenue and a sharp jump in its operating result. The operating margin advanced from 0.9 per cent in 2017 to 1.5 per cent in 2018.

Engineering

Engineering (in millions of euros)	2018	2017
Operating revenue	712	654
Operating result before depreciation and amortisation (EBITDA)*	10.8	6.1
Operating result from ordinary activities (EBIT)*	6.6	-1.7
Operating margin as a percentage of EBITDA	1.5%	0.9%
Orders received	837	668
Year end order book	709	698

* From ordinary activities (before the deduction of reorganisation costs and impairments in value).

The Engineering companies are active in several market sectors. In the non-residential market, volumes and prices remained under pressure but conditions improved as the year progressed and results were ultimately firmer. The infrastructure activities in the

Engineering segment turned in a good result. The order book was strengthened by new engagements, such as the contract to design a nuclear reactor to produce medical isotopes awarded by PALLAS to Mobilis and Croonwolder&dros, the construction of the A13-A16 motorway awarded to the Groene Boog consortium and the Oosterweel motorway link. In the Marine & Offshore market results came under pressure from the difficult market conditions. The industrial market is seeing signs of a gradual recovery, more calls for tenders and firmer prices. The Engineering segment's prospects for 2019 have improved further. The order book increased by €11 million to €709 million.

Construction & development

Construction & development (in millions of euros)	2018	2017
Operating revenue	842	888
Operating result before depreciation and amortisation (EBITDA)*	38.9	37.2
Operating result from ordinary activities (EBIT)*	33.7	32.1
Operating margin as a percentage of EBITDA	4.6%	4.2%
Orders received	1,225	690
Year end order book	1,305	1,151

* From ordinary activities (before the deduction of reorganisation costs and impairments in value).

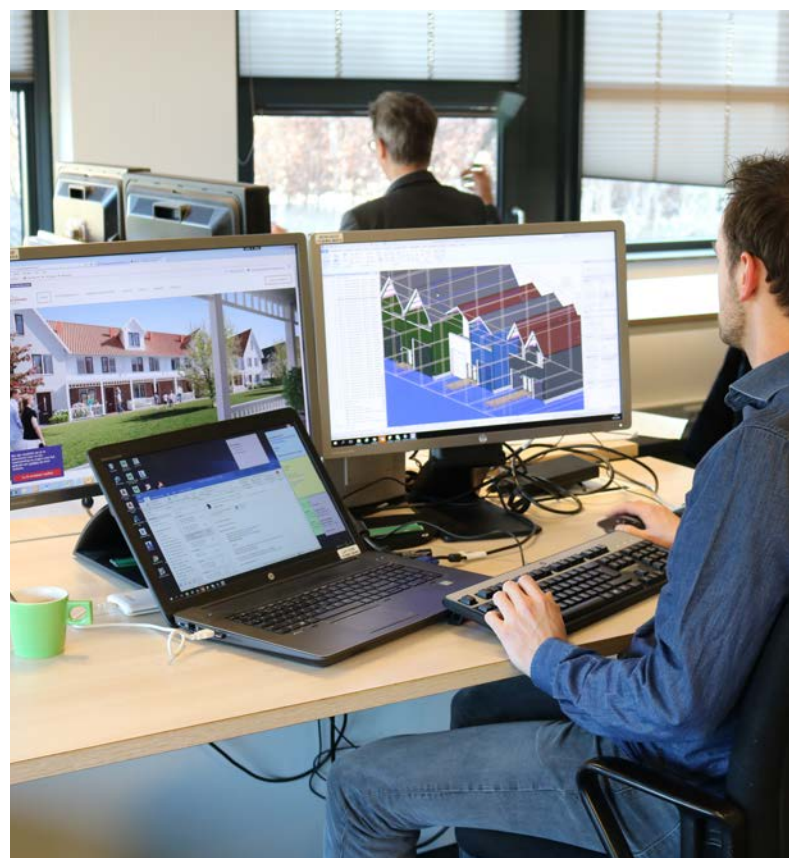
Excellent results were again realised on our property development activities and our real estate consultancy and building management operations. The number of housing units sold increased by 38 per cent to 1,731 dwellings (2017: 1,251 dwellings). Our house building output reduced in 2018 by the postponement of several project starts due to delays in permit awards and building plan assessments. The number of completed housing units sold fell by 24 percent to 1,785 dwellings (2017: 2,345 dwellings). The companies also saw their margins squeezed by price rises at subcontractors and suppliers. Demand for newbuild homes remains high and the outlook for 2019 is positive. This is also reflected in the increase in the order book on the previous year. On the non-residential market, prices recovered slightly and volumes were higher. As a result, the operating revenue in this sector was lower than in 2017. The operating result from ordinary activities, however, was €1.6 million higher at €33.7 million. The operating margin consequently widened from 4.2 per cent in 2017 to 4.6 per cent in 2018. We assessed our real estate portfolio during the year and recognised an impairment in value to an amount of €2.5 million (2017: €2.6 million).

Infrastructure

Infrastructure (in millions of euros)	2018	2017
Operating revenue	258	202
Operating result before depreciation and amortisation (EBITDA)*	11.0	5.9
Operating result from ordinary activities (EBIT)*	9.1	3.9
Operating margin as a percentage of EBITDA	4.3%	2.9%
Orders received	519	353
Year end order book	615	525

* From ordinary activities (before the deduction of reorganisation costs and impairments in value).

The Infrastructure segment saw a good volume of new projects coming onto the market and thus an improvement in its order book. Operating revenue for 2018 was boosted by higher production. The recovery in market conditions also fed through into the size and quality of the order book and firmer prices.



The Infrastructure segment's operating result (EBITDA) increased sharply to €11.0 million (2017: €5.9 million), thanks to good results on both civil concrete construction and specialised foundation techniques.

Prospects

We are looking forward to 2019 with confidence. With the economy projected to achieve further growth, albeit at a slightly slower pace, and with the improved quality and quantity of its order book, TBI is in a strong position in all relevant market segments. A shortage of skilled personnel and sharp price rises for materials, however, will present a challenge.

We have identified key trends that will have a significant influence on TBI's field of operations. By participating in the energy transition, making more efficient use of materials, increasing the quality experienced by users and safeguarding the future value of the built environment, we will be able to tie the growth of our group into the social impact we seek. The sustainability of the built environment, circular procurement and investments in infrastructure will be substantial growth impulses for our companies in the years ahead.

In the Construction & Development segment, underlying demand on the housing market remains strong. Mortgage rates are low but consumer confidence is weakening slightly. Any increase in production will depend on the availability of sufficient planned development sites.

The recovery in the non-residential market is projected to continue as investments in commercial premises increase. We have identified opportunities to redevelop and transform existing properties. In the Infrastructure segment, investments look set to increase, especially in the renovation and maintenance of bridges, locks and tunnels. In Engineering, we have also identified opportunities to meet the growing demand for smart technologies. In the Marine & Offshore sector we expect investment levels to remain low in 2019.

Our solid financial position will enable us to invest in product and process innovation, circular construction and new alliances. We will also invest in our people and further strengthen our project management and cost optimisation. We will continue to optimise the business portfolio by means of selective acquisitions and divestments.

We expect a slight increase in staff numbers in 2019.



Digital animation of an energy-neutral tunnel, Croonwolter&dros

IN DIALOGUE WITH STAKEHOLDERS



AFFORDABLE AND SUSTAINABLE CONSTRUCTION



WORKING ON CIRCULAR CONSTRUCTION, TRIODOS BANK



BUILDING ON ALLIANCES



BUILDING ON TRUST, ROOM FOR INNOVATION



SMART TECHNOLOGIES, PLEASANT WORKING ENVIRONMENT



SAFETY THROUGH SUPPLY CHAIN COOPERATION, LEADERSHIP AND SAFETY BY DESIGN





AFFORDABLE AND SUSTAINABLE CONSTRUCTION

Synchroon is developing the second phase of Karspelhof in Amsterdam Zuidoost. This residential district with 150 dwellings was designed and built by ERA Contour to specifications set by the future residents. The development is a mix of 150 attractive, sustainable and affordable rented and owner occupied homes. The residents will also have the advantage of a range of sustainable transport options.

The Dutch government has set the construction industry the goal of building some 80,000 new, sustainable and energy-neutral homes every year to reduce the housing shortage. Many of them will have to be built in the main cities. The second phase of Karspelhof, for example, is being developed in the existing Karspelhof district of Amsterdam.

“A restructuring programme like this one is second nature to us,” says Erik Meijer of Synchroon. “Our plan is a very good match for the urban renewal of the Bijlmer neighbourhood.” His project team first looked at the development of the neighbourhood.

“Neighbourhood sustainability is at the heart of everything we do. We wanted to turn Karspelhof into a truly distinctive and sustainable place that was also surprisingly attractive.”

Diversity in uniformity

The municipality insisted that the new homes had to form a coherent whole, but every dwelling had to be unique. “That’s why the brickwork in the new houses matches that in the other part of Karspelhof,” explains Hans Bootsma of Synchroon.

KARSPELHOF DEVELOPMENT PROJECT



“The stonework we used for the boundaries between the new buildings’ front gardens creates uniformity. Some of the windows are also framed in stone, others aren’t.” There are also height differences. “Some houses have three storeys, others have roof gardens with lots of plants.” Another condition was that the rented and privately owned homes had to have the same appearance.

“There had to be no visible differences between the exteriors of the social housing and those of the most expensive owner occupied houses in the park,” says Jan Rik Hartkamp of ERA Contour.

This was achieved by working with housing concepts. The components are made at Voorbij Prefab’s factory and can be produced in endless variety. Dorien Staal of Voorbij Prefab explains the process, “Production is standardised – which keeps the costs down – but the client or buyer decides what the exterior and interior look like. The design is then converted into data for the robots to work with. It doesn’t matter to the robots where a power point, for example, is located.”

Fast completion

The National Housing Agenda agreed by the Minister of the Interior in May 2018 contains several measures to improve the housing market. One of them is to speed up the rate of production. Things certainly moved quickly at Karspelhof. “We built the neighbourhood at an amazing pace,” says Meijer. “Work began in January 2017 and the last dwelling was handed over in September 2018.”

According to Jan Rik Hartkamp this was due chiefly to the efficient cooperation between the TBI companies Synchron, ERA Contour and Voorbij Prefab. “We saved a lot of time in the initial stages by working closely with the co-makers. That created real added value.” Rogier van den Brink of Voorbij Prefab agrees, “Yes, fellow TBI company Comfort Partners installed the building systems and a well-known co-maker manufactured the window and door casings.” “This had the advantage that everyone could rely on each other,” adds Dorien Staal, “and knew how each other worked.”

The good working relationship with the investor, Syntrus Achmea, also meant construction work could start quickly. “We had to submit a tender for this project in just six weeks. In those six weeks we had to agree a preliminary plan with ERA Contour and the investor. That was nigh on impossible.”

“We really enjoy working with the TBI group,” says Nicole Maarsen of Syntrus Achmea. “We soon started talking to TBI about who we wanted to come and live here and how we wanted them to live. Typically, what sets TBI apart is that it already has its target groups and quality standards in mind when it starts working on site and not just the costs and lead times.”



Nicole Maarsen

Real estate investment director,
Achmea Vastgoed

Typically, what sets TBI apart is that it already has its target groups and quality standards in mind and not just the costs and lead times.



Hans Bootsma

Director Synchron

It is our ambition to be the number one circular constructor in the Netherlands. We believe we are responsible for the environmental impact of the materials we use. But our ambition is also to build a nice neighbourhood with attractive homes.



Erik Meijer

Property developer, Synchron

Neighbourhood sustainability is at the heart of everything we do. We wanted to turn Karspelhof into a very distinctive and sustainable place that was also surprisingly attractive.



Jan Rik Hartkamp

Manager, ERA Contour

We’re not just brick layers. We want to add value to the neighbourhood and the city, and we have a keen eye for social sustainability.



Dorien Staal

Director Voorbij Prefab

Production is standardised – which keeps the costs down – but the client or buyer decides what the exterior and interior look like.



Rogier van den Brink

Project coordinator, Voorbij Prefab

Many people think prefab is cheap, run of the mill, but that’s not true at all. The end user or developer has complete freedom to decide what the buildings look like.

The key to affordable housing

Despite the high quality of the work, the houses have remained affordable. Full account was taken of the siting of the houses. "We first sited different housing types next to each other fairly randomly," recalls Meijer. "But then we thought it would be smarter to link up certain houses together. Sometimes it was better to choose three storey houses instead of two and half because the cost to return ratio was more favourable."

Most of the savings were achieved, however, by working with the concrete pourers at Voorbij Prefab's factory and with other co-makers. Van den Brink: "Many people think prefab is standard, run of the mill, but that's not true at all. The end user or developer has complete freedom to decide what the building looks like. That lets us build very distinctive and varied homes that are also very attractive. No two houses ever have to look the same just to keep the costs down."

"That's because we have optimised the process, not the product," adds Staal. "We are constantly looking for ways to improve the process. It you can cast the work in a standardised process the way we do, you can control the costs. The building process also becomes very predictable. We know exactly how many houses we can produce per day in the factory."

More and more components are being assembled in the factory. "We are now fitting the window frames in the factory. They are transported to the building site and the assembly crew then puts the building's carcass together," says Staal. "About half of our work will be carried out this way next year."

Hartkamp also believes prefab is a way to overcome the shortage of skilled workers in the building industry. "If you ever wanted to go back to sand-lime bricks, you really would run into difficulties. The people simply aren't there. I think Voorbij offers a great deal of added value."

Even higher construction speed

According to Staal, further standardisation is not the golden key to even faster production rates. "There are limits. Last year, for example, no one wanted brick slips but now you can't get them for love nor money and people are asking us why we don't make them. That's because you need robots to fit brick slips in the factory and I don't think the investment is worth it. It would in any event take a long time before they were programmed and working and even longer before we made a profit on the investment."

3D printing is also something for the future, thinks Staal. "We're experimenting with it. We've carried out a very promising pilot project and it's good to get a feel for it but I can't see 3D printers being able to make the numbers we need. If you look at the current cost and the volume needed for the Housing Agenda, the numbers simply don't add up. On a good day we can make seven or eight houses. If you want to fulfil the Housing Agenda, we'd have to have about 230 printers located throughout the country. I think 3D printing is suitable for unique buildings and it can make attractive exterior features. 3D printers are ideal for that, they can make unique buildings."

Staal believes the solution lies more in strategic cooperation. "If you really want a sandwich panel, there are lot of fantastic manufacturers in the Netherlands who can make one for you." Further savings, she thinks, can be found in insulation. "We can work with hard insulation in our factory. Insulation standards are getting stricter and we are looking at whether hard insulation can be fitted in wet concrete."

Not all the factory's output is made for TBI. "Every year is different; next year, for example, 40 per cent of our production will be for TBI and 60 per cent for third parties. This is a deliberate policy because we don't want to be too reliant on one customer."



ERA Contour, for example, is building more urban high rises this year and we have to compensate for that with work for our other partners. Our factory is highly robotised. We can't make a profit without the volume."

Promoting biodiversity

"We have put a lot of energy into making Karspelhof a climate neutral neighbourhood, one of the requirements for the development" Meijer says. "That means high insulation standards in combination with solar panels. The houses are also connected to the district heating system. The residents will therefore have lower monthly energy bills and a far smaller carbon footprint." But according to Synchron, energy savings are not the only priority. "There are more ways to build a better environment," says Hans Bootsma. "Biodiversity features very high on our agenda. We might be playing only a small part, but by planting vertical gardens and green walls we are attracting more butterflies and insects into the urban environment. The gardens are also designed to retain rainwater."

Investing in sustainable mobility

"Shared mobility is another aspect," Meijer observes. "It was one of the priorities in the Karspelhof development." Synchron and Syntrus Achmea came to an agreement with Drive Solar that it would provide shared-use electric cars for the neighbourhood. "All residents will be offered a keenly priced subscription. We'll start with two cars, but it's a growth model and other people in the neighbourhood will be allowed to join in."

The cooperation between the three parties dates back to an agreement known as the City Deal on Electric Shared-use Mobility signed in 2018. Ministries, provinces, cities and a large number of developers and investors agreed to pioneer the shared-use of electric cars in housing projects. Maarsen thinks investors should be invited as a matter of course to think about mobility during the initial phase of all newbuild projects.

"We used to be asked for our input when a project needed financing," he explains. "Nowadays, investors are increasingly having to provide guarantees on mobility solutions. That helps us express our opinions at an earlier stage. Many residents have no need at all for parking spaces, as long as their mobility is guaranteed. Very low parking space requirements are acceptable today and sometimes we don't want any parking spaces at all. This was completely different 50 years ago."

Sustainable materials

The houses in Karspelhof have been built using only sustainable "green" materials. Is it a circular development? "People often think circularity and sustainability are synonymous," says Staal. "But they aren't. You can use very sustainable materials but circularity is more than just reducing CO₂ emissions and re-using materials. They are not the same thing. We are constantly looking for ways to use more materials circularly.

We are already using 20 per cent concrete rubble granulates in our carcasses. We have set ourselves the goal of increasing the amount of re-used concrete to 40 per cent. Next year we are going to run a pilot project with alternatives to Portland cement, the real polluter in the concrete industry. But it won't be an easy nut to crack."

Broad definition of circularity

Bootsma also thinks circularity is more than just re-using materials. "Our ambition is to become the number one circular developer in the Netherlands. We see it as our task to think about the environmental impact of the materials we use. But it's also about building a nice neighbourhood with attractive buildings. That's another aspect of sustainability. The longer a building is in use, the lower its environmental impact. Sustainability is also about creating a pleasant built environment, and that means building an inclusive society with happy people."

Strengthening the city is the motto. "We're not just bricklayers," says Hartkamp. "We really do have an eye for social sustainability. ERA Contour has made sure there is a good mix of owner occupied and rented housing and a healthy mix of population groups. The Bijlmer didn't use to be the best loved part of Amsterdam but now people prefer to live in Karspelhof." According to Hartkamp "our most important contribution to sustainable living is perhaps that the neighbourhood won't be knocked down in 50 years' time. It's just so nice, so distinctive, that it will last for ever."

"The residents are very happy, too," adds Maarsen. "We haven't had a single complaint about the work we've done. And the people who live here come from all walks of life. TBI has made a unique contribution to the City Deal by providing electric shared-use cars for three years. A developer doesn't have to do that. But it does increase the residents' satisfaction."

From an investor's point of view, Maarsen thinks it is "an example of how you can create a high quality, social and safe community. "To us, Karspelhof really is a reminder of the good old days in Amsterdam. This is a vibrant urban project with both social housing and affordable rented homes, with lots of green spaces and it's close to a metro station and boasts its own mobility concept; I don't think the people who live here will ever move out."



WORKING ON CIRCULAR CONSTRUCTION, TRIODOS BANK

J.P. van Eesteren is building the new head office of Triodos Bank on the Reehorst estate in Driebergen. The building has been designed to BREEAM Outstanding standards, the highest European sustainability certification level. All the materials used in it are being recorded in the Madaster online library of materials so that the building will have a materials passport. It will also be “remountable”. In theory, it can be taken apart and rebuilt somewhere else. Does that make it circular?

Is Triodos Bank’s new head office an example of modern circular construction? To answer this question, we must first understand what circularity means. Thomas Rau, architect, owner of RAU Architecten and one of the founders of Madaster, defines circularity as “facilitating the permanent consequences of temporary options”. For the past 150 years, he argues, people have been at the centre of everything we did and we thought everything – natural resources, fresh air and water – was available just for them.

“But actually it’s the other way round. Our ecosystem, the earth, will look after itself very nicely for the next two or three billion years.

It is us that have to learn how to fit into it again. We depend on that ecosystem and we have to recognise our place in it. That means we have to turn around our anthropocentric view of the world and put the ecosystem back at the heart of what we do, not the people.”

Circularity must become a way of life, argues Ton Vaags, director of J.P. van Eesteren. “And you have to be brave enough to stick your neck out.” “You can’t expect the next generation to take responsibility for the quality of our lives,” adds Sander Kok, project leader at J.P. van Eesteren.

TRIODOS BANK



“You have to ask yourself, what am I going to do today to make the world more sustainable? If all the 17 million people in the Netherlands made even a small contribution, they would make a huge difference.”

All those small contributions are welcome, but they are not enough. “We need a more systematic approach,” says Matthijs Bierman, managing director of Triodos Bank Nederland. “We used to have those intriguing diagrams saying, ‘This is the economy’. They explained that the economy was made up of labour, capital and natural resources. But the real picture is completely different. We depend on the system, the ecological system and also the social system.”

Logistical process

Is there such a thing as “circular construction”? “I don’t think so,” says Rau, “and circular buildings don’t exist either. It’s about people’s attitudes to ‘the alternative’. If circularity is inherent in that ‘alternative’ we can activate it through our way of thinking. Then it becomes circular. If we don’t think that way, then it’s not circular at all.”

Vaags agrees with Rau. “Is Triodos Bank’s new head office circular? No, at the end of the day circularity is an attitude, a way of living. That makes it all so incredibly complicated. You can play hard ball and say, ‘If you don’t do anything, we won’t do anything either.’ But you can also ask, ‘Why don’t we make the first move?’ That’s what we stand for at TBI.”

According to Rau, Triodos Bank’s new head office is a building with a “high circularity potential”. But he prefers to describe it as “a logistical process” rather than “a circular construction”. “The new way of building is nothing more than a logistical process using materials to produce a building.”

A good logistical process begins in the design and engineering phase, and that has to be well organised says Vaags. He gives an example, “We devised work packages for the QO Amsterdam hotel we built in Amstelkwartier in 2017. Each hotel room was a work package. That meant that two cage trolleys came in, without waste, containing everything the rooms needed. And they came in the right order. Anyone could have built those hotel rooms because the first wall you had to place was at the front of the trolley and the last wall was at the back. The technical systems were in the cages, too, all wired up, colour coded and ready to go.”

Another look at materials

Matthijs Bierman also prefers to talk about circular potential because the construction process only becomes circular if you approach it circularly. “It’s all about making choices: material choices, construction choices, contract choices, ownership choices.”



Sander Kok

Project leader, J.P. van Eesteren

We have learnt so much about sustainable materials that I would call the Triodos head office a completely sustainable building.



Ton Vaags

Director, J.P. van Eesteren

Is Triodos Bank’s new head office circular? No at the end of the day circularity is an attitude, a way of living. That makes it all so incredibly complicated. You can play hard ball and say, ‘If you don’t do anything, we won’t do anything either’. But you can also ask, ‘Why don’t we make the first move?’. That’s what we stand for at TBI.



Matthijs Bierman

Managing director, Triodos Bank Nederland

The construction process only becomes circular if you approach it circularly. It’s all about making choices: material choices, construction choices, contract choices, ownership choices. We chose J.P. van Eesteren not simply because of their track record but more because of the impression they made and how serious they were about going ahead with the project.



Thomas Rau

Architect-owner of RAU Architecten, designer of Triodos Bank, co-founder of Madaster

I look upon it as a social laboratory. Triodos has provided a thought laboratory where we can try things out. The next step is to turn materials into services and to give materials rights. You need a financial incentive for that. We have to map out the financial incentives. That’s what we do in Madaster.

There has been a fundamental change in the way we work with materials, says Kok. "We measure the environmental impact of everything we do. Do we use cement or do we choose plaster, which can be returned to the supply chain? And then we have to ask whether we use natural plaster or synthetic plaster? We have learnt so much about sustainable materials that I would call the Triodos head office a completely sustainable building."

"But can we take it apart and build it back up again? And can we take it apart in 20 or 30 years' time and re-use the materials on another project? There are 70,000 screws in the building's walls and another 60,000 in the floor. If the building expands, how are we going to get them out again? That's why I prefer the term sustainable."

Rau does not entirely agree. "Sustainability only optimises the system. So we are optimising something that already exists. We use slightly fewer materials, we make it slightly healthier and we use slightly less energy. But sustainability will never change the system. The Triodos building is a system innovation because we have organised the value chain differently. And we have prepared everything, from the architectural design to the choice of materials, with a view to making the building a resource bank for the future."

Dream session

Bierman remembers how the plans for the new building came about. "The office is located in a very special place, on the Reehorst estate. We didn't want to ask the architect, however brilliant he may be, to design a building. We wanted him to work in collaboration with the landscape architect and with the interior architect and a team of advisers. During the first session, we had breakfast under a tarpaulin in the pouring rain at six o'clock in the morning to get a feel for the estate."

"We asked each other a very loaded question," Bierman continues. "What would you tell your children in ten years' time when they ask you how you contributed to the building. It was a very fruitful session, but we'd like the contractor to be there as well next time." Vaags would also like the logistics manager to be consulted at an early stage. "It's not a proven technology, let's be clear about that. For us, it's a case of learning on the job."

Vaags thinks it's wrong that only parties that are willing and able to bear responsibility are consulted. "We have to ask ourselves how we can change the roles played by parties that have only temporary input and no responsibility for the end product, such as the developer. We have to spread responsibility throughout the supply chain, not ownership. That calls for new agreements," Thomas Rau concludes.

The builder should be in charge. "If the building process turns into a logistics process," Vaags continues, "if the responsibilities change, then we have to reconsider our role. We have to be involved differently in the process, and earlier."

Nothing can be taken for granted

According to Vaags, circularity is "just risk management". Materials are growing scarce, so it makes sense to make better use of them. "By means of innovation," says Vaags. "By means of production and efficiency improvements, there are many, many ways. In the end you arrive at new, different business models and another position in the supply chain."

In 10 or 15 years' time there will be recyclable concrete "It will be possible to separate the gravel, sand and cement from each other using the SmartCrusher," says Kok. "Projects like this one are making it possible. And sooner or later there will be an investor who wants to put money into the product. Then we'll agree that we can use only recycled cement for our concrete."

But an agreement is not enough, thinks Rau. "You have to do what's necessary, not what's possible. Doing what's possible leads to agreements like those on the use of concrete, raw materials and on climate change. But it's clear we still don't understand how urgent the problem is. We might have a climate agreement, but did the climate agree? We still have a tendency to take decisions that we think are best for the other party. The fact that we have started working circularly is really remarkable. TBI's position is not as obvious as you might think."

"We chose J.P. van Eesteren not simply because of their track record but more because of the impression they made and how serious they were about going ahead with the project," says Bierman. "And that they were willing to invest time and effort in a project that won't pay for itself any time soon."

Changing business models

Finding a place for circularity in new business models is not so easy. "Ideally the party that uses the materials should pay for them, and the party that has the final say in the circularity of the materials should own them."

Bierman: "We are now looking at whether we can transfer ownership of the exterior to a separate company. That company's shareholders, such as Octatube, the manufacturer of the façade, and Triodos Bank itself, will then benefit from our ability to use slightly better materials or a slightly better maintenance system. And from our improved checks that everything is screwed down properly so that we don't have to recycle the materials but can use them again later."

"We have found a solicitor's practice that is attempting to transfer the façade to a company via a leasing arrangement. If it succeeds, the company will have a financial advantage in the future because it can take down the facade elements and use them somewhere else. If it doesn't, then we'll still own the materials if we take the elements apart."

We don't know how much they will be worth, but we believe they'll be worth something."

"Under a lease, the financial institution owns the product. Under a circular contract, the materials are owned by the original manufacturer. A façade element is made up of three parts. So there are three values. If the product, the façade, is remountable and has to be taken down you end up with the components and then with the materials," says Thomas Rau.

The materials' value is recorded in Madaster. Rau: "Madaster includes a financial tool that calculates how much the materials are worth based on their market value. Anything that's scarce is in short supply. And anything that is in short supply commands a higher price. It's the same with Rembrandts, their price is going up because there aren't that many of them. Materials will also increase in price, even though the value of the components might not change and the value of the products will fall sharply."

For Bierman, Madaster is a big step in the right direction. "You currently have to pay to make a materials passport but you don't know if you'll ever recoup your outlay. Without a passport, though, you never will. I look upon it as a 'no regrets investment'."

Selling services

But that doesn't solve the problem with the façade. "The company has to be funded for 30 years or so. So someone has to put money into the company so that it can buy the façade. If we sell the façade to the company for, say, two million, we'll expect to be paid for it. In this example, we'll be paid in the form of rent because the party that uses or maintains the building is the same party that finances the company, Triodos Bank. You can also draft the contracts so that the façade is returned to us if one of the parties drops out."

"I wonder what the contracts will look like," says Bierman. "If we find out now, we could perhaps make the first business model that is both financially and legally circular. Not everyone would be able to copy it. We'd make it together with the façade builder and if it works the builder could use it on another, smaller building built by TBI. TBI can then say, 'We're selling the building but the facade will be held by Octatube'."

Bierman compares the example with a company that starts selling warm and comfortable interiors instead of thermal energy storage systems. It is easier to sign new contracts in this sector because it is easier to separate out the legal ownership of the systems. This could also be an interesting business model for TBI, according to Bierman.

"We already sign service contracts with lots of businesses," confirms Rau. "We can do that because companies are seeing the margins on their products shrink."

What's more, there's more money in services. In the older models you earn money at the expense of someone or something, in the new models you work for the benefit of someone or something. The service culture is really the new business model. It is starting with high quality products that require little maintenance and very slowly trickling down into the rest of the market."

"I'm pleased that this project is letting us gradually introduce service contracts into the construction market," says Vaags. "And as far as the rights are concerned, we decide what's important. The rights determine how we work with each other. If we want to do things differently, we can simply change the rights. That's where we are now."

Social laboratory

"Perhaps we'll decide in a few years that this building is not 100 per cent circular. That's a benefit of hindsight," says Rau. "Seven years ago the only thing in a building that was circular was the air flow. When we used to talk to people at the time, you could see their eyes glazing over. So if we get up to 80 per cent circularity, it'll still be 80 per cent more than what we used to have in the market." According to Vaags, "Three years ago we couldn't have had this dialogue with TBI or J.P. van Eesteren."

"I see it as a social laboratory and in that sense Triodos Bank has done very well," says Rau. "Triodos has provided us with a thought laboratory where we can experiment. The next step is to turn materials into services and to give materials rights. But if you start too big, you'll get frustrated. You need a financial incentive. We have to study the financial incentives because if you understand how the system responds you can also change the system. That's what we're doing with Madaster. If we do it right, the system will speed up."

"I agree with that," Bierman brings the dialogue to a close. "We can take a very philosophical and holistic approach but we have to deal with the day-to-day practicalities, the continuity of the business. I also look upon circularity as a means to innovate production and make efficiency improvements. It's a way to get a relatively traditional system moving."



BUILDING ON ALLIANCES

TRUSTING IN PARTNERSHIPS

Croonwolter&dros and Van Wijnen are renovating and building the operating suite of the Rijnstate hospital in Arnhem. They are working with Rijnstate as equal partners under a new type of alliance contract based on mutual trust and shared ambitions. Together they are finding solutions instead of looking after their own interests and making a fast buck.

“Our requirements were rather complex,” explains Willem Jan Hanegraaf, Rijnstate’s Construction programme director and Construction planning office manager. “We wanted to build a new intensive care ward, renovate the existing operating theatres and build a new one. The psychiatric ward also had to be refurbished. We wanted to concentrate all these functions at the current site and keep the hospital open as normal without inconveniencing patients and visitors. We also wanted to redesign a number of processes. Some Medical Care patients, for example, will be moved to the Post-Anaesthesia Care Unit (PACO) in the operating suite.”

“Because all these requirements are closely associated with each other, good cooperation between the parties is vital,” Hanegraaf continues. “We didn’t want to select on price alone.

We were more concerned about how the price had come about and how the parties presented themselves. We told them what our overall budget was and said, ‘You can help us solve this. Do we have to reconsider the direct costs or should we add something to the construction costs or the alliance budget?’”

During the tendering phase Rijnstate held introductory talks with six parties and asked them how they thought they would work with the hospital. “We didn’t ask the market an everyday question. We knew very well where we were heading but we didn’t know precisely what route to take. Experience has shown that we can make good use of the market to find solutions. We knew that would be far more productive than trying to go it alone with just a team of advisers.”

RIJNSTATE



Vulnerable position

The competitive dialogue resulted in an “alliance treaty” between Croonwolver&dros, Van Wijnen and Rijnstate. Together, the parties are working under a Design & Build contract based on an integrated contract subject to the Uniform Administrative Conditions for contractors (UAV-GC) with special provisions on risk sharing and transparency. Mutual trust was essential from the very beginning. “That’s the starting point,” says Hanegraaf. “You have to create trust as the client. We are the source of every new idea, every new project. That’s how simple it is. As the client, we set the framework and the working agreements that determine how we deal with each other. From the very beginning we tried to be as transparent as possible. We didn’t have any secrets, and we didn’t have any during the tendering procedure.”

According to Ron van Bloois, a partner in the HEVO real estate consultancy specialising in healthcare, Rijnstate put itself in a very vulnerable position. “This wasn’t a traditional tendering procedure. In a competitive dialogue the client asks the contractor how it can help. Challenging the market to partner it and generate the synergy necessary to find the best solution puts the client in a vulnerable position.”

“Alliance” is the right word, thinks Van Bloois. “Alliance is a military term that requires both sides to trust each other and to work on their common interests. Success stands or falls on the human factor, on trust. On the behaviour of the people who are working on the project day in and day out.”

Staying in business

“There has to be trust because we’re working on a going concern,” says Rudi Meinders. “The hospital has to keep operating and stay open all the time.” Traditional working methods are absolutely out of the question, thinks Meinders, operational director of national projects at Croonwolver&dros and alliance manager for the Rijnstate contract. “All parties have to be open with each other all the time. If there’s a problem, we discuss it to see how we can find a solution within the original budget and within the agreed time limit.”

“Having to keep working during all the building activity is perhaps the most challenging thing of all,” says Hanegraaf. Being open made it easier to find creative solutions. “We are still talking about how long a particular phase will last. In the first months of the year, production in the operating theatre was higher because we knew that three theatres would be taken out of use in October.”

Trust was created at the very beginning. Hanegraaf: “Between deciding to work with Van Wijnen and Croonwolver&dros in April 2017 and actually signing the contract in October of that year, not a single lawyer was involved. That was very special. We first wanted to sort out how we would work together.”



Willem Jan Hanegraaf

Construction programme director and Construction planning office manager, Rijnstate

Ultimately, we want adaptive buildings, buildings that change with you and facilitate the user.



Rudi Meinders

Operational director of national projects, Croonwolver&dros

All parties have to be open with each other all the time. If there’s a problem we discuss it to see how we can find a solution within the original budget and within the agreed time limit.



Gosse Dousma

Commercial director, Van Wijnen

By entering into a partnership and having a common interest there is a constant ambition to work well together. And every time you fall, you get back up again and you’ve learnt something as a team. The willingness to learn is enormous.



Ron van Bloois

Healthcare partner, HEVO

With the new generation working in the building industry the playing field is much leveller. We realise we need each other to find a solution.

Risk management

The partners themselves decided how they would manage the risks. “We saw that the market was shifting from a client market to a contractor’s market,” explains Hanegraaf. “We were aware that higher risks would make the project less interesting to potential partners. We also thought the risks should be shared more fairly.” That’s why the partners formed a risk pot. “Normally,” Meinders says, “you express an interest and decide how much risk you’ll accept.”

On this project we agreed that we would charge only for the materials and the hours worked, plus a mark-up. That's it. It won't cost a cent more."

The risk pot is managed jointly by the three partners. "We assume we'll deliver good work and won't need to dip into the pot", claims Meinders. "If there's anything left at the end, we'll share it. The nice thing about this solution is that it triggers all of us to be smarter." The arrangement gives the hospital peace of mind. "At the beginning, you're not sure how much it's going to cost," says Hanegraaf, "but at least you don't start having arguments half way through the project."

On the whole this form of partnership leads to more commitment, thinks Gosse Dousma, Development and Commercial director at Van Wijnen. "By entering into a partnership and having common interests there is a constant willingness to do things well. And every time you fall, you get back up again and you've learnt something as a team. The willingness to learn is enormous. The longer you work together as a team, the higher the quality."

Dilemmas

But the alliance contract is "not yet an all singing and dancing" solution, according to Meinders. "If you've been doing something in a particular way for a hundred years, you're not going to change overnight unless someone asks you if you've ever thought about doing it a different way. What's more, if things don't go smoothly you run the risk of falling back into old habits. What's so nice about this project is that we've managed to break the habit time and again."

Another risk is that you go too far, from client service to client servant," adds Meinders. "We have to speak to people now and then if they try to please the client too much, provide more than we agreed. We're on the client's side but sometimes we have to be a bit stricter to remain within the budget all the way. You don't see that so often on a traditional job." But the nice thing about it, according to Dousma, is that the parties talk to each other if there is a risk of a budget overrun. "We allow each other to make mistakes. We don't play the blame game. Instead we try to find a solution together so that we can carry on."

All parties regularly face the dilemma of going along with new insights and adapting the project or sticking to the original plan. Hanegraaf gives an example: "We had an opportunity to use an air conditioning system in all the clean rooms and operating theatres that would create a clean area of 50 m2 around every operating theatre. It would have been unique in the Netherlands. At a given moment we decided to do it even though we would have to change all the processes, convince the inspectorate of the benefits and write new validation protocols. Could we do all that on time?"

"Time, money, quality and size are the four sides of a square," says Meinders. "If one side changes, say the size, it has an effect on the other three, the time, money and quality of the work. But the agreed time cannot be changed. And the job can't become more expensive and the quality is usually not up for discussion. But a change definitely has an effect. And you can't say you won't make the change. So you have to be very careful you don't end up making something completely different from what you had originally wanted."

Dousma thinks it's particularly difficult to win over new people who join the project. "We started with 20 people. We all put our names to an agreement on how we would work together. You have to explain to people who join later that this is the way we do it." "It's a vulnerable way of working," adds Van Bloois. "How do you get everyone to buy into the philosophy introduced by a small group that is still expanding? The human factor is very important. You have to make sure that success doesn't rely on just a couple of people."

Cultural breakthrough

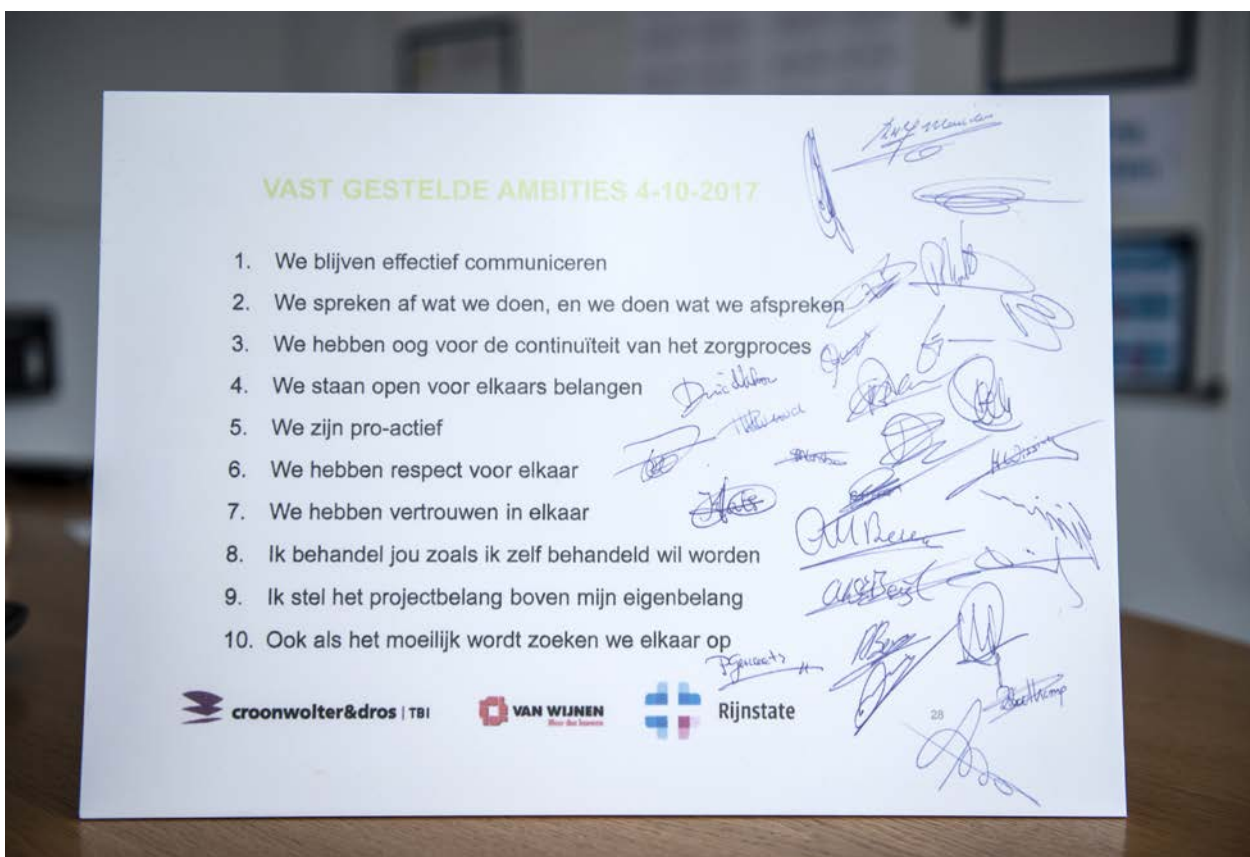
Van Bloois recognises that the relationship between client and contractor is changing throughout the construction industry. "The relationship used to be very top-down. The new generation that is coming through in the contracting and building sector is demanding a far leveller playing field. We need each other to find solutions."

Dousma believes we are witnessing a cultural revolution. "We are increasingly asking questions about what our added value is. Old-fashioned contractors are, as well. Are we just laying bricks or are we doing something else? The alliance forces you to use your know-how from the outset to get even smarter solutions. The added value has therefore moved to the front of the process. I see this happening throughout the industry, in both the building systems market and with us. Supply chain integration is growing in importance and there are more links between the disciplines."

Learning points

Looking back, all the parties agree that the partnership has borne fruit. "We have better control over the processes and the client is happier," says Dousma. "The client has a better understanding of what we're doing." According to Meinders this does not mean that the parties always agree with each other. "There is a lot of discussion but on balance less friction."

Furthermore, this form of cooperation does not depend on the economic cycle. Dousma: "You've already agreed how to get from A to B. If the route is difficult for the client, it might be easier for the contractor, and vice versa. Staying in dialogue with each other keeps the partnership on track."



Van Bloois sees the alliance contract “as just a mature way of working together”. He thinks parties outside the healthcare sector often work in partnership. “In the initial phases of a competitive dialogue, clients are trying to understand an organisation’s culture, what specific added value they can bring to the table, and are asking functional questions of potential contractors.” This will ultimately lead to a natural filtering of contractors and clients. Van Bloois: “Some clients and contractors will lose the competition, Young, talented people will choose a modern cooperative culture. Leadership that embraces this, and shows that it does, ... they will be the ones who win successful projects.”



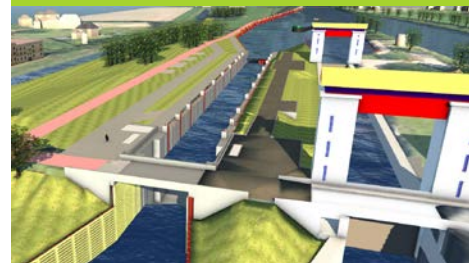
BUILDING ON TRUST, ROOM FOR INNOVATION

Under the name Lock to Twente (L2T), the TBI companies Mobilis, Croonwolt&eros and TBI PPP are together renovating and building the lock complex at Eefde. The lock is the only point of access to the Twente Canal, one of the main transport corridors in Europe. A second lock chamber will cut waiting times for ships and make the location less vulnerable to maintenance and accidents. The project is a good example of how the parties are putting the government's Market Strategy into practice.

Who is responsible for the risk exposure on a major infrastructure project? Until recently, it was not always clear. If problems arose on a project, the parties often tried to blame each other. One of the principles of the Market Strategy is to put an end to the accusations (see box). The parties to a contract have to put more energy into making good agreements and into how they will work with each other. Preferably as soon as possible. That is exactly what Rijkswaterstaat, the Directorate-General for Public Works and Water Management, and L2T have done. The result was a very intensive tendering procedure that led to a strong partnership.

Taking the time

"We spoke to various market actors during the tendering procedure about the risks and risk sharing," explains Marcel Menting contract manager of Rijkswaterstaat. "We then drew up a risk management plan and put the qualitative part out to tender and asked the actors how they would work with the client. In a normal D&C (Design and Construct) contract you provide information and hold one or two technical meetings. For this contract we held several dialogue sessions in each phase of the tender. You can't simply leave all the risks to the market actors. You have to think how you can manage them and how you will draw up the contract together."



LOCK AT EEFDE

Four parties submitted tenders. “We were in close contact throughout the tender phase,” recalls Menting. “It was good that we already knew each other when the project began. We didn’t have to start from square one because we had already established a relationship with the tenderer.” That has many benefits, agrees Gerold Schaap of Mobilis. “We deliberately took the time to get to know each other because we are planning to work together for the next 30 years – that’s how long the contract lasts – perhaps not as individuals, but certainly as organisations.”

Wouter Everaert, business manager at PMV is responsible for project financing: “I think the process was purposefully designed to create a certain degree of predictability and to build trust in each other. It was important that we included Rijkswaterstaat in the design solutions we devised and that we decided together which ones could be implemented in practice.”

THE FIVE GUIDING PRINCIPLES OF THE MARKET STRATEGY

1. We take pride and pleasure in our work and encourage others to do so, too.
2. The contract form and the preferred method of cooperation are geared to the contract’s goal.
3. Competition is based on the right variables.
4. We understand and recognise each other’s interests and risks, and act appropriately.
5. The financial arrangement and settlement of the contract are efficient, viable and fundable for all concerned.

Dilemmas

This does not mean that there were no dilemmas. A tender cannot cover everything, admits Gerold Schaap of Mobilis. “On the ‘Client Satisfaction’ criterion we could only list measures that would make a positive contribution to the relationship, but the client cannot insist on those measures. The question then is whether it matters to Rijkswaterstaat.” Rijkswaterstaat faced the dilemma of what the MEAT (Most Economically Advantageous Tender) had to offer. “You always want more than can be offered in the MEAT,” says Robbert Visser of Rijkswaterstaat. “If it offers too much it becomes all things to all men and no one thing stands out.” In the end Rijkswaterstaat decided to judge the tenders on the basis of five MEAT criteria: a satisfied water authority (Rijn en IJssel), satisfied users (road transporters and shippers), a satisfied environment, a satisfied client and a satisfied manager (Rijkswaterstaat). Sustainability was also an important condition.



Marcel Menting

Contract manager, Rijkswaterstaat
If you’re all working for the benefit of the project, you can be brave enough to leave the contract in the drawer now and then if things get tough.



Robbert Visser

Project manager, Rijkswaterstaat
You always want more than can be offered in the MEAT. If it offers too much it becomes all things to all men and no one thing stands out.



Wouter Everaert

Infrastructure business manager, PMV
I think the process was purposefully designed to create a certain degree of predictability and to build trust in each other.



Gerold Schaap,

Tender manager, Mobilis, and SPV manager, L2T
We deliberately took the time to get to know each other because we are planning to work together for the next 30 years – that’s how long the contract lasts.



Mark de Koning

Contract manager, Mobilis
We thought long and hard about the risks to the client. The result was an innovative solution.



Paul Schaap

Project manager, Croonwolder&dros
Mobilizer IT tool is our most important system. It has to include everything: all the specifications, all the agreements with the client and all the deviations.

Innovative lock gate

"We thought long and hard about the risks to the client," recalls Mark de Koning of Mobilis. "The result was an innovative solution. In the current situation there is a risk of all the water draining out of the Twente Canal if a boat collides with the lock and the gates can't be closed. That's why we decided on a segment gate for the new lock. It reaches to the bottom of the canal and can be closed despite the water pressure. I think it's the first time a segment gate has been used in a lock chamber in the Netherlands." The lock is also energy neutral. "We use the gate's buoyancy to recover energy," explains Paul Schaap project manager at Croonwolver&dros. "The gate closes by itself and we return the energy it generates to the electricity grid."

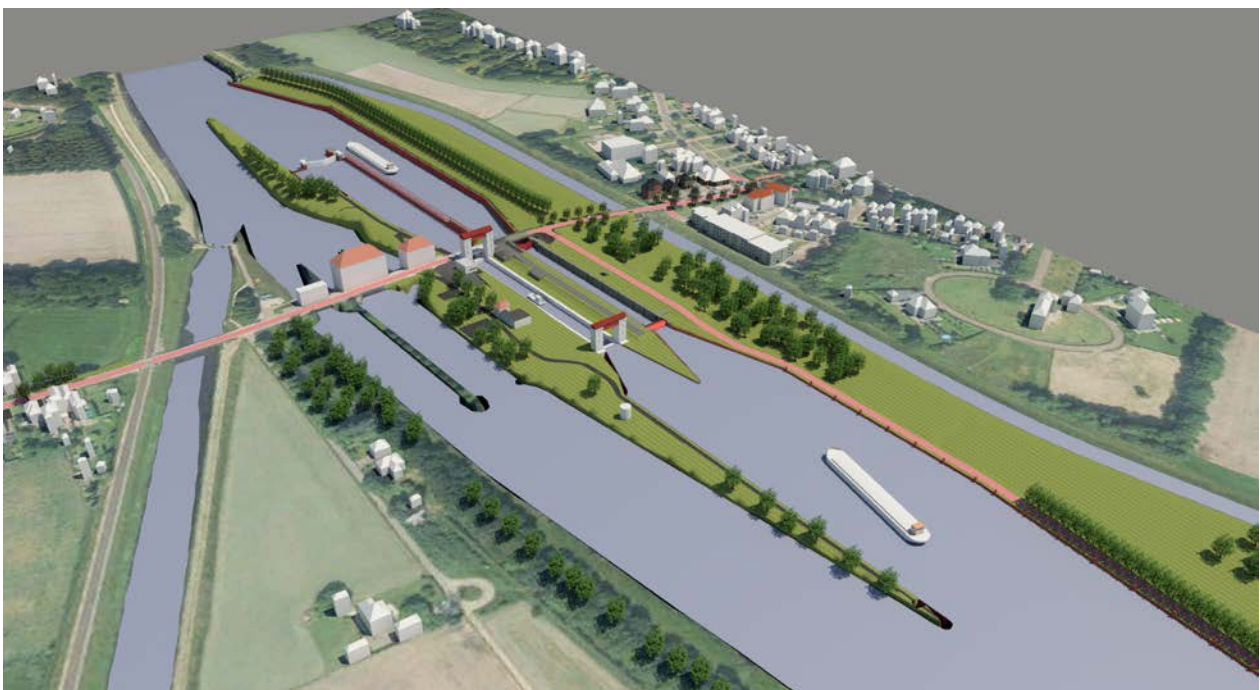
The primary dyke was raised to make it climate change-proof. This was one of the preconditions in the contract. Paul Schaap explains why: "It lets you use the lock even if the water level is very low. You can still pass through the lock. You have to pass through the current lock in two stages." Everaert thinks the sustainability is due to the way the DBFM contract has been drafted (design, build, finance and maintain). "Sustainability is a big part of every DBFM contract as you will be working with each other for a long time. In this case, we are building a lock that L2T has to maintain for 27 years."

A typical TBI project

The projects draws on three disciplines: civil engineering (construction), mechanical engineering (operating mechanisms) and electrical engineering (operating controls). According to Koning, it's a perfect match for TBI's portfolio. "We've got all the disciplines in house to carry out the project, even when it comes down to the risk profile. I think we presented this in the tender in the right way." The joint approach is a significant advantage, says Everaert. "Should problems arise only one or two lines are needed to add the right people or the right resources to the team. Coordination is a lot harder if you're working with several contractors or subcontractors."

In control from start to finish with Mobilizer

All project information is recorded in the Mobilizer IT tool. "That's our most important system," says Paul Schaap. "It has to include everything: all the specifications, all the agreements with the client, all the deviations. For the lock at Eefde we first took note of all Rijkswaterstaat's specifications and then discussed them with it and with the technical specialists. That way, we found out what they thought about the requirements and how we could carry out the project. Were we looking at the same picture? We entered all the interpretations that came out of the talks into Mobilizer. We have a record of what L2T and Rijkswaterstaat think about each issue and of the common ground between them." A special aspect of this project, according to Paul Schaap, is that Mobilizer contains civil, electrical and mechanical engineering information. "So that we can coordinate our processes."



Managing expectations with BIM

The entire project has been designed in BIM. Paul Schaap: "Because all designs, from the segment gate to the floodlights, are in 3D, we know exactly what the locks and the surrounding area will look like. We can see in advance where problems can occur. We want the work to be integrated but everyone has their own specialisation. We can ask an electrical engineer what he thinks about concrete but he won't really understand it. With BIM, the two disciplines can work separately but we can still manage the overlap effectively. This prevents us from having to, for example, lay a cable duct where someone else wants to lay a pipe. This cuts the risk of failure enormously."

Planning risks were cut the most for Rijkswaterstaat. Menting: "If, say, a lamppost stops us opening the lock when it has been built, we'll have a lot of explaining to do." "The same is true of safety," Paul Schaap adds. "We can see in advance whether a gate will open towards a lamppost and whether there is a risk of someone getting crushed."

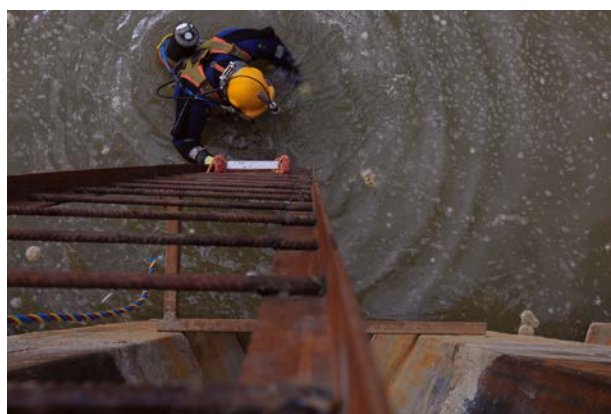
De Koning explains that the dimensions of the sheet piling on the drawing did not agree with the actual dimensions. "It's extremely important to have the right dimensions. We had to construct the lock's concrete wall against the sheet piling and it therefore had to have a minimum thickness. A handy colleague, our dimensional control surveyor, then scanned the entire lock chamber using a 3D scanner and created a model in the drawing program. He imposed it on the 3D model we already had so that we could see exactly where there were variations between the wall and the design. He showed us where the tolerance was acceptable because the wall was thick enough and where the wall was leaning too far inwards. We delivered a good quality improvement by adapting the design."

The Market Strategy in day to day practice

The partners agree that the Market Strategy has improved communication. Gerold Schaap: "It's more open now. We go through the situation every Thursday. Where do we need each other, what's about to happen, and what do we need to discuss? But we also share the successes and setbacks with each other." The Market Strategy has been a catalyst for innovation. L2T spotted an opportunity to improve the operating system. "So we set up working parties with people from all levels of Rijkswaterstaat and L2T," says Paul Schaap. "Would it be better to think outside the box, we wondered. To put the contract to one side and just make a system that was easier to operate." "During the tender procedure, we realised that the success of the project came first," adds Everaert. "Everybody is seeking the best possible construction process and the right quality standards. If improvements are possible during the project, we discuss them openly with each other and see how they can be adopted." This does not mean, of course, that the parties always agree with each other. De Koning: "There have been some situations where we disagree."



But by working this way, we get to know each other better. I've also learnt to appreciate the client's interests. I can better understand what the others want." That everything is going so well is particularly remarkable given the contract form. Menting: "A DBFM contract is an onerous legal agreement. That's why it's so rewarding just to get on with the project without being frustrated by all kinds of contractual hassles. We always look for the right solutions for the project. In the end it's not only the contract that determines a project's success – the clearer the contract is, the bigger the chance of success, of course – but it's the people who really count. If you're all working for the benefit of the contract, you can be brave enough to leave the contract in the drawer now and then if things get tough."





SMART TECHNOLOGIES, PLEASANT WORKING ENVIRONMENT

Croonwolter&dros, Servicis and Mobilis moved into their new head office, MM25, in Rotterdam at the beginning of 2018. The building, dating from the 1990s, has been revitalised into a comfortable and sustainable workplace. The decision to transform the outdated premises into a smart building using intelligent applications and state of the art technologies is a textbook example of practising what we preach. MM25 is a real life demonstration of the companies' motto: Intelligence through Technology.

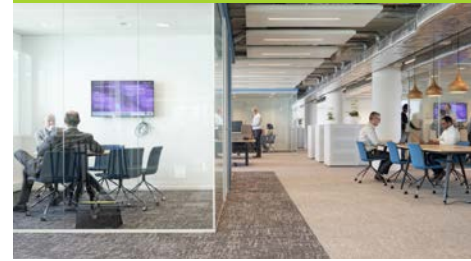
"We want our clients to see that we work in a sustainable smart building," says Ralf Dagers, Smart Buildings director at Croonwolter&dros. "We also want to increase the dynamism between the TBI companies. It's easier to share knowledge and roll out new working method in this building."

The building was purchased by OVG Real Estate in 2014, "in the depth of the crisis". Executive development director Thomas Ummels remembers, "There was a huge overhang on the office market. The question was, what are we going to do?"

Are we going to develop more and more offices and leave the existing stock vacant, or are we going to redevelop the old stock and return sustainable buildings to the market?"

OVG Real Estate took the last option. "MM25 is easy to reach at a fantastic high-profile site next to the A20 motorway. That's why we decided to redevelop it and position it at the top end of the high-tech. We've built as much smart technology into MM25 as possible. We always go for the highest standards of sustainability and circularity, whether we are refurbishing an existing building or developing a greenfield site."

MM25



Property developer OVG Real Estate and Dam & Partners Architecten take the credit for designing MM25. J.P. van Eesteren and Croonwolder&dros revitalised the building. The former carried out the structural work and the latter fitted the building systems. Fellow TBI company HEVO was also involved in all the stages: from the accommodation plan and the location survey to coordinating the move from 13 separate locations to MM25.

Smart technologies

Sustainability applications and smart technologies based on the EDGE Technologies platform (part of OVG Real Estate) have turned MM25 into an efficient, healthy and green workplace. One of those technologies is the bGrid system. Dagers: "Sensors have been placed in the light fittings to collect information on occupancy rates, noise levels and air quality. They record how many people are in a room and then regulate the lighting and the fresh air supply."

The users of MM25 can also regulate the lights, temperature and audio-visual systems by means of Outlook or an app. They can also see which rooms have been reserved and which they can still book. The users' ability to customise their own workplaces, according to Dagers, offers them more personal comfort, with higher productivity as a result.

Pleasant workplace

Microsoft cloud technology is used to collate and analyse all the data generated by the sensors. According to Chris Nouveau, digital advisor at Microsoft, not only can clients use the data to realise the best user experience. "They can also use it to be awarded certificates such as WELL, BENG and BREAAAM."

"With smart technology you can measure the built environment and make users more aware," claims Thomas Ummels. "Technology is so important to OVG Real Estate that EDGE Technologies has become its new property tech business. Development is no longer our primary goal, smart technology is."

"That's why this is such an important building. We could present all the data in eye-catching dashboards, of course, but if the user can't work with them, they have no added value. Together with the client we look at what we can do with the data. We want the users to be aware of their own behaviour and adapt it where necessary. That results in better and more efficient use of the built environment."



Ralf Dagers

Smart Buildings director, Croonwolder&dros

The ultimate goal is an adaptive building. One that changes with you and facilitates the users.



Thomas Ummels

Executive development director, OVG Real Estate

We always go for the highest standards of sustainability and circularity, whether we are redeveloping an existing building or developing a greenfield site. And we want to build as many smart elements into our buildings as possible.



Gideon Maasland

Director | architect, MVRDV

Smart technologies inspire us to do entirely new things. If you know where people are in a building, what they are doing and how they are using the space, you can manage the building more like a city.



Chris Nouveau

Digital advisor, Microsoft

Optimising the supply chain is vitally important. We look chiefly at the front of the chain – what users want – but it is more interesting to look at the other end. Smart by Design.

Vital buildings

"The ultimate goal is an adaptive building," adds Dagers, "one that changes with you and facilitates the users. Croonwolder&dros manages about 7,000 buildings. We want to plant a seed in them. We call it, 'from control to smart to fit'. Control optimises all the systems without major hardware modifications. You know, for example, when a room is too hot or too cold. If you log and automate the data you are in control. That's step one."

"There is even more data in step two. Data on the amount of direct sunlight on the south side of a building and the number of people entering a room; the building then automatically regulates the temperature to optimise comfort levels. This isn't possible with the usual hard controls such as thermostats. They simply aren't enough."

In this step you embrace other parameters to regulate the comfort levels.”

“In step three, we make the building vital. For more comfort, you need more energy. We optimise the inherent conflicts of interest. All aspects of the building become adaptive and self-learning: well-being, hospitality, sustainability and efficiency are optimised and the building itself is future-proof.”

Changing relationship

“Smart technologies inspire us to do entirely new things,” says Gideon Maasland, director | architect at MVRDV. “If you know where people are in a building, what they are doing and how they are using the space you can manage the building more like a city. It is no longer a monotone entity. We can strike a far better work-life balance. The building is then not just for the people for whom it was originally designed. It also gives something back to the city.”

According to Dagers this changes the relationship between the client and the architect. “The dialogue with the architect is far better. In the past we just commissioned him to design a building; now we tell him how we want to use the building. We’ve become a smarter client.”

New business models

Maasland believes it is still difficult to raise extra finance from institutional investors. “As an architect you can’t say, ‘We need more money because we’re making a sustainable building and sensors just happen to be more expensive.’ That doesn’t give an investor much to go on. Investors look at the overall proposition. And sustainability has become a key condition if you are going to sell any proposal at all. That’s why we have to be smarter throughout the entire supply chain. We have to deliver smarter and better buildings for the same amount of money and we have to facilitate workers as best we can. We can only turn the property development business models around once we have got this under our belts.”

It is difficult to do this, says Maasland, because the real estate world is a very traditional one. “We might want to change the world but we also have to make a living. These are very capital-intensive projects. Is there a lease? No? Then there’s no funding! Does the building have a BREAAAM Outstanding certificate? No? No funding!”

Optimising the supply chain

Many clients want a smart building and “a great place to work”, says Dagers, but they are not able to say exactly what they mean.



“A lot of missionary work still has to be done to guide our clients on the way. That’s a challenge for the entire supply chain. Together, we have to identify ways to use a building differently.” “Optimising the supply chain is vitally important,” adds Chris Nouveau. “We look at the front of the supply chain – what do users want? – but it’s more interesting to look at the other end.

“Smart by Design – working from the company’s vision and its preferred work-life balance, we base the artistic design on how the building will generate data to facilitate smart maintenance and use. The design begins with the company’s vision of what it wants to be. At TBI, for example, it begins with optimising Building Information Modelling. There are only a few companies like EDGE Technologies and TBI that are confident enough to say, ‘Guys, we’re going to do this. I’m facilitating not only my own work, but yours as well.’”

“Every building we make is a proof of concept. All the parties start afresh each time. It’s as though the people are meeting each other for the first time and putting on their very first safety helmets. In an ideal situation they get together and say, ‘OK, these are the building blocks that belong together. Every building from now on must cost less, both to build and to service.’”

So it has to be faster, Dagers summarises. “We’ve got smart buildings, modular construction and revitalisation as our three strategic pillars. With these pre-defined building blocks, we can create standard, configurable concepts and even provide assurances on the management costs.”

Working with data

The parties should join forces more often, especially when working with data. Nouveau: “At the moment, we are being asked time and time again who owns the data and who processes it. And who may use what data. Cooperation in this area is just as great a challenge as putting up the building itself. Suppliers of electrical or mechanical systems, for example, are being hired only indirectly. The client has no contact with them and cannot supervise what they do.”

According to Nouveau there is a Babylonian confusion between the different systems. “We try to solve it using a technology platform (Azure Digital Twin) and an ecosystem in the real estate and construction industry but I think we should also take the views of the builders and the engineers into account. What impact will self-driving cars have on car parks? Can my building’s energy supply be delivered from the energy store in the garage? There might be a thousand cars parked there now but in ten years most of them will have been replaced with electric cars. You have to think outside the box.”

Must have or wanna have?

Even if companies do think outside the box and the real estate industry is willing to work differently, Dagers does not think all the problems will be solved. “We, too, have a proposition to optimise the people flow in a building. So what’s a must have and what’s a wanna have? You can measure how green a building is, but does it really make a difference?”

“And do we want biometric lighting to improve the circadian rhythm? We can do it, but does the tenant want to pay for it? The real dilemma is how convenient is it for the parties concerned. If a party can earn the rent by doing what it always has done, why should it do something differently and make life difficult for itself? I think that’s a major obstacle, but this building proves we can do things differently.” A smart building also has many advantages for the client. It can increase the client’s attraction as an employer, which is a significant motivator in the current labour market. Dagers: “We moved in here not simply because it’s a nice building but to put us in the spotlight. The employer of choice argument is very persuasive, for our clients as well.”

Doing more with less

In the longer term Dagers believes innovations will produce substantial cost savings. “Smart technologies put us in a far better position to see from a distance what’s happening where. We can now sort things out ourselves without having to call in an engineer or other specialist. Compare the situation with an iPhone. You used to have I don’t know how many devices to achieve the same level of efficiency as an iPhone. Many, many links have been taken out of the supply chain without compromising efficiency.”

That’s what Dagers and all the other parties at the table say it is all about. “Everybody’s asking how we can increase the building’s efficiency for the users while simultaneously reducing the material usage and energy consumption. That’s what we’ve got in common here.”

Everyone agrees that the business models will have to change. Dagers believes this will only happen if everyone is on board. “Tenant, HR, facility management, ICT, mobility ... only when they are all pointing in the same direction can we show them how to switch from a user profile to a building profile, to a building’s function and finally to a set of specifications. If we don’t do that we’re stuck in the real estate perspective.”

That cultural shift is essential. Nouveau: “I believe optimising cooperation is the future of smart buildings.” “In the near future we won’t be signing contracts for square metres,” Dagers interjects, “we’ll be asked to contribute to the user’s efficiency.”



SAFETY THROUGH SUPPLY CHAIN COOPERATION, LEADERSHIP AND SAFETY BY DESIGN

Electricity transmission network operator TenneT has invested heavily in renovating and extending its high tension network in recent years. Croonwolder&dros and Eekels Technology are carrying out a large proportion of the work. Safety has highest priority in all engineering and installation work – for everyone concerned.

Oscar van Aagten gets the dialogue going, “Safety is one of the contract award criteria in the tendering procedure.” According to TenneT’s Safety & Procurement manager it is visible proof that TenneT considers it to be of paramount importance. “Price and quality are often the only things that matter, but to us safety is a factor when assessing the tenders. We want to select suppliers that most closely match our safety expectations.”

Safety is “more than just a certificate. It’s about the experience, about awareness.”

Chris Schepers, Industry & Infra director at Eekels Technology, compares it with driving a car, “Someone can pass the driving test and then have a few drinks before driving home. That’s not what you want. You have to be able to trust the driver to act responsibly in traffic. It’s a question of mind set.”

Cooperation in the supply chain

All the links in the supply chain have to be safety minded. Van Aagten: “We don’t want the traditional client-supplier relationship any more.”

SAFETY



We want to do more together. Last year, for example, we launched a pilot project with Croonwolver&dros to achieve Safety Ladder certification." The Safety Ladder, or Safety Culture Ladder (SCL) as it is officially known, is an assessment method that is used to measure safety awareness and conscious safe behaviour in an organisation.

The safety Ladder has five rungs to encourage companies to work more safely. It provides an insight into the degree of conscious safe behaviour in the workplace. The higher the safety awareness in an organisation's safety culture, the higher the score on the safety ladder.

"We were recently certified at level 3, SAQ+, on the Safety Culture Ladder," says Schepers. Croonwolver&dros has been certified at level 3, SCL, on the Safety Culture Ladder, but it wants to advance to level 4 next year. "We'll have to work even more closely with the other parties in the supply chain," recognises Industry director Siebe van Oosterbaan. "We are aware that our subcontractors' scores influence our score and that our score in turn influences TenneT's. Everyone must therefore consciously give safety highest priority."

"We have to remain alert and make sure that reports are passed up from the bottom to the top. We have to keep listening to the staff: how can we improve, what can we do to make things better and continue to anticipate? If you reward the positives and punish the negatives, you can keep moving forwards."

We are now at 0.7 LTIF," says Van Oosterbaan of Croonwolver&dros. "But our goal is zero and in any event less than 1. TenneT is also targeting a lost time injury frequency of 1 for both its own staff and its suppliers' staff." Van Aagten: "Unfortunately we're not there yet. In the past couple of years, we've been around 2.5, but we had been 4.5 in 2013. The question now is how do we get the figure down even further?"

Showing Leadership

One of the answers is effective leadership, say the participants. Van Oosterbaan gives an example: "Croonwolver&dros was working on a substation, an electrical component of the high tension network, in Ens. The substation was already partially in production. The currents passing through the cables are unbelievable. TenneT then made some changes and one of us said, 'I can't work safely any longer because I don't know how I should be working'. I immediately shouted, 'Stop!'" "That's good leadership," agrees Van Aagten. "You dared to say, this far and no further. The work was stopped and the protocol was checked to see what should happen. Both sides took the situation very seriously. Together we carried out a Tripod study and shared the costs. We both wanted to understand where it had gone wrong and how we could make improvements. That is leadership. Learning, not blaming."



Oscar van Aagten

Safety & procurement programme manager, TenneT

All the links in the supply chain have to be safety minded. We don't want the traditional client-contractor relationship any more. We want to do a lot more together.



Siebe van Oosterbaan

Industry director, Croonwolver&dros

An important aspect of leadership is that people feel trusted. You have to give them the confidence that they can report something, raise something for discussion, no matter how much pressure there is.



Chris Schepers

Industry & Infra director, Eekels Technology

I think safety should really be one of a company's core values and should be demonstrably part of the business. Companies that do that will cooperate far more.

An important aspect of leadership is that the people feel trusted. "You have to give them the confidence that they can report something, raise something for discussion, no matter how much pressure there is," says Van Oosterbaan. "Then they will be more willing to report things that are not quite right, the near-misses and near-accidents. You can learn so much from them."

Learning from mistakes

You have to reward staff who report incidents and near-accidents, say the participants. Van Oosterbaan says his group often celebrate such reports. "With a cake or an éclair and now and then we really go to town, for example if someone does something really clever. But we also punish people, especially if they deliberately and repeatedly break the rules. We hold them responsible and if they do it again we don't accept it." Schepers recently asked a technician who had caused a near-accident to explain what had happened during a tool box meeting. "That was very hard and painful for him."

“But we did it to make clear that you can learn from your mistakes. And his workmates would rather hear it from him than from us.”

The others also agree that lessons can be learnt from near-accidents. Van Oosterbaan: “Some time ago a scaffolding pipe fell 30 metres to the ground. Two young lads were talking down below, wearing safety helmets and protective clothing. The pipe brushed the top of one the lads’ head. It could have turned out much worse. A pipe falling from that height would go straight through a safety helmet.”

“We then made a map of the situation and identified everyone who could have prevented it and what they could have done. The map went round the organisation within 24 hours so that everyone could learn from it. We even share it with our clients.”

Looking for solutions

The solution to a dangerous situation is sometimes very simple. “We were once working with 2,500 people at different heights one above the other in an industrial plant the size of a postage stamp,” remembers Van Oosterbaan. “The scaffolding had been erected correctly so that nothing could roll off and we had hung nets around the workplaces. But we still had problems with falling objects.” So Croonwolder&dros agreed with the client that everyone would attach their helmet and pager with a tagline to their overalls. Glasses had to be hung around their necks on a strap and tools had to be attached to lanyards, a kind of elasticated cord attached at three points. “So that you could go up and down the steps holding onto the railings with both hands.”

The measures were very effective but they also had unexpected consequences. Van Oosterbaan: “We not only had to hand out belts and equipment, we also had to drill holes in the tools. But it worked so well that we introduced it throughout the industry. When I visit clients now they often ask why I’ve got a strap round my neck. When I tell them it’s to keep my helmet in place, they want one, too.”

Safety first

Van Oosterbaan sees the safety programme as a trigger to improve an organisation’s core processes. “They’re two sides of the same coin. A good core process cuts costs.” According to Van Oosterbaan organisations have to invest “in the front of the chain”. “You’ve got to get things in order, the planning has to be right. If safety is in order at the start, there’ll be an increase in efficiency. Everything will be much easier and it’s comforting to know the job will be carried out safely.”

It is important that the outside world knows you work safely. This also has another advantage, thinks Van Aagten. “You’re more interesting as an employer.

The current generation is less materialistic and thinks standards and values – what a company stands for – are more important than possessions.” Van Oosterbaan agrees: “I’m exaggerating a bit but young people see houses and cars as consumables. On the other hand, people in their 50s and 60s had to work very hard for them. You have to appeal to all those generations. What they’ve got in common is safety. And not just incidents, but also exposure to asbestos, mercury contamination in the soil and so on.”

Safety by design

“When I look in the mirror every morning,” says Van Oosterbaan, “I ask myself how we can get all our people to work and then back home again safely. The bigger the group, the bigger the risk that one day I’ll have dreadful news for someone. I want to put that day off for as long as possible, preferably for ever.”

That’s why TBI and TenneT have started a study to see how lead times can be shortened on site. “If you spend less time on site, there aren’t as many risks,” says Van Oosterbaan. “So we’re studying whether we can build more things off site, for example by means of modular concepts. I think we can cut the time spent on site from 18 months to about eight weeks.”

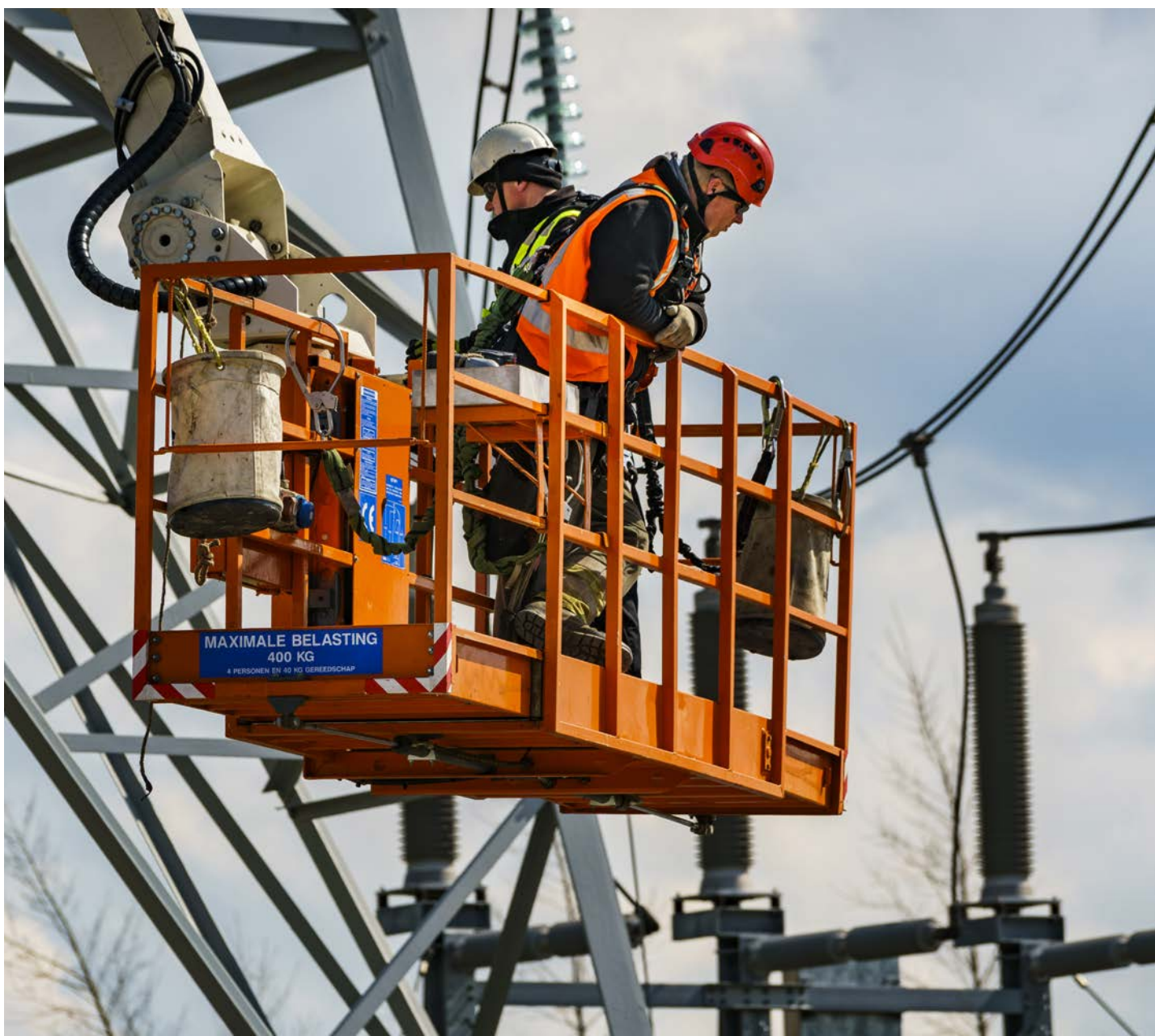
According to Van Aagten, safety by design is one of the key drivers to improve the long-term safety performance. It is another investment at the front. He remembers a project in Vierverlaten. “The project manager knew there would be risks at the start of the project. In order to move a connection we had to lay lots of temporary cables. The station also had to be enlarged, meaning that lots of sand trucks had to drive over the temporary cables. The situation was far from ideal. The project manager could see that it was OK technically, but it could have been safer. So he asked all the internal departments that were involved to organise things differently.”

“You can influence people with slogans, campaigns and communication channels and you can make them more aware,” continues Van Aagten. “But you only drive the statistics down if you redesign the project. So that’s what our safety measures prioritise: cooperation in the supply chain, leadership and safety by design.”

Schepers explains more about the design component. “For a number of clients, we involve our testers during the engineering phase. They are then familiar with the design and know what has to be done. They are aware of what’s happening and can advise the internal and external engineers. This improves the service to the client.”

Safety growing in importance

Schepers has noticed that the safety certification process is changing. “A lot is currently based on rules, regulations and checklists.



But the checklists are losing importance. There are more interviews, personal observations and consideration for how people work together.”

He expects an “enormous turnaround” within five years. “I think safety should really be one of a company’s core values and it should demonstrably be part of the business.

“Companies that work safely, will work together more frequently. And companies that think safety is less important will work with other companies that share the same outlook.

Nevertheless I expect the staff will also make higher demands. The new generation will demand higher safety standards and a healthier working environment.”

Governance

Risk management

To work in its markets, TBI inevitably has to take and control risks. Meticulous and responsible risk management is a precondition for our success. The organisation is built on entrepreneurship with managed risks. The management boards of the individual TBI companies are responsible for defining and implementing their own strategies. TBI offers frameworks and resources to encourage their entrepreneurship.

Risk philosophy

We believe risk management does not truly live within an organisation unless there is a balance between its formal (hard) and informal (soft) controls. Formal controls are embodied in our management and control systems. We set the frameworks for the TBI companies to report on the risks they take. The informal 'soft side' of risk management places more emphasis on the staff, culture, learning capacity and adaptability.

Culture

Trust, transparency, a pleasant working environment and an open dialogue are the core values of TBI. TBI enhances the staff's risk awareness by disseminating responsibility to all layers of the organisation and actively sharing lessons learnt. This culture strengthens connections within the organisation.

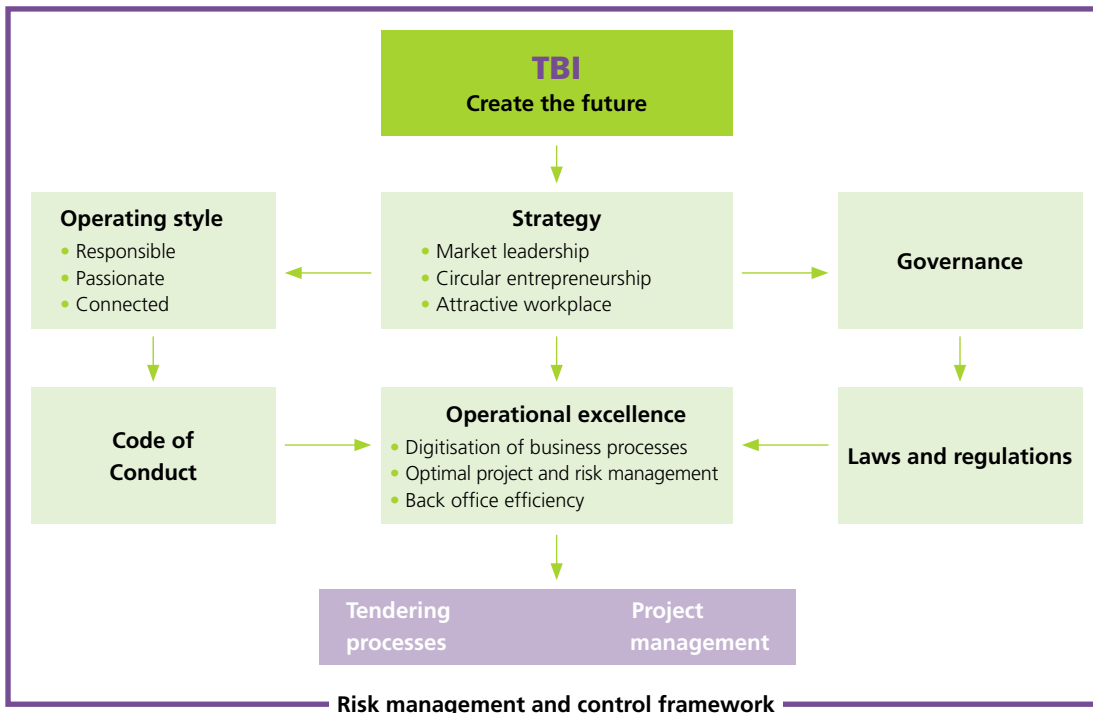
Risk management strategy

Project control is at the heart of our risk management. From preparing a tender to aftercare, our management and control systems are designed to strike the right balance between an effective professional business and the risk profile we seek for our group.

Tendering process

The tendering process begins with the management board of a TBI company taking a decision on whether or not to bid for a particular contract. If it decides to participate, we work on a structured proposal for the client. We weigh up the risks, the management cost and return. DBFM(O) projects undertaken by joint ventures outside the Netherlands that require pre-financing or that have a contract value greater than 20 per cent of the TBI company's budgeted operating revenue are first submitted to the company's Supervisory Board for approval before the tender is submitted to the client.

Projects of a given size, which differs per company, undergo a Bid/No-bid procedure to determine whether they are compatible with the company's risk appetite. An integrated assessment is made of the available competences and the financial, legal, tax and insurance aspects in order to gain a comprehensive understanding of the project risk.



Management and control systems

Our formal management and control systems are embedded at strategic, tactical and operational levels within our organisation. We estimate new risks and monitor ongoing projects by means of the following instruments.

Strategic Agenda

TBI's long-term strategy is a responsibility of the Executive Board and is laid down in the Strategic Agenda. The Strategic Agenda's main priorities are market leadership, circular entrepreneurship and an attractive workplace. The agenda is the starting point for the TBI companies' own operating plans and budgets. Risk management is an integral part of their plans and budgets.

Operating plans

The management boards of the TBI companies are responsible for preparing and implementing their own annual plans and budgets. Their responsibilities and powers are laid down in an authorisation schedule and management instructions. The group-wide Central Guidelines lay down the minimum risk management requirements. Together they constitute the agreements that determine whether a particular process is managed centrally or locally and how decisions are taken within TBI.

Reports

TBI has prepared separate guidelines for financial and non-financial reporting. The financial reporting guidelines are laid down in the TBI Reporting Manual. They require the management boards to report to the Executive Board every quarter. These quarterly reports consider the progress made with agreements, plans and financial and non-financial issues and goals. They also provide information on the development of the main risks. The Executive Board discusses the reports and takes measures and modifies the plans where necessary.

Non-financial reporting guidelines are set out in the Non-Financial Reporting Manual. TBI's sustainability report is based on the Standards of the Global Reporting Initiative (GRI). The sustainability report provides transparency on TBI's performance and on safety at work, integrity, the environmental impact, circular entrepreneurship and similar issues. A comprehensive picture is provided in our integrated report.

To complement the companies' quarterly reporting cycle, the Executive Board is in regular contact with the management boards. Cash positions and guarantees are monitored on a daily basis.

Internal audit

The internal audit function is performed by BDO. The internal audit plan is submitted to the audit committee for approval.

Operation of risk management systems in 2018

Both the hard and soft risk management systems worked satisfactorily in 2018. There are no indications that they will not work satisfactorily in 2019. TBI can give no guarantee that risks will not occur. We will therefore remain alert and continuously review our procedures and measures in the light of developments in the internal and external environment.

Final responsibility for risk management

The management boards of the TBI companies are responsible for compliance with the internal risk management and control systems. They periodically report to the Executive Board.

Final responsibility for identifying, managing and controlling the risks within TBI lies with the Executive Board. To fulfil this responsibility, the Executive Board designs and monitors compliance with the internal risk management and control systems.

The Executive Board supervises compliance with the relevant financial and non-financial guidelines with the support of the Reporting and Control Department and external experts.

Risk appetite

Our risk appetite is determined by our Strategic Agenda in combination with our business goals, financial position, market conditions, operational issues and developments in society. Subject to these parameters, we decide how much risk we are willing to accept and take measures to control the risks.

To protect our solid financial position, the risk appetite for our ordinary activities is low. We are willing to accept risks in order to innovate, invest and cooperate. We encourage entrepreneurship that creates opportunities to strengthen our market position.

At the same time, the approach prioritises the health and safety of our staff and neighbourhoods, our integrity, compliance with laws and regulations and data protection. We are not willing to accept risks in these areas. The TBI insurance programme acts as a financial backstop for unforeseen events.

Risks

Our risk appetite is determined systematically in the following risk categories: strategic/market, operational, financial and compliance and integrity. Mitigation measures are taken for the risks identified in each category and estimates are made of the risks' potential impact on our financial and non-financial results.

**RISK CATEGORY:
STRATEGIC/MARKET**

RISK	STRATEGIC RISK MANAGEMENT MEASURES	RISK APPETITE
Changes in market conditions	<ul style="list-style-type: none"> Balanced portfolio of activities spread across clients and market sectors. Innovation and anticipation of market developments, internally through our knowledge centres, TBI WOONlab and TBI kennisLAB. Externally through cooperation with knowledge centres and partners inside and outside the construction industry. Risks are spread by means of alliances and in consortia with other construction companies. 	Low
Scarcity of specialists in the labour market	<ul style="list-style-type: none"> Investments in our position as a preferred employer by offering an attractive workplace with sufficient training and development opportunities and good employment conditions. 	Low
Competition	<ul style="list-style-type: none"> Creation of a distinctive position by focusing on client satisfaction and the potential for cooperation among the TBI companies. 	Low
Pressure on prices	<ul style="list-style-type: none"> Clear agreements on the impact of price increases. 	Low
Climate change	<ul style="list-style-type: none"> High priority is given to environmental impact analyses, CO₂ reduction and the re-use of materials and natural resources. Circularity. 	Low
Innovation	<ul style="list-style-type: none"> TBI has an innovation ecosystem: facilitation of innovation hotbeds, encouragement for innovation and cooperation. Within margins, results may be uncertain. 	Average

**RISK CATEGORY:
OPERATIONAL**

RISK AND IMPACT	OPERATIONAL RISK MANAGEMENT MEASURES	RISK APPETITE
Project management and execution	<ul style="list-style-type: none"> • Constant focus on compliance with internal project management procedures. • Responsibility for contract acceptance lies with the management boards of the TBI companies. Prior approval of the Executive Board is required for large projects and tenders with a high risk profile, in accordance with management instructions. • Prior approval of the Executive Board is required for investments in land positions, the acceptance of long-term obligations, the start of sales and the start of speculative construction projects and the financing of third-party projects during execution. • Dedicated education and training programme for project managers. • Early consultation of lawyers, legal specialists, engineers, risk and insurance specialists, etc. to estimate the quality and size of risks and agree the risk management measures. 	Low
Liability risks and insurable risks	<ul style="list-style-type: none"> • Early consultation of risk managers, contract managers, lawyers, legal specialists and insurance specialists to estimate the risks of each project and agree insurance solutions. • Insurable risks (material and liability) are covered by the TBI insurance programme. Insurance policies are managed by reputable insurers operating in the national and international insurance markets with an S&P rating of at least A. 	Average
Health and safety of staff and subcontractors	<ul style="list-style-type: none"> • Prevention has the highest priority. The safety policy covers personal conduct as a risk factor (risk awareness) as well as physical measures. Careful preparation of the work, analyses of near incidents and toolbox meetings to minimise the risks. • Appropriate safety management systems under the responsibility of the TBI companies' management boards in accordance with the TBI Safety Guidelines. • Campaigns to increase safety awareness and the use of the TBI safety app. • E-learning modules to share knowledge and increase safety awareness. 	Zero
Environmental awareness	<ul style="list-style-type: none"> • Sustainability policy to reduce environmental impact and neighbourhood inconvenience. Use of environmental managers. 	Low
Operational ICT systems, data integrity and cyber risks	<ul style="list-style-type: none"> • Keeping the system and the management organisation up to date. <ul style="list-style-type: none"> • System components and the control environment are routinely updated. • Data and systems are backed up to ensure the continuity of critical functions. • Training and communication of user risks to increase risk awareness. 	Zero

**RISK CATEGORY:
FINANCIAL**

RISK	FINANCIAL RISK MANAGEMENT MEASURES	RISK APPETITE
Financing and liquidity	<ul style="list-style-type: none"> The treasury function is centralised. Credit lines are awarded to TBI companies on the basis of internal credit ratings. Projects are financed on a non-recourse basis. Constant focus on optimising working capital management. Solvency target of > 30% for all TBI companies. 	Average
Credit	<ul style="list-style-type: none"> Risks are mitigated where necessary by credit insurance, bank guarantees and advance payments. Trade debtors as at balance sheet date do not include any significant concentration of debtors in a limited number of market sectors. Some of the debtors are concentrated in the Dutch public sector. 	Low
Interest rates	<ul style="list-style-type: none"> TBI exercises caution when raising external finance and therefore does not consider it necessary to hedge interest rate risks by means of financial instruments. 	Low
Foreign currency	<ul style="list-style-type: none"> TBI realises the greater part of its turnover in the Netherlands and therefore makes only very limited use of measures to mitigate foreign currency risks. 	Low

**RISK CATEGORY:
COMPLIANCE AND
INTEGRITY**

RISK	COMPLIANCE AND INTEGRITY RISK MANAGEMENT MEASURES	RISK APPETITE
Laws and regulations	<ul style="list-style-type: none"> TBI companies observe legal provisions and industry codes of conduct such as the SBIB code, the NEPROM code and the Bouwend Nederland code. Supervision by internal and external experts. 	Zero
Tax risks	<ul style="list-style-type: none"> TBI and the Dutch tax authorities have concluded a voluntary horizontal supervision agreement. TBI seeks a permanent, up-to-date insight into relevant events and rapid decision-making, and oversees and advises on compliance and changes in circumstances. 	Zero
Reputation	<ul style="list-style-type: none"> The TBI Code of Conduct is regularly updated and is applicable to all employees. Annual signing of the In-Control statement issued to TBI Holdings B.V. by the management board members of the TBI companies. The letter declares that the companies have worked within legal frameworks and in accordance with TBI's central guidelines. Whistle blower scheme. 	Zero

Corporate Governance

Good employment practices, integrity, respect, oversight, transparent reporting and accountability are the mainstays of our corporate governance policy. Good corporate governance is essential if we are to achieve our goals efficiently and effectively. It helps us manage risks and take full account of the interests of all our stakeholders, including our shareholder, employees and clients.

TBI Holdings B.V. is a private limited company subject to the dual-board regime in the Netherlands. Its ultimate and sole shareholder is Stichting TBI.

Compliance with the Dutch Corporate Governance Code

The Executive Board and the Supervisory Board of TBI apply the principles and best practice provisions laid down in the Dutch Corporate Governance Code (“the Code”) as appropriate. We have incorporated those provisions of the Code that we apply into TBI’s Articles of Association, the regulations of the Executive Board, the regulations of the Supervisory Board and the profile of the Supervisory Board. In doing so we took account of the ownership structure of TBI.

The principles and best practice provisions of the Code with regard to risk management, remuneration and the prevention of conflicts of interest have been implemented mainly in the regulations of the Executive Board. An exception has been made regarding the provision of information on the remuneration of individual members of the Executive Board.

Supervision of how the standards and values of the group and its companies are embedded and exercised throughout the organisation, especially with regard to the procedure to report suspected abuse and/or irregularities, is laid down in the regulations of the Supervisory Board. The criteria on the composition of the Supervisory Board are explicitly stated in the profile of the Supervisory Board.

Organisation of the company

Executive Board and company management boards

The Executive Board is responsible for managing the company. The Executive Board develops and adopts the corporate vision and policy and the resultant mission, strategy and goals. The management boards of the TBI companies are responsible for formulating and implementing the strategies of their operating companies. The management boards are also responsible for day-to-day management and decision-making at the TBI companies.

A characteristic of TBI’s structure is the direct contact between the Executive Board and the management boards of the TBI companies, with the support of a small professional corporate staff.

The Group Council advises the Executive Board on cross-company issues, knowledge sharing and actions that can strengthen multidisciplinary cooperation among the segments.

The roles and procedure of the Executive Board are laid down in its regulations. The Executive Board is responsible for the policy conducted to achieve the company’s strategy and goals. It is therefore responsible for the continuity of the company, the development of its financial and non-financial results and social aspects. The Executive Board is further responsible for compliance with all relevant laws and regulations, for managing the risks arising from the business operations and for financing the company.

The Executive Board exercises its powers as a board with shared responsibility; the members take decisions jointly on all matters of material importance to the company. Each member is individually responsible for the proper performance of the tasks allocated to him or her. The tasks are allocated following consultation among the members of the Executive Board. The allocation of tasks and any changes in them are submitted to the Supervisory Board for prior approval.

TBI seeks a complementary and diverse composition of the Executive Board. Diversity is sought on such aspects as gender, knowledge, experience, skills and personality. However, we do not satisfy the quota target set in the Management and Supervision Act, which requires at least 30% of the seats to be held by women.

Nevertheless, we support the emancipatory and socioeconomic reasons underlying this target. We recognise that we also benefit from the diversity of our staff. We are therefore seeking to improve the representation of women at every level of our organisation. Our recruitment and selection procedures give priority to female potential. The number of female staff within TBI has increased accordingly.

Group Council

The Group Council consists of the Executive Board, the chairs of the management boards of the five TBI clusters and the head of Legal Affairs. The Group Council advises the Executive Board on cross-company issues, knowledge sharing and on matters that can strengthen multidisciplinary cooperation between the segments. TBI has drawn up regulations laying down the tasks, responsibilities and powers of the Group Council.

Supervisory board

The Supervisory Board oversees the general performance of the group and the companies associated with it. It also supervises the performance of the Executive Board and its policies. It supports the Executive Board with advice. To perform these tasks adequately, the Supervisory Board receives all necessary information from the Executive Board in good time.

The Supervisory Board has five members. Its composition, roles and procedures are laid down in its regulations. The members of the Supervisory Board do not receive bonuses, pensions or other forms of remuneration that are related to the company's financial performance.

Supervisory Board Committees

To prepare the Supervisory Board's decision-making, the Supervisory Board has established three committees from among its own members. These committees are:

- the strategic committee, concerned with the company's structure and strategy;
- the nominations and remuneration committee, concerned with the remuneration and nominations policy;
- the audit committee, concerned with the disclosure of financial information, the audit process, the audit plan and the internal risk management and control systems.

The work of these committees is considered in the report of the Supervisory Board.

Remuneration

Acting on the advice and recommendation of the nominations and remuneration committee, the Supervisory Board sets the remuneration of the members of the Executive Board.

The remuneration of the members of the Executive Board consists of a fixed payment and a variable payment. The amount of the variable payment is determined in part by the achievement of financial and non-financial targets. The remuneration of the members of the Executive Board is benchmarked against the remuneration of the Executive Board members of other Dutch (AMX listed) groups, with account being taken of the complexity of the company.

The remuneration of the Chief Executive Officer and other members of the Executive Board reflects their specific responsibilities.

The nominations and remuneration committee periodically assesses the remuneration policy. An external remuneration expert is consulted for advice on the relevant criteria if necessary.

Financial Reporting

Audit of the annual accounts by the external auditor

The Annual General Meeting appoints the external auditor and awards the contract to audit the annual accounts prepared by the Executive Board. It does so on the recommendation of the Supervisory Board. The Annual General Meeting of 19 April 2018 reappointed the external auditor, PwC, for a period of one year.

The Supervisory Board, the Executive Board and the auditor have taken measures to ensure the objectivity and independence of the external auditor. In accordance with these measures, the auditor carries out principally audit work and provides only limited tax and consultancy services. The situation is periodically assessed by the Supervisory Board and the audit committee.

The auditor reports to the Executive Board and the Supervisory Board on the measures it has taken to satisfy the professional and legal requirements regarding its independence from TBI.

Our financial reports are based on the principles of the applicable provisions laid down in Part 9, Book 2 of the Dutch Civil Code. The interpretation of legal provisions is assessed against the Guidelines for Annual Reporting in the Netherlands applying to financial years commencing on or after 1 January 2018.

Before the annual accounts are published, they are discussed in the audit committee in the presence of the external auditor. The annual accounts are then considered by the Supervisory Board. The TBI companies must prepare their financial and non-financial reports in accordance with the internal reporting guidelines laid down in the TBI Reporting Manual and elsewhere.

Regulations and the TBI Code of Conduct

TBI has introduced several regulations that provide a framework for the performance of the management bodies and the relationship between them within the group. Information on the management bodies and the TBI Code of Conduct, which applies to all managers and staff, can be found at www.tbi.nl.

Report of the Supervisory Board

Operating results improved strongly in 2017. The housing, development and infrastructure activities performed positively. Conditions on the non-residential market were slightly better. The non-residential newbuild market remained challenging while the transformation and renovation market saw further growth. The EPO project, which had had a serious impact on TBI's results, was handed over in 2018.

The Supervisory Board oversees the policy conducted by the Executive Board and the overall performance of TBI and supports the Executive Board with advice. In close consultation with the Executive Board, we critically appraise the risks attaching to large-scale infrastructure projects and the associated high tender costs. We remain in favour of a more balanced division of risks between the client and the contractor. If the risks bear too heavily on the contractor, the TBI companies withdraw from further participation in a tender. This is why the TBI/BAM/Heijmans consortium withdrew from the VIA15 tender during the year.

TBI's order book developed well during the year and provides a springboard for the further growth of profitability. The Supervisory Board was consulted on the contract awarded to the Groene Boog construction consortium during the year. The TBI companies Mobilis and Croonwolver&dros will work on the new A16 motorway together with Van Oord, Dura Vermeer and Besix. The Supervisory Board was also consulted on the plans for the construction of the PALLAS reactor contracted in 2018. This multifunctional nuclear reactor will replace an existing reactor in order to continue production of medical isotopes. The TBI companies Mobilis and Croonwolver&dros are designing the new reactor together with INVAP.

Activities in 2018

The Supervisory Board held five scheduled meetings with the Executive Board in 2018. In anticipation of these meetings, the Supervisory Board met on four occasions separately from the Executive Board to discuss the performance of the Executive Board as a whole and of its members individually and the performance of the Supervisory Board itself and of its individual members. A tripartite meeting was also held during the year by the Executive Board, the Supervisory Board and the board of Stichting TBI, TBI's shareholder.

Important topics discussed during the year were the progress of several large projects and tenders, the extension of the syndicated credit facility until 1 November 2023 and the succession of Mr D.A. Sperling, who will stand down as CEO of TBI's Executive Board upon his retirement on 1 May 2019. Other topics included the progress of the Strategic Agenda 2020, the development of the company's results and the development of working capital. The management boards of

Synchroon and Croonwolver&dros gave detailed presentations on the performance of their companies. The Supervisory Board also visited the renovation of Rijnstate hospital, the district development of Amsterdam Houthaven, the restoration of Groote Museum Artis and the renovation of the new Goede Doelen Loterijen offices.

The Chairman of the Supervisory Board held regular informal meetings with the CEO of the Executive Board to discuss both strategic and operational matters. The chairman of the audit committee held regular talks with the member of the Executive Board responsible for finance and IT.

Safety

Safety is high on the Supervisory Board's agenda and was considered at every meeting. Five e-learning modules were introduced for all members of staff during the year. TBI took part in the second National Construction Safety Day on 16 March 2018. All TBI companies and building sites highlighted the importance of safety during the day. The initiative to organise the day was taken by clients and contractors, Bouwend Nederland and Techniek Nederland. Safety must be given highest priority. The next Construction Safety Day will be on 20 March 2019.

Strategy

The Operating Plan 2018 was discussed as part of the Strategic Agenda 2018-2020 during the Supervisory Board's meeting in January 2018. The Operating Plan is underpinned by three strategic pillars: market leadership, circular entrepreneurship and attractive workplace.

Results

We discussed the company's financial performance at length at our meetings with the Executive Board in March, June, September and December 2018.

In anticipation of these meetings, the results and balance sheet were considered by the audit committee. Fixed discussion points were the results of larger projects, working capital management, the liquidity position, the level of indirect costs and profitability and solvency. BDO's internal audit reports were also considered.

Other matters

We discussed the compliance report for 2017 at our March meeting. The scheduled meetings also discussed various sustainability issues.

The internal audit function has been performed by BDO since 2015. Five in-depth audits and a quick scan of compliance with the Central Regulations were carried out in 2018. The internal audit plan for 2019 was approved at the audit committee's December meeting.

The March 2018 meeting discussed the draft annual report for 2017, including the annual accounts and the Executive Board's internal report for the year. The auditor's report for 2017 was also considered. These documents were discussed in detail by the audit committee before being presented to the Supervisory Board. In accordance with the Supervisory Board's findings, it was decided to adopt the annual report and accounts for 2017 and submit them to the Annual General Meeting for approval. The annual report and accounts for 2017 were approved by the Annual General Meeting on 19 April 2018. The members of the Executive Board were accordingly discharged from liability for the policy conducted in 2017, and the members of the Supervisory Board for their supervision of the Executive Board during the year

Composition and meetings of the Supervisory Board's Committees

The Supervisory Board had three committees in 2018: the strategic committee, the nominations and remuneration committee and the audit committee.

Strategic committee

The strategic committee met with the Executive Board on three occasions in 2018 to discuss the progress made with the Strategic Agenda. The committee reflected on the condition of the market and the opportunities it afforded for acquisitions, cooperation and divestments.

As at 31 December 2018, the strategic committee consisted of:

- E.H.M. van den Assem, chairman
- H. Morelisse

Nominations and remuneration committee

The nominations and remuneration committee is tasked with making proposals to the Supervisory Board regarding the nomination of members of the Supervisory Board and the Executive Board. It also advises on the remuneration of the members of the Executive Board. Mr J.E. de Vries stood down from the Supervisory Board at the end of the Annual General Meeting on 19 April 2018 upon reaching the maximum term of office. The Supervisory Board would like to thank Mr De Vries for the good working relationship and his valuable contribution to TBI over the past 12 years. Mr H. Morelisse was appointed to the Supervisory Board for a term of four years at the same Annual General Meeting.

In close consultation with the Supervisory Board, the CEO of the Executive Board, Mr D.A. Spering, decided to stand down from TBI's Executive Board on 1 May 2019 upon reaching retirement age. Mr Spering has been a member of the Executive Board since early 2002 and has been its CEO since 2012. The Supervisory Board respects his decision and is extremely grateful to him for his dedication, commitment and expertise over the past 17 years.

Under his guidance, TBI has developed exceptionally well, improved its agility and flexibility, even during the financial crisis, and grown into a leader in its markets.

The Supervisory Board has decided to appoint Mr A.J.H. van Breukelen, a member of the Executive Board since 1 January 2018, as CEO of the Executive Board with effect from 1 May 2019. Mr Van Breukelen joined TBI in 2007 and has been the managing director of the TBI company Synchroon since 1 January 2018. As of 1 May 2019, TBI's Executive Board will therefore consist of Mr. A.J.H. van Breukelen (CEO) and Mr. E.A.A. Roozen.

The remuneration committee adopted the remuneration of the members of the Executive Board in 2018. It consists of a fixed payment and a variable payment. The amount of the variable payment depends on the achievement of both financial and personal targets.

As at 31 December 2018, the nominations and remuneration committee consisted of:

- D.J.B. de Wolff, chairwoman
- A.L.M. Nelissen

Audit committee

The audit committee has its own regulations and meets at least twice a year. The meetings are attended by the member of the Executive Board responsible for the finance and ICT portfolios and are usually held in the presence of the external auditor. The audit committee assesses the internal control structure and the rules and guidelines on financial reporting and disclosure. It also advises the Supervisory Board on all matters concerning the appointment and dismissal of the auditor. The committee assesses the content and scope of the audit engagement. The chairman of the audit committee reports the committee's findings to the Supervisory Board.

The audit committee met on four occasions in 2018, with three of the meetings being attended by the external auditor. It discussed the quarterly reports, the annual accounts for 2017, the auditor's report, the external auditor's audit plan for 2018 and the management letter. In its May meeting, the audit committee discussed the development and automation of the treasury function.

The audit committee held a meeting with the external auditor that was not attended by the Executive Board. Owing to the compulsory internal rotation of certain key positions, it also discussed changes in the composition of PwC's audit team.

The internal audit function is exercised by BDO. The audit committee took note of the three audits carried out in 2018 and discussed the audit plan for 2019 with BDO.

As at 31 December 2018, the audit committee consisted of:

- M. Niggebrugge, chairman
- A.L.M. Nelissen

Central Works Council

Members of the Supervisory Board attended several consultative meetings of the Central Works Council. The Supervisory Board held a meeting with the Central Works Council and the Executive Board to discuss sustainability and the workload borne by the TBI personnel.

Annual Report for 2018 and proposed appropriation of the result

The annual report for 2018 and the report of the Supervisory Board will be submitted to the Annual General Meeting in accordance with article 22 (4) of TBI's Articles of Association. The annual report, including the report of the Executive Board and the annual accounts for 2018, has been prepared by the Executive Board. The external auditor, PwC, has expressed an unqualified opinion on the annual accounts. The auditor's report is presented on pages 103 to 108 of this report.

We propose that the Annual General Meeting:

- adopt the annual accounts for 2018, including the proposed appropriation of the result;
- discharge the members of the Executive Board from liability for the policy conducted during the 2018 financial year;
- discharge the members of the Supervisory Board from liability for their supervision of the policy conducted in 2018.

The audit committee has discussed the annual report and the annual accounts for 2018 in detail with the external auditor in the presence of the member of the Executive Board responsible for the finance and ICT portfolios. The documents were also considered in a meeting of the full Supervisory Board and the full Executive Board that was attended by the external auditor. The quality of the internal risk management and control systems was also discussed.

TBI reported a net result for the year of €18.2 million. The Executive Board proposes that a cash dividend of €5.5 million be distributed to the shareholder and the remaining €12.7 million be added to other reserves. The Supervisory Board has approved the appropriation of the result as proposed by the Executive Board.

Composition and performance of the Executive Board

The composition of the Executive Board remained unchanged in 2018.

As at 31 December 2018, the Executive Board consisted of:

- D.A. Sperling, chairman
- A.J.H. van Breukelen
- E.A.A. Roozen

The Supervisory Board evaluated the performance of the Executive Board and its individual members in 2018. In the Supervisory Board's opinion, the Executive Board has the required competences and works well as a team. This can be seen in the progress made with the themes in the Strategic Agenda (the achievement of the targets in the Operating Plan 2018).

Composition and independence of the Supervisory Board

As at 31 December 2018 the Supervisory Board consisted of:

- A.L.M. Nelissen, chairman
- E.H.M. van den Assem, vice-chairman
- H. Morelisse (as from 19 April 2018)
- M. Niggebrugge
- D.J.B. de Wolff

Mr J.E. de Vries stood down from the Supervisory Board at the end of the Annual General Meeting on 19 April 2018 upon reaching the maximum term of office of 12 years. Mr H. Morelisse was appointed to the Supervisory Board for a period of four years at the Annual General Meeting. All members of the Supervisory Board were independent within the meaning of best practice provision iii.2.2 of the Dutch Corporate Governance Code during 2018.

The Supervisory Board discussed the competences necessary for the proper performance of its own tasks in 2018 and carried out a self-evaluation.

Corporate governance

The Dutch Corporate Governance Code (“the Code”) is not compulsory for unlisted companies. The corporate governance section of this report sets out the TBI group’s corporate governance structure and explains its approach to the principles and best practice provisions contained in the Code. The provisions are particularly relevant to the performance of the audit committee, financial reporting and disclosure and the independence of the auditor. TBI’s Articles of Association comply with the legislative regime in place for dual-board companies.

In conclusion

The strong results for 2018 underline the strength and resilience of the TBI business model. The strong positions of the TBI companies in their local markets and the size and quality of the order book justify our confidence in the company’s solid foundations and our belief that it is on the right course to overcome future challenges.

We would like to thank the Executive Board, the TBI company managers and all members of staff for their dedication, the results they achieved and the strong foundations they laid for 2019 and future years.

Rotterdam, 19 March 2019

Supervisory Board

A.L.M. Nelissen, chairman

E.H.M. van den Assem, vice-chairman

H. Morelisse

M. Niggebrugge

D.J.B. de Wolff



Composition of the Executive Board as at 19 March 2019



A.J.H. van Breukelen (59)

Nationality: Dutch
Appointment: January 2018
Position: Member of the Executive Board
Director, TBI Bouw B.V.
Director, TBI Techniek B.V.

E.A.A. Roozen (50)

Nationality: Dutch
Appointment: May 2016
Position: Member of the Executive Board
Director, TBI Bouw B.V.
Director, TBI Techniek B.V.
Portfolio: Financiën en ICT

D.A. Sperling (63), CEO

Nationality: Dutch
Appointment: July 2012 (member of the Executive Board since 2002)
Position: Executive Board CEO
Director, TBI Bouw B.V.
Director, TBI Techniek B.V.

Group Council

R.J. Feijen (42)

Chairman of the management board of TBI Infra B.V. (Mobility & Industry)

P.J. Heijboer (55)

Chairman of the management board of Croonwolder&dros B.V. (Technology & Energy)

H. van Keulen (59)

Chairman of the management board of TBI Bouw B.V. (Housing)

J.H.A. Vaags (57)

Chairman of the management board of J.P. van Eesteren B.V. (Non-residential)

M.W.L. Tromm (55)

Head of Legal Affairs of TBI Holdings B.V.

Composition of the Supervisory Board as at 19 March 2019

A.L.M. Nelissen (70), chairman

Nationality: Dutch
 Appointed: September 2012, most recently reappointed in 2016 (eligible for reappointment)
 Member of the audit committee
 Member of the nominations and remuneration committee
 Former position: Executive Board member, Dura Vermeer Groep N.V.
 Other supervisory directorships: Chairman of the Supervisory Board of Brainport Development N.V.
 Member of the Supervisory Board of Timber and Building Supplies Holland N.V.
 Member of the Supervisory Board of Van Nieuwpoort Groep N.V.
 Principal external positions: Board member, Nederlands Blazers Ensemble
 Board member, Stichting Preferente Aandelen KAS BANK

E.H.M. van den Assem (69), vice-chairman

Nationality: Dutch
 Appointed: July 2012, most recently reappointed in 2016 (eligible for reappointment)
 Chairman of the strategic committee
 Former positions: Executive Board chairman, TBI Holdings B.V.
 Executive Board chairman, Cofely Nederland B.V.
 Executive Board member, Hagemeyer N.V.
 Executive Board member, DAF Trucks N.V.
 Various positions at ITT, Alcatel Nederland B.V. and Fokker Aircraft B.V.
 Other supervisory directorships: Supervisory Board chairman, Eneco B.V.
 Supervisory Board chairman, EVCF (Eindhoven Venture Capital Fund)
 Supervisory Board member, Flight Simulation Company
 Principal external positions: Advisory Board member, DAS Rechtsbijstand
 Advisory Board member, Mentha Capital
 General Board member, Facicom N.V.
 Advisor to young startup companies

H. Morelisse (54)

Nationality: Dutch
 Appointed: April 2018, term ends in 2022 (eligible for reappointment)
 Member of the strategic committee
 Current position: Executive Board chairman, Lagerwey
 Former positions: Executive Board chairman, Nuon
 Other supervisory directorships: Supervisory Board member, Redwind

M. Niggebrugge (69)

Nationality: Dutch
 Appointed: April 2015, term ends in 2019 (eligible for reappointment)
 Chairman of the audit committee
 Former Positions: Executive Board member, Urenco Ltd.
 Executive Board member, N.V. Nederlandse Spoorwegen
 Other supervisory directorships: Supervisory Board chairman, Spoorwegpensioenbeheer B.V.

Ms. D.J.B. de Wolff (59)

Nationality: Dutch
 Appointed: April 2013, most recently reappointed in 2017 (eligible for reappointment)
 Chairwoman of the nominations and remuneration committee
 Position: Partner, Stadhouders Advocaten, Utrecht
 Former position: Member of the Senate of the States General
 Principal external positions: Deputy Justice, Den Bosch court of appeal
 Endowed professor of the legal profession, University of Amsterdam

Scope and accountability

TBI publishes an integrated annual report. In it, we report on our strategy and on economic, social, environmental and societal developments. The annual report is prepared in accordance with the standards of the Global Reporting Initiative (GRI) and is based on the IIRC Reporting Framework.

Reliability

The Executive Board was closely involved in the preparation and content of this annual report and in the outcome of the materiality analysis. This report was verified externally (limited assurance) by PwC and complies with the GRI standards, Core option. Additional information has been provided on several Governance disclosures. The assurance report issued by the independent auditor is presented on pages 105 and 107 of this report.

Availability

The annual report 2018 and the GRI standards content index can be downloaded in PDF format from www.tbi.nl. The report is available in both Dutch and English. It was published on 11 April 2019.

Materiality analysis

The report's boundaries were determined by a materiality analysis. Our report on the material themes and the boundaries of the report's content are consequently based on the findings of the materiality analysis. The material themes were adopted in early 2017. All themes of potential relevance to TBI were analysed. Priority was given to 22 themes of both internal and external relevance. They were selected by means of an online survey that put all themes to the stakeholders. To ensure that the themes were assessed consistently, each theme was given a description. The online survey asked stakeholders to score each theme on a scale of 1 to 10 (where 1 is the least relevant and 10 is the most relevant). The internal priorities (x axis in the matrix) were selected by the 31 managers of the TBI companies who participated in the survey. The companies formed a representative cross-section of the TBI group. The external priorities were selected by more than 150 stakeholders in TBI from a variety of groups: clients, consultancies, banks, insurers, other construction groups (competitors), knowledge institutions, public sector organisations, suppliers, sector/industry organisations, partners, civil society organisations and certifying agencies.

In October 2017 and February 2018, moreover, meetings were held with 80 "future makers" of TBI to discuss the main trends and developments in our markets and the challenges we face. All issues of specific importance to TBI were considered. The material themes were reassessed as to their relevance and validity for the 2018 report and it was found that the material themes already adopted were still relevant and meaningful.

The materiality matrix on page 16 presents both the themes that are of relevance to stakeholders and their impact on TBI's ability to create value. It shows the themes of greatest interest to the main external stakeholders (y axis) in relation to their impact on TBI's strategy (x axis).

The materiality analysis also indicates how we can contribute to and monitor our progress on the United Nations' Sustainable Development Goals.

Material themes

Issue	Description
MARKET LEADERSHIP	
Multidisciplinary cooperation	Cooperation with partners within the TBI organisation and inside and outside the construction industry, making full use of the available innovative strengths and expertise.
Innovation	Initiating sustainable process and product innovations in the construction industry (concept, design, process, procedure, materials and logistics).
Solid financial position	Ensuring that TBI is and remains financially healthy and stable.
Client focus	Alertly responding to the changing wishes and needs of clients. Carrying out projects efficiently.
Project management	Controlled risk, cost and project management to earn a healthy return.
CIRCULAR ENTREPRENEURSHIP	
Circular construction	Putting the re-use of materials at the centre of the construction process. Working with sustainable materials and re-using materials wherever possible.
Sustainable operational management	Opting for sustainable solutions to reduce the environmental impact of the TBI organisation. Taking account of the scarcity of raw materials by using them efficiently, reducing waste and promoting re-use/recycling. Making agreements with suppliers and subcontractors on sustainable operational management.
ATTRACTIVE WORKPLACE	
Occupational safety	Managing safety behaviour and awareness to create safe and healthy working conditions for all members of staff.
Healthy and fit employees	Creating a healthy physical and mental working environment in which staff feel fit and are motivated to work for TBI to the best of their ability.
Training and talent development	Investing in the professional and personal growth of staff.
Integrity	Conducting business honestly and fairly in compliance with applicable rules and the TBI Code of Conduct.

The three strategic pillars – market leadership, circular entrepreneurship and attractive workplace – are considered on page 17 and further. The associated material performance indicators are presented on page 19.

Scope

This report concerns the 2018 financial year, which ran from 1 January 2018 to 31 December 2018. The financial data and FTE numbers it presents relate to all activities performed by TBI, both nationally and internationally. All non-financial data with the exception of safety performance data relate exclusively to TBI's activities in the Netherlands. Consortia – undertakings in which control is exercised jointly with third parties subject to a cooperation agreement – are reported pro rata to the TBI company's interest in each consortium. Data on entities in which TBI has a minority interest or does not control management policy are not taken into account.

Comparability

All specific questions on the comparability of data are answered in the text or in the footnotes to the data concerned.

Measurement method and data collection

The consolidated figures presented in this report are based on measurements, calculations and statements made by the TBI companies. The controllers of the TBI companies are responsible for validating all data reported to TBI. TBI consolidates financial and non-financial data with the aid of a consolidation tool. All quantitative information on the financial and non-financial performance is based on internal memoranda, reports, correspondence and interviews with key figures.

Appendix: Performance indicators

All performance indicators are listed below. Nine key performance indicators are considered on page 19 of this report.

Performance indicators

MARKET LEADERSHIP	Performance indicator	Target	Result 2018
	Orders received		2,581
	Order book		2,630
	Housing units sold		1,731
	Housing units handed over		1,785
Solid financial position and performance	Operating margin (EBIT) on ordinary activities	2-4%	2.0%
	ROIC (EBIT / invested capital)	≥ 10%	10.7%
	Solvency (based on guarantee capital)	≥ 30%	34.5%
	Trade working capital efficiency	≤ -5%	-5.9%
Entrepreneurship close to the client	Use of i-fund	> € 1.5 million a year	€ 1.2 million
	Housing units handed over with zero remaining works	70%	10.4%
CIRCULAR ENTREPRENEURSHIP	Performance indicator	Target	Result 2018
Sustainable built environment	Housing units sold without gas connection as a percentage of total housing units sold	100% in 2020	36.9%
	BENG housing units sold as a percentage of total housing units sold	100% in 2022	15%
	MW solar projects completed by Smart Energy	≥ 100 MW in 2022	3.8 MW
Demonstrable circularity performance	Non-concept housing projects completed with Madaster materials passport	3 projects in 2020	1
	Concept housing units completed with Madaster materials passport as a percentage of total concept housing units completed	100% in 2021	37.4%
Minimise our own environmental footprint	CO ₂ emission scope 1 and 2 (per FTE / million euros revenue)	10% reduction in 2020 versus 2017	5.8 tonnes CO ₂ emission per FTE 18.7 ton CO ₂ emission per million euros' revenue
	Percentage electric vehicles (of the total fleet)	100% in 2025	1.8%
	Total volume of waste	25% reduction in 2020 versus 2017 (per million euros' revenue)	30,8 ktonnes 17,4 ton waste per million euros revenue
	Percentage waste sorted	≥ 60% in 2019, ≥ 75% in 2020	59.6%
	Percentage sustainable timber procured	90% in 2020	94%
	Percentage supplier sustainability assessments	≥ 75% in 2019, 100% in 2020	73.7%
ATTRACTIVE WORKPLACE	Performance indicator	Target	Result 2018
Safe and healthy workplace	Incident frequency (IF)	≤ 3.8	3.1
	Sickness absenteeism	≤ 4.5%	4.7%
	TBI companies certified on safety ladder > level 3	≥ 8 companies in 2019	3
	Percentage supplier safety performance data	≥ 75% in 2019, 100% in 2020	85.1%
Staff training and development	Number of FTEs leaving at own request	≤ 6 %	6.2%
	Percentage performance and appraisal interviews	≥ 75% in 2019, 90% in 2020	63.7%
Integrity	Breaches of TBI Code of Conduct	Ambition: 0	17
	Breaches of laws and regulations	Ambition: 0	4
	Active Considerate Constructor projects	≥ 100	107

Annual Accounts 2018

Consolidated balance sheet as at 31 December 2018	74
Consolidated profit and loss account for 2018	75
Consolidated statement of total recognised gains and losses	75
Consolidated statement of cash flows for 2018	76
Notes to the consolidated accounts	78
Notes to the consolidated balance sheet	84
Notes to the consolidated profit and loss account	90
Company balance sheet as at 31 December 2018	95
Notes to the company accounts 2018	96
Other information	101
Independent auditor's report	102
Assurance report of the independent auditor	104

Consolidated balance sheet as at 31 December 2018

(before profit appropriation) (in thousands of euros)

		31 December 2018	31 December 2017
Non-current assets			
Intangible assets	(1)	17,329	11,625
Tangible assets	(2)	88,946	86,454
Financial assets	(3)	15,206	19,669
		<u>121,481</u>	117,748
Current assets			
Inventories	(4)	203,391	221,517
Work in progress for third parties	(5)	–	–
Receivables	(6)	258,439	253,915
Cash and cash equivalents	(7)	229,305	186,676
		<u>691,135</u>	662,108
Total assets		<u>812,616</u>	<u>779,856</u>
Group equity			
Shareholder's equity	(8)	255,091	240,091
Minority interests		–	68
		<u>255,091</u>	240,159
Provisions	(9)	11,247	11,778
Non-current liabilities	(10)	71,314	66,064
Current liabilities	(11)	474,964	461,855
Total liabilities		<u>812,616</u>	<u>779,856</u>

Consolidated profit and loss account for 2018

(in thousands of euros)

		2018	2017
Net Revenue	(12)	1,518,583	1,691,641
Change in balance sheet value work in progress		254,331	16,514
Operating Revenue		1,772,914	1,708,155
Operating costs			
Cost of raw materials and consumables		-978,610	-1,032,217
Cost of contracted-out work and other external costs		-237,003	-152,792
Wages and salaries	(13)	-320,762	-302,767
Social security charges		-47,761	-46,541
Pension obligations	(14)	-35,406	-34,324
Depreciation and amortisation charges	(15)	-18,458	-17,939
Other impairment charges on intangible and tangible fixed assets	(2)	-477	-
Impairment charges on current assets	(4)	-2,500	-2,638
Other operating costs	(16)	-103,860	-100,613
Total operating expenses		-1,744,837	-1,689,831
Operating result		28,077	18,324
Interest and similar income		744	282
Interest and similar expense		-4,449	-4,606
Result before taxes		24,372	14,000
Taxation on result	(17)	-6,720	-3,916
Result from participating interests	(18)	520	506
Result after tax		18,172	10,590
Minority interest in result of group companies		0	26
Net result		18,172	10,616

Consolidated statement of total recognised gains and losses

(in thousands of euros)

		2018	2017
Consolidated net result after taxation		18,172	10,616
Translation differences on foreign participating interests		13	-182
Total recognised group result		18,185	10,434

Consolidated statement of cash flows for 2018

(in thousands of euros)

		2018	2017
Bedrijfsresultaat		28,077	18,324
Adjustment for:			
– amortisation and depreciation charges	(15)	18,458	17,939
– impairment charges on current assets	(4)	2,500	2,638
– other impairment charges on intangible and tangible non-current assets	(2)	477	–
– changes in provisions	(9)	–531	740
Changes in working capital (excluding cash and credit institutions):			
– inventories	(4)	15,626	–25,971
– work in progress	(5)	–10,540	16,347
– receivables	(6)	–5,773	–819
– other liabilities	(11)	26,615	43,205
		25,928	32,762
Cash flow from ordinary activities		74,909	72,403
Interest received		540	358
Interest paid		–4,419	–4,348
Dividends received	(3)	254	69
Paid income tax	(17)	–256	–1,019
		–3,881	–4,940
Cash flow from ordinary activities		71,028	67,463
Investments in non-current intangible assets	(1)	–10,643	–3,652
Capital expenditure on non-current tangible assets	(2)	–21,108	–21,926
Investments in non-current financial assets	(3)	–953	–500
Divestment of non-current intangible assets	(1)	294	60
Divestment of non-current tangible assets	(2)	5,951	5,276
Divestment of non-current financial assets	(3)	77	600
Cash flow from investing activities		–26,382	–20,142
Repayment of/received from non-current liabilities	(10)	13,985	–403
Repayment of credit institutions		–12,817	1,431
Dividends paid		–3,185	–
Cash flow from financing activities		–2,017	1,028
Net cash flow for the year		42,629	48,349
Foreign exchange and translation differences on cash		–	–
Net increase/(decrease) in cash and cash equivalents		42,629	48,349

Consolidated statement of cash flows for 2018

(in thousands of euros)

	2018	2017
Changes in cash and cash equivalents:		
– Cash and cash equivalents at beginning of year	186,676	138,327
– Changes	<u>42,629</u>	<u>48,349</u>
Cash and cash equivalents at end of year middelen	<u>229,305</u>	<u>186,676</u>

Notes to the consolidated accounts

GENERAL

TBI Holdings B.V. is a group of companies engaged in the engineering, construction and infrastructure sectors. The companies operate both independently and in joint arrangements, chiefly in the Netherlands. TBI Holdings B.V. has its registered seat in Rotterdam, the Netherlands. Its head office is located at Wilhelminaplein 37, Rotterdam.

TBI Holdings B.V. is entered in the commercial register of the Chamber of Commerce under number 24144064.

The ultimate shareholder of TBI Holdings B.V. is Stichting TBI, registered in Ammerzoden, the Netherlands.

ACCOUNTING POLICIES

Presentation of the annual accounts

The consolidated accounts of TBI Holdings B.V. are prepared in accordance with the applicable provisions of Title 9, Book 2 of the Dutch Civil Code. The interpretation of the statutory provisions has been checked against final decisions regarding the Guidelines for Annual Reporting in the Netherlands issued by the Netherlands Council for Annual Reporting, applying to financial years commencing on or after 1 January 2018.

The profit and loss account of TBI Holdings B.V. is prepared in abridged form in accordance with article 402, Part 9, Book 2 of the Dutch Civil Code.

There have been no changes in accounting policies since the previous year.

The accounting policies are applied on the assumption that the company is a going concern.

The consolidated accounts are presented in euros, the currency of the principal economic environment in which TBI Holdings conducts its business (the functional currency). All financial information is presented in thousands of euros unless stated otherwise. The balance sheet, profit and loss account and statement of cash flows contain references to the explanatory notes.

MANAGEMENT ESTIMATES AND ASSUMPTIONS

The preparation of the annual accounts requires management to make estimates and assumptions that affect the application of the accounting policies and the reported amounts of assets and liabilities, income and expenses. The actual amounts may differ from these estimates. The estimates and underlying assumptions are constantly reviewed. This is of particular relevance to the valuation of work in progress. Revisions of estimates are recognised in the period in which the estimate is revised and in future periods in which the revision has consequences.

The main elements of estimation uncertainties are summarised below.

Deferred tax assets and liabilities

Further notes on the estimation uncertainties in the valuation of Financial assets are provided in the Accounting Policies. The valuation of Deferred tax assets and liabilities included in Financial assets is based on the management assumption that the tax assets remaining from the prior-year losses will be realised in 2019. This is comfortably within the permitted terms (varying from 2022 to 2025).

Land positions etc.

Further notes on the main estimation uncertainties in the valuation of Inventories are provided in the Accounting Policies and Note [4], Inventories.

TBI analysed its land positions etc. in the light of market uncertainties and prospects in 2018. The analyses considered the positions with the highest risks, mainly with regard to land and associated plan development costs. The analyses were based on the residual value of the land and considered the impact on each position of, among other things, location, status of development plans and government decision-making, demographic change and other location-specific aspects of the position, which impact was expressed in the valuation of the positions where necessary.

Work in progress for third parties

Further notes on the main principles applied to value work in progress are provided in the Accounting Policies and Note [5], Work in progress for third parties.

The value of work in progress for each project is periodically assessed by project leaders and the company management. The assessment is based principally on records entered in the project files, project accounts and the knowledge and experience of those involved. An inherent feature of this process and the project activities is that they rely on estimates and the company's involvement in the negotiation and discussion of the financial settlement of projects, including the settlement of variations, claims, arbitration and penalty clauses, the timing of delivery and the quality of the work. The actual position may later prove to differ from the estimated position. This is particularly true of multiyear projects requiring extensive customised work and if there are outstanding claims and variation disputes with clients that still had to be settled as at the balance sheet date.

TBI has several DB(F)(M), contracts in portfolio, which by their nature have a high risk profile on account of their size, complexity and long duration. The result of these projects is determined on the most reasonable current estimates of the realisable proceeds on those projects (including contract variations), and the anticipated project results on the contractual maintenance phase.

These projects, moreover, can have a relatively large impact on the company's results on account of their size, complexity and long duration. On completion of these projects, the project proceeds (including contract variations), project costs and thus the project results may significantly differ from the current estimates.

CONSOLIDATION

The consolidated accounts comprise the financial information of TBI Holdings B.V., the group companies in which TBI Holdings B.V. holds more than 50 per cent of the voting capital or in which TBI Holdings B.V., by virtue of supplementary rules, exercises power of control over the management and financial policy, and other legal entities over which TBI Holdings B.V. can exercise power of control or central management. In general, these are participating interests of more than 50 per cent. The assets and liabilities and results of these companies are consolidated in full. Minority interests in group equity and group profit or loss are shown separately.

Participations in consortia – i.e. contractually agreed participations in groups in which control is exercised jointly with third parties – are consolidated on a pro rata basis. The duration and legal form of the participations are not relevant. If a construction consortium takes the form of a general partnership, account is taken of joint and several liability, if and in so far as there is cause to do so in the light of the consortium's financial position and/or that of one or more of the partners in the consortium.

Intragroup receivables and liabilities and results on transactions between group companies and other legal entities recognised in the consolidation are eliminated in so far as those results are not due to transactions with parties outside the group.

With due regard for the provisions of articles 379 and 414 of Part 9, Book 2 of the Dutch Civil Code, a list of participating interests has been filed for inspection with the Commercial Register in Rotterdam.

Acquisition and divestment of group companies

The assets, liabilities, results and cash flows of participating interests acquired are consolidated as from the date of acquisition. The date of acquisition is the date on which effective power of control can be exercised over the commercial and financial policies of the participating interests concerned. Consolidated participating interests are included in the consolidation until the date on which they are divested. The results of participating interests divested during the year are recognised up to the date on which control could no longer be exercised over policy.

There was no material change in the consolidation circle in 2018.

RELATED PARTIES

Related parties are all legal persons over which a controlling interest, joint power of control or significant influence can be exercised. Legal persons over which a power of control can be exercised also qualify as related parties.

The members of the Executive Board, other key management officers and close associates are related parties.

TBI has the following related parties: the shareholder, group companies, the members of the Executive Board, key management officers, close associates and the members of the Supervisory Board. Explanatory notes are provided on significant transactions with related parties in so far as they are not entered into on normal market conditions. The nature and size of the transaction and other information necessary to gain an insight are provided.

FOREIGN CURRENCY

Transactions in foreign currency during the year are recognised in the accounts at the rate ruling as at the transaction date. Monetary assets and liabilities denominated in foreign currency are translated into the functional currency at the rate ruling as at balance sheet date. Exchange differences arising from settlement and translation are recognised in the profit and loss account. Non-monetary assets valued at cost in a foreign currency are translated at the exchange rate ruling as at the transaction date. Translation differences on net investments in a foreign participating interest are taken directly to the statutory reserve for exchange differences in group equity.

Valuation

Assets and liabilities are, as a rule, valued at cost of acquisition or production or at current value. Where no specific valuation policy is stated, they are recognised at cost of acquisition.

Impairment of non-current assets

Indications that the value of a non-current asset has been impaired are reviewed as at every balance sheet date. If such indications are present, the recoverable amount of the asset is calculated. An asset is impaired if the carrying amount of the asset exceeds its recoverable amount, whereby the recoverable amount is the higher of the asset's net realisable value and its value in use. Circumstances that could lead to the reversal of a prior-year impairment are also reviewed as at every balance sheet date.

Where non-current financial assets are carried at amortised cost, the impairment is the difference between the carrying amount and the best estimate of future cash flows, discounted at the effective rate of interest for the financial asset, as calculated on the initial recognition of the instrument.

Non-current intangible assets

Non-current intangible assets consist of, among other things, expenditure on internal development projects for the production of new or substantially improved products and processes. This expenditure can be capitalised if the product or process is technically and commercially viable (i.e. if economic benefits will be realised). The capitalised costs are recognised at cost and are amortised on a straight-line basis over an estimated useful life of five years or, if closer to economic reality, pro rata to the units produced from the associated development. A statutory reserve is formed for capitalised development costs.

Notes to the consolidated accounts

Non-current intangible assets other than internally generated assets, including patents and licences, are valued at cost of acquisition and amortised on a straight-line basis over the estimated useful life, with a maximum of 20 years.

Account is taken of impairments foreseen as at balance sheet date. Reference is made to the relevant paragraph note on the impairment of non-current intangible assets.

Goodwill is defined as the positive difference between cost of acquisition and the fair value of the identifiable assets and liabilities acquired. Goodwill is capitalised and written off over the assets' expected economic life (10 years).

Cost of acquisition consists of the consideration paid for the acquisition plus any costs directly attributable to the acquisition.

Non-current tangible assets

Non-current tangible assets are carried at the lower of cost of acquisition plus associated costs or cost of production and value in use. Non-current tangible assets are depreciated on a straight-line basis over the estimated useful life, with account being taken of any residual value. The annual depreciation rates are:

Buildings	2.5 to 10 per cent
Company sites	0 per cent
Plant and machinery	10 to 20 per cent
Other operating assets	20 per cent

Account is taken of impairments foreseen as at balance sheet date. Reference is made to the relevant note on the impairment of non-current tangible assets.

The cost of major maintenance is capitalised in the year in which the major maintenance is carried out and depreciated pro rata over the asset's remaining life if the asset's life is extended.

Non-current financial assets

Participating interests in which the company can exercise no significant influence are carried at cost of acquisition.

Participating interests in which the company can exercise significant influence over the commercial and financial policy are carried at net asset value in accordance with the accounting policies of TBI Holdings B.V.

Acquired participating interests are initially recognised at the market value of the identifiable assets and liabilities as at the date of acquisition. Subsequent valuations are based on the accounting policies used in these annual accounts, based on the values in the initial valuation.

Account is taken of impairments as at balance sheet date. Where a participating interest's net asset value is negative, the participating interest is carried at nil. A provision is formed in such situations if and in so far as TBI Holdings B.V. stands surety in full or in part for the participating interest's debts or has a firm intention to enable the participating interest to settle its debts.

Deferred tax assets are recognised in respect of carry-over losses and timing differences between the value of assets and liabilities for taxation purposes on the one hand and their value for accounting purposes in these annual accounts on the other, on the understanding that deferred tax assets are recognised only in so far as it can reasonably be assumed that future tax gains can be set off against timing differences and losses. Deferred tax assets are recognised at the tax rates applicable as at year end or at the rates applicable in future years in so far as they have already been set by law. Deferred tax assets are carried at nominal value.

On initial recognition, loans awarded and other receivables recognised under non-current financial assets are carried at fair value. On subsequent recognition loans and receivables are carried at amortised cost. Discounts or premiums present when loans are issued are taken to the profit and loss account over the term of the loan and recognised as effective interest. On initial recognition, account is also taken of transaction costs and charged to the profit and loss account as effective interest.

Inventories

Inventories of raw materials and consumables are carried at the lower of historical cost and recoverable value.

Work in progress, semi-manufactures, finished goods and goods for resale are carried at the lower of cost of production and realisable value. Cost of production includes all costs relating to acquisition or production and costs incurred to bring stocks to their current place and state. Cost of production includes direct wages and salaries and mark-ups for production-related indirect fixed and variable costs.

The realisable value is the estimated selling price less direct selling costs. Calculation of the realisable value takes account of slow-moving inventories.

Land owned by the group is carried at cost plus the cost of infrastructure developments and other costs arising from land ownership, less provisions necessary for development risks as soon as they are foreseeable.

No interest is added to group-owned land or work in progress for own development except where use is made of project financing.

Capitalised costs of unsold housing under construction are recognised under stock of housing under construction. Unsold housing that is completed is recognised under stock of completed housing, etc. No profit is recognised on unsold housing.

Work in progress for third parties

Work in progress for third parties consists of the balance of realised project costs, attributable profit and, where applicable, recognised losses and instalment payments already declared. Work in progress is presented separately in the balance sheet under current assets. Net negative balances are presented under current liabilities.

Receivables

On initial recognition, receivables are carried at market value of the counter-performance. On subsequent recognition, receivables are carried at amortised cost, taking account of the effective interest rate and a value adjustment for doubtful debts, which in general agrees with nominal value.

Cash and cash equivalents

Cash and cash equivalents consists of cash, bank balances and deposits with a term of less than 12 months. Cash and cash equivalents is carried at nominal value.

Provisions

Provisions are formed for all legally enforceable or actual obligations arising from an event before balance sheet date whose settlement is likely to entail an outflow of funds that can be reliably estimated.

Provisions are carried at the best estimate of the amounts needed to settle the obligations as at balance sheet date. Provisions are carried at the nominal value of the estimated expenditure necessary to settle the obligations, unless stated otherwise.

Deferred tax liabilities are recognised in respect of timing differences between the value of assets and liabilities for taxation purposes on the one hand and the carrying value of those assets in these annual accounts on the other. Deferred tax liabilities are calculated using the tax rates applying at year end or in future years in so far as they have already been set by law. Deferred tax liabilities are carried at nominal value.

The provision for long service payments consists of the present value of expected payments made to mark employee anniversaries. Calculation of this provision takes account of the probability of employees leaving and a discount rate of 3.0 per cent (2017: 3.0 per cent).

The provision for guarantee obligations covers the cost of guaranteeing completed projects. The amount of the provision is based on specific guarantee problems known as at balance sheet date.

A reorganisation provision is formed if a detailed reorganisation plan has been formalised as at balance sheet date and there are justified expectations among those who will be affected by the reorganisation when the annual accounts are prepared that the plan will be implemented. An expectation is justified if implementation of the reorganisation has commenced or if the main points of the plan have been announced to those who will be affected. The reorganisation provision includes expected necessary reorganisation costs that are not related to the company's continuing activities.

Other provisions have been formed for foreseeable liabilities and potential charges arising from disputes and legal proceedings and environmental risks.

Liabilities

On initial recognition, liabilities are carried at market value. Transaction costs directly attributable to the acquisition of the liabilities are included in the carrying amount on initial recognition. After initial recognition, liabilities are carried at amortised cost, i.e. the amount received after taking account of premiums and discounts and after deduction of transaction costs.

Repayment obligations on non-current liabilities falling due within one year are presented under current liabilities: credit institutions.

Financial instruments and financial risk management

TBI uses various financial instruments in the course of its ordinary activities. The financial instruments are presented in the balance sheet and include cash and cash equivalents, debtors and other receivables and interest-bearing loans, creditors and other liabilities.

On their initial recognition in the balance sheet, derivatives are carried at fair value; subsequent valuation of derivatives is based on whether the underlying securities are listed or not. If the underlying security is listed, the derivative is carried at fair value. If the underlying security is not listed, the derivative is carried at the lower of cost and market value. TBI does not apply hedge accounting. In so far as a derivative's fair value is lower than its cost as at balance sheet date, the difference is taken to the profit and loss account.

Financial instruments are assessed as at balance sheet date to determine whether there are objective indications of impairment of a financial asset or group of financial assets. If there are objective indications of impairment, TBI calculates the amount of the impairment and charges it directly to the profit and loss account.

Financial instruments expose TBI to market and credit risks. Market and credit risks relate chiefly to financial risk factors surrounding currencies, prices, interest rates, cash flows, credit and liquidity. These financial risks are not unusual and do not differ from the risks considered normal in the industry. TBI has a strict policy to mitigate and manage these risks in so far as possible.

MARKET RISK

Currency risk

The greater part of the activities are carried out in the Netherlands and/or countries participating in the eurozone. The transactions arising from these activities are usually settled in euros (the functional currency). The currency risk is therefore limited. The translation risk is not hedged.

Notes to the consolidated accounts

Price risk

Price risk arises on the purchase of raw materials and consumables and on subcontracting, and consists of the difference between market price at the time of contract tendering or award and at the time of actual performance. TBI's policy is to agree an indexation option with the client when tendering for or being awarded the contract for a large project. If this is not possible, prices and conditions are fixed with the principal suppliers and subcontractors at an early stage. Price risk is also managed by means of framework contracts, quotations from suppliers and reliable sources of information.

Interest rate and cash flow risks

TBI is exposed to interest rate and cash flow risks on interest-bearing receivables (principally financial assets, securities and cash and cash equivalents), and interest-bearing non-current and current liabilities (including amounts payable to credit institutions). The company is exposed to risks in respect of future cash flows on receivables and liabilities bearing variable interest rates. The company is exposed to risks on fixed rate receivables and liabilities due to changes in market interest rates. Derivative financial instruments are not deemed necessary to hedge the interest rate risk on receivables.

Credit risk

Credit risk is the risk of financial loss if a client fails to meet its contractual obligations. Credit risks are related principally to amounts receivable from clients. TBI conducts an active policy to limit the concentration of credit risk wherever possible. The risk is managed with the aid of information from recognised institutions specialising in the provision of credit information. Continuous monitoring of the credit risk is part of the credit management system. Where necessary, risks are hedged by means of credit insurance, bank guarantees, advance payments and other forms of security. The trade debtors recognised as at balance sheet date do not represent a significant concentration of receivables in particular market sectors. Part of the debtor position, moreover, is receivable from the Dutch government sector.

TBI's cash balances are held at several banks. TBI limits the credit risk on cash balances held at banks by selecting, after evaluating their credit ratings, reliable banks.

Liquidity risk

Owing to the project-based nature of TBI's activities, the use of operational funds varies widely. TBI meets its working capital requirements by raising external finance centrally. Partly to manage the liquidity risk, TBI's companies prepare monthly liquidity forecasts for the coming 12 months. This enables TBI to optimise the use of its cash and credit facilities and identify any shortfalls on a timely basis.

Profit or loss determination

The profit or loss for the year is determined as the difference between the proceeds of the goods and services sold and the costs and other expenses incurred during the year. Proceeds on transactions are recognised in the year in which they are realised.

Operating revenue

Operating revenue comprises the balance of income (excluding value added tax) from works completed and delivered to third parties during the year (net turnover), increased or decreased by changes in the book value of work in progress and goods and services delivered.

Project revenue and expenses on work in progress that can be reliably estimated is recognised in the profit and loss account in proportion to the work completed as at balance sheet date. The progress of work completed is determined on the basis of the project costs incurred as at balance sheet date relative to the estimated total project costs. If the result cannot be reliably estimated, the proceeds are recognised in the profit and loss account up to the amount of the project costs that can probably be recovered. The project costs are then recognised in the profit and loss account when they are incurred.

The profit or loss is determined as the difference between project income and project costs. The result on the large number of smaller projects, usually with a duration of less than one year, is recognised on delivery of the project. This method has no material influence on the capital or the result.

Project revenue is the contractually agreed revenue and revenue from contract variations, claims and payments if and in so far as they are realisable and can be reliably estimated. Project costs are the costs directly related to a project that can generally be attributed and allocated to project activities and other costs that can be contractually charged to the client. Project costs are related chiefly to materials, third-party services and subcontracting, wages and social insurance costs, plus surcharges to cover general expenses.

If total project costs are likely to exceed total project revenue, the expected loss is taken directly to the profit and loss account. The provision for the loss is recognised in work in progress.

Proceeds on the sale of goods are recognised when all material rights and risks attaching to ownership of the goods are transferred to the purchaser.

Revenue from the provision of services is recognised in proportion to the services provided, on the basis of the services provided as at balance sheet date relative to the total services to be provided.

Operating costs

Operating costs are carried at historical cost. The FIFO method is generally used to determine the cost of raw materials and consumables. Intragroup transactions are recognised at arm's length prices. Development costs are capitalised only if the development project is likely to be technically and commercially successful (i.e. that it will be of economic benefit) and the costs can be reliably estimated.

Operating leases

Leases that transfer a substantial proportion of the risks and rewards of ownership to third parties are accounted for as operating leases. Commitments arising from operating leases are recognised in the profit and loss account on a straight-line basis over the term of the lease.

Staff remuneration

Staff remuneration, including wages, salaries and social insurance contributions, is recognised in the profit and loss account in accordance with the terms of employment, in so far as it is payable to employees. Other staff remuneration, with the exception of long service payments, is charged to the profit and loss account in the year in which it is paid.

The cost of pension schemes is equal, in principle, to the pension contributions payable to pension funds and insurance companies over the period. A liability is recognised for pension contributions not paid as at balance sheet date. Contributions paid in excess of contributions due as at balance sheet date are recognised as accrued income in so far as they will be repaid by the pension funds and/or insurance companies concerned or will be set off against future contributions. A provision is also recognised as at balance sheet date for existing additional obligations to pension funds, insurance companies and employees if it is likely that the settlement of those obligations will entail an outflow of funds that can be reliably estimated.

The existence of additional obligations is determined on the basis of the administration agreement with the pension funds and insurance companies and the pension agreement with the employees and other implicit or explicit undertakings given to employees. The provision is valued at the best estimate of the amounts needed to settle the obligations as at balance sheet date.

Amortisation of non-current intangible assets and depreciation of non-current tangible assets

Non-current intangible assets are amortised and non-current tangible assets are depreciated over their estimated useful lives as from the date on which they are taken into use, with account being taken of residual values where necessary.

Interest income and expense

Interest income and expense relate to interest payments and other financial expenses, recognised on a time proportion basis and taking account of the effective rate of interest of the assets and liabilities concerned.

Exchange differences

Exchange differences arising on the settlement or translation of monetary items are taken to the profit and loss account for the period in which they arise.

Result from participating interests

The result from non-consolidated participating interests is TBI's share in the result pro rata the interest held during the year, after deduction of relevant taxes. Dividends are recognised if the right thereto is obtained on the recognition of participating interests at cost.

Taxes

Taxes on the profit for the year are computed on the result before taxes, taking account of tax facilities such as loss carry-overs and participation exemption. Tax losses are recognised when utilisation is probable.

TBI Holdings B.V. and its shareholder, TBI Beheer B.V., and a number of subsidiary companies located in the Netherlands, together form a corporation tax group. TBI Holdings acts as the head of the corporation tax group. In accordance with statutory requirements, all members of a tax group are jointly and severally liable for the group's tax liabilities. Each member of the tax group bears its tax burden as an independent taxpayer. Settlement takes place in current account.

Statement of cash flows

The statement of cash flows is presented in accordance with the indirect method. In this method, the operating result is adjusted for items in the profit and loss account that do not influence income and expenditure during the year, movements in balance sheet items, and profit and loss account items not relating to operating activities. Transactions not involving a cash inflow or outflow are not included in the statement of cash flows. The cash position in the statement of cash flows consists of cash and cash equivalents.

Exchange differences on cash flows are presented separately in the statement of cash flows. Interest income and expense, dividends received and corporation taxes are included in the cash flow from operating activities. Dividends paid are included in the cash flow from financing activities.

The acquisition price of group companies acquired is presented in the cash flow from investing activities in so far as payment has been made in cash. Cash balances present in acquired group companies are deducted from the acquisition price.

The selling price of divested group companies (divestments) is presented in the cash flow from investing activities in so far as payment has been made in cash. The cash balances present in divested group companies are deducted from the selling price.

Notes to the consolidated balance sheet

(in thousands of euros)

1 NON-CURRENT INTANGIBLE ASSETS

	Development	Software and licences	Goodwill	Total
As at 1 January 2018				
Cost of acquisition or production	9,984	24,641	200	34,825
Accumulated impairments and amortisation	-7,706	-15,474	-20	-23,200
Book value	2,278	9,167	180	11,625
Changes in book value				
Investments	1,563	3,305	5,775	10,643
Divestments	-399	-372	-	-771
Reclassification	664	1,512	-	2,176
Amortisation	-1,598	-4,293	-453	-6,344
Balance	230	152	5,322	5,704
As at 31 December 2018				
Cost of acquisition or production	8,923	29,898	5,975	44,796
Accumulated impairments and amortisation	-6,415	-20,579	-473	-27,467
Book value	2,508	9,319	5,502	17,329

2 NON-CURRENT TANGIBLE ASSETS

	Land and buildings	Plant and machinery	Other tangible fixed assets	Advance payments, etc.	Total
As at 1 January 2018					
Cost of acquisition or production	99,152	77,933	73,278	5,111	255,474
Accumulated impairments and depreciation	-53,570	-56,510	-58,940	-	-169,020
Book value	45,582	21,423	14,338	5,111	86,454
Changes in book value					
Investments	3,433	8,760	8,321	594	21,108
Divestments	-850	-4,387	-714	-	-5,951
Depreciation	-3,317	-3,739	-5,058	-	-12,114
Reclassification	4,155	-	-865	-4,188	-898
Consolidations and divestments etc.	63	-256	540	-	347
Balance	3,484	378	2,224	-3,594	2,492
As at 31 December 2018					
Cost of acquisition or production	105,662	75,777	63,414	1,517	246,370
Accumulated impairments and depreciation	-56,596	-53,976	-46,852	-	-157,424
Book value	49,066	21,801	16,562	1,517	88,946

Premises and land with a book value of €30.7 million has been given as security for the non-recourse financing of, initially, €30 million, as explained in the note to non-current liabilities [10].

3 NON-CURRENT FINANCIAL ASSETS

The net change in non-current financial assets are:

	Non-consolidated participating interests	Loans granted	Deferred tax assets	Other financial fixed assets	Total
As at 1 January 2018	2,270	365	16,417	600	19,669
Changes in 2018					
Profit distributions and dividends received	-254	-	-	-	-254
Share in result for the year	520	-	-	-	520
Loan granted	-	250	-	-	250
Repayment of loans	-	-6	-	-	-6
Investments	-	-	-	703	703
Divestments	-	-	-	-6	-6
Movement in deferred taxes	-	-	-5,865	-	-5,865
Reclassification of receivables	-	-	-	260	260
Consolidations and divestments etc.	-65	-	-	-	-65
Balance	201	244	-5,865	957	-4,463
As at 31 December 2018	2,471	609	10,552	1,574	15,206

The principal consolidated participating interests as at year end 2018 are listed in the Operational Structure of TBI elsewhere in this report. In accordance with statutory requirements, a list of consolidated and non-consolidated participating interests, the main construction consortia and other joint arrangements has been filed in the Trade Register of the Chamber of Commerce in Rotterdam.

Loans granted comprise a loan granted to a non-consolidated participating interest and a loan granted to a group company consolidated on a pro rata basis. The loan granted to the non-consolidated participating interest amounts to €0.3 million and expires on 5 March 2037. The loan bears interest at 7 per cent. No security has been provided. The loan granted to the group company consolidated on a pro rata basis amounts to €0.3 million and expires on 15 March 2023. The loan bears interest at 7 per cent per annum on the effective amount drawn down. No collateral security has been provided.

Deferred taxes to an amount of €10.6 million relate to valuation differences, recoverable liquidation losses and deferred tax assets that can be set off against future profits. Approximately €6 million is expected to be set off in the coming year.

4 INVENTORIES

	31 December 2018	31 December 2017
Raw materials and consumables	3,857	3,800
Work in progress and semi-manufactures	105	67
Finished products and goods for resale	3,880	4,179
Housing under construction	13,748	6,987
Completed housing, etc.	3,717	1,524
Land positions, etc.	178,084	204,960
	203,391	221,517

Notes to the consolidated balance sheet

TBI carries out projects developed by third parties or arising from its own project development activities. Investments in project development activities, as recognised under inventories, relate to work in progress (Land positions, etc.), capitalised construction and development costs of the unsold part of work in progress (Housing under construction) and projects already completed (Completed housing, etc.). The item Land positions relates chiefly to land positions acquired in the Netherlands for development in the near future. In the light of market conditions and expectations, TBI analysed its real estate positions in 2017. The analyses focused on the riskiest positions, predominantly in land and associated plan development costs. On the basis of these analyses based on a residual land value method, TBI concluded in 2018 that the expected future realisable value of a number of positions needed to be permanently written down. These impairment charges amounted to €2.5 million (2017: €2.6 million).

5 WORK IN PROGRESS FOR THIRD PARTIES

Work in progress for third parties as at 31 December:

	31 December 2018	31 December 2017
Work in progress for third parties		
Costs including profits based on percentage of completion,		
Less provisions for losses	2,228,533	1,964,450
Less: invoiced instalments	<u>-2,272,826</u>	<u>-2,018,198</u>
	-44,293	-53,748
Recognised under current liabilities	<u>44,293</u>	<u>53,748</u>
Balance	<u>-</u>	<u>-</u>

The balance consists of:

	31 December 2018	31 December 2017
Balance of work in progress for third parties greater than invoiced instalments	158,950	194,326
Balance of work in progress for third parties less than invoiced instalments	<u>-203,243</u>	<u>-248,074</u>
	-44,293	-53,748

The balance of costs and invoiced instalments for third-party projects includes production not yet invoiced to clients or financed by clients, against which there are commitments.

6 RECEIVABLES

	31 December 2018	31 December 2017
Trade debtors	210,524	201,057
Corporate tax	-	171
Receivable from completed projects	8,844	13,776
Other receivables	33,139	34,305
Prepayments and accrued income	<u>5,875</u>	<u>4,606</u>
	258,439	253,915

The receivables have a term of less than one year. The fair value of receivables approximates their book value on account of their short-term nature and the fact that provisions have been formed for doubtful debts where necessary. A provision for uncollectibility has been deducted from receivables to a total of €2.98million (31 December 2017: €2.9 million).

7 CASH AND CASH EQUIVALENTS

	31 December 2018	31 December 2017
Banks	229,253	186,621
Deposits	20	20
Cash	32	35
	<u>229,305</u>	<u>186,676</u>

Cash and cash equivalents is readily disposable with the exception of approximately €20.2 million (31 December 2017: €20.1 million) held by general partnerships that is consolidated on a pro rata basis under other participating interests, as TBI does not have power of control. Dutch bank balances also include the balances of frozen G accounts amounting to approximately €4.3 million (31 December 2017: €6.1 million). Deposits have a term of less than one year.

8 GROUP EQUITY

Shareholder's equity is explained in the notes to the company balance sheet.

9 PROVISIONS

	Long-service commitments	Guarantee commitments	Reorganisation	Otherig	Total
As at 1 January 2018	4,406	2,600	4,003	769	11,778
Changes in 2018					
Addition	282	3,060	5,169	995	9,506
Withdrawals	-264	-2,833	-6,471	-469	-10,037
Balance	18	227	-1,302	526	-531
As at 31 December 2018	<u>4,424</u>	<u>2,827</u>	<u>2,701</u>	<u>1,295</u>	<u>11,247</u>

Other provisions have been formed chiefly for environmental levies.

The terms of provisions are:

	31 December 2018			31 December 2017		
	< 1 year	1 – 5 year	> 5 year	< 1 year	1 – 5 year	> 5 year
Provisions (x €1 million)	4.7	3.6	2.9	6.6	2.3	2.9

10 NON-CURRENT LIABILITIES

Langlopende schulden per categorie	31 December 2018	31 December 2017
Subordinated loan	25,000	25,000
Non-recourse financings	40,980	33,717
Recourse financings	5,334	7,347
	<u>71,314</u>	<u>66,064</u>

Notes to the consolidated balance sheet

Repayments falling due within one year are recognised under current liabilities. The fair value of non-current liabilities approximates the book value.

The non-current liabilities have the following terms:

Non-current liabilities by maturity (x €1 million)	31 December 2018		31 December 2017	
	1 – 5 year	> 5 year	1 - 5 year	> 5 year
Non-current liabilities	59.2	12.1	43.1	23.0

TBI Beheer B.V. granted a ten-year 5 per cent €25 million subordinated loan to TBI Holdings B.V. in January 2016. The loan is redemption-free during the first 5.5 years. Thereafter it will be redeemed in five equal and successive annual instalments. Collateral security has not been provided. The non-recourse financing relates to some of the premises and project financing. The recourse financing relates to project financing.

Non-recourse financing of the initial €30 million has been contracted against some of the premises. Of the total, €17.2 million was recognised as a non-current liability and €2 million as a current liability as at 31 December 2017.

The interest rate on this loan is fixed at 2.95 per cent. Collateral security has been provided in the form of a first right of mortgage on the premises concerned, pledges of sales and rental contracts and group guarantees.

The non-recourse financing relates to non-current project financing contracted by group companies. The rate of interest varies between 0.35 per cent and 4.41 per cent. Collateral security has been given in the form of a first right of mortgage, a pledge of receivables, purchase contracts and lease contracts, a letter of comfort and group guarantees.

11 CURRENT LIABILITIES, ACCRUALS AND DEFERRED LIABILITIES

	31 December 2018	31 December 2017
Credit institutions	10,504	14,586
Trade creditors	256,767	248,934
Taxation	429	–
Taxes and social insurance contributions	52,556	40,289
Work in progress for third parties	44,293	53,748
Personnel costs	36,886	34,456
Pension contributions	635	1,437
Payable on completed projects	22,319	27,822
Other liabilities	42,010	24,866
Accruals and deferred liabilities	8,564	15,727
	474,963	461,855

Current liabilities, accruals and deferred liabilities have a term of less than one year. The fair value of current liabilities approximates their book value on account of their short-term nature. Credit institutions relate to an amount of €7.6 million to the conclusion of non-recourse financing (2017: €6.5 million) and to an amount of €2.9 million to the conclusion of recourse financing (2017: €8.1 million).

Credit facilities

TBI concluded a €75 million two-year committed Revolving Credit Facility (RCF) in 21 December 2015. It also has uncommitted bilateral current account facilities of €30 million to cover short-term liquidity shortages. The two facilities are documented in a single agreement. The facilities are spread equally over three banks, ABN AMRO, ING and Rabobank.

The existing RCF was amended and extended in TBI's favour on 1 November 2018. The amended RCF provides TBI with improved interest rates and conditions for a period of at least five and at most seven years as from 1 November 2018. The latter is possible by means of renewal options on the first and second anniversary of the RCF.

No use had been made of these facilities as at 31 December 2018 or as at 31 December 2017. The facilities were not drawn down in 2018 (there was no draw down in 2017). The interest rate is linked to Euribor. The Euribor rate is determined by the chosen term of the draw down. A discount can be gained through compliance with non-financial parameters. Four of the five pre-defined non-financial parameters were satisfied in 2018. The applicable Euribor rate is determined by the chosen term. As under the previous RCF, the principal security is the satisfaction of financial covenants (interest cover ratio and senior debt cover ratio). These ratios were satisfied in 2018.

OFF BALANCE SHEET COMMITMENTS

	31 December 2018	31 December 2017
Bank guarantees and securities		
Guarantees for letters of intent	5,317	2,363
Guarantees for work performance	191,809	182,528
Guarantees for advance payments received	31,082	52,930
Other	15,495	15,361
	<u>243,703</u>	<u>253,182</u>

	31 December 2018			31 December 2017		
	< 1 year	1 – 5 year	> 5 year	< 1 year	1 – 5 year	> 5 year
Other (x €1 million)						
Leases	21.0	46.8	3.7	19.4	39.6	2.0
Rental agreements, etc.	8.2	27.4	12.0	8.1	25.4	16.2
Land purchase commitments	55.9	30.4	–	29.0	30.3	–

The following amounts were recognised in the profit and loss account in respect of leases during the year:

(x €1 million)	2018
Minimum lease payments	31.9
Conditional lease payments	5.0
Sub-lease income	<u>-0.4</u>
	<u>36.5</u>

Lease commitments relate principally to the vehicle fleet; rental commitments related principally to real estate. Operating lease and rental commitments are stated in nominal amounts and taken to the profit and loss account on a straight-line basis over the term of the agreement. Land purchase commitments are conditional in part on planning changes and/or the issuance of permits. As at year end 2018, TBI Holdings B.V. had an obligation to repurchase non-current tangible assets from work in progress amounting to €3.4 million. The tangible assets are expected to be repurchased during 2019.

TBI Holdings B.V. and its group companies are involved in legal disputes from time to time. A provision is formed when the settlement of a dispute will likely entail an outflow of funds and the size of the outflow can be reliably estimated. After taking legal advice, the company's management believes the outcome of current proceedings in other disputes will not have a material influence on the consolidated position of TBI Holdings B.V.

TBI Holdings B.V., its shareholder TBI Beheer B.V. and a number of subsidiary companies in the Netherlands together form a tax group for value added tax and corporation tax purposes. In accordance with statutory requirements, all members of a tax group are jointly and severally liable for the group's tax liabilities.

Notes to the consolidated profit and loss account

(in thousands of euros, unless stated otherwise)

Segmental information by area of activity (millions of euros)	Engineering		Construction		Infrastructure		Holding		Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Operating revenue										
External	693	634	832	872	249	199	-	3	1,773	1,708
Internal	19	20	10	16	9	3	-39	-39	-	-
Total	712	654	842	888	258	202	-39	-36	1,773	1,708
Earnings before depreciation*	10.8	6.1	38.9	37.2	11.0	5.8	6.1	-3.1	54.7	46.0
Operating profit before contribution	3.1	-5.2	30.2	28.5	9.1	3.9	-6.2	0.9	36.2	28.0
Contribution**	3.5	3.6	3.5	3.6	-	-	-7.0	-7.2	-	-
Operating profit*	6.6	-1.7	33.7	32.1	9.1	3.9	-13.2	-6.3	36.2	28.0
Operating margin										
Operating profit/turnover	0.9%	-0.3%	4.0%	3.6%	3.5%	1.9%	-	-	2.0%	1.6%
Capital expenditure	12.5	8.9	5.7	5.6	2.1	5.8	0.8	0.9	21.1	21.2
Investments in intangible non-current assets	5.8	0.1	1.6	2.1	0.1	0.0	3.1	1.2	10.6	3.5
Depreciation of tangible non-current assets	3.7	7.6	3.6	3.2	2.0	1.9	2.9	2.6	12.1	15.3
Amortisation of intangible non-current assets	0.5	0.1	1.6	1.9	0.0	0.0	4.3	0.6	6.3	2.6

* Excluding impairment charges and reorganisation costs.

** The contribution relates to a contribution made by TBI Holdings to New Main, which is recognised by Engineering for 50 per cent and by Construction for 50 per cent.

12 NET REVENUE

	2018	2017
Geographical spread of net revenue		
Netherlands	1,500,833	1,636,382
Other EU countries	11,320	18,458
Rest of Europe	920	7,857
Outside Europe	5,510	28,944
	1,518,583	1,691,641

13 EMPLOYEES

	2018	2017
Average number of employees by activity		
Engineering	3,747	3,793
Construction	1,418	1,400
Infrastructure	478	441
Other	90	67
	5,733	5,701

In 2018, 248 of the average number of employees worked outside the Netherlands (2017: 266).

14 PENSIONS

The employees of TBI and its group companies are members of the following pension funds or insurance schemes depending on the relevant collective labour agreement and/or contract of employment:

- Pension Fund for the Construction Industry
- Pension Fund for the Metalworking and Mechanical Engineering Industry
- Pension Fund for the Concrete Products Industry
- Insurance schemes:
 - Construction Industry dispensation scheme (for pensions accrued until 1 January 2012)
 - Company pension schemes

The first three pension funds administer industry-based pension schemes. The TBI group companies have no obligation to make additional contributions other than the future contributions payable to make up for any underfunding in an industry-based pension scheme. Similarly, the TBI group companies are not entitled to any surpluses present in the funds. The same applies to the insurance-based schemes, which have been placed with an insurance company.

On the basis of the above characteristics, the pension charge recognised for the year is equal to the contributions payable to the pension funds and insurance companies over that period.

The employees of the companies in the Engineering sector are members of the Pension Fund for the Metalworking and Electrical Engineering Industry. As a result of the low and slightly variable interest rates, the funding rate in the Pension Fund for the Metalworking and Mechanical Engineering Industry fluctuated at around 102 per cent in 2018 and had declined to 99.4 per cent as at 31 December. No reductions were made in 2018, 2017, 2016 and 2015. This had not been the case in 2014 and 2013, when pensions had been reduced by 0.4 per cent and 6.3 per cent respectively. The Pension Fund for the Metalworking and Mechanical Engineering Industry will not increase the pensions as at 1 January 2019 either.

A new top-up pension scheme was introduced on 1 January 2015 for salaries of between €70,000 and €100,000 (2015 amounts). Membership was compulsory in 2015 and is voluntary as from 2016. TBI has decided to continue offering this scheme to its employees.

The policy funding ratio of the Pension Fund for the Construction Industry increased to 118.3 per cent in 2018.

The pensions of both the active and the inactive members were increased by 0.59 per cent as at 1 January 2018. The pensions of active members, former members and retired members were increased by 1.07 per cent as at 1 January 2019.

The policy funding ratio of the Pension Fund for the Concrete Products Industry fell slightly to 102.4 per cent. This pension fund will not increase the pensions in payment as at 1 January 2019.

Stichting TBI Pension Fund decided to wind itself up as of 1 January 2017. The Dutch central bank has agreed to the collective transfer of the value of accrued pension entitlements as at 31 December 2016. This transfer took place on 31 December 2016. A direct agreement has been concluded between the employer, TBI, and the insurance company, Nationale Nederlanden, in respect of the new pension accruals and pension insurances as from 1 January 2017. The contract includes the administration of pension schemes for the TBI employees with the exception of those administered by compulsory occupational pension funds.

Notes to the consolidated profit and loss account

15 AMORTISATION OF NON-CURRENT INTANGIBLE ASSETS AND DEPRECIATION OF NON-CURRENT TANGIBLE ASSETS

	2018	2017
Amortisation of non-current intangible assets	6,344	2,611
Depreciation of non-current tangible assets	12,114	15,328
	<u>18,458</u>	<u>17,939</u>
Amortisation of non-current intangible assets		
Development	1,598	2,027
Software and licences	4,293	564
Goodwill	453	20
	<u>6,344</u>	<u>2,611</u>
Depreciation of non-current tangible assets		
Land and buildings	3,317	3,553
Plant and machinery	3,739	3,526
Other non-current operating assets	5,058	8,249
	<u>12,114</u>	<u>15,328</u>

16 OTHER OPERATING COSTS

	2018	2017
Car costs	26,304	25,567
Automation costs	22,322	18,250
Accommodation costs	12,750	11,552
Other personnel costs	13,240	10,919
Other costs	29,244	34,325
	<u>103,860</u>	<u>100,613</u>

17 TAXATION

This relates to tax payable on the results earned in the Netherlands and abroad, with account being taken of changes in deferred taxation. The tax payable is computed at applicable rates, with account being taken of tax-exempt profit components, permanent differences and non-deductible items.

	2018	2017
Result before taxes	24,372	14,000
Deferred taxation	4	1,497
Current year taxation	-6,430	-4,299
Prior year taxation	-294	-1,114
	<u>-6,720</u>	<u>-3,916</u>
Taxation on result		

The effective tax rate for the year was 27.6 per cent (2017: 28.0 per cent). The relationship between the average effective tax rate and the statutory corporation tax rate is as follows:

(as a percentage)	2018	2017
Corporation tax rate	25.0	25.0
Non-deductible costs	1.3	2.1
Differences in foreign tax rates	0.6	1.7
Prior year tax adjustments	1.2	8.0
Current year non-recoverable losses	–	2.5
Liquidation losses	–	–11.7
Tax facilities, etc.	–0.5	0.4
Effective tax rate	<u>27.6</u>	<u>28.0</u>

18 RESULT FROM PARTICIPATING INTERESTS

The result from participating interests includes the profit from non-consolidated participating interests of €0.4 million (2017: €0.7 million) and the profit on the sale of participating interests was nil (2017: €-0.2 million).

Exchange differences

Exchange differences recognised in the profit and loss account amounted to nil (2017: €-0.1 million)

Research and development costs

Research and development costs charged to the profit and loss account for 2018, including the amortisation of development costs recognised in the balance sheet, amounted to €4.1 million (2017: €2.5 million).

Reorganisation costs

With a view to maintaining profitability and the continuity of TBI, a number of TBI companies have adapted their cost structure and organisations to the volume of activity expected in the years ahead. The related reorganisation costs for the year amounted to €5.2 million (2017: €7.1 million).

Remuneration of executive and supervisory directors

The remuneration of the members and former members of the Executive Board includes periodic payments such as salaries, social insurance contributions, pension contributions and profit shares and variable payments. The award of variable payments is determined in part by the achievement of personal and sustainability targets. An amount of €3.079 million was charged to the company for these payments in 2018 (2017: €1.866 million). The remuneration of the Executive Board was higher in 2018 than in 2017, in part because of an increase in the number of the Executive Board members on 1 January 2018 in anticipation of the departure of Mr D.A. Sperling as of 1 May 2019.

The remuneration of the members of the Supervisory Board amounted to €0.235 million (2017: €0.234 million).

Auditor's fee

The auditor's fee can be broken down by category as follows:

	2018	2017
Audit of the consolidated accounts	1,255	1,110
Other audit engagements	22	27
Tax advice	8	46
Other non-audit services	46	40
	<u>1,331</u>	<u>1,223</u>

Notes to the consolidated profit and loss account

Tax advice fees related to advice on the remittance of social insurance contributions. Other non-audit services related to the review of the sustainability report.

The fees shown above relate to work carried out at the company and the interests included in the consolidation by audit firms and external independent auditors within the meaning of section 1 (1) of the Audit Firms (Supervision) Act and the fees charged by the entire network to which the audit firm belongs. These fees relate to the examination of the annual accounts for 2018 regardless of whether or not the work was performed during the financial year.

Company balance sheet as at 31 December 2018

(before profit appropriation, in thousands of euros)

	31 December 2018	31 December 2017
Non-current assets		
Tangible fixed assets	(1) 685	528
Financial fixed assets	(2) <u>340,530</u>	<u>337,372</u>
	341,215	337,900
Current assets		
Receivables	(3) 3,083	4,512
Cash and cash equivalents	(4) <u>180,710</u>	<u>148,697</u>
	183,793	153,209
Total assets	<u>525,008</u>	<u>491,109</u>
Shareholder's equity	(5)	
Issued capital	45,378	45,378
Share premium reserve	7,683	7,683
Statutory reserves	2,460	2,217
Other reserves	181,398	174,197
Retained earnings	<u>18,172</u>	<u>10,616</u>
	255,091	240,091
Provisions	(6) 1,316	25
Non-current liabilities	(7) 25,000	25,000
Current liabilities, accruals and deferred liabilities	(8) <u>243,601</u>	<u>225,993</u>
Total liabilities	<u>525,008</u>	<u>491,109</u>

COMPANY PROFIT AND LOSS ACCOUNT FOR 2018

(in thousands of euros)

	2018	2017
Result from participating interests after tax	31.974	18,579
Company result after tax	<u>-13.802</u>	<u>-7,963</u>
	<u>18.172</u>	<u>10,616</u>

Notes to the company accounts 2018

GENERAL

The company accounts of TBI Holdings B.V. are prepared in accordance with the statutory provisions laid down in Part 9 of Book 2 of the Dutch Civil Code and final decisions regarding the Guidelines for Annual Reporting in the Netherland issued by the Netherlands Council for Annual Reporting. The same accounting policies are used for both the company and the consolidated accounts. The policies applied to value assets and liabilities and to determine the result for the year are explained in the notes to the consolidated balance sheet and profit and loss account. Participating interests in group companies are accordingly carried at net asset value.

COMPANY BALANCE SHEET

1 NON-CURRENT TANGIBLE ASSETS

	Other non-current tangible assets
As at 1 January 2018	
Cost of acquisition or production	1,301
Accumulated impairments and amortisation	-773
Book value	528
Changes in book value	
Additions	329
Depreciation	-172
Balance	157
As at 31 December 2018	
Cost of acquisition or production	1,668
Accumulated impairments and amortisation	-983
Book value	685

2 NON-CURRENT FINANCIAL ASSETS

	31 December 2018	31 December 2017
Share in group companies	288,632	286,945
Deferred tax assets	16,049	17,565
Other participating interests	1,018	1,018
Loans granted	34,378	31,844
Other financial assets	453	-
	340,530	337,372

Movements during the year:

	Share in group companies	Deferred tax assets	Other participating interests	Loans granted	Other financial assets	Total
As at 1 January 2018	286,945	17,565	1,018	31,844	–	337,372
Changes in 2018						
Net profit for 2018	31,813	–	–	–	–	31,813
Dividends received	–30,382	–	–	–	–	–30,382
Investments	–	–	–	–	300	300
Reclassification	–	–	–	–	153	153
Loans granted	–	–	–	2,534	–	2,534
Movement in deferred taxes	–	–1,516	–	–	–	–1,516
Addition to provision for negative participating interests	243	–	–	–	–	243
Exchange differences	13	–	–	–	–	13
Balance	1,687	–1,516	–	2,534	453	3,158
As at 31 December 2018	288,632	16,049	1,018	34,378	453	340,530

The principal consolidated participating interests at year end 2018 are shown in the Operational Structure of TBI. In accordance with statutory requirements, a list of consolidated and non-consolidated participating interests, the main construction consortia and other joint arrangements has been filed for inspection in the Trade Register of the Commercial Register of the Chamber of Commerce in Rotterdam.

Loans granted relate to a loan to an unconsolidated participating interest and three loans to group companies. The outstanding amount of the loan granted to the non-consolidated participating interest was €0.3 million as at year end 2018 (2017: €0.3 million). Interest is payable on the loan at 7 per cent. No collateral security has been given for this loan.

Loans were also granted to three group companies. The amount outstanding as at year end 2018 totalled €34.1 million (2017: €31.5 million). The first loan will mature on 31 December 2027 and bears interest at 4 per cent. Collateral security has been provided in the form of a mortgage on the company's premises. The second loan will mature on 15 March 2023 and bears interest at 7 per cent. This is a subordinated loan with a principal of €4.0 million. The third loan matures on 31 December 2020 and bears interest at 2 per cent. No collateral security has been given for this loan. The deferred tax assets of €16.0 million relate to carry over losses (to be set off against future income). It is thought that approximately €10 million will be set off in the coming year.

3 RECEIVABLES

	31 December 2018	31 December 2017
Debtors	110	5
Other receivables, prepayments and accrued income	2,973	4,507
	3,083	4,512

Receivables have a term of less than one year. Receivables include an amount receivable from the shareholder of €2.9 million (2017: €4.2 million).

4 CASH AND CASH EQUIVALENTS

	31 December 2018	31 December 2017
Banks	180,710	148,697
	180,710	148,697

Notes to the company accounts 2018

Cash and cash equivalents are readily disposable.

5 SHAREHOLDER'S EQUITY

The authorised capital consists of 2,250,000 ordinary €100 shares, of which 453,780 have been issued and are fully paid up. The share premium reserve created on payment for the shares is not distributable free of tax. The composition of shareholder's equity and movements in it were as follows:

	Issued capital	Share premium reserve	Statutory reserves	Other reserves	Unappropriated result	Total
Shareholder's equity						
As at 1 January 2017	45,378	7,683	2,234	191,080	-16,717	229,658
Addition to reserves	-	-	-	-16,717	16,717	-
Dividend 2016	-	-	-	-	-	-
Result for 2017	-	-	-	-	10,616	10,616
Exchange differences and other movements	-	-	-17	-166	-	-183
As at 31 December 2017	45,378	7,683	2,217	174,197	10,616	240,091
Addition to reserves	-	-	-	10,616	-10,616	-
Dividend 2017	-	-	-	-3,185	-	-3,185
Result for 2018	-	-	-	-	18,172	18,172
Exchange differences and other movements	-	-	243	-230	-	13
As at 31 December 2018	45,378	7,683	2,460	181,398	18,172	255,091

Of the statutory reserves, an amount of €-0.1 million negative relates to exchange differences at participating interests and an amount of €2.5 million to the cost of developing non-current intangible assets. Under article 389 (8) and article 365 (2) of Part 9, Book 2 of the Dutch Civil Code (statutory reserves), these amounts are not freely distributable.

In April 2018, the Annual General Meeting acting on a recommendation of the Supervisory Board decided to adopt the annual accounts for 2017 without change. In accordance with the company's Articles of Association it was agreed to distribute a dividend of €3.2 million to the shareholder and charge the remaining result for 2016 to other reserves.

6 PROVISIONS

	Reorganisation	Other	Total
As at 1 January 2018	0	25	25
Changes in 2018			
Addition	2,387	11	2,398
Withdrawals	-1,107	-	-1,107
Balance	1,280	11	1,291
As at 31 December 2018	1,280	36	1,316

Other provisions have been formed for personnel-related cost.

The provisions have the following terms:

	31 December 2018			31 December 2017		
	< 1 year	1 – 5 year	> 5 year	< 1 year	1 – 5 year	> 5 year
Provisions	1,280	36	–	–	25	–

7 NON-CURRENT LIABILITIES

Non-current liabilities by category	31 December 2018	31 December 2017
Subordinated loan	25,000	25,000

Non-current liabilities by maturity	31 December 2018		31 December 2017	
	1 – 5 year	> 5 year	1 – 5 year	> 5 year
Non-current liabilities	15,000	10,000	10,000	15,000

TBI Beheer B.V. granted a subordinated ten-year loan of €25 million with an interest rate of 5 per cent to TBI Holdings B.V. in January 2016. The loan is redemption-free during the first 5.5 years. Thereafter it will be redeemed in five equal and successive annual instalments. This loan is part of the guarantee capital.

8 CURRENT LIABILITIES, ACCRUALS AND DEFERRED LIABILITIES

	31 December 2018	31 December 2017
Trade creditors	584	470
Payable to group companies	237,766	219,848
Other liabilities, accruals and deferred liabilities	5,251	5,675
	<u>243,601</u>	<u>225,993</u>

Current liabilities, accruals and deferred liabilities have a term of less than one year. The fair value of current liabilities approximates their carrying value owing to their short-term nature.

TBI acts as a banker for its subsidiaries. The funds that are not required by the subsidiaries for their day-to-day operations can be placed in a financing account with the company. The interest payable on this instant access current account is based on the base rate set by commercial banks plus a surcharge. The average credit interest rate in 2018 was 1.4 per cent (2017: 2.5 per cent). The average debit interest rate in 2018 was 0.4 per cent (2017: 1.5 per cent). For the sake of completeness, reference is made to the notes of the current liabilities, accruals and deferred liabilities in the consolidated accounts.

Off balance sheet commitments

	31 December 2018	31 December 2017
Guarantees for letters of intent		
Other	1,771	961
	<u>1,771</u>	<u>961</u>

The company had issued group guarantees, chiefly to project clients, in place of bank guarantees to an amount of €79.3 million as at year end 2018 (year end 2017: €91.5 million).

Notes to the company accounts 2018

	31 December 2018			31 December 2017		
	< 1 year	1 – 5 year	> 5 year	< 1 year	1 – 5 year	> 5 year
Other (in millions of euros)						
Lease agreements	0.3	0.7	–	0.4	0.9	0.1
Rental agreements	0.2	1.3	1.2	–	1.2	1.7

The following amounts were recognised in the profit and loss account in respect of leases during the year:

	31 December 2018
Minimum lease payments	265
	265

TBI Holdings B.V., its shareholder TBI Beheer B.V. and a number of subsidiary companies in the Netherlands together form a value added tax and corporation tax group. In accordance with statutory requirements, all members of a tax group are jointly and severally liable for the group's tax liabilities.

Each member of the tax group bears its tax burden as an independent taxpayer. Settlement takes place in current account.

Company profit and loss account

The abridged profit and loss account is prepared in accordance with article 402, Part 9 of Book 2 of the Dutch Civil Code.

The average number of employees employed by the company in 2018 was 51 (2017: 48). As in 2017, all employees worked in the Netherlands in 2018.

Financial income and expense from transactions with group companies

TBI Holdings B.V. acts as internal banker within the group. In principle, the group companies deposit funds they do not need for their day-to-day operations with TBI. The interest payable on the instant access current account is based on the base rate set by commercial banks plus a surcharge. The financial income arising from these transactions with group companies amounted to €1.8 million (2017: €2.9 million). The financial expense arising from transactions amounted to €2.1 million (2017: €3.7 million).

Related party transactions

In 2018 TBI Holdings B.V. charged exceptional costs incurred by New Main B.V. of €7.0 million (2017: €3.2 million) to the result. TBI Holdings B.V. reimbursed the TBI companies €1.8 million in respect of reorganisation costs (2017: €1.4 million).

The reserve for variable payments still payable to the directors of the TBI companies amounts to nil (€0.2 million had been charged to TBI Holdings B.V. in 2017).

Proposed appropriation of the result for 2017

The net result for 2018 amounts to €18.2 million. The Executive Board proposes that an amount of €5.5 million be distributed as a cash dividend to the shareholder and the remaining €12.7 million be added to other reserves.

Subsequent events

There were no subsequent events within the meaning of article 2:380a of the Dutch Civil Code.

Rotterdam, 19 March 2019

Supervisory Board

A.L.M. Nelissen, chairman
E.H.M. van den Assem
H. Morelisse
M. Niggebrugge
D.J.B. de Wolff

Executive Board

D.A. Sperling, chairman
A.J.H. van Breukelen
E.A.A. Roozen

Other information

PROVISIONS OF THE ARTICLES OF ASSOCIATION ON PROFIT APPROPRIATION

Article 24

Reserves shall be charged to the profit and loss account as determined by the Executive Board and with the approval of the Annual General Meeting of Shareholders. The remainder shall be at the disposal of the Annual General Meeting.

Independent auditor's report and assurance report

To: the general meeting and supervisory board of TBI Holdings B.V.

General

Our assurance procedures consisted of an audit (reasonable assurance) of the company's financial statements and review procedures (limited assurance) on the 'non-financial information' in the TBI Holdings B.V. integrated report (as defined in our assurance report). The other information in the integrated report is out of scope for our assurance procedures.

Independent auditor's report

REPORT ON THE FINANCIAL STATEMENTS 2018

Our opinion

In our opinion, TBI Holdings B.V.'s financial statements give a true and fair view of the financial position of the Company and the Group as at 31 December 2018, and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the accompanying financial statements 2018 of TBI Holdings B.V., Rotterdam ('the Company'). The financial statements include the consolidated financial statements of TBI Holdings B.V. together with its subsidiaries ('the Group') and the company financial statements.

The financial statements comprise:

- the consolidated and company balance sheet as at 31 December 2018;
- the consolidated and company profit and loss account for the year then ended; and
- the notes, comprising the accounting policies and other explanatory information.

The financial reporting framework applied in the preparation of the financial statements is Part 9 of Book 2 of the Dutch Civil Code.

The basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. We have further described our responsibilities under those standards in the section 'Our responsibilities for the audit of the financial statements' of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of TBI Holdings B.V. in accordance with the 'Wet toezicht accountantsorganisaties' (Wta, Audit firms supervision act), the 'Verordening inzake de onafhankelijkheid van accountants bij assuranceopdrachten' (ViO – Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence requirements in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA – Code of Ethics for Professional Accountants, a regulation with respect to rules of professional conduct).

REPORT ON THE OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:

- Letter from the CEO;
- About TBI;
- Five-year key figures;
- How TBI creates value;
- Financial;
- Themed section: In dialogue with stakeholders;
- Governance;
- Scope and accountability;
- Appendix: Performance indicators;
- the other information pursuant to Part 9 of Book 2 of the Dutch Civil Code;
- Management boards of the TBI companies;
- Operational structure of TBI;
- Glossary;
- Credits.

Independent auditor's report and assurance report

Based on the procedures performed as set out below, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements;
- contains the information that is required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained in our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing our procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720.

The scope of such procedures was substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including the directors' report and the other information in accordance with Part 9 of Book 2 of the Dutch Civil Code.

RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS AND THE AUDIT

Responsibilities of management and the supervisory board for the financial statements

Management is responsible for:

- the preparation and fair presentation of the financial statements in accordance with Part 9 of Book 2 of the Dutch Civil Code; and for
- such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting framework mentioned, management should prepare the financial statements using the going-concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. Management should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The supervisory board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our responsibility is to plan and perform an audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence to provide a basis for our opinion.

Our audit opinion aims to provide reasonable assurance about whether the financial statements are free from material misstatement.

Reasonable assurance is a high but not absolute level of assurance, which makes it possible that we may not detect all misstatements.

Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A more detailed description of our responsibilities is set out in the appendix to our report.

Assurance report of the independent auditor

Assurance report on the sustainability information 2018

Our conclusion

Based on our procedures performed nothing has come to our attention that causes us to believe that the sustainability information included in the annual report 2018 of TBI Holdins B.V. (hereafter TBI) does not present, in all material respects, a reliable and adequate view of:

- the policy and business operations with regard to corporate social responsibility; and
- the thereto related events and achievements for the year ended 31 December 2018, in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and the internally applied reporting criteria as included in the section 'reporting criteria'.

What we have reviewed

We have reviewed the sustainability information included in the annual report for the year ended 31 December 2018, as included in the following sections in the annual report (hereafter: "the sustainability information"):

- About TBI;
- Five-year key figures;
- How TBI creates value;
- Scope and accountability;
- Themed section: In dialogue with stakeholders.

This review is aimed at obtaining a limited level of assurance.

The sustainability information comprises a representation of the policy and business operations of TBI with regard to corporate social responsibility and the thereto related business operations, events and achievements for the year ended 31 December 2018.

The basis for our conclusion

We have performed our review in accordance with Dutch law, which includes the Dutch Standard 3810N 'Assuranceopdrachten inzake maatschappelijke verslagen' ('Assurance engagements on corporate social responsibility reports') which is a specified Dutch Standard that is based on the International Standard on Assurance Engagements (ISAE) 3000 'Assurance Engagements other than Audits or Reviews of Historical Financial Information'. Our responsibilities under this standard are further described in the section 'Our responsibilities for the review of the sustainability information' of this assurance report.

We believe that the assurance information we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Independence and quality control

We are independent of TBI in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assuranceopdrachten' (ViO – Code of Ethics for Professional Accountants, a regulation with respect to independence) and other for the engagement relevant independence requirements in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA – 'Code of Ethics for Professional Accountants, a regulation with respect to rules of professional conduct').

We apply the 'Nadere voorschriften kwaliteitssystemen' (NVKS – 'Regulations for quality systems') and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and other applicable legal and regulatory requirements.

Reporting criteria

The sustainability information needs to be read and understood in conjunction with the reporting criteria. The board of directors of TBI is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the sustainability information are the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and the internally applied reporting criteria; or: the applied reporting criteria developed by the company, as disclosed in chapter 'Scope and accountability' of the annual report. The absence of a significant body of established practice on which to draw, to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time.

Assurance report of the independent auditor

Limitations to the scope of our review

The sustainability information includes prospective information such as expectations on ambitions, strategy, plans and estimates. Inherently, the actual results are likely to differ from these expectations. These differences may be material. We do not provide any assurance on the assumptions and the achievability of prospective information in the sustainability information.

The links to external sources or websites in the sustainability information are not part of the sustainability information reviewed by us. We do not provide assurance over information outside of this annual report.

RESPONSIBILITIES FOR THE SUSTAINABILITY INFORMATION AND THE REVIEW

Responsibilities of the board of directors and the supervisory board

The board of directors of TBI is responsible for the preparation of the sustainability information in accordance with the reporting criteria as included in section 'reporting criteria', including the identification of stakeholders and the definition of material matters. The choices made by the board of directors regarding the scope of the sustainability information and the reporting policy are summarized in chapter 'Scope and accountability' of the annual report. The board of director is responsible for determining that the applicable reporting criteria are acceptable in the circumstances.

The board of directors is also responsible for such internal control as the board of directors determines is necessary to enable the preparation of the sustainability information that is free from material misstatement, whether due to fraud or errors.

The supervisory board is responsible for overseeing the company's reporting process on the sustainability information.

Our responsibilities for the review of the sustainability information

Our responsibility is to plan and perform the review engagement in a manner that allows us to obtain sufficient and appropriate assurance information to provide a basis for our conclusion.

Procedures performed to obtain a limited level of assurance are aimed to determine the plausibility of information and vary in nature and timing from, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in review engagements is therefore substantially less than the assurance obtained in audit engagements.

Misstatements can arise from fraud or errors and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the sustainability information. The materiality affects the nature, timing and extent of our review procedures and the evaluation of the effect of identified misstatements on our conclusion.

Procedures performed

We have exercised professional judgement and have maintained professional scepticism throughout the review, in accordance with the Dutch Standard 3810N, ethical requirements and independence requirements.

Our procedures included amongst others:

- Performing an analysis of the external environment and obtaining insight into relevant social themes and issues and the characteristics of the company.
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures in the sustainability information. This includes the evaluation of the results of the stakeholders' dialogue and the reasonableness of estimates made by the board of directors.
- Obtaining an understanding of the reporting processes for the sustainability information, including obtaining a general understanding of internal control relevant to our review.
- Identifying areas of the sustainability information with a higher risk of misleading or unbalanced information or material misstatement, whether due to fraud or errors. Designing and performing further assurance procedures aimed at determining the plausibility of the sustainability information responsive to this risk analysis. These procedures consisted amongst others of:
 - Interviewing management (and/or relevant staff) at corporate (and business/division/cluster/local) level responsible for the sustainability strategy, policy and results;
 - Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on, and consolidating the data in the sustainability information.

Assurance report of the independent auditor

- Determining the nature and extent of the review procedures for the group components and locations. For this, the nature, extent and/or risk profile of these components are decisive. Based thereon we selected the components and locations to visit. The visits to Croonwolter&dros, ERA Contour, J.P. van Eesteren and Mobilis are aimed at, on a local level, validating source data and evaluating the design and of internal controls and validation procedures;
- Obtaining assurance information that the sustainability information reconciles with underlying records of the company;
- Reviewing, on a limited test basis, relevant internal and external documentation;
- Performing an analytical review of the data and trends
- Reconciling the relevant financial information with the financial statements.
- Evaluating the consistency of the sustainability information with the information in the annual report, which is not included in the scope of our review.
- Evaluating the presentation, structure and content of the sustainability information;
- To consider whether the sustainability information as a whole, including the disclosures, reflects the purpose of the reporting criteria used.

Rotterdam, 19 March 2019
PricewaterhouseCoopers Accountants N.V.

drs. M.R.G. Adriaansens RA

(This independent auditor's report and assurance report is a translation of the original assurance report accompanying the original Annual Report 2018, both stated in Dutch. This original assurance report can be found on the website of TBI Holdings B.V.)

Appendix to our auditor's report on the financial statements 2018 of TBI Holdings B.V.

In addition to what is included in our auditor's report, we have further set out in this appendix our responsibilities for the audit of the financial statements and explained what an audit involves.

THE AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

We have exercised professional judgement and have maintained professional scepticism throughout the audit in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error. Our audit consisted, among other things of the following:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the intentional override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going-concern basis of accounting, and based on the audit evidence obtained, concluding whether a material uncertainty exists related to events and/or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report and are made in the context of our opinion on the financial statements as a whole. However, future events or conditions may cause the company to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures, and evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Considering our ultimate responsibility for the opinion on the consolidated financial statements, we are responsible for the direction, supervision and performance of the group audit. In this context, we have determined the nature and extent of the audit procedures for components of the Group to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole. Determining factors are the geographic structure of the Group, the significance and/or risk profile of group entities or activities, the accounting processes and controls, and the industry in which the Group operates. On this basis, we selected group entities for which an audit or review of financial information or specific balances was considered necessary.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Operational structure of TBI

As at 19 March 2019

ENGINEERING

Comfort Partners B.V.
Croonwolter&dros B.V.

Eekels Technology B.V.
Soltegro B.V.
WTH Vloerverwarming B.V.

Management board

B.J. Ambachtsheer (acting)
P.J. Heijboer, B.J. Ambachtsheer,
L.B. Koek, J.T.M. van Rijn-Hoogweg
H. de Haan, J.H. Hoegge
H. de Man, J.M. Teeuw
F.J.M. Verdel

Website

www.comfort-partners.nl
www.croonwolterendros.nl
www.eekels.com
www.soltegro.nl
www.wth.nl

CONSTRUCTION & DEVELOPMENT

J.P. van Eesteren B.V.
ERA Contour B.V.

Groothuis Wonen B.V.
Hazenberg Bouw B.V.

Aannemingsbedrijf
Nico de Bont B.V.
Koopmans Bouwgroep B.V.

MDB B.V.
Voorbij Prefab B.V.
HEVO B.V.
Synchroon B.V.

J.H.A. Vaags, A. van Lunteren, M. Peppel
B. Seekles, J.J.L. Heijdra,
J.P. van Zomeren
S.J.F. de Wit
B.N.W. de Bont, J.F.C.M. van der Doelen,
R.J.P. Maas

Hazenberg Bouw B.V.
H.C. Smit, M.J. Groenendijk,
J.M. Kuling
A.J.C.J. van de Loo
D. Staal
E.R. van der Sluis, M.A. Otto
H.J. van Dam, T.B. Verhoeven

www.jpvaneesteren.nl
www.eracontour.nl
www.groothuis.nl
www.hazenberg.nl

www.nicodebont.nl
www.koopmans.nl
www.mdb.nl
www.voorbijprefab.nl
www.hevo.nl
www.synchroon.nl

INFRASTRUCTURE

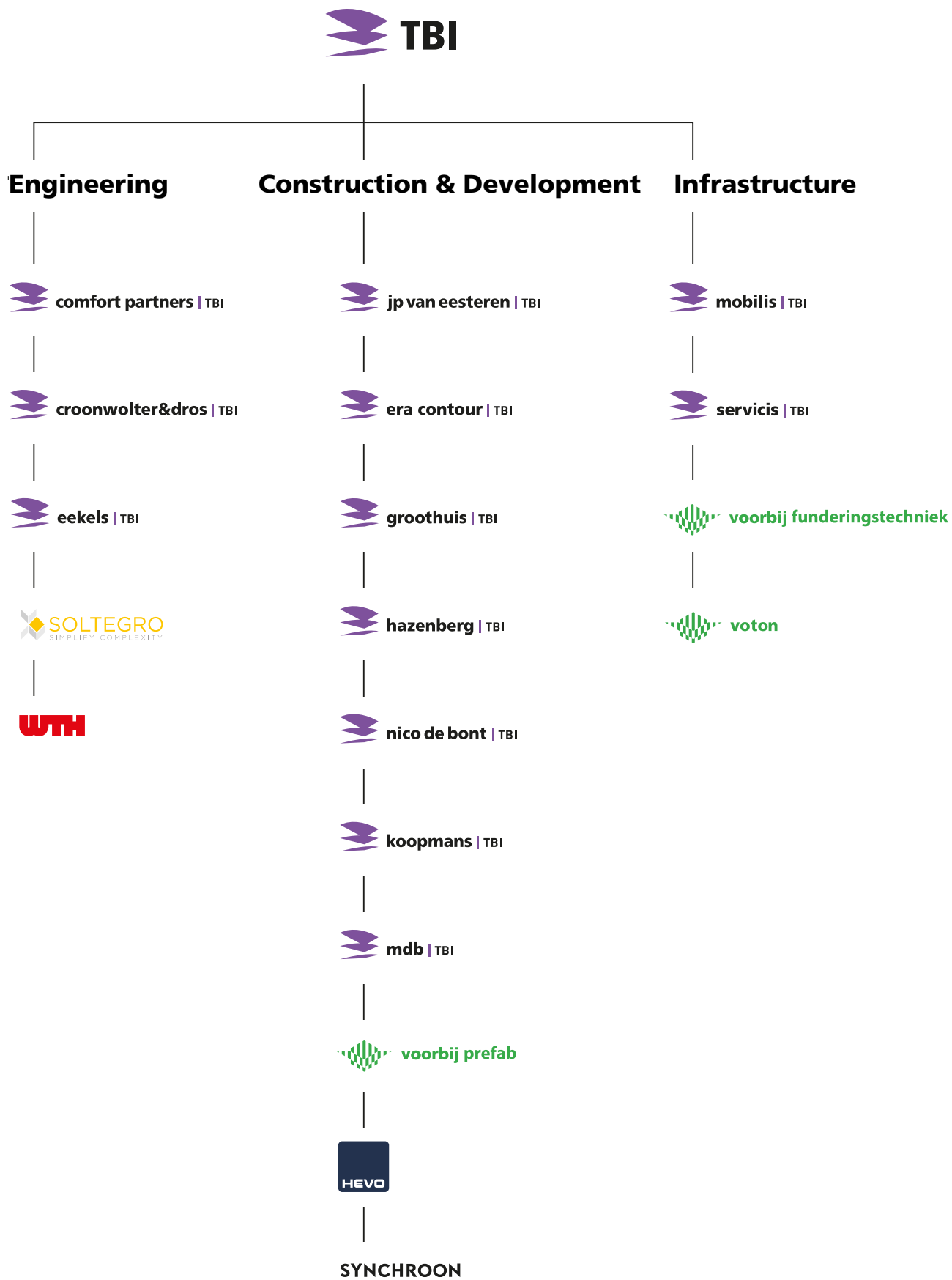
TBI Infra B.V.
Mobilis B.V.
Servicis B.V.
Voorbij Funderingstechniek B.V.
Voton B.V.

R.J. Feijen
R.J. Feijen, R.M. Hoeboer
TBI Infra B.V.
M. Sterk
M. Sterk

www.tbi-infra.nl
www.mobilis.nl
www.servicis.nl
www.voorbijfunderingstechniek.nl
www.voorbijfunderingstechniek.nl

Operational structure of TBI

Summary structure as at 31 December 2018



Glossary

BENG

Dutch abbreviation for near-zero energy building (Bijna Energie Neutraal Gebouw).

BUILDING INFORMATION MODEL (BIM)

A digital representation of all physical and functional characteristics of a building. A BIM model is a shared knowledge source or file, with information that serves as a reliable basis for decision-making on a building during its entire life cycle: from initial design via construction and management to the building's final demolition.

CO₂ FOOTPRINT

CO₂ is a gas that is one of the main causes of the greenhouse effect. It is emitted chiefly through the combustion of fossil fuels. In accordance with the SKAO emission factors handbook (version 3.0, June 2015), TBI reports only on its scope 1 and scope 2 emissions of its activities in the Netherlands.

Scope 1 emissions are direct emissions caused by the organisation itself. They include emissions from the organisation's gas consumption and emissions from its vehicle fleet (including private mileage driven by staff in company vehicles).

Scope 2 emissions are indirect emissions released during the generation of the electricity consumed by the organisation, including emissions from the power stations that supply the electricity. These emissions are presented net of renewable energy. Scope 2 emissions also include emissions from flights and business mileage driven by staff in private vehicles. TBI's CO₂ footprint is calculated by means of the GHG protocol. CO₂ calculations are based on actual (measured) data.

EMPLOYEE

Person with a permanent or temporary contract of employment with a TBI company.

EXTERNAL STAFF

Independent workers not employed by TBI but instructed directly by TBI's managers.

INCIDENT FREQUENCY

The total number of work-related lost-time or fatal incidents divided by the total number of hours worked per one million employees and external staff.

INCIDENT WITHOUT LOST TIME

A work-related incident in which the person concerned resumes work within eight hours of the incident and/or carries out alternative work.

LOST-TIME INCIDENT

A work-related incident (with the exception of commuting) that caused injury, sickness or death, where the person concerned is absent from work for at least the whole of the working day following the incident and carries out no alternative work. All serious incidents must be reported to the Social Affairs and Employment Inspectorate. Serious incidents are those that lead to death, hospital admission, permanent injury and/or permanent damage to health.

NOM

Dutch abbreviation for a zero carbon building (Nul op de meter-woning). A NOM building generates as much, if not more, energy than it needs. The dwelling can be upgraded by means of façade insulation, smart building systems and energy generation.

OPERATING MARGIN

Operating result (EBIT/EBITDA) as a percentage of operating revenue.

OPERATING REVENUE

Operating revenue refers in general to the value of production. Operating revenue includes net turnover, movements in work in progress (including profit mark-up and/or provisions formed) and other operating revenue. Net turnover comprises the sales value recognised in respect of goods and services delivered during the year (excluding value added tax).

OPERATING RESULT BEFORE DEPRECIATION AND AMORTISATION (EBITDA)

Operating result from ordinary before activities depreciation of tangible fixed assets and amortisation of intangible fixed assets. The term is a measure of the group's ability to generate cash and one of the banking syndicate's financial covenants.

OPERATING RESULT FROM ORDINARY ACTIVITIES

Operating result before the deduction of reorganisation costs and impairments in value.

ORDER BOOK

That part of the contracted value of work in progress not completed or still to be commenced as at balance sheet date plus projects in the pipeline: the total value of contracts or projects to be awarded with agreed prices (construction teams) or the lowest tender (contract award procedure).

SICKNESS ABSENTEEISM

The weighted average number of calendar days of absenteeism due to ill health (not including pregnancy and parental leave), adjusted for part-time employees (as set out in the National Absenteeism Standard).

SOLVENCY RATIO

Shareholder's equity resp. guarantee capital as a percentage of total assets.

SORTED WASTE PERCENTAGE

That part of the waste that is sorted before disposal: the volume of construction and demolition waste, business waste and other waste (unsorted) divided by the total volume of waste, based on weight.

SUSTAINABLE TIMBER

Timber and forest products that are subject to the Construction and Timber Covenant of the FSC, based on the TPAC definition for certified sustainable timber; FSC for timber sourced from temperate and tropical zones and PEFC for timber from temperate zones.

TBI CODE OF CONDUCT

Written document in which TBI lays down rules and guidelines to prevent conflicts between the business and private interests of all employees, to prevent the misuse of confidential information and to provide guidance on personal conduct within TBI.

TRADE WORKING CAPITAL EFFICIENCY

Net current assets minus current liabilities, excluding investments in development projects, cash and interest-bearing debt (trade working capital), as a percentage of operating revenue on a rolling four-quarter basis.

Credits

Editing and production

TBI Holdings B.V., Rotterdam

Concept, text development and realisation

Jonkergouw & van den Akker, Amsterdam

© Photography

Marcel Krijger Fotografie

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Annual report

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TBI Holdings B.V., Rotterdam

April 2019

This is an English translation of the original Dutch language integrated Annual Report 2018.
Should differences in interpretation arise, the Dutch version shall prevail.