Annual report | 2015

De Watergroep
WATER. VANDAAG EN MORGEN.

Contents

Foreword by the President

De Watergroep is a company with a **rich tradition**. For more than 100 years, we have been supplying our customers with high-quality drinking water. We now have more than 3 million customers in 4 Flemish provinces. The extensive expertise and knowledge we have built up in the process is the basis of the successful expansion of our activities in the field of industrial water and waste water and also of our first commercial contracts abroad.

The implementation of our **plan for the future** is the foundation for the company's sustained growth. In doing so, we reviewed all expenditures and set clear outlines to keep De Watergroep financially healthy. In this way, we create room for investing in both our product and our service.

We obviously intend to supply **sufficient high-quality drinking water** to our future customers. Therefore, we must now earmark additional budget not only for sustainable replacement investments, but also for meeting new challenges with regard to water production and distribution. Just think of changing consumer patterns, new substances that are potential threats to water quality, the impact of climate change, etc. In addition, we want to keep the finger on the pulse of the latest technologies and scientific developments. Consequently, we resolutely opt for innovation and technological research. Where possible, we join forces through collaboration with relevant partners in Belgium and abroad.

Our aim is to provide not only outstanding products, but also **excellent service**. That is the reason why we rolled out a new ERP platform in 2015: one big company database on which we run all of our processes. The new platform named Neptunus provided us with an ideal opportunity to examine and align our procedures, so that we will be able to work faster and more efficiently. In 2016 we will build upon these efforts by developing a fully functional e-portal where customers can manage all of their business transactions. From 2017 on, this virtual customer service will be available 24/7.

Delivering a good product and good service is only possible with the commitment and hard work of the **1,470 employees** within De Watergroep. We wish to challenge and to support them even more in the future by putting in place a modern and dynamic HR policy with empowerment and lifelong learning as key pillars.

I am pleased to report good operating results for 2015. However, I consider it at least equally important that, based on a future-oriented vision and strategy, we provide a sound base for company's continued growth as a leading integrated water company, both in Belgium and abroad.

Herman Van Autgaerden, President Board of Directors

About De Watergroep

➜ Mission, vision and values

De Watergroep is an autonomous Flemish water company that delivers customised services within the entire water chain, to private individuals, companies as well as public authorities. Our mission, vision and corporate values summarise what we stand for and believe in.

Our mission

We supply a range of customised water solutions. Today, for tomorrow's generation.

Our vision

- De Watergroep is passionate about **water as a source of life and health**.
- Our **technological edge** is a strong asset that we constantly develop and exploit.
- We treat people and resources in a **sustainable** manner.
- We are a **leading partner** in Flanders and beyond.

Our values

- **Team spirit**
  Collegiality is our first priority and transcends individual interests.
- **Reliability**
  Promises should be kept.You can count on us – we do business in a fair and proper manner.
- **Commitment**
  Our employees act with the utmost care and attention, as if De Watergroep were their own company.
  We stand for commitment, responsibility and ownership.
  We work with passion and enthusiasm.
- **Care**
  We take care of our customers, our colleagues and the resources we use.
  We pay attention to our environment, welfare and safety.
  We operate in a cost-conscious manner.
- **Initiative**
  Our employees are given space to develop their skills.
  We are willing to change and are open to new ideas, new techniques and methods.
  We give creativity every opportunity to succeed.

➜ Board of Directors and Management Committee

Standing from left to right: Dirk Robbeets, Tania Janssens, Eric De Keyser, Annemie Deckers, Luc Asselman, Hedwig Kerckhove, Boudewijn Van De Steene, Michiel Van Peteghem, Pieter De Cuyper, Francis Bosmans, Danny Deneuker, Jozef De Borger, Luc Vande Caveye.
Sitting from left to right: Kristel Gevaert, Mieke Van Hootegem, Herman Van Autgaerden, Annie Mervillie, Charlotte Van Strydonck.

Board of Directors

President
Herman Van Autgaerden

Vice-Presidents
Kristel Gevaert
Tania Janssens
*Albert Vandezande**

Directors
Luc Asselman
Francis Bosmans
Jozef De Borger
Annemie Deckers
Danny Deneuker
Eric De Keyser
Hedwig Kerckhove (from 5 June 2015)
Annie Mervillie
*Mieke Offeciers-Van De Wiele**
Dirk Robbeets
Luc Vande Caveye

*Luk Vandekerkhove (until 5 June 2015)**
Mieke Van Hootegem
Charlotte Van Strydonck

Government Commissioners
Michiel Van Peteghem, Commissioner of the Flemish Government
Pieter De Cuyper, Government Commissioner of the Flemish Minister for Finance and Budget

** The people with names in italic are not in the picture.*

Management Committee

From left to right: Eddy Troosters, Jan Hammenecker, Luc Keustermans, Paul Suenens, Boudewijn Van De Steene, Sammy Wuyts, Karin Stemgée, Michel Vanroy.

Boudewijn Van De Steene, *Director General*
Jan Hammenecker, *Commercial Director*
Luc Keustermans, *Technical Director*
Sammy Wuyts, *Director General Affairs*
Paul Suenens, *Provincial Director West Flanders*
Karin Stemgée, *Provincial Director East Flanders*
Eddy Troosters, *Provincial Director Flemish Brabant*
Michel Vanroy, *Provincial Director Limburg*

The Management Committee is responsible for the day-to-day management of De Watergroep. The Management Committee puts the company policies, determined by the Board of Directors, into practice. The gross wages of the eight members of the Management Committee amounted to €836,243 in 2015.

➜ Functioning of the Administrative Bodies

Central Administrative Bodies

The **General Assembly** of 5 June 2015 marked the end of the term of office of Mr Luk Vandekerkhove. The General Assembly appointed Mr Hedwig Kerckhove as Director on the recommendation of the Provincial Committee of West Flanders. The Flemish Government renewed the term of office of Mrs Kristel Gevaert as Director on the recommendation of the Provincial Committee of East Flanders.

The **Board of Directors** is composed of sixteen members and a president.

- *The President* of the Board is appointed by the Flemish Government.
- *Eight of the sixteen members* were also appointed by the Flemish Government, four of whom on the recommendation of the members in a Provincial Committee.
- *The other eight members* are appointed by the General Assembly, on the recommendation of the Provincial Committees.

The **Board of Directors** convened twelve times. The average attendance rate was 92%.

The following **committees** have been set up within the Board of Directors:

- the Office of the Board of Directors,
- the Audit Committee,
- the Internal Affairs Committee,
- the External Affairs Committee,
- the Consultative Commission for Pensions (composed partly of members of the Board of Directors and partly of personnel representatives).

The committees provide advice on their assigned files. The average attendance rate for the committees was 84%.

The members of the Board of Directors are remunerated according to the scheme adopted by the General Assembly on 8 June 2007 and amended on 6 June 2008. These remunerations are published on the website of De Watergroep.

Provincial Administrative Bodies

Provincial water services The members of the Board of Directors who live in a municipality that is a partner of a provincial water service, are ipso jure member of the Provincial Committee, and the office of the Provincial Committee of that water service.

The Provincial Offices are responsible for the day-to-day administration of the provincial water services. The table below summarises the functioning of the Provincial Offices in 2015:

Province	Number of Meetings	Attendance rate
West Flanders	10	90%
East Flanders	9	87%
Flemish Brabant	11	91%
Limburg	13	82%

Riopact water services Riopact water services for waste water management are active in West and East Flanders and in Flemish Brabant. In 2015, no new partners joined Riopact. The members of the Board of Directors who live in the province of the relevant RioP water service are members of the Provincial Committee and of the office of the Provincial Committee of that RioP water service.

The table below summarises the functioning of the Riopact Provincial Offices in 2015:

Province	Number of Meetings	Attendance rate
West Flanders	5	80%
East Flanders	1	64%
Flemish Brabant	3	89%

➜ Good governance and responsible business practices

De Watergroep is committed to sustainability and corporate social responsibility. This is reflected in various areas:

- Within the Board of Directors, an **Audit Committee** is active to assist the Board in its supervisory function. There is also the **Internal Audit** department, which performs its audit tasks autonomously and independently and provides the necessary feedback.
- The **Business Risk Management** department inventories internal and external risks, which are used as basis for developing suitable action plans, measures and procedures.
- De Watergroep shows its social commitment by participating in **water projects in developing countries**. In 2015, we worked on the improvement of drinking water and sanitation facilities in Madagascar.

Audit Committee

The members of the **Audit Committee** are appointed by the Board of Directors, who likewise elects the Audit Committee's president.

The main task of the Audit Committee is to assist the Board of Directors in its supervision of various areas:

- The Audit Committee audits the functioning of the internal risk management and control systems, including monitoring compliance with and operation of the relevant laws and regulations and internal company rules.
- It monitors the implementation of recommendations and comments of the Internal Audit department and the external auditor.
- It monitors the role and performance of the Internal Audit department.
- It advises the Board of Directors on the appointment or reappointment of the joint auditors, as well as their fees.
- It liaises with the external auditor, monitors his/her independence and audits any non-auditing activities performed for De Watergroep.
- It prepares meetings at which the joint auditors with the Board of Directors discuss the annual accounts and the annual report. It prepares also any financial information to be provided by De Watergroep to various supervisory bodies.

The Audit Committee has unrestricted access to all information and personnel of De Watergroep and may dispose of all resources it deems necessary to perform its task. The Audit Committee meets at least twice a year or more frequently if required by circumstances.

In 2015, the Audit Committee met five times and discussed the following **main topics**:

- the 2015 and 2016 audit plan,
- the functioning of the internal risk management and control systems in the context of instrument of (sub) delegation, the public procurement process, the key plan, the environmental legislation, the fuel cards, and the Internal Service for Prevention and Protection at Work. The Audit Committee also had 'attack and penetration tests' carried out on the website and the intranet of De Watergroep.
- the administrative investigations resulting from reports,
- the follow-up of recommendations and management actions from previous audits, with special attention to recommendations on the ERP platform.

Internal Audit Department

The **Internal Audit** department operates autonomously and independently. The tasks, responsibilities and authorities are defined in the internal audit charter. The Head of Internal Audit (the 'internal auditor') reports directly to the President of the Audit Committee and is appointed by the Board of Directors, following the recommendation of the Audit Committee.

On 26 September 2008, following a call for tenders, Ernst & Young was appointed to provide services to Internal Audit of De Watergroep. This assignment was again extended for one year.

The internal auditor investigates whether sufficient internal auditing mechanisms are in place to address risks that prevent De Watergroep from reaching the company's objectives. He/she also verifies whether the audits are effectively carried out.

From risk management to preventive approach

RISK MANAGEMENT IN 4 STEPS

De Watergroep attaches great importance to risk management. This is not an aim in itself, but a means of supporting De Watergroep's strategy and policy, and of assessing and preventing risks and their consequences.

- **Inventory, analysis and addressing of internal and external business risks**
  The business risk management department inventoried, analysed and weighted internal and external business risks. It then developed an approach to addressing the main risks.
- **Further securing our technical installations**
  As part of the water safety plans, we reviewed the security standards and access controls of our technical installations and administrative buildings. Where necessary, they were upgraded, taking into account the increased threat of terrorism.
- **A start-up road map for the Neptunus Enterprise Resource Planning system**
  In 2015, De Watergroep rolled out Neptunus, a new platform for Enterprise Resource Planning. The system has a great impact on customer and supplier contacts and on administrative and financial tasks. The business risk management department wrote, coordinated and followed up the start-up road map. This allowed critical business processes to be resumed upon start-up of the ERP and enabled us to minimise the impact of the transition for our customers, suppliers, partners and employees.
- **Risk project group and risk awareness**
  Also employees of the Internal Prevention and Protection, ICT, Internal Audit, Controlling, Water Technology and Legal departments daily monitor the business risks within De Watergroep. To develop a common vision, a risk project group was set up, which meets at regular intervals to discuss and exchange knowledge about the management and approach to risks, and to present their own action points and issues to the other risk actors. In this way, risks can be addressed in a multidisciplinary manner and risk awareness increased. The risk project group proposed that all risks within De Watergroep should be weighed in a uniform way. This would make it possible to represent the different risks in a comparable manner and to judiciously deploy the available resources for addressing risks.
- **Developing an overall monitoring tool for risk management**
  In 2015, we developed an overall monitoring tool that indicates what needs to be done for the different administrative and technical sites, and who is responsible for this. The tool is also used to monitor the water safety plans and to report to the Flanders Environment Agency. The monitoring tool was put into service in early 2016.

Better drinking water and sanitation facilities in Madagascar

Since 2009, De Watergroep has been collaborating with **Protos** on a water and sanitation project in Toamasina, the second city of the African island of Madagascar. Two colleagues of the Water Technology department went to Madagascar in December 2015 to provide the local drinking water company with on-site support.

The project improves the drinking water and sanitation facilities in three districts, with a total population of 25,000. De Watergroep mainly exchanged knowledge with the local drinking water company, Jirama. The purpose of the on-site visit in December was to thoroughly study the water production centre and the drinking water network, and to locate leaks through flow measurements.

Many things have been achieved through this project over the past three years. One was the study and tender for the expansion and improvement of the pipe network. The sand filters were converted to double-layer filters, thereby significantly increasing the capacity of the water production centre.

For the sanitary facilities, the focus was on changing the hygienic practices of the population. To this end, puppet theatre shows are regularly organised in the district. We also built 114 latrines, septic tanks with a toilet.

Puppet theatre as a means of educating the local inhabitants about hygiene - Copyright Dieter Telemans

Drinking water

De Watergroep is a leading water company. We supply high-quality water to households and businesses. Therefore, we invest in our infrastructure, in new technology and in the know-how of our employees. This enables us to respond to the challenges ahead. We have a profound respect for the environment in which we work and treat our natural resources with care.

➜ Drinking water production in litres and in m³

- In 2015 De Watergroep produced 125,925,577 m³ of drinking water. This is **4.96% more** than in 2014.
- De Watergroep has 160,368,344 m³ available drinking water volume for its own customers.
- In addition, De Watergroep provides 5,309,606 m³ of 'other water' or custom water: this is industrial water produced on site at industrial customers.

Total De Watergroep	West Flanders	East Flanders	Flemish Brabant	Limburg	TOTAL 2015 (in m³)	2014-2015 (in %)
Water available in own installations following treatment	35,437,335	15,591,770	29,190,518	45,705,954	125,925,577	+4.96%
+ Purchased from other provincial water services		1,536,752	850,264	191,939		
+ Purchased from third parties	12,427,556	11,289,357	16,434,001	1,378,875	41,529,789	+2.57%
- Sold to other provincial water services		5,417	1,728,691	844,847		
- Sold to third parties	1,190,875	2,043,294	2,175,054	138,634	5,547,857	-25.55%
- Transferred for grey water projects	1,539,165				1,539,165	+6.80%
Available volume DRINKING WATER	**45,134,851**	**26,369,168**	**42,571,038**	**46,293,287**	**160,368,344**	**+5.81%**
Available volume OTHER WATER	571,622	2,050,467	1,924,081	532,375	5,078,545	+28.11%

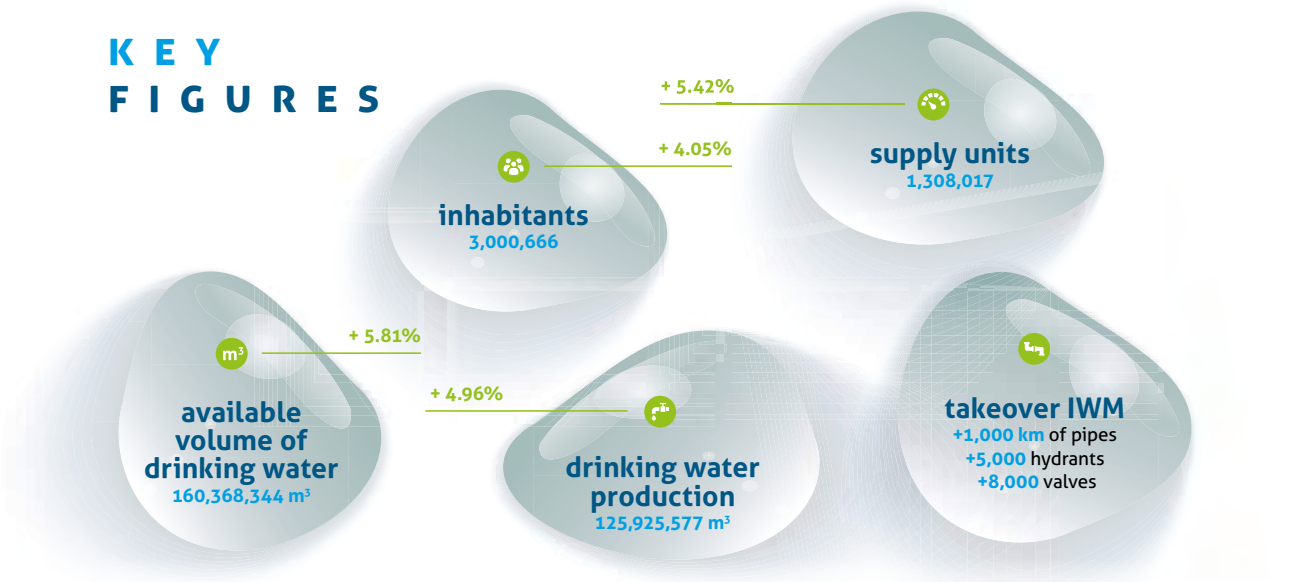
Water purchases increased by 2.57%. In 2015, De Watergroep purchased more water from Régie des Eaux de Mouscron, Vivaqua, Farys and Evides. **Water sales to third parties fell** by 25.55%. We sold less water to Pidpa, Farys, SWDE and La Hulpe than in 2014. Sales to IWM also stopped following the takeover of the IWM service area.

The net result of this water balance is that the **total available volume of drinking water** for distribution to customers **increased by 5.81%** compared with 2014.

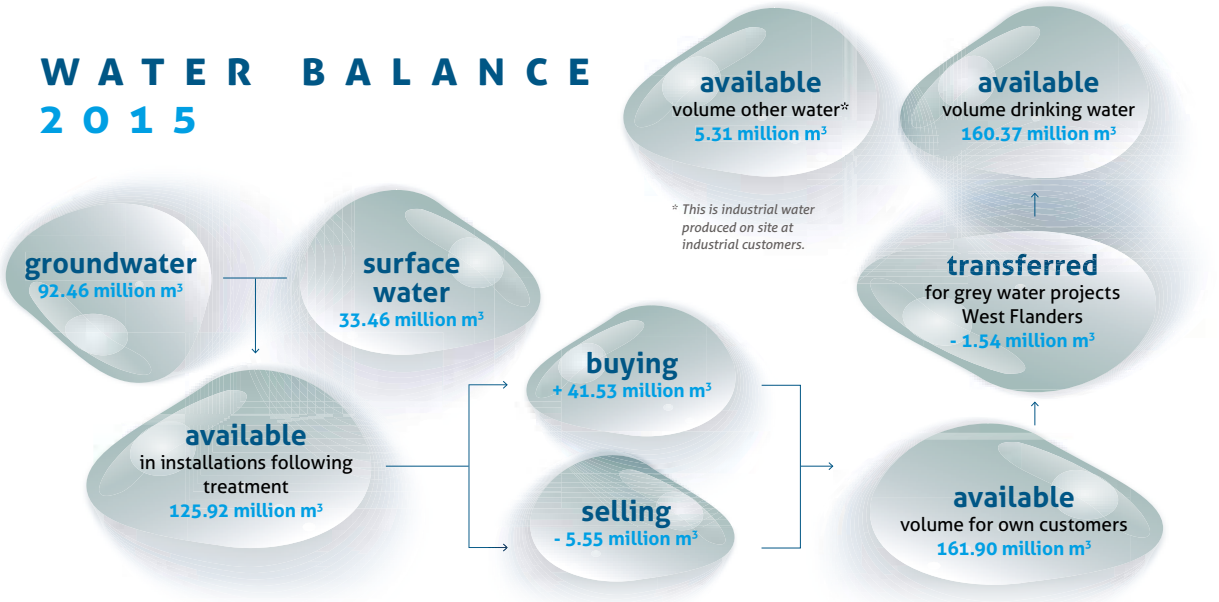
New this year is the separate reporting of the grey water projects in West Flanders. These increased by 6.80% compared with 2014.

The available volume of 'other water' increased by 28.11%. This does not include other water for a Dutch customer. When taking into account these 231,061 m³ of process water, the total volume of 'other water' rose by 33.94%.

KEY FIGURES



WATER BALANCE 2015



➜ Number of inhabitants and supply units

More inhabitants. The number of inhabitants in the service area of De Watergroep has risen from 2,883,814 at the end of 2014 to 3,000,666 at the end of 2015. This means we have exceeded the mark of 3 million customers.

More supply units. The number of supply units in service has risen by 19,024 units (+ 5.42%) from 1,240,750 at the end of 2014 to 1,308,017 at the end of 2015.

The increase in the number of customers and supply units is to be attributed mainly to the integration of the Intercommunal Water Company IWM.

The service area of De Watergroep at the end of 2015 consisted of 175 municipalities, 157 of which were fully and 18 partially supplied.

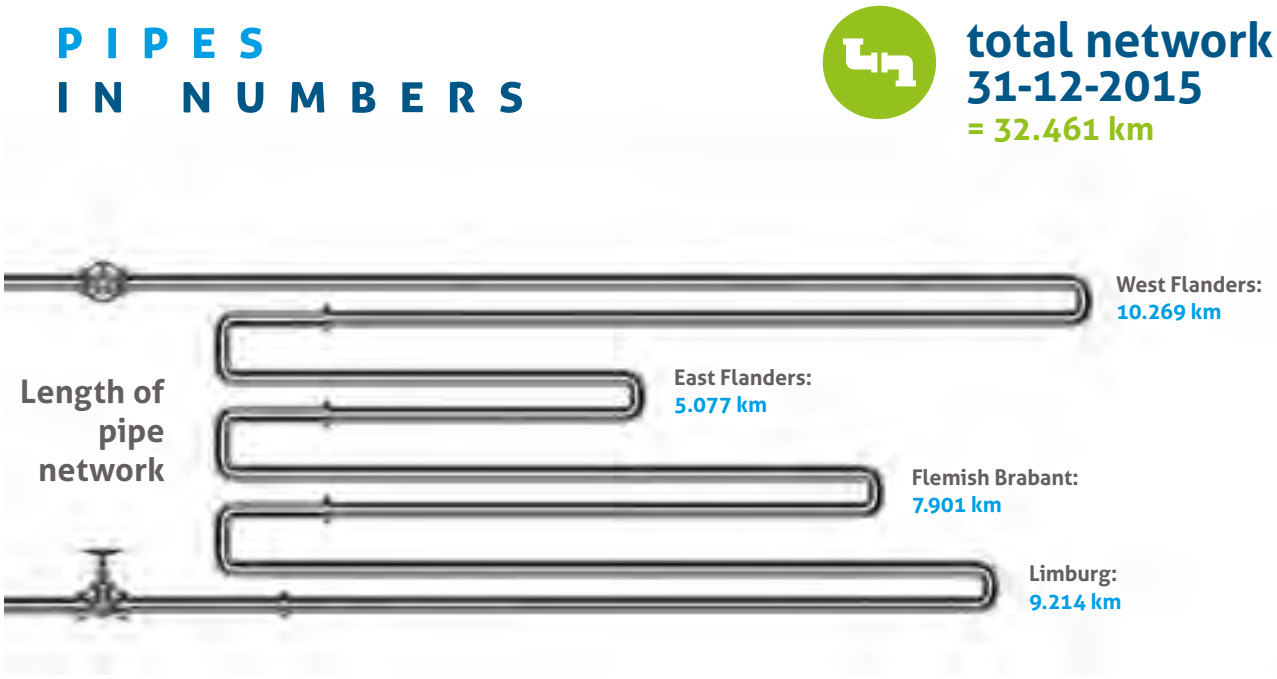
➜ Number of inhabitants (on 31 December 2015)

Province	2015	2014	Increase	% Increase
West Flanders	811,631	811,099	532	0.07%
East Flanders	558,010	554,816	3,194	0.58%
Flemish Brabant	764,273	723,000	41,273	5.71%
Limburg	866,752	794,899	71,853	9.04%
TOTAL	**3,000,666**	**2,883,814**	**116,852**	**4.05%**

➜ Supply units in service (as per 31 December 2015)

Province	2015	2014	Increase	% Increase
West Flanders	363,709	359,469	4,240	1.18%
East Flanders	245,143	241,944	3,199	1.32%
Flemish Brabant	322,964	303,542	19,422	6.40%
Limburg	376,201	335,795	40,406	12.03%
TOTAL	**1,308,017**	**1,240,750**	**67,267**	**5.42%**

➜ 32,461 km of pipes



On 31 December 2015, the total length of the pipe network was 32,461 km. Natural growth amounted to 136.5 km. This is the difference between the number of kilometres of newly constructed pipes and the length of the pipes removed from service.

➜ Pipe network

Pipe network length (km)	West Flanders	East Flanders	Flemish Brabant	Limburg	Total 2015	Total 2014
New in 2015 (a)	124.5	43.3	70.8	61.0	299.7	336.7
Out of operation in 2015 (b)	61.2	26.9	40.3	34.6	163.1	167.9
Expansion in 2015 (a)-(b)	63.3	16.4	30.5	26.4	136.5	168.8
Total network in service as per 31-12-2015	**10,269**	**5,077**	**7,901**	**9,214**	**32,461**	**31,233**

In 2015, De Watergroep took over the IWM Intercommunal Water Company, which was active in Limburg and Flemish Brabant. This resulted in extra growth of more than 1,000 km of pipes, 5,000 hydrants and 8,000 valves. The figures on the network length are also subject to change as more accurate information on the historical pipe network becomes available.

Large-scale mapping of 1,100 km of IWM pipes in GIS (Geographic Information System)

With the takeover of the IWM Intercommunal Water Company, we also had to map the acquired pipe network in De Watergroep's GIS database.

In consultation with the provincial water services, we opted for a completely new large-scale mapping in De Watergroep's GIS application, based on measurements by our in-house staff. Immediately after the takeover, the measurement of all visible equipment was started, so that on March 1 we could begin with the complete mapping of the network, which was completed on 31 August 2015.

Ageing pipe network

The pipe network has an **average age of 35 years**. The pipes **taken out of service in 2015** were on average **47 years old**.

PIPES IN NUMBERS

35+

Average age of pipes in service: 35 years old

47+

Pipes out of service: 47 years old

Average age of pipes out of operation increases each year

➜ Quality from source to tap

Tap water is the most rigorously tested food product. Controls based on 60 or so quality standards are performed from source to tap. The analyses show that drinking water quality again was excellent in 2015. De Watergroep has its own Belac-accredited laboratory that works in compliance with ISO standard 17025.

Control of drinking water quality in 2015

QUALITY CONTROL

Statutory audits	➤	**7.271**
Operational audits	➤	**7.602**
	+	
Excellent quality	➤	**14.873**

Quality from source to tap

There are different types of drinking water controls:

- **Statutory monitoring** audits and **audit sampling** at the customer's kitchen tap.
- **Additional operational audits** on water leaving the water production centre, and in water towers and reservoirs. Operational audits also include audits carried out in the event of expansions and the follow-up of complaints.

In 2015, a total of **14,873** audits on drinking water quality were carried out (7,271 statutory audits in the distribution network and 7,602 operational audits in water towers, reservoirs and water production centres).

Control in the distribution network

The tables below present an overview of the instances of non-compliance found in the distribution network. The figures pertain to measurement results of the first sampling at the kitchen tap, and therefore do not include any repeat measurements.

Number of parameters with a first instance of non-compliance in the network	West Flanders	East Flanders	Flemish Brabant	Limburg	TOTAL	%
Samples	1,863	2,244	1,621	1,553	7,271	100
Exceeded A-parameters	5	5	2	5	17	0.2
Exceeded B-parameters	92	45	73	22	232	3.2
Exceeded C-parameters	385	118	154	100	757	10.4%

- **A-parameters** are the microbiological parameters E. coli and Enterococci. The total percentage of first instances of non-compliance for De Watergroep as a whole amounts to 0.2%. This is an excellent result. During the repeat measurements, the samples were found to comply with the standards.
- **B-parameters** are the chemically toxic parameters such as lead, nitrate and nitrite. The percentage of first instances of non-compliance amounts to 3.2%. A detailed analysis of the measurement results shows that the instances of non-compliance are due primarily to too high a lead content. The repeat measurements indicate that mainly indoor installations at the customer are responsible for the non-compliant lead values (lead pipes and brass fittings).
- **C-parameters** are indicator parameters. They are not relevant to public health. These include, in particular, sodium, iron and coliforms. The instances of non-compliance are generally due to problems with the indoor installation.

➜ 35,270 water analyses in our in-house laboratory

In 2015, we carried out a total of 35,270 analyses, both for the provincial water services and for the industry and other drinking water companies.

2015	Drinking water	Groundwater	Surface water	Miscellaneous	Total
West Flanders	6,252	1,050	2,502	195	9,999
East Flanders	5,346	403	821	476	7,046
Flemish Brabant	6,272	1,119		776	8,167
Limburg	5,492	746		26	6,264
Third parties				2,586	2,586
Quality programme				1,208	1,208
Total	**23,362**	**3,318**	**3,323**	**5,267**	**35,270**

Third-party analysis assignments are mainly assignments from the Industry and Services business unit and assignments from the laboratory of the Soil Service of Belgium. The internal quality programme comprises the incoming inspections of consumables for the sampling and the analyses performed as part of the quality assurance of the analyses carried out.

Expansion of analysis facilities

The operational reliability and the analysis package of De Watergroep's laboratory was increased through the purchase of two **fluid chromatographs** with mass spectrometric detection for new organic micropollutants. This allowed us to significantly extend the analysis package with the analysis of algae toxins, metaldehyde (a pesticide used to control slugs and snails in vegetable gardens), additional polar pesticides and decomposition products, and medicine residues in water. This should enable us to even better monitor the quality of both raw and produced water from 2016 onwards. For the analysis of heavy metals a second **plasma torch** with mass spectrometric detection was purchased.

The Microbiology/Biology department purchased an **inverted microscope** to monitor biological conditions in the reservoirs and the supply channels of the surface water catchment sites. This is necessary because different species of algae interfere with water treatment in certain water production centres.

Problematic pesticides in surface water

The analysis results of pesticides in raw groundwater and surface water show that the pressure on our raw water sources remains unchanged: BAM, a decomposition product of dichlorobenyl, regularly exceeds the drinking water norm of 0.1 µg/l. In addition, the groundwater contains desphenyl chloridazon, a natural decomposition product of the chlorizadon herbicide, in concentrations that exceed the drinking water norm. If current policy with the same rigorous drinking water norm of 0.1 µg/l for natural decomposition products of pesticides is maintained, this will have a big economic impact on the drinking water production cost.

Together with BAM, Bentazon remains the most problematic pesticide in surface water. It is present in high concentrations in the supply channels of the De Blankaart water production centre, hindering the intake of high-quality surface water in the reservoir.

➜ Water sources and environment

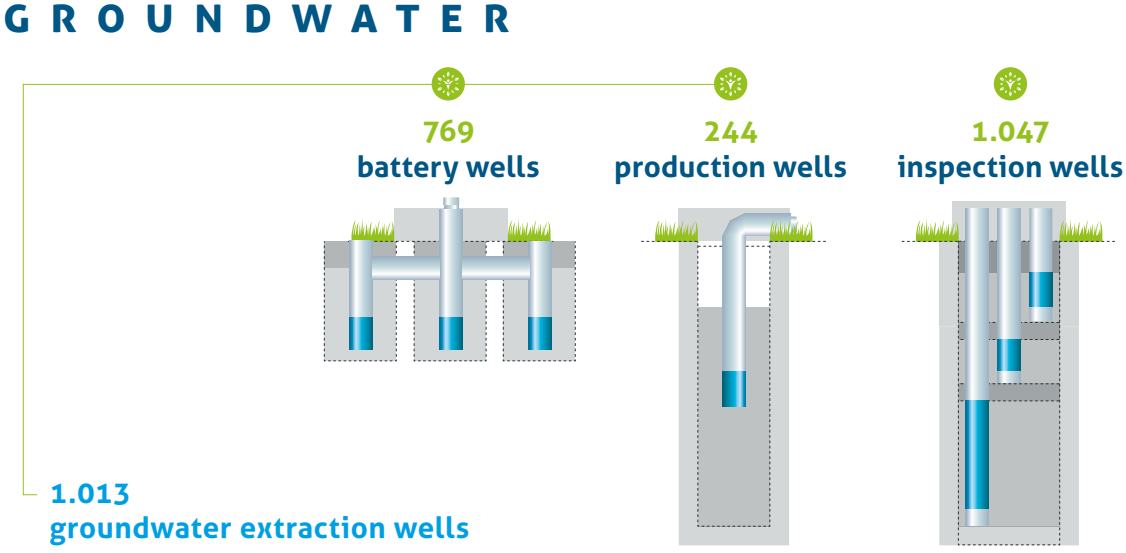
For its drinking water production De Watergroep depends on natural resources: groundwater and surface water. With a view to the future, we are actively working to secure these sources. Sustainable operation is important for the environment, for the quality of the water, and for the available stocks.

Well management to maintain capacity

De Watergroep has put in place an annual maintenance programme to ensure that production capacity at its groundwater catchment sites remains available at all times. In 2015, too, regenerations were carried out to keep the production of the wells at an optimal level. Where necessary, production wells were redrilled and additional inspection wells drilled.

Battery wells	
In service	765
Reserve not connected	4
Total	769
Production wells	
In service	238
Reserve connected	4
Reserve not connected	2
Total	244
TOTAL NUMBER OF GROUNDWATER EXTRACTION WELLS	**1,013**

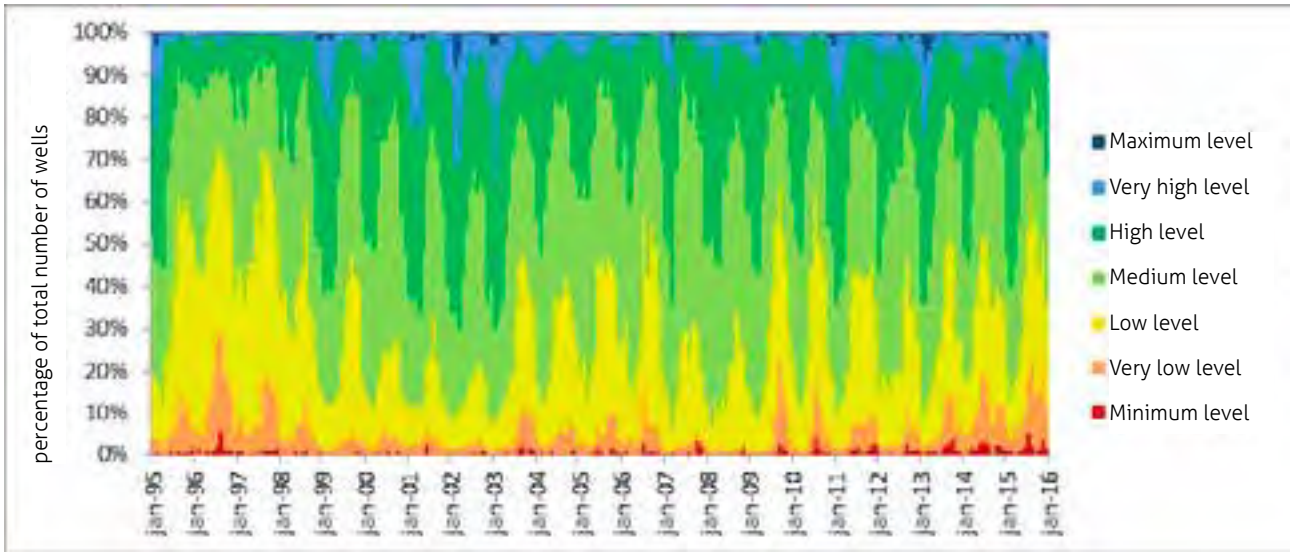
In Overijse, a new drainage system was installed. Groundwater is extracted from a shallow drainage gallery incorporated into the aquifer sands of Brussels. The gallery dates from the fifties and was restored in the nineties. In the last few years, it had become quite unstable, so that a great amount of sand ended up in the groundwater. After an in-depth study, it was decided to construct a new drainage system and to fill up the old system. These works reinforce the drinking water supply for the region.



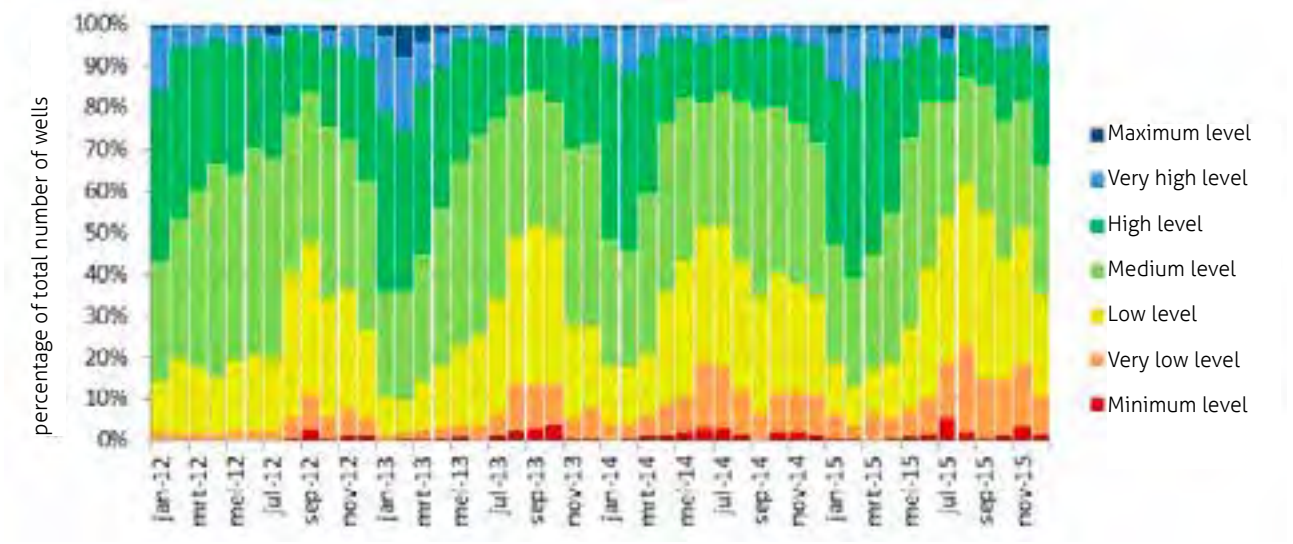
Hydrogeological models and an extensive monitoring network ensure sustainable operation

To better understand the operation of the groundwater aquifers and to enable their sustainable operation, our internal experts within the Water Sources and Environment department have acquired extensive expertise in **hydrogeological modelling** based on 3D groundwater flow models. They have themselves developed the software used for this purpose. In 2015, groundwater models were developed for eight groundwater catchments, bringing the total of operational groundwater models for De Watergroep to 46.

46 groundwater models (+8)
De Watergroep has a monitoring network of **1,047 inspection wells** in various aquifers at various depths, spread throughout Flanders. This extensive network closely monitors the groundwater level to ensure sustainable operation of the groundwater aquifers. The figures show the evolution of the groundwater level.



Evolution of the groundwater level 1995-2016



Evolution of the groundwater level at two-month intervals, 2012-2015

The major precipitation deficit in 2015 resulted in a greater number of low groundwater levels. In climatological terms, 2015 was a special year with several months recoding less precipitation than normal. A detailed analysis with **time series models** shows that there is no overexploitation of the groundwater aquifers, i.e. extraction and supply are in balance.

In 2015, preparations were made for the automation of the extensive groundwater monitoring network. By linking up high-frequency measurements of the groundwater level with the operating regime of the groundwater catchments, we want to gain an even better understanding and ensure the sustainable management of the groundwater system.

ENVIRONMENTAL EMPHASES

- **+ 17 environmental permits**
- **Source dossiers for the protection of drinking water sources**
- **By-products in circular economy** with Nederlandse Reststoffenunie (Dutch Residues Union)
- **Agricultural consultation on water quality**
- **Constant focus on groundwater level**
- **Water extraction hand in hand with nature conservation**

17 new environmental permits

In 2015, 17 environmental permit dossiers were drawn up, submitted and processed. Where appropriate, in-depth hydrogeological studies, applications for exemption from the Environmental Impact Assessment process, and suitable evaluations were carried out. This enables us to ensure that no unacceptable environmental effects will occur and to safeguard the drinking water supply in the short and long term. Consequently, we were granted all the necessary permits.

Furthermore, a whole series of installations underwent an environmental audit. None of these audits gave rise to any fundamental comments or reports.

By-products, circular economy and collaboration with Dutch drinking water companies

To further improve the use of our residues in a circular economy, talks were conducted with the

Dutch **Reststoffenunie** (Residues Union) in 2015. This organisation collects the residues of all Dutch drinking water companies and develops them into high-quality, sustainable raw materials. Based on targeted research and development, the Reststoffenunie is constantly looking to identify new sustainable applications for all residues. In early 2016, De Watergroep joined the Reststoffenunie Waterleidingbedrijven BV.

It is the first time that De Watergroep participates in a foreign undertaking. The Dutch-Belgian collaboration will result, among other things, in greater innovative capacity, more efficiency, and economies of scale. This will allow the Reststoffenunie to respond even better to market needs and technological innovations. De Watergroep will also have a bigger market for the purchase of residues.

In 2015, De Watergroep applied for and obtained raw material certificates for the calcite granules of the acquired IWM installations. This allows us to guarantee a useful reuse for these by-products too.

Signature of the Dutch-Belgian collaboration with the Reststoffenunie

Source dossiers and water safety plans protect drinking water sources

The combined use of the following working tools ensures the protection of the quality of our drinking water sources: source dossiers and water safety plans. They enable a well-founded vision to be developed to ensure clean and reliable drinking water sources, both in the short and long term..

Source dossiers

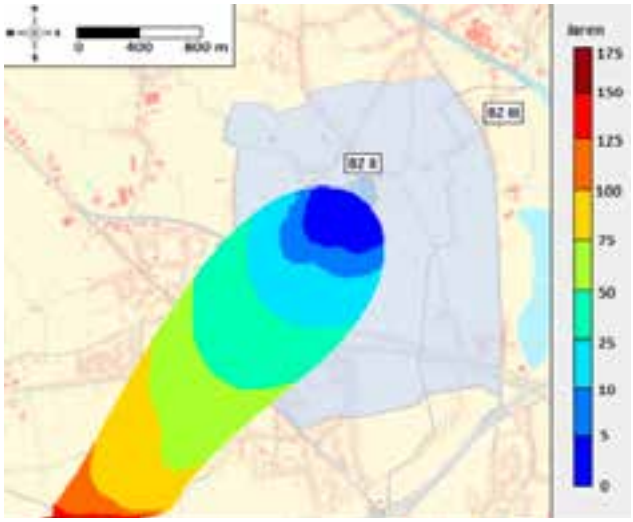
Since 2014, **source dossiers** have been used for structural protection of our drinking water sources. De Watergroep compiles these dossiers in collaboration with the Flanders Environment Agency. Priority is given to the most vulnerable catchments. In 2015, we compiled source dossiers for Eisden, Meeswijk, Herent Bijlok, Kessel-Lo Vlierbeek, Winksele Kastanjebos, Londerzeel Koevoet, Diets-Heur, and Eeklo.

A source dossier collects **data** about the catchment, its environment and the surrounding activities. We analyse, among other things, land use, farms, industry and groundwater catchments to identify activities that may adversely affect the groundwater quality.

In addition, we analyse the **quality** of the extractions to identify bottlenecks, determine the cause and formulate measures. We evaluate the current sampling programme and adapt it, where appropriate, to better monitor threats.

Finally, for each catchment, we develop a three-dimensional **groundwater model** to calculate the overall groundwater flow, the cone of depression and the total recharge area of the catchment. Simulations are used to identify the location and the cause of a contamination.

Based on the gathered information, we develop **area-specific actions** and **arrangements** tailored to a particular catchment: internally, with stakeholders in the area, and with the government. The result is well-founded risk management and reliable drinking water quality.



Water safety plans

The water safety plans ensure the risk management from source to tap. In a first phase, we will focus on our water towers, reservoirs, water production centres, and the supply and distribution network. In a second phase, we will look at the booster stations and water pumps because they are less critical for water safety.

In 2015, the **methodology** for the preparation of water safety plans was **updated** for water towers, reservoirs and well fields. In doing so, the risk assessment was objectified by coupling it to the established condition status. This has the advantage that structured records are kept of the reason of a given risk score and of the actions needed to control the risk. Another advantage is that the risk matrix is completed largely automatically, thereby saving considerable time. The aim is to further develop this methodology for the catchment areas and the water production centres.

A **monitoring system** ensures risk management and a structured approach to the actions arising out of the water safety plans. Furthermore, many risks can be prevented by working according to clearly defined procedures and work instructions. In 2016, we continue to work on standardised procedures.

WATER SAFETY PLANS
ensure drinking water quality

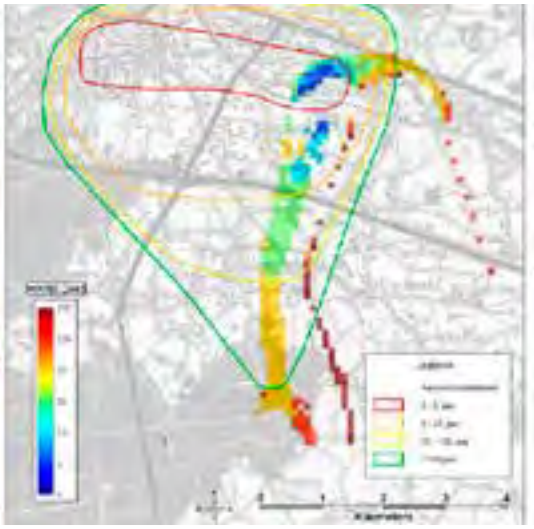
Reservoirs	Distribution areas	Water production centres	Water towers
14 Water safety plans	**1** Water safety plan	**16** Water safety plans	**24** Water safety plans

Within the scope of the water safety plans, consultation was also initiated for the purpose of minimising the **impact of agricultural activities** on the groundwater quality. The parties involved were the drinking water companies, the Flanders Environment Agency, the Agriculture and Fisheries Department, the industry association of plant protection products, and various agricultural organisations. This broad stakeholder consultation was aimed primarily at gaining a better understanding of the activities and concerns of the different parties and at developing joint actions for protection of the drinking water supply.

Water extraction hand in hand with nature conservation

The **Huiskens catchment site** in Korbeek-Lo illustrates how drinking water extraction and nature can reinforce each other. De Watergroep contributes to the realisation of the preservation goals of the Natura 2000 area where this catchment site is located. The current environmental permit for Huiskens expires in 2019. To prepare the new environmental permit, a comprehensive hydrogeological study and a fauna and flora study were carried out in 2015.

Based on a 3D hydrogeological model, the hydrogeological study determined the impact of extraction on the groundwater system. Thus, the cones of depression, the inflow area, and the travel times to the catchment outlets were calculated.



Focus areas of the catchments in Heverlee and Korbeek-Lo with calculated travelling times of the groundwater to the catchment sites in Huiskens and Korbeek-Lo

Fieldwork was performed for thorough mapping of the vegetation present, which varied from grass vegetations over brushwood and reed beds to various wet deciduous tree habitats. The analysis did not reveal any negative effects of water extraction on the fauna and flora.

The Molenbeek, reed and willow storage at the Huiskens catchment site in Korbeek-Lo

Noteworthy is the presence of beavers that build dams on the Molenbeek site. The watercourse manager has to remove these dams at regular intervals to prevent flooding. The beavers are second to none in appreciating the water quality in our drinking water catchments.

Tracks of nibbling from beavers at the Huiskens catchment site in Korbeek-Lo

Based on these two studies, we were exempted from the requirement of integrating an EIA report into the environmental permit application as a mandatory annex.

No days of drinking water shortage

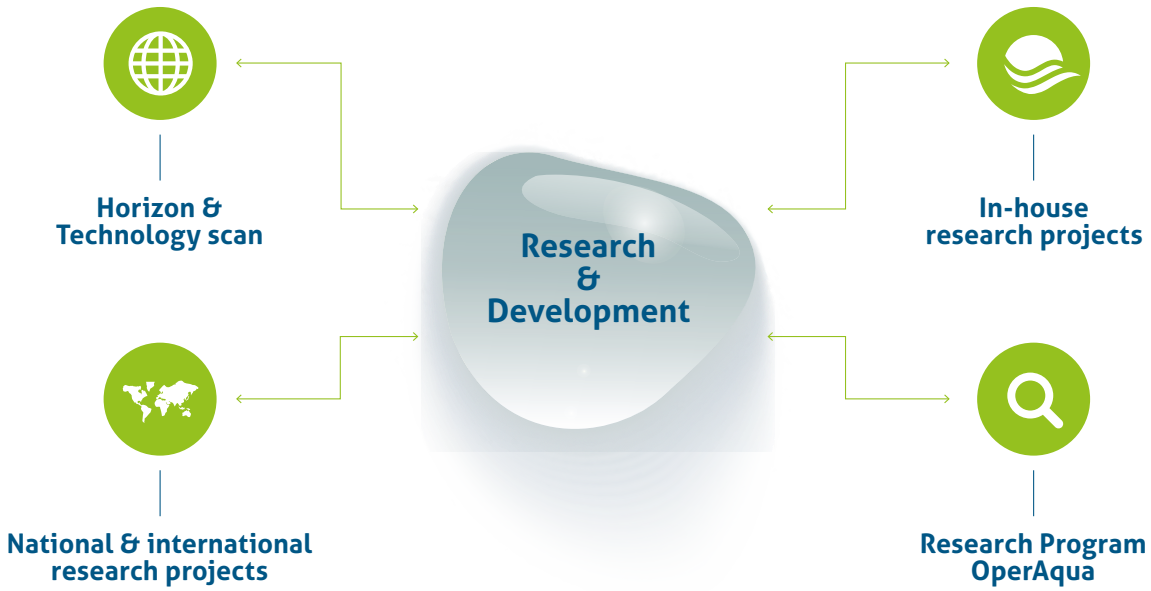
In 2015, at the behest of De Watergroep, a **draft decision on water quantity objectives** was drawn up. It sets out the objectives for high water and water scarcity. Specifically for drinking water supply, it stipulates that no days of drinking water shortage should occur. The decision, which was finally approved in early 2016, marks an important milestone for future water supply security.

Climate change is one of the reasons why water availability is going to become a challenge in the years ahead. Forecasts will serve as the basis for long-term water supply plans over a period of 20 years. Via AquaFlanders, a proposal was drawn up to integrate an extra layer into the water balance model of the Hydraulic Laboratory that will explicitly map out the distribution of drinking water in Flanders. Such an integrated model may provide an answer to the major future challenges and assist the government in developing distribution priority sequences for drinking water in periods of drought.

➜ Research and development aimed at innovation

De Watergroep must also in the future be able to ensure sustainable drinking water supply. That is why we have a comprehensive research, development and innovation programme. This programme pays special attention to supply security and to the effects of climate change. Where possible, we work together with external partners.

Our approach to research and development that stimulates innovation, is based on four cornerstones:



Themes

The projects are categorised into one or more of the following 14 thematic areas:

- Sources
- Water treatment
- Storage, transport and distribution
- Residual substances
- New substances
- New measuring methods and sensoring
- Smart networks and water meters
- Technical asset management of pipelines
- Knowledge management and network development
- Safety of drinking water quality and operational bottlenecks
- Climate resistant water supply
- Energy and automation
- New products and services
- Process water and custom water.

This subdivision allows us to monitor the diversity of the research, making sure that in each area attention is given to developments, potential threats and opportunities.

Horizon and technology scan

An analysis of social, socio-economic and ecological developments determines the research needs.

To keep abreast with technological developments, the Water Technology department actively participates in various scientific conferences and workshops.

We also have various active memberships and contacts to keep the finger on the pulse of technological activities with other drinking water companies and relevant knowledge centres.

In-house research projects

De Watergroep develops scale deposition model

Early 2015, the Riksingen site (Tongeren) received numerous pressure and scale-related complaints. In the pipe network, limescale flakes had come loose, so that the downstream pipes in the distribution network and many water meters at the branches were clogged up. To prevent this, we set out to identify the cause of the problem.

The water in Riksingen originates from the Vliermaal water production centre (in Kortessem) and is partly stored in the Vliermaal reservoir and the Riksingen water tower. The analysis of the water quality showed that both the water production centre and the reservoir and the water tower intensified scale deposition. The existing computer programs gave only an indication of the deposition, but not of the effective growth. To allow the right decisions to be made and to evaluate the effect of changes in treatments, we developed a growth model with the aid of the PHREEQC software program.

This model showed that the Vliermaal reservoir in particular has a great impact on limescale growth in the network and therefore also on the flakes. The water in the Riksingen tower deposits slightly more scale, but no flakes were found in the supply area of the tower. This would suggest that the flakes came loose as a result of a shock in the network. It is no longer possible to identify the causes of this shock (works, heavy transport, water hammer).

As a workaround solution, we decided to reduce the ventilation in the reservoir and the tower. In the meantime, the Vliermaal water production centre has been included in the softening plan for South Limburg.

Subsurface iron removal

De Watergroep has initiated research to investigate to what extent subsurface iron removal is possible. In this process, aerated groundwater is injected into the aquifer. The iron deposits in the subsurface and the pumped-up water is iron-free. Little or no treatment is required aboveground.

In 2014, we visited Vitens, a Dutch company that already applies this principle, and we also conducted a literature review. We carried out geochemical calculations to start up a project at the Kessel-Lo Vlierbeek catchment site. They showed that the technique of subsurface iron removal can be applied there. Additional advantages are that less rinse water is lost and that clogging of the battery wells is avoided or reduced considerably.

In 2015, the environmental permit application was drawn up. This included a detailed geological study that maps the effects. We developed a model to map the expected chemical reactions in the subsurface. De Watergroep was the first company to apply for a permit for this purpose. The study shows that the expected environmental effects are controllable. We were granted the environmental permit and work on the drilling of the additional injection and extraction well was started at the end of 2015.

Collaboration with external partners

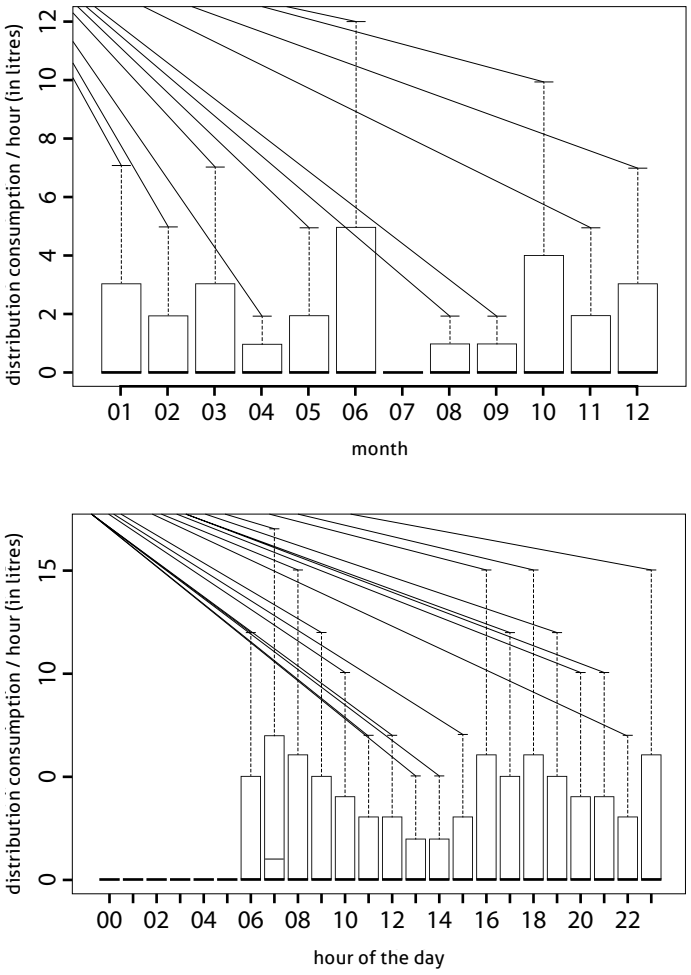
Pilot project for water production centre De Blankaart

The pilot project in De Blankaart is co-funded by Europe and by the province of West Flanders under the Interreg 2 Seas Programme. De Watergroep will collaborate on innovative NOM removal from surface water with project partners in the Netherlands, the UK and France, as part of an ambitious project from November 2015 to the end of 2019.

Smart meters and smart networks

In analogy to the electricity sector, the Water Technology department investigates the possibilities of smart meters and smart networks from the perspective of a water supply company.

Some years ago, we started up pilot projects together with local distribution system operators Eandis and Infrax. A few hundreds of customers of De Watergroep were given a smart water meter. The measurement data were sent over the communication network of the distribution network operator to the De Watergroep's database. The results of the tests are currently being processed.



Profiles of consumption of a customer in 2015, measured with a smart meter. The customer has no leakage because he doesn't consume any water during the night. The highest level is situated around 7am.

The **Internet of Things (IoT) technology,** which is gaining maturity, brings new opportunities for the use of smart water meters. It is now becoming possible to use electronic water meters with modem and battery power supply that ensure cheap and faultless transmission of the data to a central database. It is even possible to set up a two-way communication, thereby enabling the integration of a controllable valve in the water meter. 'Control of customer demand', budget water meters, automatic shutdown in the event of a leak in the indoor installation: it is all becoming possible. A small-scale trial project utilising this technology was set up. Called LH2ORA, this project is a collaboration with Vlakwa and VUB. The tests will be continued in the next few years..

Supply network of De Watergroep is 'electrically flexible'

The Elia shut-off plan was a topical issue in 2015. At times of energy scarcity, certain areas in the country faced the risk of being shut off from the electricity grid. People were urged to use as little energy as possible. De Watergroep considers it its social responsibility to participate in this plan.

The supply network of De Watergroep has numerous buffers in the form of water towers and reservoirs. In many cases, temporarily stopping the pumps does not necessarily affect the supply security for our customers, as they will then be supplied from these buffers. Our supply network is 'electrically flexible'.

A trial project was started up to try out this electrical flexibility in practice. In the event of an energy shortage in the Elia grid, some pumps automatically shut off via the telemetry system. In the event of an energy surplus, the pumps are started up. Ensuring supply security for our customers is a priority. De Watergroep is compensated for this by Elia. For the trial we worked with an aggregator as intermediary.

OperAqua

OperAqua is a cooperation agreement between De Watergroep, VITO and Dutch research centre KWR. The establishment of a centre for Flemish technological research for water should lead to a better operational management. Through OperAqua, De Watergroep participates in a number of thematic groups of the joint research programme of the Dutch water companies.

Hydraulic model of the IJzer basin

In 2013 and 2014, VITO developed a hydraulic model for a portion of the IJzer basin to map the water availability for the De Blankaart water production centre. In 2015, tools were developed to facilitate the calculation of scenarios. Three specific scenarios were investigated:

- The effect of lowering the intake capacity (number of pumps used simultaneously for the intake of raw water) on drinking water production,
- The effect of raising the reservoir by 1 metre,
- The cumulative effect of the scenario where only water of sufficient quality is taken in and the climate scenario (30% less water available in the summer and 30% more water available in the winter as compared to the current climate).

Reuse of iron sludge

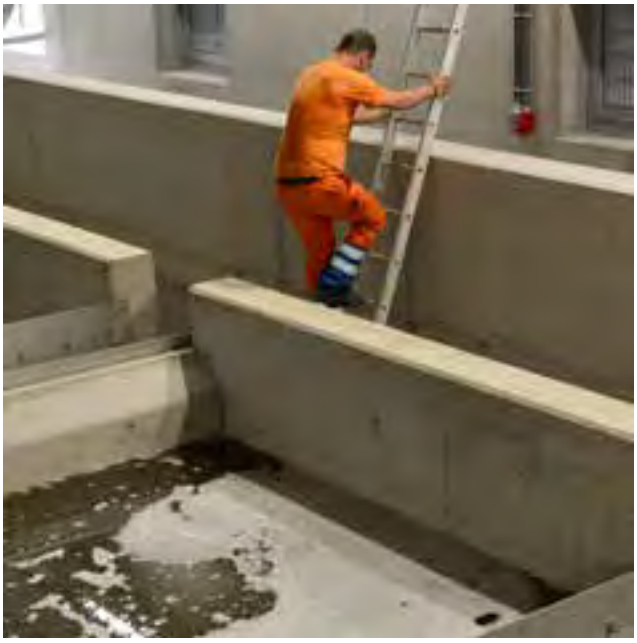
De Watergroep commissioned VITO to investigate the removal of phosphates from surface water using residual flows from its own drinking water production centres. Phosphates and their adverse effects in the form of algae formation are present in virtually all surface water catchment areas in East and West Flanders. The aim is to reduce the amount of phosphate in the surface water before it ends up in the reservoirs.

Four different types of ferruginous sludge were investigated for their suitability for use in the removal of phosphate. Tests showed that the produced sorbents (substances that absorb or adsorb) have a sorption capacity comparable to that of commercial products. Further investigation has been planned to optimise the preparation of the sorbents and to try out their practical use on a pilot scale.

Research into subsurface water storage

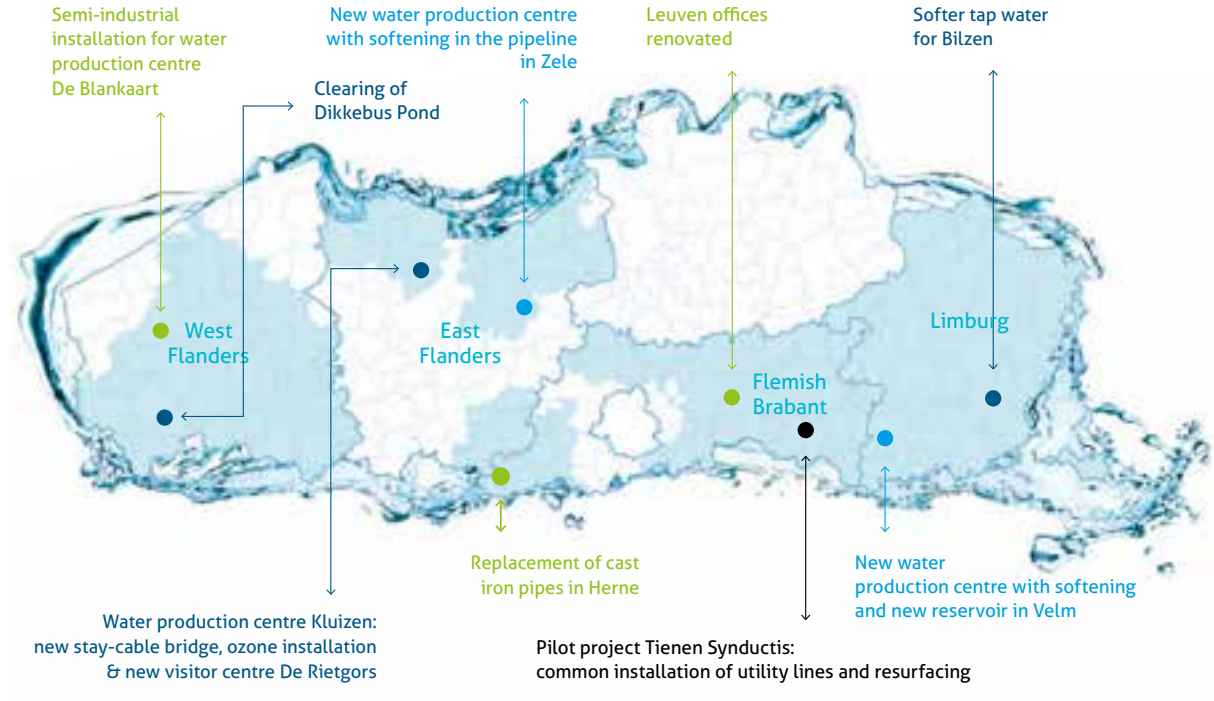
As part of the OperAqua programme, VITO explored the feasibility of an ASR (Aquifer Storage & Recovery) system in the Brussels formation near Meerbeek. ASR is a technique for the subsurface storage of water in the event of a surplus (as in the winter) and recovery in the event of shortage (usually in the summer). VITO conducted a literature review on the mineralogical composition of the Brussel Formation, studied in detail the efficiency of an ASR well, and made an estimation of the expected chemical reactions.

The study concluded that an ASR system in the Brussel Formation is possible. However, the location of wells (one well or a doublet) must be considered carefully and a pilot project is needed to measure the chemical reactions.



Iron slub

➜ Investments in a future-oriented water supply



In the field in 2015

West Flanders

Semi-industrial installation in De Blankaart

Semi-industrial installation of water production centre De Blankaart

In the summer of 2015, we commissioned the semi-industrial installation on the sites of water production centre De Blankaart: a testing ground for the production of drinking water from surface water from the IJzer, using state-of-the-art and efficient treatment techniques. The tests come under the **master plan for the De Blankaart** and are necessary for the planned design of the industrial pretreatment installation, the contracts for which are expected to be put out to tender in 2018 and 2019.

These processes are currently in the pilot stage: an ion exchange installation (with resin regeneration) followed by a flotation installation for the removal of natural organic matter.

Clearing of Dikkebus Pond
At the end of 2015, at the request of the city of Ypres, De Watergroep signed a contract for the large-scale clearing of the Dikkebus Pond. The Dikkebus Pond serves three functions:

- A storm water balancing tank to protect Ypres against flooding.
- A reservoir for drinking water production.
- A lake for sporting activities: hikers, cyclists, anglers, rowers, sailors and surfers can be seen on and around the pond all year round.

80% of the water used by the inhabitants of Ypres comes from the Dikkebus Pond. The costs for the clearing works, after deduction of the European funding, are fully borne by the city of Ypres and the province of West Flanders. De Watergroep will designate the engineering consultancy. At the end of 2016 or in the spring of 2017 at the latest, new clearing works will be carried out to prevent the pond from silting up. The sludge in the pond consists mainly of topsoil (formed by erosion of the 35 m higher Heuvelland), sandy loam and clay particles mixed with nutrient-rich matter. This is an ideal breeding ground for blue-green algae, so the dredging works benefit the water quality.

Dikkebus Pond

Optimal drinking water treatment for water production centre Zillebeke
The Zillebeke water production centre has been in service since April 1999 and was originally managed by the city of Ypres. It was taken over by De Watergroep in 2010.
In 2015, improvement works were carried out on the electromechanical equipment: renovations of the flotation installation by replacing the saturator and the nozzles and optimising the geometry. Also the PLC programming was improved, resulting in a higher level of automation, more robust and more efficient operation, and less labour-intensive business practices. Finally, measurement tools were added for better process monitoring and control.

Water production centre Zillebeke

East Flanders

Ozone installation for water production centre Kluizen
From Kluizen, De Watergroep supplies drinking water to a large part of North-East Flanders, i.e. some 400,000 customers. This centre has a daily production capacity of 60 million litres of drinking water made from surface water. In September 2015, we commissioned a new ozone installation in Kluizen. The installation produces ozone from liquid oxygen. The ozone is dosed prior to activated carbon filtration. The ozone oxidises organic micropollutants (pesticides, medicines, fragrances and flavourings), promotes the biodegradation of organic substances in the downstream activated carbon filters, and to some extent disinfects the water. The new installation was set up in a separate building and replaces the 10-year-old installation, which was no longer reliable.

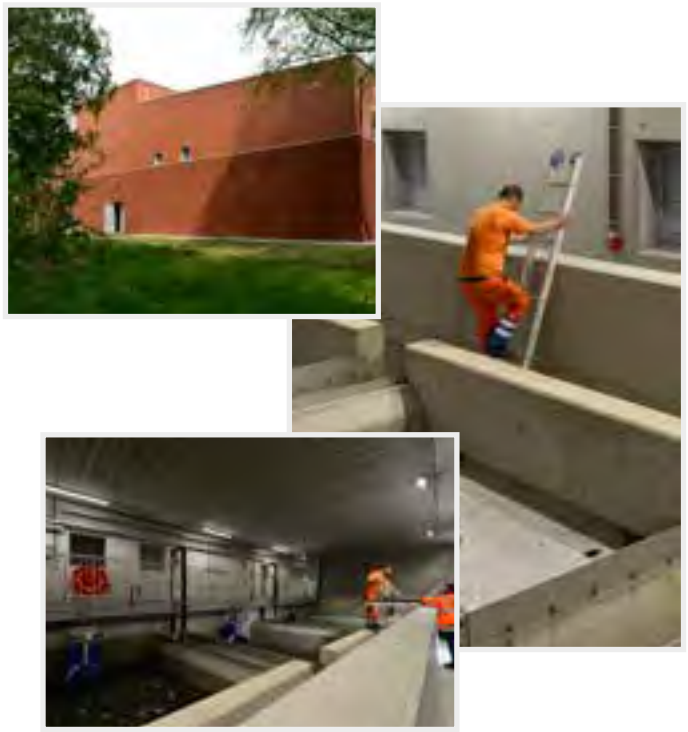
Water production centre Kluizen: optimisation of flotation installation
At the end of 2014, the flotation installation in the Kluizen water production centre was equipped with plate packs in the separation zones for the purpose of increasing the production capacity of the installation. In 2015, the operation of the flotation installation before and after installation of the plate packs was compared and the production rate increased to determine the maximum production capacity. The installation of the plate packs resulted in a maximum production capacity of 550 m³/h/flotation line. This capacity is 24% higher than the original design capacity of 443 m³/h/flotation line.

Stay-cable bridge Kluizen

Stay-cable bridge in water production centre Kluizen
This year the large-scale renovation of the stay-cable bridge in the Kluizen water production centre was completed. The bridge connects the water outlet tower of reservoir 1 with the first and second treatment lines. The structural renovation was necessary due to concrete decay on the bridge. At the same time, the two pipes in the bridge deck were replaced.

New water production centre in Zele
The new water production centre in Zele is beginning to take shape. The treatment system consists of cascade aeration, combined iron removal and softening via sludge sedimentation, open sand filters and closed activated carbon filters. Both the structural and the electromechanical design of the new installation is currently in the pilot stage. We plan to decommission the existing treatment in mid-April 2016, so we can subsequently proceed with the conversion of the dosing and storage building. The aim is to send the first drops of drinking water into the network via the renovated high-pressure pipe by the summer of 2016.

New high-voltage cabin and power panel in Melsele
In Melsele, we renovated the high-voltage cabin and power panel of the second-largest drinking water booster station in the northern part of East Flanders.



Water production centre Zele

Flemish Brabant

Water production centre Koevoet renovated
The Koevoet water production centre dates from 1978 and each year produces 1.8 million m³ drinking water. It is severely outdated and also generates much sludge and wash water.

In a first phase, we will start with the construction of a new settling tank where the wash water from the closed and open filters settles. After a sufficient settling time, the water is transferred to the existing on-site infiltration tanks.

In a second phase, we will renovate the entire electromechanical equipment. To improve the water treatment and the operation of the pumps, the latest control techniques will be used.

The works were started in September 2015 so as not to comprise supply security during the summer months. The drinking water supply of Londerzeel and surroundings involves a total investment of 2.7 million euros.

Pilot project Synductis: common installation of utility lines and resurfacing
In Tienen, Eandis completed a pilot project for footpath and road resurfacing following the installation of the utility lines. The project was carried out in collaboration with Eandis, the city of Tienen, De Watergroep, Proximus and Telenet. The utility companies financed the trench and installed the pipes and cables. The utility companies and the city shared the costs for the resurfacing works.

Thanks to the high level of synergy achieved in this project, there was only a limited number of complaints and queries from the inhabitants and the city. All parties rated the project as a positive experience. The preparation was slightly more labour intensive due to the project's greater impact on the surroundings

Replacement of cast iron pipes in Herne
Herne still had a large number of old distribution pipes in grey cast iron that leaked regularly. In 2015, a total of 3,780 metres of these lines were replaced.

Water production centre Koevoet

Limburg

New water production centre and new reservoir in Velm
Because of the vulnerability to pesticides and the high hardness of the drinking water in the Sint-Truiden region, a new installation was erected on the site of the existing production centre in Velm. The new treatment and production process consists of pellet reactors for softening, open double-layer filters for keeping the drinking water free of pesticides, two clean water cellars, and one pump room.

At the same time, a new reservoir was built at the Romeinseweg in Velm. This reservoir will provide a larger storage capacity, thereby preventing pressure fluctuations and supply problems. The two new buildings will receive a green roof. The roof of the new reservoir will be a tourist vantage point offering a view of the city of Sint-Truiden. The sustainable and fully automatic installations will further optimise the drinking water supply in the Sint-Truiden region.

The new water production centre will be commissioned in two phases. A first phase is planned for the summer holidays of 2016 and comprises the water production centre without the softening process. Commissioning of the softening process is slated for early 2017.

Softer tap water for Bilzen
In the Bilzen water production centre, De Watergroep pumps up groundwater to turn it into drinking water. This drinking water is rather hard because the groundwater naturally contains much lime. Early September 2015, the pipe network of Munsterbilzen was connected to that of Genk. Munsterbilzen thus becomes the first of the 13 districts to enjoy softer water from the Maasland. The lime content of the drinking water falls from 35°F (French degrees) to 16°F. For the other districts, a completely new water production centre with a softening unit will be operational by 2019.

Water production centre Velm

Put out to tender or designed in 2015

West Flanders

Master plan for integral renovation of water production centre De Blankaart
In the second half of 2015, work was started on the design of the first phase of the master plan of De Blankaart water production centre in Diksmuide. This centre of De Watergroep each year produces around 10 million m³ drinking water. One third of all drinking water in West Flanders originates from this centre. With its 42 years, De Blankaart is the oldest water production centre where De Watergroep produces surface water based drinking water.

To keep the infrastructure in optimal condition, De Watergroep will undertake large-scale on-site renovation works until 2023. The new water treatment will be equipped with state-of-the-art technology, which is more efficient and more sustainable. The reservoir will be renovated and there will be a new logistics building with a visitor space and a laboratory. The investment is worth 60 million euros.

There will be a new post-treatment installation of 2,000 m³/h, two clean water cellars and a high-pressure pump installation (pump directions Hooglede, Poperinge and Diksmuide).

If all permits are received on time, the works will start in June 2016.

The De Blankaart water production centre is situated in an area protected under the European Birds Directive. Prior to the start of the works, their impact on nature had to be investigated through an 'appropriate assessment'. In this assessment, the fauna in the vicinity of the water production centre was mapped out and the project elements that could have a disturbing impact on these species were identified, such as light, noise, and visual disturbance.

Finally, we examined what measures might be taken to minimise the impact of the works, e.g. shielding off parts of the project area, or limiting activities during the breeding season of certain bird species.

Prolonged dry periods with less precipitation especially in the summer, combined with rising temperatures, are being predicted. The new installation is nevertheless expected to supply high-quality drinking water for another period of fifty years. That is why De Watergroep devotes much attention to studying the water availability for De Blankaart, with due allowance being made for climate change.

East Flanders

Water production centre Eeklo: electromechanical equipment

The Eeklo water production centre each year produces on average 1.2 million m³ of drinking water from three well batteries and two deep wells. The oldest part of the existing water treatment station dates from 1937 and has reached the end of its technical lifetime. The installation and the treatment method are severely outdated. The clean water cellars are too small to ensure efficient supply and operation.

That is why we chose to construct an entirely new production centre with associated dosing and storage building on the site of the existing water production centre, equipped with modern treatment techniques, including an additional softening step and activated carbon filtration. Apart from the location of the clean water cellars, the building is identical to the new water production centre in Zele, which will be commissioned mid-2016.

The construction of the new water production centre was split up into two main contracts, and the actual construction was put to tender in 2014. The electromechanical equipment will be tendered in early 2016. The total construction works will last about three years. In the meantime, the existing water production centre will remain operational, after which it will be partly demolished.

Flemish Brabant

Study on supply security in the Overijse region

The old Losweg water tower is located in the valley of the IJse and is fed by the Kouterstraat water production centre. A booster installed on the distribution side of the Losweg water tower pumps up the water over a height of around 35 m into the Jezus-Eik tower. This tower is situated on a ridge, as are the houses in the village. The tower and the customers of Jezus-Eik are currently fully dependent on the Losweg booster. Moreover, the limited capacity (150 m³) of the old water tower continuously drives the inlet valve open and closed. This leads to pressure surges that are noticeable from Tombeek to Duisburg. The installation of a pressure regulator at the high-pressure pumps of the Kouterstraat water production centre, a bypass of the Losweg water tower and a new booster in Losweg, allows us to improve this situation in the future. We are also renovating the booster at the Duisburg towers (Tervuren), so that Jezus-Eik can also be fed or replenished from the north on peak days or in emergency situations. To ensure sufficient pressure, two short line reinforcements have been put to tender.

Water tower Losweg

Water tower Jezus-Eik

Geuzenhoek and Veeweyde clustered into water production centre Huldenberg

Within the context of the planned renovation works for the Geuzenhoek and Veeweyde water production centres in Sint-Agatha-Rode, it was decided to cluster the water treatment of both stations into a new station: the Huldenberg water production centre. The new station will be built on the site of the Geuzenhoek water production centre, which has a more favourable geographical location in the supply network. The raw water from the Veeweyde water production centre is transported through a new pipeline to the Huldenberg water production centre.

The new station will have a treatment capacity of 540 m³/h. The water treatment consists of pre-aeration with an aeration clock to oxidise the iron, ammonia and manganese components, which are then removed with six vertical closed filters. The filters are equipped as double-layer filters (a combination of sand and hydro-anthracite) capable of being converted into activated carbon filters, because two vulnerable water catchments are involved. After the filters, the water undergoes additional aeration and NaOCl dosing before it is temporarily stored in the

clean water cellar. For post-aeration, a cascade aeration system was chosen. The clean water from the Huldenberg water production centre is intended above all to feed the Mechelen Supply.

Improvement works in water production centre Ossenweg in Zoutleeuw
End 2014, De Watergroep took over the Intercommunal Water Company IWM, including the Zoutleeuw water production centre. An analysis of the water treatment revealed that the open sand filters require very frequent rinsing. The wash water in the settling tank hardly cleared up, so that white water was discharged.

The degraded filter performance was caused by the upstream softening step. Large amounts of lime dust cause the open filters to clog up prematurely. That is why the Water Technology department screened the entire water treatment as part of its search for possible improvements. The alternatives were tested and the works are planned to start in autumn 2016.

Modelling of Mechelen Supply
A detailed network modelling study was carried out on Mechelen South Supply, the main supply system of Flemish Brabant. This is the main artery of the water supply system in Flemish Brabant, because the supply pipes carry water from various water production centres to the large reservoirs in Meerbeek. From there, water is supplied to much of the northern part of Flemish Brabant. The model maps the supply security of the region.

Network modelling allows for an advanced scenario analysis that enables us to anticipate bottlenecks by identifying the vulnerability of the sources and looking for new sources. In addition, we are developing a vision for the future of the water softening process, which will be implemented step by step, starting with the Voer cluster project to be put out to tender in 2016. The development of the supply network in this area makes it possible to explore energy saving scenarios. The enormous capacity of the reservoirs in Meerbeek allows us to play with the different stations feeding the reservoir, by operating them in relation to energy prices. This is currently being tried out by the Actility trial project, based on a rudimentary model of the area. With the new Mechelen South Supply model, we will be able to assess the Actility principles and specify the basic conditions for Actility in greater detail.

Limburg

New reservoir for Voerstreek and Limburg
The new De Plank reservoir ensures the drinking water supply in the Belgian Voerstreek and in the Dutch province of South Limburg. The reservoir can be fed both from Belgium and from the Netherlands. The new reservoir thus ensures greater security of drinking water supply across borders.

The reservoir consists of two subsurface basins of approx. 1,000 m³ each and a small above-ground entrance pavilion. The subsurface basins are integrated into the existing undulation of the terrain, so that the basins are only visible by a small ripple in the landscape.

An infiltration tank is planned for the reservoir. In the event of a reservoir failure, the water will then be diverted to the infiltration tank. Commissioning is planned for September 2016.

Further development of Limburg registration zones
For better monitoring of the water distribution and active leakage management, De Watergroep developed a multi-annual investment plan for the further development of the number of registration zones in Limburg. To this end, a number of flow meters were installed in the pipe network in 2015.

When we create new registration zones, we try to apply as many pressure reductions as possible, which has a direct positive impact on the volume of leakage losses. At present, we are reducing the pressure for a significant region in Bree-Meeuwen-Peer.

➜ Digital technology for more efficient functioning

Digitisation and automation of work processes

Over the years, thousands of documents and plans have been created and archived within De Watergroep, for all the infrastructure works carried out. Since 2014 we have been working on the centralised access to all these construction data. Plans and other relevant documents covering the entire infrastructure are looked up in paper and digital archives and are then made available through the site portal to all interested parties. Permits, licences, deeds, process flow charts and plans can be searched in one central location.

As a utility, De Watergroep is required by law to be able to locate the underground pipes with regard to the geographical base, the LRD (Large-scale Reference Database). The registration of newly installed pipes is not always fast and accurate. In 2015, a working group was set up to review and optimise the process flow of pipe projects.

SOFTENING PROJECTS

Timing

- Before 2013
- From 2013 on
- From 2015 on
- Planned in 2016
- Planned in 2017
- Planned in 2018
- Planned in 2020
- Distribution area De Watergroep
- Water production centre with softening installation

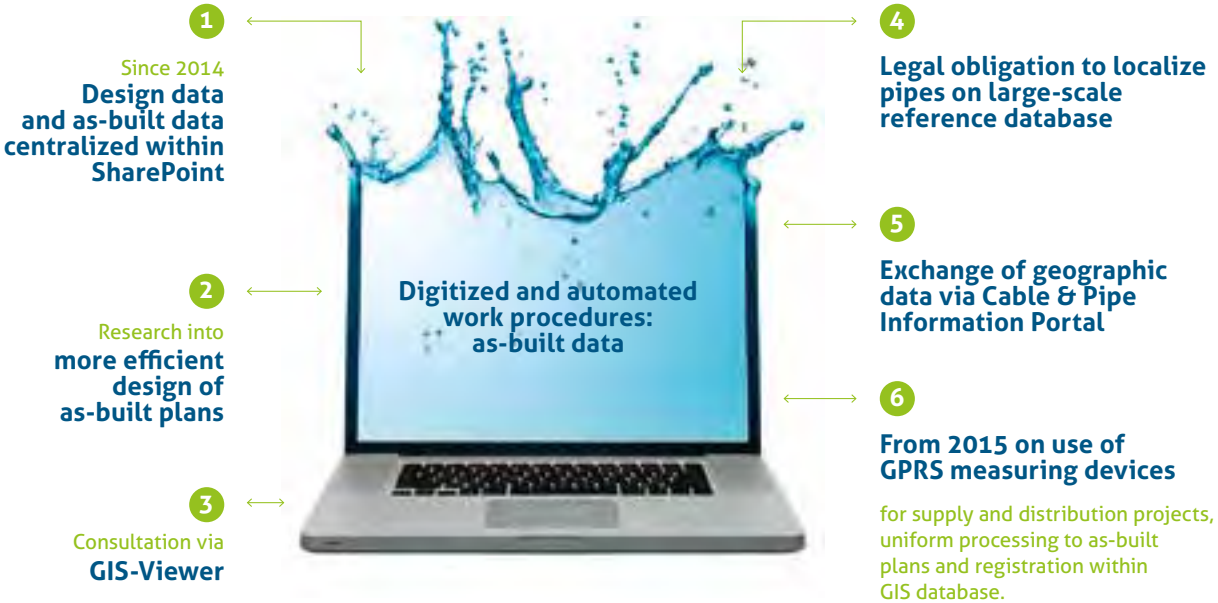
Business Intelligence unit bridges gap between ICT and other departments

For a better view of our corporate data at all company levels, from production to finance, the Business Intelligence unit was set up within the ICT department in 2014.

Business Intelligence collects company data and converts them into information. This information tells us more about our company, allowing us to take corrective operational and strategic action where necessary.

Based on the strategy exercise conducted by the management, **18 information areas were defined. For each of these areas, a contact was appointed to identify the reporting needs**.

To align the activities of all responsible parties, a **Business Intelligence Competency Centre (BICC)** was created. This consultative body bridges the gap between the ICT department and the different administrative units: departments, divisions and business units.



KLIP Digital Phase: De Watergroep as the first fully digitalised utility

KLIP stands for Cable and Pipe Information Portal. The first steps for the KLIP Digital Phase were made already in 2014. Together with an external partner, the construction of the new KLIP application was completed on time and within budget. This allowed De Watergroep to join the new digital KLIP portal as the first Flemish utility company on 1 April 2015.

With the tests, De Watergroep provided useful information to AGIV and other utility companies that were yet to join KLIP, allowing De Watergroep to demonstrate, here too, its pioneering role in technology.

De Watergroep also entered a partnership with the colleagues of SWDE, a Walloon drinking water company, to have plan applications in the Flemish Region to SWDE processed by De Watergroep.

First phase of ERP-GIS integration: water branch pipes in GIS (geographic information system)

In 2013, De Watergroep developed a revised overall GIS strategy. In 2014, we had already made a big step with the successful new GIS viewer. In 2015, we made a first step towards the integration of branch pipe information into the GIS database. This project was started almost immediately after the introduction of the new ERP in June. First we developed a mechanism to export all branch pipes from the ERP and load them into the GIS database. This allows us to define and return spatial parameters to the ERP. In this way, the annual reporting to the Flanders Environment Agency is more efficient and at all times based on up-to-date branching information. The export function is also used to automatically create and display all branch pipes in the GIS applications of De Watergroep. Finally, a test was set up where the ERP process for new branch pipes was linked to the GIS data.

K L I P
D I G I T A L P H A S E

= Cable & Pipe Information Portal

De Watergroep first utility company to be completely digital as from 1 April 2015

Centralisation of dispatching centres: the 'eye' of the drinking water supply

The installations of De Watergroep are fully automated with process pumps, under the supervision of a dispatching centre. This allows on-call staff to monitor drinking water production and transport from home and take timely action where necessary.

The dispatching centres of the different provincial divisions (Ysera, MONA, LISA and Mosal) are currently being centralised. This enables synergy in various areas: uniform working methods, knowledge build-up, single standardised production database, staff exchange facilities - all at reduced operating costs.

The integration of LISA and Mosal has been completed. The integration of Ysera and MONA will be started in 2016. Also the installations of the former IWM will be linked to the central system.

➜ New developments in water technology

Water supply plans and Aquaduct provide security for the future

The Water Technology department has drawn up water supply plans for the provincial divisions of East Flanders, Flemish Brabant and Limburg. Such a **water supply plan** shows how the water catchments and the water distribution can be used in both normal and disturbed conditions. For well-founded water supply plans, operational knowledge and pipe network models developed over the years are essential. These network models reveal the supply security bottlenecks.

The water supply plans specify the potential risks and the investments needed to mitigate those risks. The water supply plans provide an important basis for substantiating the renewal of extraction permits and the technical investment plan of De Watergroep. The water supply plan for the provincial division of West Flanders will follow in 2016.

On 18 December 2015, FARYS|TMVW, water-link and De Watergroep signed an agreement governing the mutual supply of drinking water. The project was named **Aquaduct**. It meets one of the objectives of the Flemish government: optimise the balance between production and consumption through cooperation between drinking water companies. This makes Flanders less dependent on other regions for its drinking water, and increases supply security.

Targeted investments in transport infrastructure - estimated at a total of 70 million euros - will result in an integrated water network. This allows the optimal deployment of the existing water production centres of water-link in Oelegem and of De Watergroep in Kluizen, as well as of the existing storage infrastructure. For this project, water-link is currently building a new water plant in Walem, an investment amounting to 40 million euros. De Watergroep reinforces the transfer of water from the Antwerp catchments to the Ghent Canal zone.

Aquaduct allows us to replace significant water volumes, which are currently purchased outside of Flanders, with cheaper water from the connected production centres of water-link. A total volume of some 20 billion litres per year is involved. The price difference allows us to finance the major investments in the short term. In the longer term, Aquaduct will lead to stabilisation in the pricing of drinking water.

Aquaduct will be developed progressively. The first deliveries are scheduled for 2016. The collaboration will be effective in full force by 2019.

Via asset management to risk management

De Watergroep is increasingly paying attention to the responsible handling of risks, also in the field of assets. For a better view of the situation of the pipe infrastructure, we launched the project 'Technical Asset Management for Pipes' in 2015. A correct diagnosis of the condition of the pipes should result in a more targeted investment programme for the replacement of those pipes that are no longer reliable.

The total replacement cost of our existing pipes for the coming decades is roughly estimated at 17 billion euros. This requires an accurate exit assessment methodology or tool. It is important to distinguish between distribution and supply pipes. For distribution pipes, a general risk matrix is drawn up based on experience which can be further refined by additional inspection techniques. For supply pipes, a pipe-specific risk matrix is drawn up based on experience and network modelling and with mandatory inspection.

In addition to such a methodology, we need ideal inspection techniques and condition measurements for existing pipes. To put this technical asset management into practice and support it logistically, four working groups and one steering group were set up.

Extracting energy from drinking water in Leuven

Together with the city of Leuven, De Watergroep is building an environment-friendly heat pump system to heat and cool the monastery section of the old Park Abbey. The system extracts energy from or imparts energy to the groundwater of the Abdij and Cadol drinking water catchments.

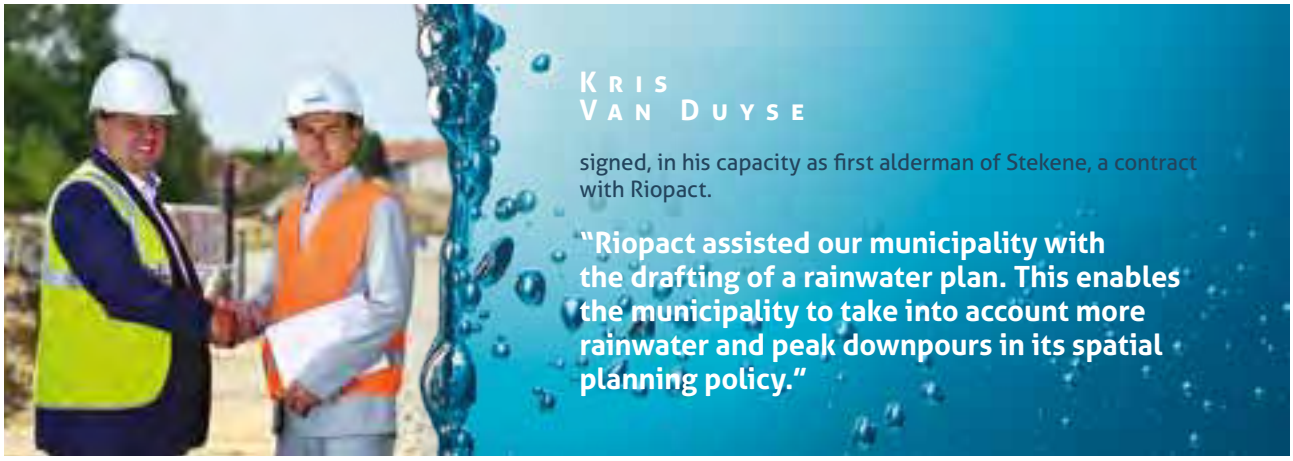
In 2015, a bypass was constructed from the main pipe that carries part of the raw groundwater to the boiler room of the Abbey. The pipes were installed under the ponds using directional drilling. In the boiler room, a heat exchanger was installed on the bypass, which extracts or adds a little heat to the raw groundwater.

The groundwater flows back to the main pipe and is purified downstream to produce drinking water. No water is consumed in this process. All that happens is that a portion of the raw groundwater flows via a bypass to the drinking water treatment installation in Haasrode. There it is mixed with other water, so that the final temperature of the drinking water at the customer's tap changes only a few tenths of a degree.

Together with the city of Leuven, we presented this innovative project on the Energy and Climate day in Leuven, under the motto 'Extracting energy from water flows'.

The installation will be commissioned before the summer of 2016.

Waste water



The Riopact business unit of De Watergroep assists municipalities in ensuring compliance with the European Water Framework Directive by 2027. Riopact brings together the expertise of two experienced partners in waste water management. De Watergroep and its knowledge partner Aquafin together provide a varied service ranging from a total package through to specific services customised to the needs of the municipality.

In 2015, De Watergroep and Aquafin further intensified their collaboration through a silent partnership. This was sealed with a new logo. With our baseline 'partner in local water management', we emphasise not only the collaboration between De Watergroep and Aquafin, but also the importance of the partnership with our partners in achieving together the objectives of the European Water Framework Directive.

riopact

➜ Zemst and Menen become Riopact municipalities

In 2015, Zemst and Menen signed an agreement with Riopact. This brings the number of Riopact municipalities to 48. Riopact municipalities choose for customised sewerage development and management. The municipality remains the owner of the infrastructure and determines itself the objectives and priorities of the partnership. For Oostkamp, Riopact will in future install all sewer connections.

➜ 15 Riopact partners

The number of Riopact partners remained unchanged at 15. When a municipality joins the Riopact partnership, Riopact assumes all of the municipal sewerage duties. Riopact then finances the investment projects and applies for the necessary subsidies. The partnership package was set up to enable municipalities to achieve the Flemish waste water objectives in a timely manner. These objectives derive from the European Water Framework Directive.

Individual accounts for each municipality
All the resources that a municipality receives or makes available for sewerage works are used only for that municipality. As remuneration for the contribution of their sewerage system, the municipalities are given the opportunity to receive a percentage of the economic value of their sewerage in cash, with the remainder being paid out in shares.

RIOPACT IN 2015

riopact
partner in local water management

15 Riopact partners (=)
48 Riopact municipalities (+2)

De Watergroep Aquafin

➜ Rainwater plans: an important step towards a sustainable water policy

The changing climate significantly compounds the management of waste water. In Flanders, it is increasingly being recognised that a different approach to rainwater is required. In their spatial planning, municipalities must make allowance for rainwater and heavier peak showers. A rainwater plan can map out the potential problems and suggest a long-term vision to bring the environment in harmony with water.

More frequent and more intense showers may increasingly lead to flooded streets. In the winter, the groundwater level rises so that the soil saturates and watercourses overflow. In the summer, peak showers result in combined sewers no longer being able to absorb the sudden increase in water, also because of the increasing hardening of the soil. Just discharging the rainwater will not be a solution in this case. In the layout of their public domain, municipalities should make more room for water.

Riopact has all the expertise in house to assist municipalities in the preparation of their rainwater plan. We can simulate the impact of showers of different intensities to propose the right solutions for the rainwater plan to be drawn up for the municipality. Each municipality has its own building density, relief and number of watercourses. Such a rainwater plan will therefore differ for each municipality.

Our extensive area knowledge allows us to look beyond the municipal boundaries when drawing up a rainwater plan. This is necessary, because an intervention in one municipality may have an impact on the water management in another municipality.

Industrial water

Peter Claes

Technical & Prevention Manager with Bravi, a potato processing company based in Sint-Truiden.

"De Watergroep helps us convert industrial wastewater into drinking water, from design through to implementation. Sustainable technological processes allow us to save 100,000 m³ of water with this installation, for both the intake and discharge of water."

De Watergroep's Industry and Services business unit offers customised services to companies that want to work with sustainable water management. Our asset: over a century of experience in water extraction and water treatment. This enables us to provide a suitable solution for a variety of process water installations. For 2015 we can again look back on a number of interesting projects. The annual volume of produced industrial water increased from 5.4 to 6.8 million m³.

➜ Oleon and Fuji Oil

End 2014, the Industry and Services business unit started up the process water installation at Oleon and Fuji Oil, two large industrial companies in the Ghent Canal zone. This is a unique project, because one installation is used to treat the water of two different companies.

- De Watergroep designed, built and pre-financed a process water treatment installation that we also operate, and constructed the surrounding piping.
- We supplied the process water in a new process water buffer of 500 m³.
- We applied for the necessary permits.

The supply capacity is 900,000 m³ annually, with a quality of soft and minimally mineralised process water. The installation comprises ultrafiltration and reverse osmosis, two well known techniques that have also been applied in earlier customised water installations carried out by the business unit.

➜ First commercial contract abroad

The Industry and Services business unit of De Watergroep signed a contract with a Dutch company active as a worldwide supplier of food, agricultural, financial and industrial products and services. It was also the business unit's first international commercial contract.

On 1 June 2015, the Industry and Services business unit took over an existing installation for reuse of effluent from the company. The business unit aims to significantly increase the efficiency of the existing installation. At present, the installation produces less than half of its output on the basis of the company's effluent (effluent = treated waste water). The business unit wants to raise this to 95%.

➜ Additional wash water installation at Bravi

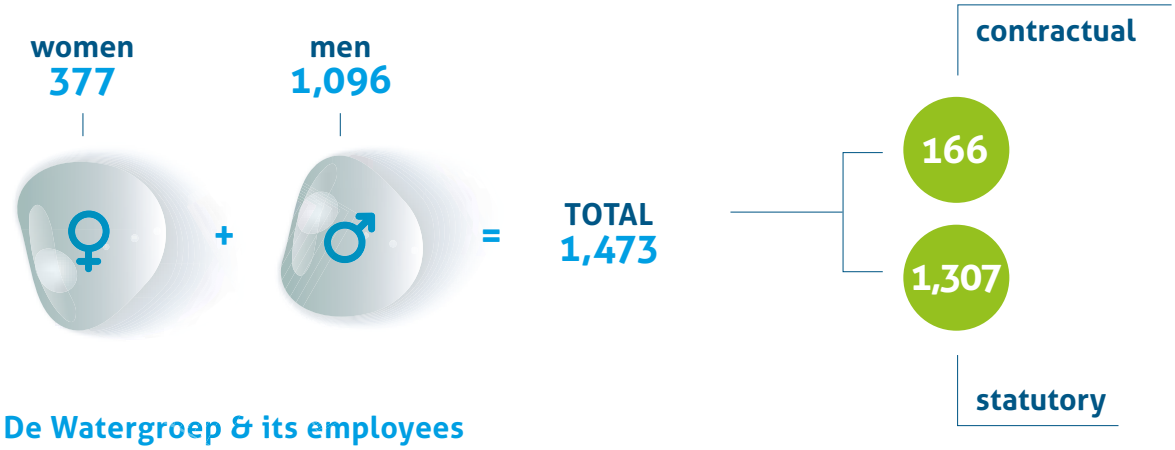
For Bravi, a potato processing company based in Sint-Truiden, the Industry and Services business unit developed an installation that treats the effluent so that it can be reused as process water. Due to the excessive load on the waste water treatment, an additional wash water treatment installation was required.

De Watergroep has already started with the construction of the installation. "If customers experience such problems, we find it important to think along with them in order to come up with the best possible solution," says Frank De Poortere, Director of of the Industry and Services business unit.

For and by people

De Watergroep opts for a sustainable relationship with its customers, its employees and all of its stakeholders. De Watergroep is an open and accessible company within which people are central. Customers and external partners can count on correct service. Employees receive support through training and an appropriate HR policy.

A FUTURE-ORIENTED HR-POLICY



De Watergroep & its employees

➜ New customer platform for more efficient service

On 8 June 2015, De Watergroep commissioned Neptunus, the new company-wide software platform. We now have a single ERP system (Enterprise Resource Planning) on which all business activities are run. This allows us to work more efficiently, speed up customer processes, better plan and monitor interventions, and run specific procedures digitally and automatically.

The Neptunus programme comprises three major sub-projects:

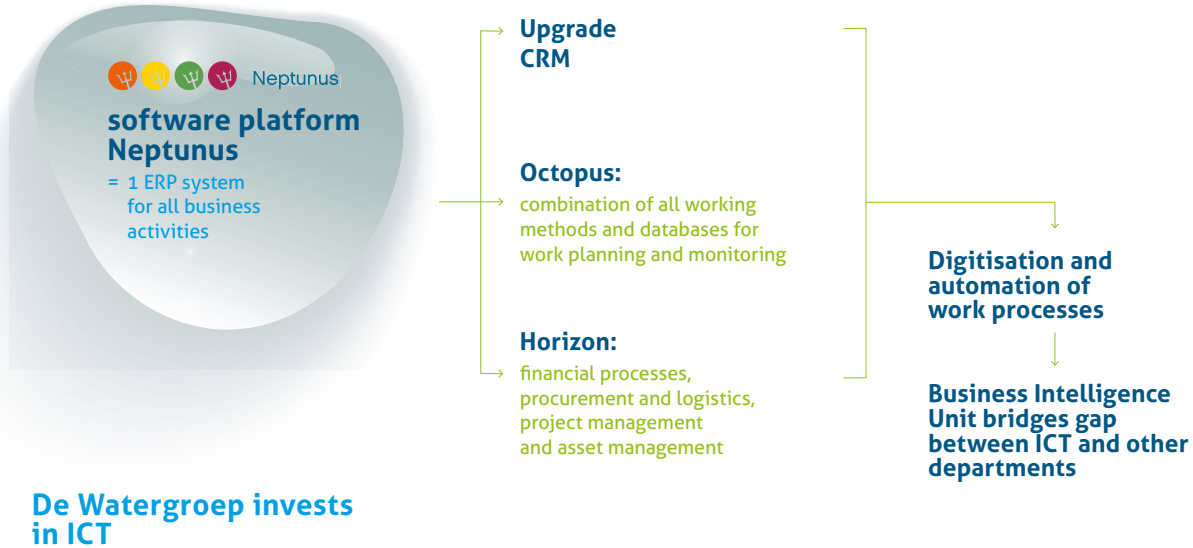
- Upgrade of the customer management system
- Octopus: bringing all of the different working methods and databanks for work planning and monitoring into one system, according to a uniform working method
- Horizon: financial processes, procurement and logistics, project management and asset management.

Why do we do all this?
Neptunus enables us to work better: more efficiently, more effectively, and with a broader overview. This should lead to fewer complaints, less rework and less after-care. Neptunus allows us to report faster and better and to take corrective action where necessary: all customer data, arrangements and the internal planning are now combined into a single system.

In 2015, we also integrated stock management into Neptunus. This has three big advantages for De Watergroep:

- Timely on-site delivery of materials, enabling us to service our customers on time.
- Uniform registration of everything that enters and leaves the warehouse, resulting in a correct inventory.
- Development of knowledge on the quality of the materials that we purchase.

In early 2016, the Flemish government introduced a new water tariff structure. That is why at the end of 2015 a new release of Neptunus was launched, so that De Watergroep could send out water bills based on the new structure as from early January. By early 2017 there will be a **fully functional e-portal** where our customers can complete their main transactions fully online. In this way, we respond to a specific market demand.



De Watergroep invests in ICT

➜ Modern HR policy creates new opportunities

One of the ways in which De Watergroep translates the plan for the future and the corporate value 'sustainable approach to people' is through a modern HR policy. In 2015, the first step was made with a **new job classification system**. The degree of diploma is no longer the basis. Jobs are compared with each other and structured on the basis of responsibility, knowledge, complexity, work conditions, and type of problems encountered.

The new job architecture is the basis for the development of HR processes such as internal mobility, recruitment and selection and talent management, and remuneration. This other and new view of jobs makes it possible to valorise experience, competencies and potential of people and to deploy them where they are needed. Abandoning a degree-driven HR policy creates new opportunities for employees and brings a new dynamic with it. It enhances our attraction as an employer and enables us to attract new talent.

➜ De Watergroep develops a leadership culture

As a **leading water company in Flanders**, De Watergroep creates a culture that is open to the monitoring and integration of future developments. It should be possible for employees to think out of the box in all areas of our organisation. To this end, De Watergroep develops and perpetuates a **leadership culture**: already in 2014 we laid the first foundations for our future mangers as part of the career paths programme. In 2015, we moved up a gear with the leadership training programme for our current middle management and executives..

➜ Values gain importance in performance management

In 2015, De Watergroep introduced a **new appraisal system**. The old system focused primarily on the **actual** performance of an employee over the past year. In the new system, the emphasis is also on the importance of **how** an employee performs. The 'how' refers to how the employee functions on the work floor. This brings out the values. We want to imbue all employees with our **values**, so that we all work towards the same goals. Objectives and value perception are now treated on an equal footing in the appraisal.

➜ Proud of our product

Tap water is the most rigorously tested food product - a fact that deserves to be emphasised more widely. That is why De Watergroep has resolutely opted for product promotion. In the summer of 2015, a **second water bar** was put into service, which immediately was deployed at sporting and cultural events.

In addition, we started preparations for extending the drinKraantjeswater project from Limburg to the entire operational area of De Watergroep.

drinKraantjeswater (drink tap water) is a Limburg project that was launched in 2009. The current partners are intercommunal waste company Limburg.net and De Watergroep. The purpose of the project is to convince as many people as possible of the advantages of tap water: it tastes good, it is environment friendly, cheap, and healthy.

>> More at www.drinkraantjeswater.be

PROUD OF OUR PRODUCT

tap water
= most rigorously tested food product

→ **Product promotion**
via water bars

→ **Project drinKraantjeswater (drink tap water)**
convince Flemish people of the advantages of tap water:
tasty / environment friendly / cheap / healthy

➜ New visitor centre De Rietgors in Kluizen

On 25 September 2015, De Watergroep officially inaugurated the new visitor centre of the Kluizen water production centre. Rare bird species are regularly spotted around the Kluizen reservoirs, so the visitor centre was named after a protected songbird: 'De Rietgors' (common reed bunting). On Sunday 4 October, the general public could visit the entire water production centre during the Company Discovery Day.

In the spring of 2015, around 25 employees of De Watergroep moved into the new administrative centre with a visitor area for 60 people. In addition to the logistical facilities of the building, with changing and washing rooms for the staff and also the canteen, there is is a new laboratory for production control. The old buildings (office containers) were sold.

➜ Leuven offices renovated

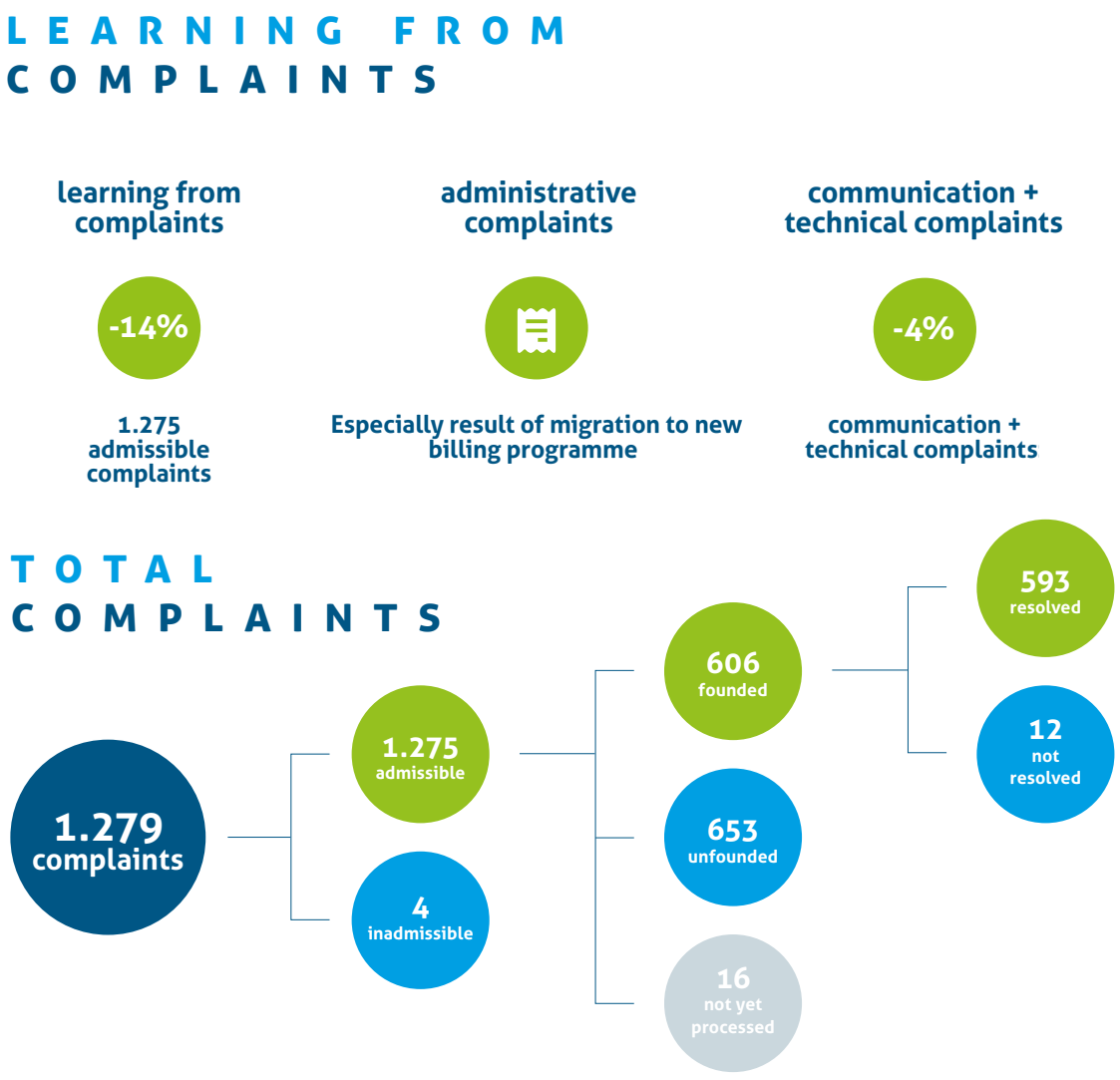
On 30 November 2015, mayor Louis Tobback officially inaugurated the renovated office building of the provincial division Flemish Brabant of De Watergroep, in the heart of Leuven. With this renovation, De Watergroep consolidates its presence in the city. The whole building was overhauled and given a thorough freshening-up. Walls were torn down to create more open spaces; differences in height were eliminated; lift, sanitary facilities and floor covering were renovated, and all windows and doors were given a new lick of paint. Also the electricity was renovated and the building equipped with access control, camera surveillance, and a new fire and burglary detection system. Finally, the outside of the building received a face-lift. The building now forms one whole and can be clearly identified as such by passers-by.

"With all these modifications we want to create a safe and modern work environment for all of the 65 employees in this office, so that we can provide an even better service to our 723,000 customers in Flemish Brabant," says Herman Van Autgaerden, President of the Board of Directors.

➜ Learning from complaints

In 2015, De Watergroep received 1,279 complaint reports. This is 14% less than in 2014. Of these complaints, 1,275 were declared admissible. Of this number, 606 were founded and 653 unfounded. Of all founded complaints, 16 had not yet been processed, 13 not resolved, and 593 resolved by the end of 2015.

Fewer communication complaints
Despite the difficulties surrounding the migration to the new billing programme, the complaint service reported a 4% decrease in the number of founded communication complaints. These complaints are due, for example, to the late scheduling of works, so that we cannot respect the regulatory period of three working days for issuing a warning. Last year there were 7% fewer complaints about 'unfriendly staff' than in 2014. To ensure that our customers always receive correct information, we are organising **an intensive training programme for the front and back office staff** on the application of regulations and on a customer-oriented service approach. We are expanding our **digital services to customers with an electronic customer portal (e-portal)** with special attention to user friendliness.



Technical complaints

We also received technical complaints and reports relating to the water quality. In 2015, West Flanders was faced with the ageing pipe network in Wingene. A number of drinking water pipes have already been replaced, but further investments remain necessary, in synergy with other public works to be carried out. In Tongeren, customers experienced a temporary problem with abnormal scale accumulation in the pipes. Other complaints were related to 'discoloured' water following works on the pipe network, abnormal chlorine smell, and rust in the pipes. A new action point for 2016 is the **awareness raising of contractors** working on behalf of De Watergroep on **quick and correct monitoring of complaints about late and poor repair of pavements or driveways**.

Raising awareness

In 2015, the lead time of the central complaint handling unit was on average 30 days. In 2014, this was still 31 days. The complaint service each year endeavours to shorten the lead time.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De Watergroep

WATER. VANDAAG EN MORGEN.

www.dewatergroep.be

jaarverslag2015.dewatergroep.be

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