

# Annual Report 2017



From source to tap  
... and back



De Watergroep  
WATER. VANDAAG EN MORGEN.



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# FOREWORD BY THE PRESIDENT



Today, in 2018, **'sustainability'** and **'circular thinking'** have become economic buzzwords. At De Watergroep, however, these principles are by no means new. Indeed, we have for quite some time been working towards a sustainable water supply, we support our municipal partners in achieving future-proof wastewater management, and we develop customised water solutions for our industrial customers.

For our **drinking water production** we are dependent on natural resources: groundwater or surface water. We have every interest to deploy these resources in a future-oriented way, so that they will be able to also provide the next generations with drinking water. In the context of climate change, we explore innovative scenarios for using new water supplies. This future-oriented approach is one of the reasons that convinced 11 municipalities from the Flemish Periphery around Brussels to make the switch to De Watergroep at the beginning of 2018. Other considerations that certainly came into play were the attractive commercial proposal and the fact that most of the customers involved would be charged a lower drinking water tariff. I would hereby like to extend a warm welcome to our new customers and partners.

The drinking water that we supply is discharged as **wastewater** into the sewer system. Through Riopact, a partnership between De Watergroep and Aquafin, we assist and advise municipalities on all matters related to their wastewater management. We are delighted that our new partners Wezembeek-Oppem and Kraainem also decided to become Riopact partners. In doing so, they opt for a total solution that relieves them of the burden associated with achieving the wastewater targets. They work together with us to create a healthy water environment that is fit to live in.

For our industrial customers we complete the circle. For them we produce **'customised water'** using purified wastewater or other renewable sources. At Colruyt, we commissioned a second system that treats rainwater to drinking water standards. At potato processor Agristo, we produce process water using water from the Leie, with expansion possibilities for the reuse of wastewater. For all our industrial water projects combined, we produced more than 7 million m<sup>3</sup> of process water for the first time in 2017.

Our knowledge and expertise puts De Watergroep in a strong position to go one step further, while focusing on the social, economic and climatic challenges that lie ahead. By keeping our fingers on the pulse of the latest technological advancements, by being receptive to innovation and partnerships, by having the courage to investigate also alternative drinking water sources, we can continue to ensure a high-quality and customer-oriented drinking water supply.

To enable us to flexibly adapt to changing environmental factors, we launched our **Meander** reorganisation project in 2017, for the purpose of transitioning our company from a provincially organised to a process-driven organisation. This project is much more than a reorganisation: it marks a cultural shift to a learning and innovative company with the focus on our changing environment. I would like to thank our employees who have worked so hard and with such enthusiasm on this project, and who have also made it possible for me to present this annual report with some excellent financial results.

Mieke Van Hootegem  
President of the Board of Directors

# ABOUT DE WATERGROEP



## “11 new municipalities and 58 new colleagues”

‘With almost 193,000 new customers, 64,500 take-off points and 58 new colleagues for De Watergroep, we, together with a whole team, successfully finalised the acquisition dossier of 11 municipalities from the Flemish Periphery around Brussels.’



**Heleen Hulpiau**  
Manager of exploitation, production and storage

## → 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

### Board of Directors



From left to right.: Staand: Eric De Keyser, Dirk Claes, Hedwig Kerckhove, Michiel Van Peteghem, Gunther Coppens, Francis Bosmans, Dirk Robbeets, Luc Vande Caveye, Hans Goossens, Gerald Kindermans - Zittend: Danny Deneuker, Kristel Gevaert, Mieke Van Hootegem, Laurence Battaille, Luc Asselman - Niet op de foto: Annie Mervillie, Mieke Offeciars, Van De Wiele, Charlotte Van Strydonck, Christel Verlinden, Pieter De Cuyper

#### **President**

Herman Van Autgaerden (until 10 November 2017)  
Mieke Van Hootegem (from 10 November 2017)

#### **Vice-Presidents**

Luc Asselman (from 30 June 2017)  
Danny Deneuker (from 30 June 2017)  
Kristel Gevaert  
Tania Janssens (until 9 June 2017)  
Albert Vandezande (until 9 June 2017)

#### **Directors**

Luc Asselman (tot 30 juni 2017)  
Francis Bosmans  
Dirk Claes (vanaf 9 juni 2017)  
Gunther Coppens (vanaf 10 november 2017)  
Jozef De Borger (tot 9 juni 2017)  
Eric De Keyser  
Danny Deneuker (tot 30 juni 2017)  
Hedwig Kerckhove

Gerald Kindermans

Annie Mervillie

Dirk Robbeets

Luc Vande Caveye

Mieke Van Hootegem (tot 10 november 2017)

Christel Verlinden (vanaf 9 juni 2017)

Charlotte Van Strydonck

#### **Independent Directors**

Laurence Battaille (from 9 June 2017)

Mieke Offeciars-Van De Wiele (from 9 June 2017)

#### **Government Commissioners**

Michiel Van Peteghem, Government Commissioner of the Flemish Minister for the Environment, Nature and Agriculture

Pieter De Cuyper, Government Commissioner of the Flemish Minister for Finance and Budget

## Management Committee and Management Team



From left to right. Sammy Wuyts, Jan Hammenecker, Hans Goossens, Eddy Troosters, Paul Suenens

The **Management Committee** consists of:

- ◆ Hans Goossens, Director General
- ◆ Jan Hammenecker, Director Market and Customers
- ◆ Sammy Wuyts, Director Business Support Services
- ◆ Eddy Troosters, Director Distribution and Supply
- ◆ Paul Suenens, Director Production and Storage

The Management Committee is responsible for the day-to-day management of De Watergroep, and translates the policies defined by the Board of Directors into operational priorities. The gross wages of the 5 members of the Management Committee amounted to € 612,880 in 2017.

The **Management Team** is composed of:

- ◆ Hans Goossens, Director General
- ◆ Raymond Bellemans, Director HR
- ◆ Marc Buysse, Project Manager Business Process Re-Engineering
- ◆ Bert De Winter, Director Innovation
- ◆ Jan Hammenecker, Director Market and Customers
- ◆ Rudi Hilven, Head of ISPP
- ◆ Luc Keustermans, Director Strategic Projects
- ◆ Frederik Looten, Director External Relations
- ◆ Paul Suenens, Director Production and Storage
- ◆ Eddy Troosters, Director Distribution and Supply
- ◆ Sammy Wuyts, Director Business Support Services

The Management Team is responsible for the implementation of the longer-term objectives and strategy.

## → Functioning of the Administrative

### Bodies

The **Board of Directors** is composed of 16 members and a president.

- ◆ **8 of the 16 members** were appointed by the Flemish Government:
  - ◆ 2 directly by the Flemish Government,
  - ◆ 4 on the recommendation of the partners
  - ◆ 2 independent directors on the recommendation of the Board of Directors of De Watergroep.
- ◆ **The other 8 members** were appointed by the **General Assembly**, on the recommendation of the partners.

The members of the provincial water services of West Flanders, East Flanders, Flemish Brabant and Limburg sit on the **Provincial Committees**.

### Central Administrative Bodies

#### *Changes to the Board of Directors*

The terms of office of Mrs Tania Janssens, Mr Albert Vandezande and Mr Jozef De Borger expired at the General Assembly of 9 June 2017. The General Assembly appointed Mrs Christel Verlinden and Mr Dirk Claes as new directors on the recommendation of the Flemish Brabant partners.

The Flemish Government also renewed the terms of office of Mrs Mieke Van Hootegem and Mr Luc Asselman and of Mr Francis Bosmans, nominated by the Limburg partners. These terms of office also began on 9 June 2017 and run for a period of 3 years.

By decision of the Flemish Government of 19 May 2017, Mrs Laurence Battaille and Mrs Mieke Offeciers-Van De Wiele were appointed as independent director of De Watergroep for a 3-year period, on the recommendation of the Board of Directors of De Watergroep.

In early November, Mr Herman Van Autgaerden resigned as President of the Board of Directors. On 10 November, the Flemish Government appointed Mrs Mieke Van Hootegem as the new President and Mr Gunther Coppens as member of the Board of Directors. Mr Herman Van Autgaerden, who had been President since February 2014, managed the Board of Directors in a constructive and enthusiastic manner during this period. He was the

driving force behind the amendment of the Articles of Association as adopted by the extraordinary general assembly of 8 December 2017 and the internal reorganisation currently being implemented by De Watergroep. These organisational changes should enable us to work even more efficiently and provide an optimum service to our customers and partners.

#### *Activities of the Board of Directors*

The Board of Directors convened 17 times in 2017. The average attendance percentage was 86%.

The following **committees** were active 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 Internal Affairs Committee and the External Affairs Committee were abolished by resolution of the Board of Directors of 31 March 2017.

The committees provide advice on their assigned files. The average attendance rate for the committees was 80%.

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 comply with the decision of the Flemish government of 9 March 2007 on the remunerations of directors of external independent agencies of the Flemish government, and of government representatives overseeing these agencies.

The remunerations are published on the website of De Watergroep.

#### *Amendment of the Articles of Association for further simplification of administrative bodies*

The Extraordinary General Assembly of 8 December 2017 approved an amendment to the Articles of Association whereby the administrative bodies of De Watergroep are further simplified.

De Watergroep is currently making the switch from a **provincially organised company** to a **process-driven company**. As a logical consequence of this evolution, we are also abandoning the provincial division of our administrative bodies. A transparent administrative structure clearly defines the role and the added value of each body.

To enable the shareholders to carry out their supervisory task, express their vision of the functioning of De Watergroep, and voice their ideas and concerns, they are given a forum in the **shareholder board**, which will meet at least quarterly. This shareholder board will replace the current provincial offices and committees.

From January 2019, there will be only one drinking water service and one sewage service, each having one shareholder board. The municipal and provincial partners are represented on these shareholder boards. For practical reasons, the meetings will still be organised at regional level.

The Board of Directors will comprise 13 members instead of 17 from 2020. In accordance with the Corporate Governance Decree and the Local Administration Decree, 5 of the 13 directors will be independent directors.

## 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 table below summarises the functioning of the Provincial Offices in 2017:

Province	Number of meetings	Attendance rate
West Flanders	11	89%
East Flanders	9	91%
Flemish Brabant	10	93%
Limburg	10	68%

The table below summarises the functioning of the Provincial Committees in 2017:

Province	Number of meetings	Attendance rate
West Flanders	3	80%
East Flanders	3	80%
Flemish Brabant	4	81%
Limburg	4	55%

**RioP water services.** RioP water services for waste water management are active in West and East Flanders and in Flemish Brabant. 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 Provincial RioP Committees in 2017:

Province	Number of meetings	Attendance rate
West Flanders	5	87%
East Flanders	3	52%
Flemish Brabant	3	93%

## → Good governance and responsible business practices

*The core mission of De Watergroep is to produce and supply high-quality drinking water to more than 3 million customers. Doing so on a daily basis requires well-thought-out and efficient risk management. In addition, we consider it our social responsibility to also put developing countries on the path towards a sustainable drinking water supply.*

### Well-thought-out and efficient business risk management

*Sound business risk management means in practice that we set up potential scenarios and take measures that mitigate the risks and enable us to swiftly and effectively deal with the possible consequences. In 2017, the focus was on mapping out a new organisational structure, drawing up water supply and water safety plans, and managing the financial risks. Risk management and internal audit are closely interrelated. Internal audit evaluates whether enough internal audit mechanisms are in place to mitigate the business risks and checks whether the audits are effectively implemented.*

#### *New organisational structure*

To continue to play its role as a leading water company, De Watergroep is making the switch from a geographically organised to a process-driven organisation, with more attention being paid to knowledge transfer and innovation. The focus on innovation should enable De Watergroep to embrace new developments and trends for turning the challenges of water supply in Flanders into opportunities. To this end, an appropriate vision for the future is being developed within strategic working groups.

#### *Water supply plans and water safety plans*

The main risk for De Watergroep is that it fails to perform its core task: to supply high-quality drinking water 24 hours a day and 7 days a week. Possible causes include inadequate access to water resources or contamination of the drinking water.

To obtain a clear overview of the available water reserves, the **water supply plans** were completed in 2017. These plans were drawn up for the total supply area, subdivided into individual supply areas, which in turn consist of multiple consumption areas. In addition to an overview of the technical infrastructure, the supply plan includes, for each consumption area, the capacity and

the supply under undisturbed conditions. For an insight into the robustness of the supply security, the plan details, for each facility or main pipeline, how failure of the water supply can be dealt with via the available reserve capacity and/or via connections with other areas. This strength/weakness analysis is used to determine the investments needed to improve the supply security, such as expanding the groundwater or surface water extraction capacity, increasing the purification capacity, reinforcing the supply network or connections with other drinking water companies.

To mitigate the quality risk, **water safety plans** were drawn up in which all current and future risks related to the extraction, purification and distribution of drinking water are identified and accurately inventoried. Expert groups have assessed the threats and determined the risk. Risk management is a continuous process. That is why the water safety plans are periodically tested and reviewed. A water safety plan coordinator has been appointed who is responsible for planning and monitoring the planning and control cycle. This enables us to better safeguard the continuous supply of high-quality water, now and in the future.

In addition to the water safety plans, a 24/7 on-call service, efficient IT and communication systems, and a well-designed sampling programme ensure optimum control. Long-term agreements with other drinking water companies and the development of an emergency drinking water supply in consultation with AquaFlanders also allow a rapid solution to be made available and a minimal customer service to be provided in the event of calamities.

#### *Financial risks*

**Default risk** and **interest rate risk** are considered to be the main financial risks.

To limit the **default risk**, De Watergroep relies on a well-developed internal default risk management system. Intermediate invoices are issued on a quarterly basis to ensure that the risk per outstanding drinking

water invoice remains limited. Where these measures fail to ensure timely collection, use is made of the external debtor management, which is split up into an amicable and a judicial phase.

The **interest rate risk** is managed by addressing both cause and effects. De Watergroep aims to limit the debt burden by the preparation of a long-term investment plan, an expenditure budget and a comprehensive monitoring system for optimal debt ratio management. Thanks to continuous monitoring of outstanding loans and a maximum spread over maturities, providers and expiry dates, the financial risk remains limited. Details about the maturity profile and the spread of outstanding debts can be found in the financial report.

### Internal audit

The company EY performs the internal **audit activities** as an independent party. The audit findings are directly reported to the **Audit Committee**. The members of the Audit Committee have been appointed by the Board of Directors and their role is to oversee the internal control systems (including risk management). Internal Audit and Risk Management are closely interrelated. The risk assessment is used to draw up the triennial audit plan. The Business Risk Management department coordinates internally with the divisions and departments on the drawing up of an action plan to concretely address the issues from the audits. The task of the Audit Committee is to assess whether these action plans are adequate to cover the risk, to which end it receives a status of open and closed findings in the form of a follow-up audit every six months.

**In 2017, in addition to two follow-up audits, the following subjects were audited:**

#### Public contracts and delegation agreement

The purpose of this audit was to analyse the existing working methods, risks and controls in relation to public contracts and (sub)delegation. Incomplete management and reporting of delegated powers was identified as a high-risk audit finding. This will be included as part of the reorganisation in 2018.

#### IT audit of production and supply

The purpose of this audit was to delineate the roles and responsibilities within the production and supply processes and to identify the risks of the IT environment

of the production and supply operations. In some cases, the back-up equipment is also used for other purposes, which involves a high risk. The management has undertaken to rectify the situation in the course of 2018.

#### Audit for financial system leaks

The purpose of this audit was to identify errors in payments, weaknesses in the internal control and opportunities for higher operational efficiency within the Creditors department and the associated activities of the purchasing process. A very small number of anomalies were detected during this audit. No high-risk findings were recorded.

#### Audit of internal charging to business units

This audit focused primarily on the presence or absence of formal agreements on the charging of costs and on the completeness, timeliness and accuracy of costs charged to the business units. No high-risk findings were recorded.

#### Knowledge management audit

The purpose of this audit was to map the 'high level' knowledge of De Watergroep and to identify any deficiencies in knowledge management. Only the findings related to vision and strategy were considered as high-risk findings. To follow up on the findings, the Director of Innovation has the final responsibility to develop, promote and translate the vision into objectives that are embraced and supported by the entire management team. The vision will be developed in the course of 2018.

### Cross-border engagement: a better drinking water supply for Ituri (RD Congo)

*In line with its vision of sustainability and social commitment, De Watergroep also aims to ensure equitable and sustainable water management in developing countries. In 2017, De Watergroep provided advice on the development of a sustainable drinking water supply in Ituri (DR Congo). This project is being undertaken in the framework of the Flemish Partnership Water for Development and in collaboration with Protos, a non-governmental organisation (NGO).*

Ituri is a district in the north-eastern part of DR Congo. In Ituri, Protos, together with a Congolese partner, has for over 30 years been working on the development of drinking water and sanitary facilities. The 13 drinking water systems installed there provide half a million people with water. However, this is still only slightly more than 10% of the population. Since 2014, thanks to a new law, local communities in DR Congo have been able to organise their drinking water supply. The project supported by De Watergroep assists them in this process.

De Watergroep provides not only financial support to these local communities, but also knowledge and expertise. It does so, among other things, by providing technical support for water supply projects, by providing training and by formulating proposals for an overarching support structure.

The project runs until the end of 2018. By that date, the 13 drinking water committees in Ituri must work more efficiently and support 558,000 water users.



## → Welcoming 193,000 new customers from the Flemish Periphery

Following the decision of the Flemish partners to withdraw from IWVB/Vivaqua, 11 of them decided to make the switch to De Watergroep. As a result, on 1 January 2018, De Watergroep saw the number of take-off points grow by 64,500 and its customer base by 193,000 new customers. Six of the 11 municipalities already belonged in part to the service area of De Watergroep, bringing the total service area to 180 municipalities.

All parties involved worked closely together to make the switch as smooth as possible for customers and partners alike. For most customers, the switch to De Watergroep implies a significantly lower drinking water bill.

### Also 2 new Riopact partners

Two municipalities chose De Watergroep not only for their drinking water supply: Kraainem and Wezembeek-Oppeem also joined as Riopact partner, thereby entrusting their sewage management to De Watergroep and Aquafin partnership.

	Additional number of take-off points	Additional number of inhabitants
Dilbeek	14.500	41.262
Grimbergen	3.102	12.967
Halle	10.296	30.597
Kortenberg	2.244	7.084
Kraainem	4.529	13.637
Merchtem	294	813
Sint-Genesius-Rode	6.612	18.107
Sint-Pieters-Leeuw	10.537	33.371
Steenokkerzeel	2.427	6.677
Tervuren	5.363	14.436
Wezembeek-Oppeem	4.583	13.949

## → Key figures

### Situation on 31-12-2017

	2017	2016
<b>Production (million m<sup>3</sup>)</b>		
- Groundwater	94,36	91,74
- Surface water	35,94	35,16
<b>Total</b>	<b>130,30</b>	<b>126,80</b>
<b>Purchased from third parties (million m<sup>3</sup>)</b>		
- SWDE	26,37	26,48
- water-link	5,74	4,41
- Farys	10,89	9,62
- Other	1,45	1,37
<b>Total</b>	<b>44,46</b>	<b>41,88</b>
<b>Sold to third parties (million m<sup>3</sup>)</b>		
- SWDE	3,37	3,58
- Farys	3,99	1,85
- Other	0,49	0,49
<b>Total</b>	<b>7,84</b>	<b>5,92</b>
<b>Supply units</b>		
- In service	1.341.360	1.324.738
- Existing	1.361.514	1.342.540
<b>Municipalities in service area</b>		
- Fully supplied	158	158
- Partially supplied	17	17
<b>Total</b>	<b>175</b>	<b>175</b>
<b>Population</b>		
	3.027.595	3.021.102
<b>Capital</b>		
Subscribed capital (euros)	902.640.250	902.640.250
Number of shares	39.505.610	39.505.610
<b>Employees</b> (average for 2017)		
Statutory	1.284	1.300
On contract	184	172
<b>Total</b>	<b>1.468</b>	<b>1.472</b>

# DRINKING WATER



## “Nowhere without drinking water”

‘During the extremely dry period in June 2017, a number of water production centres, including the water production centre that uses water from the Dikkebus pond, were shut down. Thanks to De Watergroep’s decision to spread its focus across different sources, from groundwater and surface water as well as from deep and shallow groundwater extraction wells, the drinking water supply did not come under threat anywhere during the drought.’



**Ingrid Keupers**

Hydrologist in the Water Sources and Environment department

De Watergroep supplies high-quality drinking water to over 3 million Flemish citizens. Building on a sustainable and future-oriented vision, we invest in our infrastructure, in new technology and in the sustainable management of our raw water sources. This enables us to prepare for the challenges ahead.

## → Drinking water production in facts and figures

### Key figures of drinking water



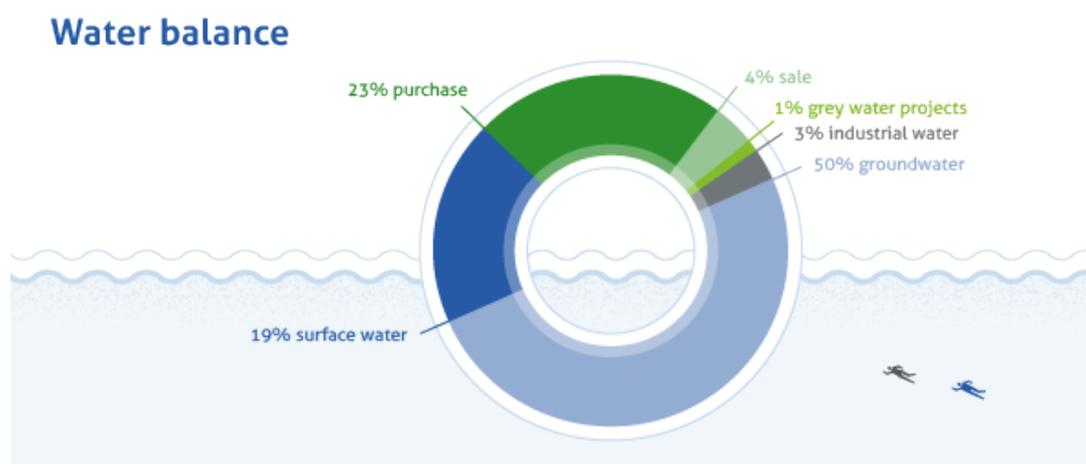
- ◆ In 2017, De Watergroep **produced** 130,296,499 m<sup>3</sup> of drinking water. This is **2.68% more** than in 2016.
- ◆ The **available volume** of drinking water for our own customers amounted to 166,910,676 m<sup>3</sup>, an increase of 2.49%.
- ◆ In addition, De Watergroep provides 5,471,009 m<sup>3</sup> of **'other water'** or custom water: this is industrial water produced on site at industrial customers.

Water volume (m <sup>2</sup> )	West Flanders	East Flanders	Flemish Brabant	Limburg	Total	2016-2017
Water available in own installations following treatment	37.502.559	17.091.203	28.351.601	47.351.136	130.296.499	+2,68%
Purchased from other provincial water services		1.625.094	823.699	155.501	2.604.294	
Purchased from third parties	12.745.879	13.074.761	17.493.641	1.142.796	44.457.077	+6,16%
Sold to other provincial water services		5.604	1.780.595	818.095	2.604.294	
Sold to third parties	1.347.094	3.960.952	2.372.176	162.678	7.842.900	+32,52%
<b>Available volume of drinking water</b>	<b>48.901.344</b>	<b>27.824.502</b>	<b>42.516.170</b>	<b>47.668.660</b>	<b>166.910.676</b>	<b>+2,49%</b>
Volume made available for grey water (from water production centre)	1.568.796				1.568.796	+2,96%
Available other-water volume	635.802	2.015.321	1.933.118	479.411	5.063.652	+3,92%
Available other-water volume (Netherlands)					5.471.009	+3,50%

**Water purchases** increased by 6.2%. In 2017, De Watergroep purchased more water mainly from Farys and water-link. **Water sales** increased by 32.5%. De Watergroep sold more water mainly to Farys (+ 2 million m<sup>3</sup>).

The net result of this water balance is that the **total available volume of drinking water** for distribution to customers increased **by 2.5% compared to 2016**.

At De Gavers water production centre, we also produce '**grey water**' for our industrial customers. This volume rose by 3%. The available volume of **industrial water** produced on site of our industrial customers also increased by 3.5%.



## ➔ Number of inhabitants and supply units

**More inhabitants.** The number of inhabitants in the service area of De Watergroep rose by 0.21% from 3,021,102 at the end of 2016 to 3,027,594 at the end of 2017.

**More supply units.** The number of supply units in service rose by 16,622 units (+ 1.28%) from 1,324,738 at the end of 2016 to 1,341,360 at the end of 2017.

**Same number of municipalities.** The service area of De Watergroep consists of 175 municipalities, 158 of which are fully and 17 partially supplied.

### Number of inhabitants on 31 December 2017

Provinces	2017	2016	increase	% increase
West Flanders	817.945	817.158	787	0,10%
East Flanders	563.855	561.812	2.043	0,36%
Flemish Brabant	775.500	772.198	3.302	0,43%
Limburg	870.294	869.931	363	0,04%
<b>Total</b>	<b>3.027.594</b>	<b>3.021.099</b>	<b>6.495</b>	<b>0,21%</b>

### Number of supply units in service as per 31 December 2017

Provinces	2017	2016	increase	% increase
West Flanders	372.763	368.238	4.525	1,23%
East Flanders	251.488	248.206	3.282	1,32%
Flemish Brabant	331.306	327.068	4.238	1,30%
Limburg	385.803	381.226	4.577	1,20%
<b>Total</b>	<b>1.341.360</b>	<b>1.324.738</b>	<b>16.622</b>	<b>1,28%</b>

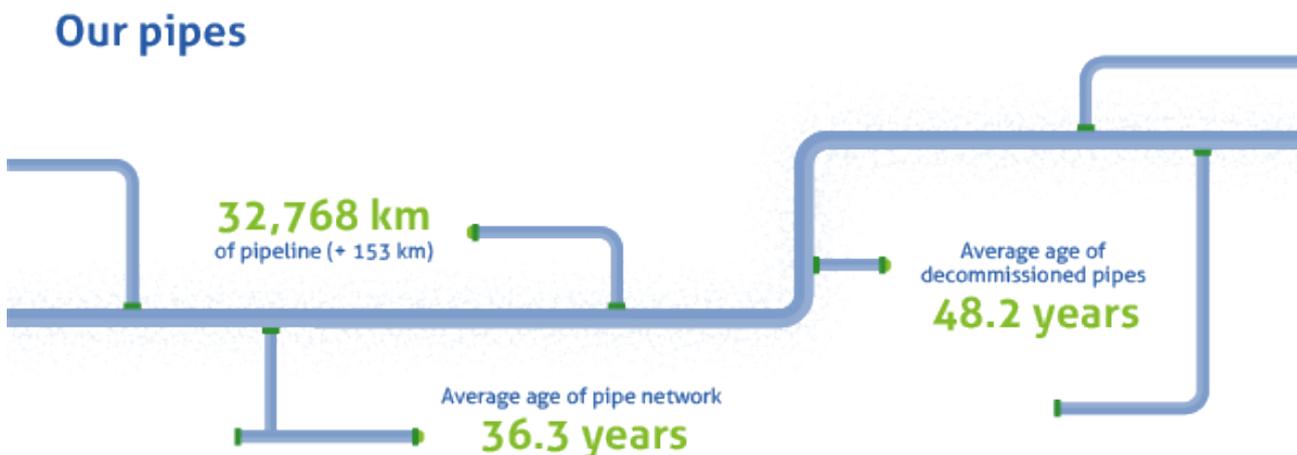
## → 32,768 km of pipes

On 31 December 2017, the pipe network of De Watergroep had a total length of 32,768 km. The natural expansion of the network was 153 km. This is the difference between the length of newly constructed pipes and the length of the pipes removed from service.

Pipe network length (km) On 31-12-2017	West Flanders	East Flanders	Flemish Brabant	Limburg	Total
New in 2017 (a)	148,2	87,6	87,7	118,4	442,0
Out of service in 2017 (b)	99,1	58,9	61,0	70,0	289,0
Expansion in 2017 (a)-(b)	49,1	28,8	26,7	48,4	153,0
<b>Total network in service as of 31-12-2017</b>	<b>10.356</b>	<b>5.133</b>	<b>7.968</b>	<b>9.311</b>	<b>32.768</b>

## Average age of pipe network again slightly higher

The pipe network has an **average age of 36.3 years**. The pipes **taken out of service in 2017** were on average **48.2 years old**, which is slightly lower than in 2016.



## → Quality from source to tap

Supplying high-quality drinking water. This is and will remain our core task. We take thousands of samples to monitor the quality of our product, from source to tap. We also invest in new technology that allows us to analyse samples faster and more efficiently and to respond to any future threats. An audit confirmed that our laboratory conforms to high standards.



## Analyses prove that drinking water quality is excellent

In 2017, the laboratory of De Watergroep analysed 39,427 samples, 5% more than in 2016. This increase is mainly due to more intensive monitoring of our raw water sources, both groundwater and surface water. There was also an increase in the number of samples for follow-up of the water treatment processes.

### Three types of audits

The **statutory monitoring** covers the analyses of:

- the raw water sources (groundwater and surface water),
- the produced drinking water at the outlet of the water production centres
- the water during storage in water towers and reservoirs
- the water supplied to customers.

The **operational audits** cover:

- the analyses of the water treatment processes,
- the analyses during repairs and extensions to the distribution network
- the samples for industrial water projects of the Industry & Services business unit.

Finally, the laboratory also carried out a limited number of **analyses for third parties**.

The distribution of the number of samples in 2017 is shown below:

### Three types of parameters

Drinking water must meet stringent requirements, as prescribed by the Decision of the Flemish Government of 13 December 2003 regulating the quality and supply of water intended for human consumption. More than 60 parameters or parameter groups have to be analysed.

These parameters are subdivided into the following categories:

- ◆ The **microbiological parameters of list A** include indicator organisms that may indicate faecal contamination of the drinking water.
- ◆ The **chemical parameters of list B** include substances presenting a potential health risk. Examples of these substances are nitrogen compounds, a number of heavy metals including lead, an extensive list of pesticide residues and a number of organic micropollutants (aromatic hydrocarbons, trihalomethanes).
- ◆ The **indicator parameters of list C** include both a number of microbiological parameters and a number of chemical parameters, without any health risk. They are to be considered as signal parameters to adjust the water treatment processes during production or to optimise operations in the distribution process.

### Excellent quality from source to tap

*Analyses show that water quality in 2017 was excellent - both during production and storage and during distribution up to the customer - across all parameter categories.*

- ◆ Both in the distribution network and during the production and storage process, over 99.8% of the samples meet the microbiological parameters. Moreover, these are the results of the first sampling round: in the rare cases where the standard was found to be exceeded, appropriate remedial measures were taken immediately (for example, adjusting the disinfection dose), followed by repeat sampling. The results of all these repeat samplings conformed to the standard.
- ◆ Also the results of the chemical parameters in and around our installations are very good (with 99.9% of the samples conforming to the standard). In the distribution network, the conformity rate is lower: 96,9%. This is mainly due to exceedances recorded for heavy metals (such as lead and nickel) as a result of the leaching of these metals made of brass, which are used in the construction of the customer's indoor installation.
- ◆ For the indicator parameters, 88.6% of the network samples and 89.8% of the samples from our own installations conform to the standard. The network samples mainly involve exceedances of the standard for iron due to corrosion of galvanised pipes in the indoor installation and for sodium due to the use of poorly adjusted water softeners. In the second case, customers are given the advice to have their water softener adjusted properly. Free chlorine residues are mainly responsible for the exceedances at our installations. In various surface water centres, the chlorine consumption of the produced water is high, which justifies a high residual dose of chlorine when the water leaves the production centre in order to assure the bacteriological water quality in the distribution network. In most cases, the chlorine in the water supplied to customers conforms to the standard.

This table presents an overview of the conformity rate in 2017 for the various groups of parameters. The results were broken down into network samples (checks at the kitchen tap) and samples taken at sites of De Watergroep (water production centres, water towers and reservoirs).

	% Compliant A	% Compliant B	% Compliant C	Number of samples
Samples (municipalities)	99,8	96,9	88,6	6,670
Sites (WPC*, WT*, RES*)	99,9	99,6	89,8	8,799

\*WPC: Water production center

\*WT: Water tower

\*RES: Reservoir

## Significant amendments to the drinking water legislation

On 15 September 2017, the Flemish Government approved **significant amendments to the drinking water legislation**:

- ◆ For **new substances** the system of guide values was introduced. These include, for example, medicine residues, nanoparticles and microplastics. The guide values remain to be defined and the drinking water companies will eventually have to comply with them. This allows for the necessary infrastructural adjustments to be spread over time.
- ◆ The definition of the **pesticides** was amended to bring it in line with the definition in European Regulation 100/2009. As a result, only the relevant metabolites (having the same substance properties as the parent substance) are classified in the category of pesticides. For the non-relevant metabolites, the principle of guide values can be applied.
- ◆ **Monitoring programmes** can now be submitted based on a prior risk-based approach. This allows for tailored, customer-focused efforts to be made at locations where drinking water quality is under the most pressure, resulting in a more efficient follow-up of the water quality. De Watergroep will compile its sampling programme for 2019 accordingly.

In 2017, the **radiochemical substances monitoring programme** was launched in accordance with the 'Royal Decree of 31 May 2016 on the protection of public health against radioactive substances in water intended for human consumption'. This monitoring programme monitors the drinking water for radioactive substances. All water production centres of De Watergroep were analysed in 2017. Only in 3 groundwater extractions in the Carboniferous limestone (Kooigem, Waarmaarde and Saint-Léger) was a slight exceedance of the total alpha radiation observed. Further analysis revealed that this radiation was caused by the natural decay of uranium in these aquifers. However, the radiation is minimal and the radiation does not pose any threat to public health.

## Audit of quality care system results in additional accreditations

In November and December 2017, Belac, the Belgian accreditation body, **audited the quality assurance system** of the laboratory of De Watergroep. The audit reviewed the entire process from sampling through to reporting of the analysis results. The results again proved that the quality of the analyses carried out is at a very high level and conforms to the rigorous requirements of **international standard ISO 17025**. The accreditation was therefore renewed, confirming that the reported analysis results were obtained correctly and fully independently.

Following this audit, we were awarded additional accreditation by Belac for a number of new analysis methods:

- ◆ De Watergroep was the first European drinking water laboratory to obtain accreditation for the **bacteria identification method based on specific species-specific proteins using mass spectrometry**. Identification is very fast: the bacterium is identified within minutes. This allows specific actions to be coordinated faster in the field in relation to the health risk.
- ◆ We also achieved accreditation for the **analysis of parasites** in water, such as *Cryptosporidium* and *Giardia*. These are important quality indicators in situations where the piping network is contaminated as a result of calamities due to the presence of foreign water. It is of paramount importance that we are able to demonstrate that these parasites are no longer present in the mains water.
- ◆ Also the analysis of **medicine residues** in surface and drinking water is now carried out under accreditation. Some 25 substances, including painkillers and antibiotics, are analysed. The list will be further expanded in 2018.
- ◆ The **products that are formed during disinfection** (chlorate, bromate) and **perchlorate** (a substance that may originate from wartime ammunition but also from fertilisers) are measured using the sensitive ion chromatography technique in combination with mass spectrometry. We were also granted accreditation for this technique. We are the first **drinking water laboratory** to apply this analysis technique.

- ◆ Finally, De Watergroep obtained accreditation for the analysis of **total nitrogen using flow analysis**. This technique allows us to rapidly measure the contamination of surface water by different nitrogen compounds.

## Broader range of analyses

To provide an even better service, the laboratory of De Watergroep has **extended its portfolio** with the following analyses:

- ◆ **Determination of E. coli using a molecular technique based on gen technology.**

Here, the bacterium is identified by means of its genetic material. It is a fast analysis method: the result is available within 4 hours after start-up of the analysis. E. coli is a bacterium that is found in the intestinal flora of humans and animals. Its presence in drinking water indicates faecal contamination. This technique can be applied in dealing with calamities and enables us to very rapidly assess the recovery measures implemented.

- ◆ **Latest technique for mapping the complete bacteriological composition of a water sample.**

This technique is known as 'Next Generation Sequencing (NGS)'. In 2017, De Watergroep worked on

this technique in collaboration with the Katholieke Universiteit Leuven and the Gasthuisberg University Hospital. The laboratory will purchase the necessary equipment in 2018 to allow the complete analysis to be carried out in-house. This technique, too, enables us to rapidly assess the effectiveness of recovery measures in case of calamities. In addition, NGS enables us to explain odour and taste complaints due to the presence of specific bacteria.

- ◆ **Determination of yeasts and moulds in drinking water**

This is based on a conventional cultivation method. The results may prove useful in the explanation of odour complaints.

- ◆ **Determination of highly water-soluble pesticides**

This is a new analysis method for 40 or so pesticides, including some of the biggest selling ones. The detection of these substances is of paramount importance for the monitoring of raw water sources and may lead to further optimisation of the water treatment for the removal of these substances. The sampling programme was launched in early 2018.



## ➔ Investments in drinking water production

In 2017, too, De Watergroep invested heavily in the renovation of its production and network infrastructure. For this, we draw on a wealth of in-house expertise, which we continue to develop in synergy with relevant knowledge partners.

### Investment programme



## West Flanders

### Master plan for De Blankaart is taking shape

Water production centre De Blankaart in Diksmuide each year produces some 10 million m<sup>3</sup> of drinking water, accounting for one-third of all the drinking water in West Flanders. Dating from 1973, De Blankaart is the

oldest water production centre where De Watergroep produces surface water-based drinking water. The centre will therefore undergo a thorough facelift:

- the use of the latest technology will make water treatment more efficient and sustainable,
- the reservoir will be renovated,
- there will be a new logistics building with a visitor area and a laboratory.



In 2017, the construction work on the post treatment facility had to be put out to tender again following the bankruptcy of the original contractor.

## *Water production centre Waarmaarde*



In Waarmaarde (Avelgem), work on a new water production centre with softening is in progress. The pumped-up water first passes through 3 grain reactors for softening, followed by conventional treatment (cascade aerator and open sand filters). The production centre has a maximum production capacity of 750 m<sup>3</sup> per hour and is scheduled to go into service in the spring of 2019.

## **East Flanders**

### *Renovation of open filters in Kluizen*

The Kluizen water production centre (Evergem) dates from the early 1970s. In the oldest part, the filter floors were renewed during two consecutive winters (2015-2016 and 2016-2017). This made it possible to ensure sufficient production capacity in the season with the lowest water consumption. The renovation extended the lifetime of these filters by 20 years. The total cost of the renovation amounted to over 1.5 million euros.

### *Tunnel under Ghent-Terneuzen Canal*

A new supply line supplies the Waasland region from our water production centre in Kluizen. The existing pipeline, located in an accessible tunnel under the Ghent-Terneuzen Canal, was replaced by a new line outside the tunnel. This was done by guided drilling at a depth of 32m.

### *New water production centres under way in Eeklo*

The water production centre in Eeklo each year produces on average 1.2 million m<sup>3</sup> of drinking water from 3 well batteries and 2 deep wells. The oldest part of the existing water treatment station dates from 1937 and has reached the end of its technical lifetime. It will therefore be replaced by a completely new production centre with an associated dosing and storage building. It will be equipped with state-of-the-art treatment techniques, including an additional softening step and activated carbon filtration. Construction was started in 2016 and the new production centre will be completed in 2019. In the meantime, the existing water production centre will remain operational, after which it will be partly demolished. A part of the old water production is heritage listed and will be renovated.

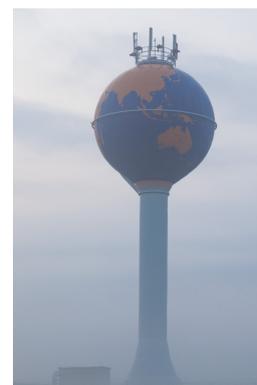
## Flemish Brabant

### *Renovation of reservoir Gasthuisberg (Leuven)*

The site of the Gasthuisberg University Hospital includes 2 reservoirs (2,000 m<sup>3</sup> and 5,000 m<sup>3</sup>, built in 1968 and 1984 respectively) that have an important buffer function for the supply of Leuven and the University Hospital. These buffers were in need of a thorough renovation, which was scheduled to coincide with the expansion project of the University Hospital. The works were carried out in phases from early 2016 to early 2017, so that one reservoir could remain operational at all times. The cost of the works amounted to 270,000 euros.

### *Water tower Bierbeek*

The Bierbeek water tower, 28 m high with a capacity of 500 m<sup>3</sup>, was built in 1969. It has the appearance of a globe, making it one of the most eye-catching water towers in Flanders. The sphere, which has a 10.6 m diameter, was first painted in the summer of 1992. It was refurbished again in early July 2017. The total cost for repainting the water tower amounts to over 241,000 euros. In addition to a new coat of paint, the project also included concrete repairs, rust treatment, and replacement of the roof hatch and entrance door.



### *Water production centre Zoutleeuw renovated*

The Ossenweg water production centre in Zoutleeuw consists of sand filters and a lime-based softening facility. Whilst the lime ensures soft drinking water, it also has the drawback that the water discharged into the stream alongside the water production centre still contains many lime particles, giving a white colour to the water. De Watergroep has therefore converted the softening process from lime to caustic soda, as a result of which the region around Zoutleeuw temporarily received hard water. The plant was restarted in February 2018. The renovation also included the construction of a dosing facility and the renovation of the chemical storage facility.

## Limburg

### *New groundwater extraction in Tongeren*

The Water Resources and Environment department is intensively engaged in exploring the feasibility of building a new groundwater extraction and water production centre in the vicinity of Tongeren. South of the Overhaem industrial site - south of Tongeren - an observation well was drilled where extensive pumping tests were carried out and the geochemical quality and stability was examined. The tests revealed that the necessary water capacity can be drawn from the Cretaceous layer without exceeding the bearing capacity of the aquifer. Moreover, the local groundwater is by nature very pure. The new water production centre will therefore be able to sustainably provide drinking water to the city of Tongeren. Furthermore, a central partial softening plant is being installed, which will supply 45,000 customers with softened water in the future.

### *Watertoren Meeuwen*

The base of the Meeuwen water tower received a new coat of paint and repairs were carried out on the steel structure and the outer walls. In addition, a number of windows were replaced and repairs were carried out on the inside.



### *New water production centre with softening in Bilzen*

The water production centre in Bilzen (Waltwilder) is in need of replacement. De Watergroep is using this opportunity to extend the concept with central partial softening. The softening step consists of pellet reactors. The total budget for the construction of the new water production centre, including the electromechanical equipment, extraction wells, piping and local pressure boosting systems, amounts to 10 million euros. In 2017, the construction of the new water production centre and the electromechanical equipment were put out to tender. Works are scheduled to start in the spring of 2018 and will take about 3 years.

### *Water softening plant Velm operational*

The water softening plant of the new Velm water production centre was commissioned in the spring of 2017. The hardness of the water supplied to customers in Sint-Truiden has thus dropped from 49 to 18 French degrees. In the design phase, the choice was made to use sodium hydroxide (NaOH) for the softening and to integrate the existing iron removal step into the new water production centre. This results in decreased NaOH consumption and therefore also in cost savings because the water can be better aerated after iron removal. It also means that the produced pellets are purer and have a whiter colour, so that they can be better valorised.

The complete purification was modelled in the PHREEQC program to allow for more efficient follow-up of the start-up. This model also enables us to respond more quickly to changing qualities and allows station malfunctions and quality issues to be detected more rapidly.

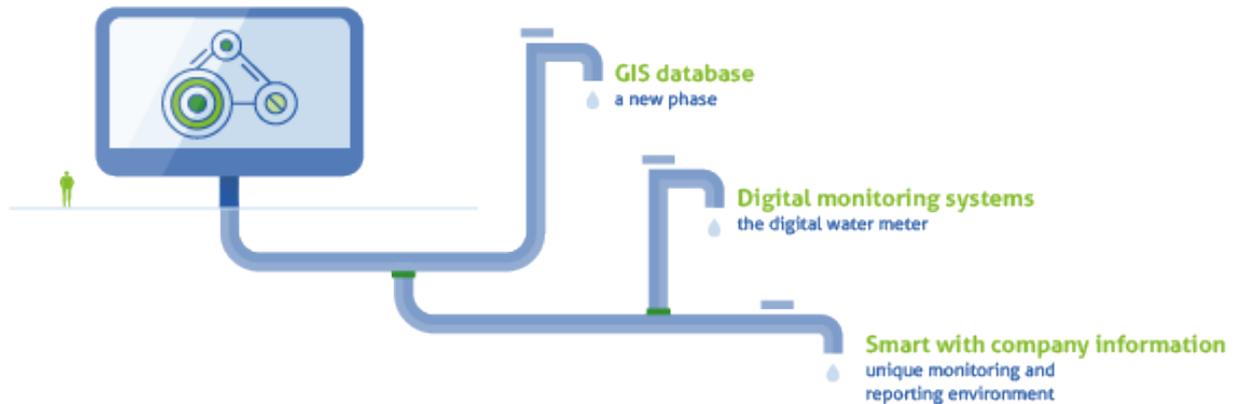
### *Water production centre Vlakenhof*



In Maaseik, De Watergroep is building a new water production centre as part of the water supply plan for the province of Limburg. The plan is to provide all Limburg municipalities with softer water in the future. The water that will be pumped up and treated in Maaseik is soft by nature, so that no additional softening is required. The expansion of water production centre Vlakenhof will allow more soft water to be pumped from the extractions in the Meuse valley to South Limburg. The total investment cost for the entire project amounts to around €14 million. From the autumn of 2018, large parts of Kinrooi, Maaseik and Dilsen-Stokkem, together with a small part of Maasmechelen, will have soft water. The storage capacity for North Limburg will also be significantly stepped up.

## → Smart technology for smart water supply

De Watergroep makes smart use of digital technologies to make water supply even more efficient and effective in the future.



### Next phase towards large-scale GIS database

Over the period 2012-2016, more than 350,000 visible devices were measured in the field and loaded into the GIS (Geographic Information System) database of De Watergroep. A new phase was launched in May 2017, when the initially mapped pipeline network was shifted on the basis of the measured points. This should eventually lead to greater accuracy and greater user friendliness.

De Watergroep opted for a **complete conversion** of the network, whereby the location of the network is almost exactly represented in the GIS database. At the end of 2017, 15% of the total network had been converted on a large scale. Based on the current pace, the project can be completed in the spring of 2022.

The large-scale conversion offers numerous advantages. For example, staff will be able to locate pipes and devices in the GIS viewer more quickly and the use of paper detailed drawings will be drastically reduced. It will also be possible to forward more accurate information about the pipe network to third parties. This should eventually also result in fewer claims arising from excavation operations.

### Digital measuring systems on trial

The Internet of Things is a hot topic that changes the way we live and experience life today. This topic also emerges in the world of water, more particularly in the form of digital measuring systems, better known as digital water meters. De Watergroep has for some years been investigating the applicability of this technology. In 2017, we decided to fully focus on these digital measuring systems. After a market consultation, various pilot projects will be rolled out in 2018.

### Smart with company information

With 132 new report requests and 95 refinements to existing reports, the Business Intelligence (BI) team continued work on the provision of accurate company information within De Watergroep. In addition to speeding up the provision of legal reports, the focus in 2017 was on the reporting of **'Non-Charged Water'** (NCW).

According to estimates from the World Bank, water companies lose around 60% of the produced water every year. The estimate for De Watergroep is considerably lower: 20%, but every percent is one too many. The causes are diverse: water theft, leakage, extinguishing fires, flushing the pipeline network. This water cannot be charged, hence the term 'Non-Charged Water'.

In 2017, the NCW team, together with the BI team, took the first steps in pushing back this loss. By linking up the distributed recording systems and aligning the data, it is now possible to access **uniform NCW reports** on a daily, monthly and annual basis. Also being planned is the proactive detection of leaks through advanced data analysis techniques such as data science and artificial intelligence.

This unique measuring and reporting environment allows us to actively contribute to reducing NCW. A reduction in NCW not only paves the way for new innovations, but also cuts down energy waste, use of chemicals, nuisance in the public space (sinkholes, bursting pipes, repairs, etc.). In the field, we continued to work on setting up recording areas, which enable us to detect leak losses more rapidly. The leak detection GIS viewer provides a clear overview of areas where leaks frequently occur, and thus contributes to the effective handling of leakage losses.

## → Water resources 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 resources. After all, sustainable operation is important for the environment, for the quality of the water, and for the available stocks.*

## 11 exceptionally dry months

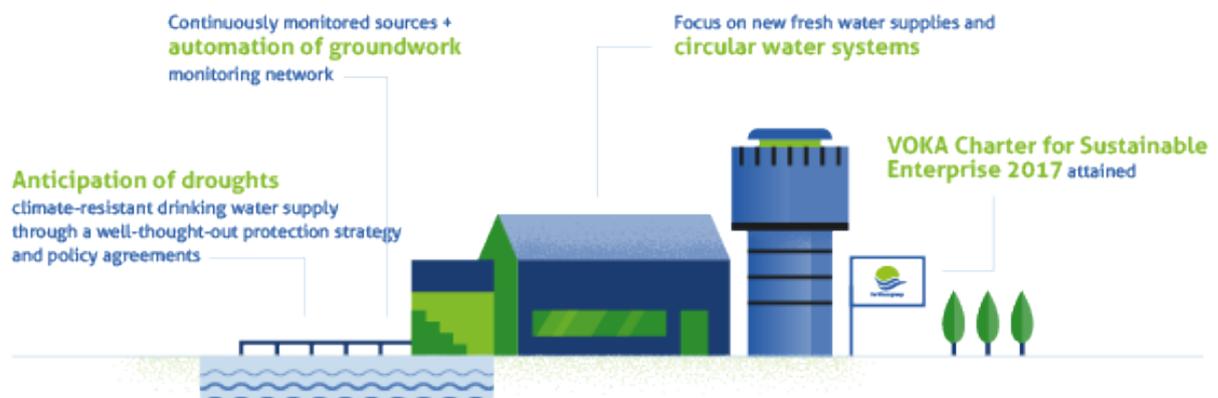
The period from September 2016 to October 2017 was **exceptionally dry**. It wasn't until November and December 2017 that higher precipitation amounts were recorded and the situation normalised. The annual precipitation for 2017 was 749 mm, which is lower than normal, but still to be considered as normal from a statistical point of view.

Especially the 2016-2017 winter season can be considered as an exceptionally dry period that had a great impact on overall water availability. Winter precipitation is important for the recharging of the aquifers. Also the surface water reservoirs of Kluizen (Evergem) and De Blankaart (Diksmuide) are recharged during this period. Furthermore, a period of intense drought in the spring and summer leads to increased drinking water consumption, thereby putting extra pressure on the water supply.

To also secure drinking water supply in dry periods, De Watergroep is working on measures in various areas:

- ◆ storing more fresh water
- ◆ improving the quality and availability of fresh water, including the development of alternative water sources
- ◆ diversifying sources: groundwater and surface water, deep and shallow groundwater sources.

## De Watergroep: sustainable water company



## Continuously monitored sources

In 2017, too, the Water Resources and Environment department continuously monitored the groundwater levels around its extraction sites via the groundwater level indicator. This indicator shows the groundwater level in the 1,600 wells that are monitored for subsequent analysis in relation to the historical measurements.

Due to the drought, low groundwater levels were measured for a longer period of time than in any of the past 20 years. The overall level indicator shows that while there was no extreme drop in groundwater levels, the low levels lasted longer than in other years. However, this did not lead to any problems in the extraction of the necessary groundwater for the drinking water supply. In November and December 2017, by contrast, the amount of precipitation was higher than average, so that aquifers were gradually replenished and water levels were restored to their normal winter values.

Also the availability of **surface water** for drinking water production is monitored, based on the water level in reservoirs and buffers and the intake options. In 2017, there were not any major problems and drinking water supply was guaranteed at all times.

## Climate-resilient drinking water supply

Drinking water supply was never jeopardised during the drought of 2016-2017. This is confirmation that De Watergroep made the right strategic choice to opt for source diversification: we focus on groundwater and surface water, on both deep and shallow groundwater extraction. We will continue to pursue this policy.

What is clear is that freshwater resources, especially in West Flanders, are under great pressure, which is expected to further increase due to climate change. Analysis has shown that the current extraction capacities will not be sufficient to continue to meet demand for drinking water in the future. In addition to the planned expansion of De Gavers from 32,000 to 50,000 m<sup>3</sup>/day, there is a need for additional extraction and storage capacity in West Flanders and the IJzer Basin particular. This has therefore also been included as a priority in the long-term water supply plan. De Watergroep deploys its expertise within the project working group that was started up by the province of West Flanders to conduct a comprehensive study on the issue of water availability.

Specific scenarios for adapting our drinking water supply to climate change include the following:

- use of new freshwater reserves
- focus on circular water systems
- making policy commitments
- developing a clear strategy
- automating the groundwater monitoring network.

## New freshwater reserves

The freshwater reserves in the IJzer basin are by nature limited. That is why, in 2017, the Water Resources and Environment department began an investigation into the following options for creating new freshwater reserves:

- additional freshwater storage in shallow and partially salinated creek ridges (PoldARR water project: Polder Artificially Recharged and Reclaimed water)
- deep ASR (Aquifer Storage & Recovery).

In both cases, the excess water in wet periods is stored underground, thus increasing freshwater availability. In the first case, the salt water is displaced by fresh water; in the second case, the available storage capacity deep underground is used.

## Focusing on circular water systems

Together with KWR, a Dutch research institute, we have conducted exploratory talks on new research projects under the programmes 'Zuinig met zoet' (Saving Fresh Water) and 'Zout door zoet' (Replacing Salt Water with Fresh Water):

- The project '**Zuinig met zoet**' (economical with sweet) brings together the best practices from Flanders and the Netherlands to promote and implement the reuse of water, e.g. in industry. The idea is to reduce the pressure on freshwater resources and to promote the principles of the circular economy.
- The project '**Zout door zoet**' (salt by sweet) is a potentially commercial project. Here, we use our knowledge and expertise in the field of hydrogeology and salt-fresh issues along the coast to allow extra rainwater to be stored underground locally, e.g. in agriculture, by displacing the saline water, thereby increasing the freshwater supplies.

## Policy commitments on drought



The Water Resources and Environment division of De Watergroep has played an active role within the Integrated Water Management (IWM) Coordination Committee, which was appointed as drought coordinator by the Minister for the Environment at the end of June 2017.

The following actions were taken:

- ◆ In the autumn of 2017, a **drought evaluation report 2016-2017** was submitted to, and approved by, the Minister.
- ◆ A draft **drought crisis management scenario** identifies, among other things, priority sectors for water supply when water is scarce.
- ◆ Work has been started on the development of a **water scarcity and drought** risk management plan, which is aimed at balancing water demand and supply. The plan is based on 2 pillars:
  - ◆ The **proactive pillar** covers the (policy) measures that are needed to achieve good (quantitative) status so as to minimise the risk of a crisis occurring.
  - ◆ The **reactive pillar** covers the measures that are needed before and during a crisis so as to mitigate its harmful effects to the greatest extent possible.

## Automation of the groundwater monitoring network

In 2017, we started with the development of an **automatic monitoring network** for measuring the **groundwater levels**. To this end, all the necessary monitoring wells are equipped with an automatic probe with teletrans-

mission (Internet of Things). In this way, water levels are automatically measured, validated and forwarded to our databases at high frequencies. This will enable us to better manage our resources before and during extreme droughts in the future.

This measuring system offers a number of major advantages:

- ◆ De Watergroep has access to up-to-date groundwater level measurements on and near the water extraction sites.
- ◆ The high measurement frequency results in better insight into the dynamics of the groundwater levels and the available reserves.
- ◆ An alarm is generated in the event of deviating groundwater levels.
- ◆ Possible well blockage can be monitored more rapidly and accurately.
- ◆ The system is more cost-effective in the medium term.

A total of 500 monitoring wells and 250 production wells will be further automated over a 3-year period.

## A well-thought-out protection strategy

An efficient resource protection policy is of the utmost importance for a safe and reliable drinking water supply. In 2017, source files were compiled for a large number of vulnerable groundwater extractions. In doing so, the risks relating to water availability and water quality are evaluated. A plan of approach has been drafted for all identified risks, so that a reliable drinking water supply can be guaranteed today and in the future.

The results of the risk management strategy have led, among other things, to the reinforcement of the **protection strategy**. It takes into account potential future threats in relation to changing environmental factors: climate change and increasing droughts, developments in the field of shared use of underground space, possible conflicting interests, increasing pressure on the water system through the development and use of new materials.

The new insights were developed into orientations for a suitable protection policy on groundwater extractions and a new protection policy on surface water extractions. This document was presented to the Flemish Government.

## VOKA Charter for Sustainable Enterprise

In 2017, De Watergroep for the first time obtained the VOKA Charter for Sustainable Enterprise for the entire organisation. This is a welcome confirmation of the efforts we make as a water company to further integrate sustainable enterprise into our business operations.



These efforts are based on a plan of 10 action points that lead to concrete results in the field:

1. Consultation with agricultural organisations on sustainable agriculture around the extractions
2. Promotion of tap water as part of the drinkraantjeswater (Drink Tap Water) project
3. Improved security of technical facilities
4. Improved quality of the work environment through the further development of the Vesta Pro HR platform
5. Well-being survey among staff
6. Further development of our social commitment in developing countries
7. Sustainable raw materials management in partnership with AquaMinerals on the management of residues
8. Waste water recovery through ion exchange
9. Ecological site management on our own sites of the water production centre in Zele
10. Organisation of a family day in Ninove in support of the Kom op tegen Kanker (Join Forces against Cancer) campaign.

## → Watertechnology

*As a leading drinking water company, De Watergroep keeps the finger on the pulse of the latest technological developments in the field of water production and distribution. Wherever possible, this is done in synergy with external knowledge partners. Sustainable and future-oriented management of our natural resources and sustainable operation of our infrastructure are the guiding principles.*

## Soft water for all customers

De Watergroep aims to eventually supply soft water to all of its customers. Hard water is healthy drinking water,

but it does cause comfort issues, especially in hot water applications. That is why, when building or renovating water production centres, we always examine whether central partial softening is required as an additional treatment step.

## Softened water for Limburg

Limburg has long been supplied with softened water from the water production centres of Bovelingen (Heers) and Hasselt. In early 2018, De Watergroep commissioned a new softening plant in Velm. In addition, we have committed ourselves to speeding up work on 5 new softening plants.

## Water production centre Overhaem (Tongeren)

The centre of Tongeren currently receives hard water from the Lauw extraction site. The southern parts of Tongeren also receive hard water, but this water originates from Diets-Heur. As soon as De Watergroep commissions its new water production centre in Overhaem, the above extraction sites and the associated water production centres will be decommissioned.

In 2017, the basic design of the new water production centre was finalised. The aim is to supply softened water from the new water production centre to as many customers as possible in Tongeren. A water pump will provide customers located higher up in Vreren with softened water in replacement of the current supply of hard water from Walloon drinking water company SWDE.

## Water production centre Kortesseem

A new water production centre with central partial softening will be built in Kortesseem. This will be a clustering of the existing extraction sites of Vliermaal, Vliermaalroot and Wintershoven. In 2017, pilot tests were carried out with the softening test container on the site of the water production centre of Vliermaalroot. The pilot set-up consisted of a reactor and a downstream dual-layer filter. Three different scenarios were investigated: softening with sodium hydroxide from the unaerated water, from the aerated raw water and from the pure water. Based on the results and an economic analysis, a design for the new softening plant in Kortesseem will be developed in 2018.

### *Water production centre Velm*

The new Velm water production centre was commissioned in the spring of 2017.

### *Water production centre Bilzen*

In 2017, construction works were started at the site.

### *Softened water for Flemish Brabant: Kortenberg gets the biggest water softening plant*

As from 2021, De Watergroep will purchase soft water from water-link in the northern part of Flemish Brabant. A number of groundwater extractions south of Leuven, which are no longer required for the drinking water supply, will therefore be decommissioned. The water from the extractions that remain operational will be softened in the new Meerbeek water production centre in Kortenberg. The new water production centre will be located right next to the existing reservoir, so that the pumps supplying the drinking water will not need to be modified.

The design of the installation consists of 4 pellet reactors, followed by 6 open filters. The water production centre has an average capacity of 1,250 m<sup>3</sup>/hour, with peaks of up to 2,000 m<sup>3</sup>. This will make the Meerbeek water production centre the biggest softening plant within De Watergroep.

To bring the soft water to all customers south of Leuven, new pipes will also have to be installed and 4 additional booster stations will be built near reservoir Meerbeek 4. Also in 2017, the impact of the softening plant on the feed water production centres was studied.

### *Softened water for West Flanders*

All surface water extraction sites in West Flanders produce relatively soft water, so there is no need for additional softening. Only the deep aquifers of the Carboniferous limestone extraction sites in Spiere-Helkijn and Pecq-Saint Léger produce very hard water. The Kooigem and Waarmaarde water production centres already have operational softening plants, so they produce relatively soft drinking water. The Saint Léger water production centre, by contrast, still produces particularly hard water. Starting from a scenario analysis, the Water Technology

department has developed a strategic vision for the future where as much raw water as possible is pumped from Saint Léger to the Kooigem water production centre that is not yet running at maximum production capacity. The Saint Léger water production centre will then act as a back-up for the supply of – admittedly hard – water in periods of scarcity. This scenario combines a minimum investment cost with maximum results and guaranteed supply security. The necessary infrastructural works on the Saint Léger site are being planned.

### **Drought**

2017 was marked by an exceptionally dry period. The drought was felt not only in the agricultural sector, but also at De Watergroep: in West Flanders, water consumption in the spring was already 5 to 10% higher than average, and continued to rise until June 22nd. As a result, the reservoir of De Blankaart water production centre (Diksmuide) declined faster than normal, and so there was the risk that the reservoir would be emptied prematurely and the water production centre would have to be temporarily taken out of service. The Water Technology department analysed through modelling what impact such a scenario would have on the water supply in West Flanders.

Analyses shows that, assuming an average consumption, a failure of De Blankaart could be temporarily offset by making maximum use of the other available sources. At a higher consumption, the modelling identifies several bottlenecks in terms of water availability and transport capacity.

To ensure increased supply security, these bottlenecks can be eliminated by:

- ◆ expanding the production capacity of De Gavers (Harelbeke)
- ◆ installing new supply pipes from De Gavers
- ◆ providing an online platform to support the intake strategy for De Blankaart (Diksmuide).

## Expanded production capacity for De Gavers



In parallel with the De Blankaart master plan, De Watergroep is investing in the expansion of the production capacity of water production centre De Gavers (Harelbeke) from 32,000 m<sup>3</sup> to 50,000 m<sup>3</sup>/day (and even 55,000 m<sup>3</sup>/day at peak times).

Towards this end, a **new post-treatment system**, based on ultrafiltration, is being built. The existing open filters, which are still operational for the post-treatment process, are being converted so that they can all pretreat water from the canal and then direct it to the Gaver pond.

The water production centre will be extended with ozone and extra activated carbon to enable the removal of both known and future pesticides and medicines. The rinse water treatment will be deduplicated.

For the preliminary design, three market studies and pilot studies were conducted last year.

## New supply pipes from De Gavers

To deliver this water to the customers, the existing supply system around De Gavers has been analysed. The result: a proposal for a new pipe section and modifications to the existing booster stations in the supply network. The new pipe section was designed for various scenarios, so that optimum performance is guaranteed throughout the year, including on peak days.

## 'Eyes' for De Blankaart

Water availability and water quality in the IJzer and the Blankaart pond both vary significantly throughout the year. To bridge periods of limited water availability, the water production centre is equipped with a **reservoir** of

3 million m<sup>3</sup> for raw water storage. This buffer capacity is often insufficient to bridge dry periods and to produce sufficient drinking water. As a result, precious groundwater needs to be pumped in from aquifers further afield. To gain a better insight into current and future water availability, taking into account climate change, a **hydraulic model** was developed in previous years under the OperAqua research programme (cooperation with VITO and Dutch research institute KWR).

In 2017, a **follow-up study** was conducted to optimise the strategy for the intake of raw water by making maximum use of available measurement data in combination with available water system knowledge. To this end, a decision supporting tool is being designed that gathers all relevant data for the intake strategy and makes raw water intake proposals. An indispensable element here is the development of a platform for the **visualisation** of all relevant parameters, which should enable the platform to serve as the "eyes" of De Blankaart.

## A master plan for De Blankaart

Commissioned in 1973, the De Blankaart water production centre in Diksmuide treats surface water from the surrounding polders and the IJzer river. Now, 45 years later, the treatment centre is in need of replacement. The De Blankaart Master Plan provides for the replacement of the old treatment station by a new purification plant that will use more efficient and more eco-friendly treatment techniques. The renovation involves 2 phases. In a first phase, the post-treatment process will be renovated. The new post-treatment process, a combination of ozonation, activated carbon filtration, UV disinfection and chlorine-based final disinfection, has been under development on site since 2016 (site photo available from Project Engineering). Also in 2017, the treatment concept for the new pretreatment system was defined. It will consist of microsieves, coagulation, flotation and sand filtration.

## Pilot facility as part of a European research project

For years, De Watergroep has been investigating alternatives to conventional water treatment, for which purpose **pilot facilities** are used. In the De Blankaart water production centre, we are investigating if it is possible to use a combination of ion exchange and flocculation/flotation for the removal of organic substances. This combination of techniques has been investigated on a semi-industrial scale since February 2016. This is done in collaboration with two other drinking water companies (South West



Water in the UK and PWN Technologies in the Netherlands) and two universities (Technische Universiteit Delft and Université de Lille) within the framework of DOC2C's, an EU-funded research project that runs from 2016 to 2019.

The pilot research made it possible to identify the advantages and drawbacks of ion exchange as an additional elimination step for organic matter. It shows that ion exchange as a pretreatment step is the right choice for the Kluizen water production centre (Evergem), but not for De Blankaart.

As part of the pilot research, work continued on the optimisation of the reactor design and the regeneration process. In addition, attention was focused on the optimal treatment of waste water from the ion exchange process, particularly on the reuse of the organic components eliminated from the raw water. Possible scenarios explored in this respect are their use as growth promoter in plant cultivation or as animal feed additive.

The research into the reuse of the waste water from the ion exchange process was also included in the VOKA Charter for Sustainable Enterprise.

## Algae

Algae bloom is an annually recurring issue in the reservoir of De Blankaart, which may occur from early spring through autumn. In the autumn, algae bloom often leads to a reduced production rate.

In 2017, the Water Technology department again organised an extensive measuring campaign that zooms in on the algae issue in all our surface water extraction areas. A large number of chlorophyll measurements were carried out to quantify the overall algae bloom. In addition, numerous microscopic algae identifications were carried out for knowledge development on species diversity and dominance.

In 2017, a large-scale test was conducted with ultrasonic treatment of the reservoir of De Blankaart. This test will be continued in 2018.

## Research & Development

De Watergroep is committed to a comprehensive research, development and innovation programme. We resolutely opt for a sustainable, secure and climate resilient drinking water supply.

The research programme comprises 4 parts:

### ◆ Horizon and technology scan

The research needs are identified based on an analysis of social developments and new threats. Active participation in conferences and memberships at relevant organisations allow us to keep the finger on the pulse of technological, ecological and socio-economic developments.

### ◆ In-house research projects

In-house specialists conduct various studies for the design and optimisation of our drinking water production and distribution.

### ◆ Collaboration with external partners

De Watergroep participates in EU-funded research projects (Interreg DOC2C's, Interreg NuReDrain, Horizon 2020 STOP-IT, etc.) together with universities and other external partners.

### ◆ OperAqua

A cooperation project with VITO and Dutch research institute KWR. De Watergroep has joined the KWR water sector survey and has been a shareholder of the KWH umbrella organisation since the end of 2016.

A detailed list of the research projects can be found in the financial annual report.

## Cyber Security

The facilities of De Watergroep are to a large extent automated, which enables us to monitor and control the status of our facilities in real time via online applications. This way of working allows for efficient management, but also entails new risks. That is why De Watergroep secures its facilities and systems according to state-of-the-art concepts.

Together with 21 partners (leading research institutions, various industrial parties and 7 other European drinking water companies), De Watergroep has submitted an application for European funding (Horizon 2020) for a research project aimed at the protection of critical water infrastructure. **Horizon 2020** is the biggest European funding programme for research and innovation in Europe. The project was named **STOP-IT**, an acronym for 'Strategic, Tactical, Operational Protection of water Infrastructure against cyber-physical Threats'. Our application was accepted with a very high score by the European Commission. The project was awarded total funding of more than 8.2 million euros.

STOP-IT brings together a team of leading European research institutions, drinking water companies and industrial partners who will, for a period of 4 years, be investigating subjects such as fault tolerant SCADA systems, detection of human errors, data protection of measurement data based on blockchain technologies, IoT sensors, real-time detection of anomalies (infections within the network, 'peculiar' commands sent to our systems, 'suspicious' functioning of software or installations, etc.) based on data analysis and mathematical models.

## Materials technology

In 2017, the Materials Technology unit carried out as many as 923 inspections and accreditations for acceptance of underground pipes, storage and pressure tanks, mechanical structures and water meters, among other equipment.

These inspections enabled us to extend our know-how in the fields of piping materials, piping systems, water meters, metal (drinking water) structures and (drinking water) coatings.

Through a long-standing cooperation with non-profit organisation Becetel (Belgian Centre for Technological Research of pipelines and accessories), the expertise of De Watergroep is also used, against payment, for the quality control and testing of pipe materials for Pidpa, Farys, water-link and CILE.

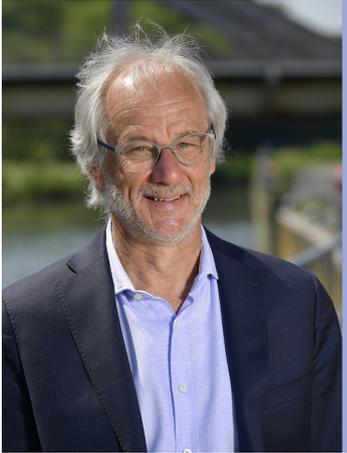
Becetel in turn provides the necessary expertise on the testing and behaviour of metal and plastic piping systems and assists De Watergroep as an independent and accredited lab to provide scientific evidence for the resolution of technical piping disputes occurring on sites.

To enable rapid on-site identification of the material composition of metals and alloys, a high-end portable XRF analyser was purchased in 2017. This accurate device can rapidly be deployed in various areas and is an important added value in safeguarding the quality of the proposed materials in contact with drinking water.



# STOP-IT

# WASTE WATER



## “With a camera through the sewers”

‘After part of the road had collapsed, we contacted Riopact to carry out a camera inspection of the sewer system. After the images displayed some ruptures, repair work could commence only days afterwards and the road was fixed quickly, minimising disruption to traffic.’



**Dirk Vanholme**  
Alderman for Mobility in Menen

Riopact brings together the expertise of 2 experienced partners in waste water management: De Watergroep and Aquafin. Municipalities that partner up with Riopact also participate in the expansion and maintenance of their sewerage system. They can choose from a variety of services, ranging from a total package to specific tailored services. Only when waste water is maximally purified can water again be assigned a central role in our environment.

## Wastewater



## 64 Municipalities

**16 Riopact partners**  
+2 Riopact partners (Wezembeek-Oppem & Kraainem)

**48 Riopact municipalities**

Since 2012, Aquafin and De Watergroep have joined forces in Riopact. Together they provide an extensive range of services to assist cities and municipalities in ensuring compliance with the European Water Framework Directive by 2027. Today, **64 municipalities, including 16 Riopact partners and 48 Riopact municipalities**, rely on

Riopact. Each partner within the partnership assumes the tasks in which it is specialised. This guarantees efficiency gains that also benefit the members. Now, more than ever, municipalities are a genuine partner in the sewerage story. This is also reflected in the baseline "partner in local water management".

## ➔ Two new Riopact partners: Wezembeek-Oppem and Kraainem

When a municipality joins the Riopact partnership, Riopact assumes all of the municipal sewerage duties. Riopact also sees to the financing of the investment projects, and applies for the necessary subsidies. This membership formula was set up to enable municipalities to achieve the Flemish waste water objectives in a timely manner. These objectives are in turn the result of the European Framework Directive on Water. In 2017, preparations were made for Wezembeek-Oppem and Kraainem to join as Riopact partners, starting from 1 January 2018.

**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.

## ➔ 48 Riopact municipalities

Riopact municipalities choose for customised sewerage development and sewerage management. The municipality remains the owner of the infrastructure and determines itself the objectives and priorities of the partnership.



# INDUSTRIAL WATER



## “Not a drop down the drain any more”

‘De Watergroep built an installation for wastewater treatment and reuse for Euro Pool System, which the company also operates itself. This has enabled us to recuperate 07% of our wastewater. After a first treatment, the other 30% is discharged back into the surface water.’

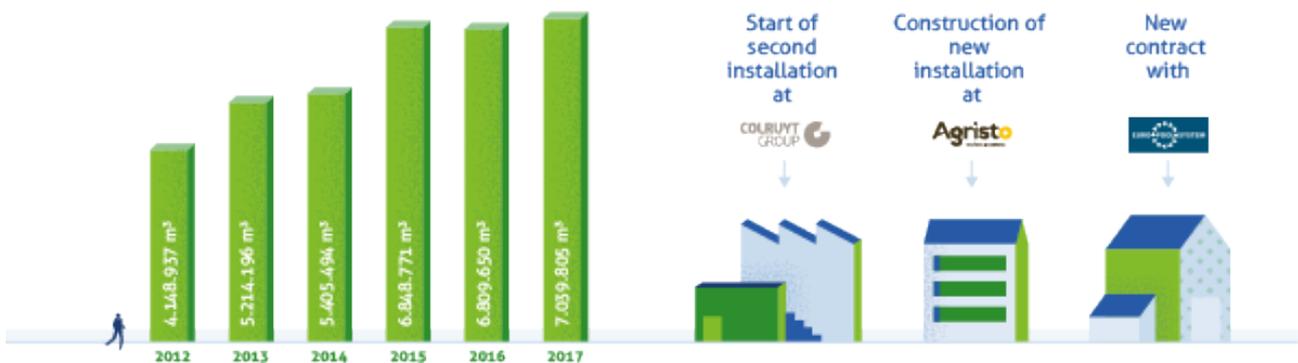


**Anne De Middelaer**

Safety, health, environment and quality coordinator at Euro Pool System

In 2017, the Industry & Services business unit for the first time produced more than 7 million litres of industrial water. Numerous companies have already entrusted their water management to De Watergroep, thereby opting for a partner who specialises in 'custom-made water'. 2017 saw the start-up of a second installation at Colruyt, the commissioning of a new installation at Agristo, and the signing of a new contract with Euro Pool System.

## Industrial water



## ↪ Industrial water volume grows

Industrial water volumes (in m <sup>3</sup> )	
2012	4.184.937
2013	5.214.196
2014	5.405.494
2015	6.848.771
2016	6.809.650
2017	7.039.805



## ↪ Second installation for Colruyt, based on rainwater

*In 2013-2014, De Watergroep constructed a first process water installation for Vlevico in Halle, the meat-processing company of the Colruyt Group. This collaboration has now resulted in a second project: a new rainwater harvesting system was started up at the end of January 2017.*

The Industry & Services business unit built a rainwater harvesting system for the new Fine Food Meat 2 site in Halle, where it is also responsible for operations and maintenance. This installation was commissioned in early 2017.

This new site in Halle is intended for the production, cutting and packaging of cold meats, catering dishes and vegetarian products. Once the site is running at full capacity, Colruyt Group Fine Food Meat will be the biggest meat producer in the country. The Colruyt installation was completely built by staff of De Watergroep.

### The new installation in facts and figures

- ◆ Peak production: 10 m<sup>3</sup>/hour
- ◆ Purification = average annual water consumption of 120 households
- ◆ Treatment: ultrafiltration + activated carbon filtration + post-disinfection.
- ◆ 70% of rainwater converted to drinking water quality
- ◆ Only 1% of rainwater still ends up in the sewerage system.



For more information visit [www.dewatergroep.be/colruyt](http://www.dewatergroep.be/colruyt)

## → De Watergroep builds installation for Agristo

*In 2017, De Watergroep developed a custom-made drinking water plant for potato processing company Agristo. Water from the Leie was chosen for use as a sustainable source. The plant can eventually be expanded, and the effluent from the waste water purification can be reused as a source of raw water for the process water plant. This project could therefore become a good practical example of circular economy in action.*

Agristo produces deep-frozen products for supermarkets, wholesalers, and food service companies. This process consumes large quantities of water. For its new site in Wielsbeke, the company will be using a special water source: the nearby Leie river. Based on raw water from the Leie, De Watergroep produces custom water for use in Agristo's processes. This process water is required for washing, peeling, cutting and blanching the potatoes. The generation of process steam also requires a large amount of water that must meet strict requirements.

For the construction of this water plant, Agristo placed part of its Wielsbeke site at the disposal of De Watergroep. We are therefore not only responsible for the supply and treatment of the process water, but also for the operation of the plant over the next 10 years.

### *Sustainable water management*

"Together with De Watergroep, we want to invest in an economically and ecologically sound project," says Kristof Wallays, COO of Agristo. "Water poses a major challenge for the environment, and a corresponding financial impact. Sustainable water management means contributing to a sustainable future. With this project, we create economic and environmental added value:

- no more extraction from vulnerable aquifers;
- use of cleaner technologies;
- no more use of softening salts;
- knowledge acquisition on the reuse of raw materials;
- an installation with low energy consumption, etc.

In the medium term, other companies will be able to connect to the 1,600 m raw water pipeline from the Leie.

**For more information visit [www.dewatergroep.be/agrsto](http://www.dewatergroep.be/agrsto)**

## → New contract with Euro Pool System

*In 2017, De Watergroep concluded a unique project with Euro Pool System. Our Industry & Services business unit is in charge of the water treatment/reuse facility on the company's new site in Zellik.*

### **Cleaner crates**

Euro Pool System (EPS) is a service provider for reusable standard packaging (crates) in the European food supply chain. EPS aims to:

- reduce packaging damage (and therefore product loss)
- ensure efficient transport (foldable crates take up to 86% less volume in return transport)
- reduce the CO2 footprint of its customers.

In Zellik, Warehouse De Pauw (WDP) is building a new distribution centre for the distribution of crates for fresh food products such as vegetables and fruit. These crates must meet very stringent requirements in terms of quality, hygiene and safety. After each use, the crates are returned and thoroughly cleaned to ensure food safety.

In the new distribution centre, the rinse water does not flow into the sewer, instead it is treated by the local water treatment system and processed into low mineralised water - free of limescale and minerals - for subsequent reuse. Together with an expert in environmental technology and water treatment plants, De Watergroep is responsible for the design and construction of these waste water treatment and reuse facilities. We will also be responsible for the operation for a period of 10 years.

### *In facts and figures*

Treatment techniques:

- MembraneBioReactor (= an ultra-filtration technique for sludge-laden water)
- Reverse osmosis

**For more information visit [www.dewatergroep.be/europoolsystem](http://www.dewatergroep.be/europoolsystem)**

# WATERMAKERS



## 'One system for all HR processes'

'We are delighted that Vesta Pro, the system that brings all aspects of HR together, has been completed to provide digital support during every step of our employees' careers.'



**Stefan Van Avermaet**  
personnel expert in the HR department

With the vision, mission and values and the plan for the future 2014-2020 as foundation, De Watergroep has been working on a changed organisation structure since 2017. Within the Meander project, De Watergroep seeks to evolve from a provincially driven to a process-oriented company. Always with our employees, watermakers for more than 100 years, leading the way. In addition, we focus on modern technology to combine efficiency gains with a customer-friendly and contemporary service.

### → Meander continues to build De Watergroep of tomorrow

*Through the Meander project, De Watergroep seeks to evolve from a provincially organised to a process-driven company. In summary: Just like a meandering river, De Watergroep is working its way to a bright and sustainable future, following a natural path and with attention to the changing environment.*



De Watergroep is abandoning the 4 provincial divisions and bringing the bulk of its operations under the following 4 divisions:

- ◆ Production
- ◆ Distribution
- ◆ Market and Customers
- ◆ Business Support Services.

A process-oriented organisation is not the same as a centrally managed organisation. We organise our operations in a process-oriented manner, but continue to act locally, while looking after the interests of our customers and our partners.

In 2017, we mapped out the outlines of Meander through various channels: within the management team, in sounding board groups with broad representation of our employees and trade unions, and in specific working groups. Meander brings quite some changes to the work floor, which is why we **inform our employees of every step** via roadshows, newsletters, the Cascale staff magazine, etc.

## → Digital service

*De Watergroep goes digital. Under this slogan, we continued to work in 2017 on large-scale digitisation projects such as MoKa (Mobile Office), a revamped website with customer area, and the further expansion of Neptunus, the ERP program.*

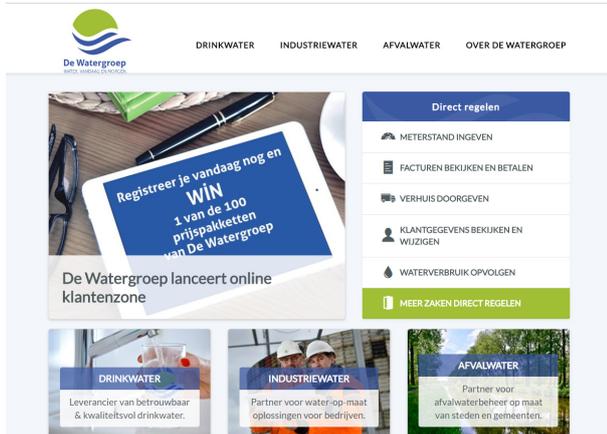
### First MoKas in Neerpelt



In November 2017, our colleagues from the sectoral service centre in Neerpelt were the first to work with the MoKas. With MoKa, employees process service orders no longer on paper, but fully digitally on a tablet. The experience gained in Neerpelt is used to refine and improve the system before it is further rolled out within De Watergroep. MoKa provides colleagues in the field with all the necessary information in digital format, so that the administrative pre- and post-processing can be carried out faster and more efficiently.

### Website with customer area

Based on a user survey among our customers, De Watergroep developed a completely renewed customer-tailored website in 2017. Not only the multilingual pages



but above all the online customer area constitutes an important extension of our service. Viewing and paying bills, editing customer data, arranging a move, etc. All of this can be done fully digitally from 2018 onwards!

### Work on Neptunus continues

More than 900 colleagues are already using Neptunus, the ERP system used to monitor a major part of our processes within De Watergroep, from customer management to planning and follow-up of distribution works. In 2017, Neptunus was further extended and made more user-friendly.

## → Launch of Vesta Pro

*In 2017, the first phase of Vesta Pro, the HR tool for all staff matters, was launched.*

*At the same time, preparations for phase 2 were started, so that everything related to HR would be automated in a single system by 2018.*



The introduction of Vesta Pro resulted in numerous improvements:

- ◆ **Digitalisation = less paper** At the end of 2017, Vesta Pro had already processed 120,000 digital requests. This also translates into a 25% reduction in personnel costs of the HR department.
- ◆ And above all: **satisfied employees** who effectively use the system (approx. 1,000 times a day). A satisfaction survey held in the autumn gave the following results:
  - ◆ 75% of the managers stated that Vesta Pro is a good tool that allows them to approve requests for leave in a user-friendly manner.
  - ◆ 90% of the employees stated that submitting a request for leave is easy.
  - ◆ 81% of the employees stated that their personnel details are transparent.

### Phase 2 for additional functionality

From 2018 we will be extending Vesta Pro with:

- ◆ **Recruitment and selection:** all vacancies on a single, clearly structured job site
- ◆ **Feedback:** setting objectives and giving feedback

- ◆ **Training and development:** overview of all attended and planned courses, with registration module so that employees can schedule courses themselves.

## ➔ Getting on the digital train

Employees of De Watergroep need to be **digital citizens**. Not only within but also outside De Watergroep. To this end, all employees received an internet allowance. For colleagues who are less familiar with PC, tablet or smartphone, we focus on training and support by colleagues, but above all we provide user-friendly systems that are accessible to everyone.

## ➔ Complaints lead to optimisations

In 2017, De Watergroep received 1,671 complaints, a slight increase compared to the previous year. The majority of complaints were related to billing, communication (incomplete, inaccurate or late information) and execution of work orders (e.g. late or poor repair of driveway or pavement). Complaints are above all an **opportunity to improve our operations**. For example, the renewed website with a dedicated customer area, which was built in 2017, provides a more user-friendly display of tariffs, disruptions, and follow-up of customer data.

Another example is the Meander project. Through Meander we aim to provide a uniform and correct service to all customers and we align responsibilities and competencies. Another aspect in this regard is the optimisation of the internal information flow and communication within the company.

## ➔ drinkraantjeswater: product promotion through various channels

*Tap water is a premium product that is available any time of the day. It does not require any packaging or transport, making it also environmentally friendly. All for a fair price. This is the message the drinkraantjeswater project wants to send to young and old alike. Drinkraantjeswater (Drink Tap Water) is a cooperation between De Watergroep and waste intermunicipal companies Limburg.net and IDM.*

Many schools and municipalities are looking for a reliable and affordable water tap point, which is why De Watergroep has entered into a **framework agreement** with an external supplier of **drinking water tap points**. Tap water schools and municipalities could directly contact the supplier for the purchase or lease of drinking water tap points.



More than 200 schools signed the **renewed school charter** launched in 2016. In September 2017, primary school De Horizon in Koolkamp was the first to receive the title of 'Tap water school of the year'. The title is in recognition of the school's efforts in promoting the drinking of tap water among its pupils. For example, together with pre-primary school pupils, it developed a didactic package to teach the children how to use water in a conscious way. Herman Verbruggen, the sponsor of the project, presented the award.

In the autumn, our updated **municipal charter** was launched and the brand-new website [www.drinkraantjeswater.be](http://www.drinkraantjeswater.be) went online. All info about the project can be found here:

- ◆ History and partners
- ◆ Tips and FAQs on tap water
- ◆ The various target groups (schools, families, municipalities, catering, companies and associations)
- ◆ Campaign material.

**drinkraantjeswater**  
water met een grote K

## → Our vision in practice

*As watermakers, our employees are committed to our mission and vision.  
Three practical examples.*

***Our technological edge is a strong asset that we constantly develop and exploit.***

### **De Watergroep wins silver at Publica Awards**



De Watergroep, together with external partner Delaware, won a silver medal at the Publica Awards. We finished in second place in the category 'most ICT-related public contract' with the project on Business Intelligence. The award recognises public actors, their partners and their cooperation.

***We are a leading partner in Flanders and beyond.***

### **State visit to India**

Early November, Director General Hans Goossens, together with 80 Belgian companies, was part of the delegation accompanying our Royal Couple during their state visit to India. In 2016, De Watergroep signed a contract there for the development of the drinking water supply in the Indian city of Mysore.

***We treat people and resources in a sustainable manner***

### **Record proceeds of family day in support of the Kom op tegen Kanker (Join Forces against Cancer) campaign.**



Twenty years ago, a number of employees took the initiative of organising a family day every two years in support of Kom op Tegen Kanker, on and around the sites of the sectoral service centre in Ninove. This tenth jubilee edition brought in record proceeds of € 60,000.



**De Watergroep**

WATER. VANDAAG EN MORGEN.

[www.dewatergroep.be](http://www.dewatergroep.be)

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